

Himel



2023

General Catalog

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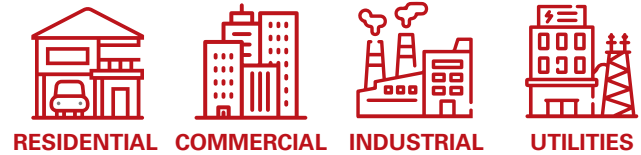
**We are determined to build a
world where electricity is *safe
and accessible* to one and all**

Himel is a global manufacturer and supplier of electric products for Low Voltage Power Distribution, Final Distribution, Power Management, Motor Control and Protection, Industrial Components, and Home Electric offers.





50+
countries served



RESIDENTIAL COMMERCIAL INDUSTRIAL UTILITIES

110+
distributors

6,700+
resellers

22,700+
products

With a footprint in 50+ countries—we are leaders in value-engineered electric products for residential, commercial, industrial, and utilities sectors. We value opportunities for all and provide the best combination of affordable and reliable offers to meet the demand for access to safe electricity.

**Low Voltage
Power Distribution**



**Final
Distribution**



**Power
Management**



**Motor
Control &
Protection**

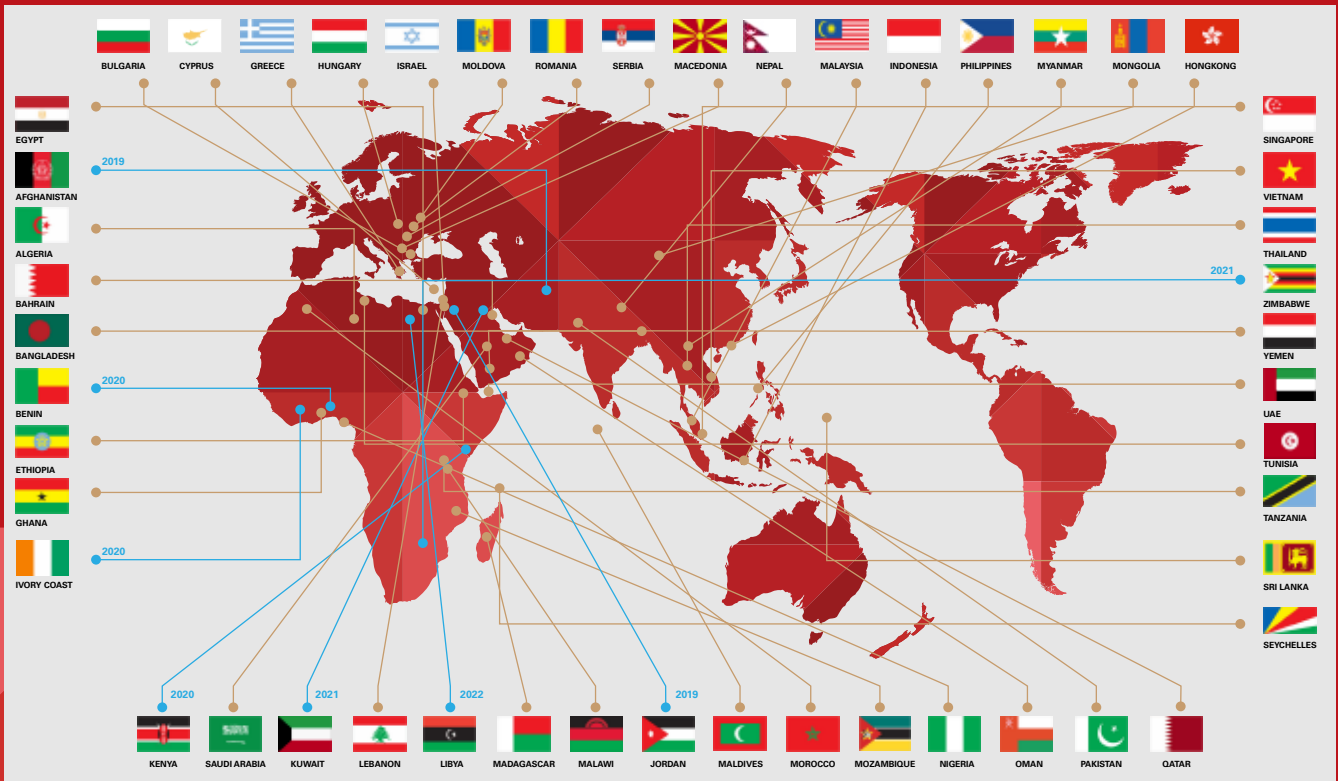


**Industrial
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Electric**





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◀ Search and download user manuals, product leaflets, CAD diagrams, and more at <https://www.himel.com/downloads>



◀ Scan QR code on catalogue to explore products on the website



◀ Download Product Datasheet and Certificates directly at <https://www.himel.com/product-details-more/HDM3160S10032XX2>*

**Substitute "[HDM3160S10032XX2]" with the right reference code*



◀ Get in touch with local Himel Sales for product configuration support or requesting a quote <https://www.himel.com/contact-sales>

DISCLAIMER

These catalogue pages do not purport to cover all details or variations in product, nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the local Himel Products Distributor or Sales team. The contents of this catalogue shall not become part of or modify any prior or existing agreement, commitment or relationship. The sales contract contains the entire obligation of Himel's portfolio.

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Power Distribution

For modern infrastructure demanding extensive electrical planning, electrical products must be efficient, safe, and reliable. Himel Power Distribution portfolio is designed to exceedingly meet the requirements of engineers, planners, panel builders and operators.

Our experts have paid close attention to demands of diverse applications—planning to installation, and maintenance, so that we can match your needs with complete portfolio of Low, Medium and Final Distribution products.



FINAL DISTRIBUTION

Assurance of Safety, For your Home & Facility



Final Distribution is a critical part of power distribution construction. Himel products offer reliable and safe solutions for consistent distribution of power from the utility to feed lights, sockets and other appliances



Himel designs, manufactures, and supplies products that provide power & circuit protection and higher operational endurance trusted by millions of homes, businesses and commercial set-ups



Our Final Distribution products have been proven for superior application performance, safe power supply & load management in homes, commercial setups, and residential projects



Our Value Engineered products are designed and manufactured to minimize downtime, last longer and optimize maintenance for cost-efficient power distribution in varied environment

FINAL DISTRIBUTION



3 Series

9 Series

3 Series Miniature Circuit Breakers



Rated current: 1-125A
Pole: 1P/1P+N/2P/3P/3P+N/4P
Breaking capacity: 6kA

012

9 Series Miniature Circuit Breakers



Rated current: 1-63A
Pole: 1P/2P/3P/4P
Breaking capacity: 6kA, 10kA

023

3 Series RCBO



Rated current: 6A-63A
Pole: 1P+N/2P/3P/3P+N/4P
Breaking capacity: 6kA

6,10,16,20,23,32,40,50A
1P+N
6kA,10kA

015

9 Series RCBO



Rated current: 6A-63A
Pole: 1P+N/2P/3P/3P+N/4P
Breaking capacity: 6kA

026

3 Series RCCB & Switch Disconnectors



Rated current: 10A-100A
Pole: 2P/4P

Rated current: 20A-125A
Pole: 1P/2P/3P/4P

019

9 Series Switch Disconnectors



Rated current: 32A-125A
Pole: 1P/2P/3P/4P

028

3 Series Accessories



022

9 Series Accessories



029

FINAL DISTRIBUTION

HDBK Plug in Miniature Circuit Breakers



HDBK

Rated current: 6-63A
Pole: 1P/2P/3P
Breaking capacity: 6kA, 10kA

030

HBBT Comb Busbars



HBBT

Pole: 1P/2P/3P/4P
Material of busbar: E-CU-F25
Type: PIN-type/U-type

038

HDPZ50 & HEDB Consumer Boxes



HDPZ50



HEDB

Rated current: 100A
Protection grade: IP30
Material: Full plastic/metal

031

HDCH8S Modular Contactors



HDCH8S

Rated current: 16A-63A
Pole: 2P/3P/4P

039

HJXF Metal Enclosures



HJXF

Thickness: 1.0-1.5mm
Protection grade: IP43/IP54
Material: Metal

035

HDY3N Surge Protective Devices



HDY3N

Type II
Max discharge current:
20KA,40KA,65KA,80KA,120KA,160KA
Pole: 1P/1P+N/2P/3P/3P+N/4P

040

FINAL DISTRIBUTION

3 Series MCB

Standard: IEC/EN 60898-1



Range Presentation

HDB3w series is Himel 3 series range of Miniature Circuit Breakers designed to protect the power system from short circuit and overload faults.

3 series MCB is mainly used in commercial and residential buildings, including 18mm AC MCB, 27mm AC MCB, phase neutral MCB, and DC MCB.

Features

- ◆ Full product range: AC and DC MCB, from 1 to 125A
- ◆ MCB without or with indicator window (H series) to display tripping status.
- ◆ DPN: Phase neutral MCB in single pole
- ◆ Smart design: Complete range of accessories with convenient mounting hole
- ◆ HDB3w, HDB3wH: SNI (Indonesia)
- ◆ HDB3w, HDB3wH: PS MARK (Philippines)
- ◆ HDB3wH: SIRIM (Malaysia)
- ◆ HDB3wH, HDB3w-125:TSE (Turkey)

Selection Code

Range name	Breaking capacity	Number of poles	Tripping type	Rated current		
HDB3w	N	3	C	10		
HDB3w: MCB without indicator HDB3wH: MCB with indicator	N: 6kA	1: 1P 2: 2P 3: 3P 4: 4P 5: 1P+N 6: 3P+N	B: Type B C: Type C D: Type D	1: 1A 2: 2A 3: 3A 4: 4A 5: 5A	6: 6A 10: 10A 13: 13A 16: 16A 20: 20A	25: 25A 32: 32A 40: 40A 50: 50A 63: 63A
HDB3w125: 27mm MCB with indicator, up to 125A	N: 6kA H: 10KA	1: 1P 2: 2P 3: 3P 4: 4P	B: Type B C: Type C D: Type D	63: 63A 80: 80A 100: 100A 125: 125A		
HDB3wP: Phase Neutral MCB without indicator HDB3wHP: Phase Neutral MCB with indicator	N: 4.5kA (HDB3wP) Default: 4.5kA (HDB3wHP)	Default: all are 1P+N in single pole	C: Type C D: Type D	6: 6A 10: 10A 20: 20A	25: 25A 32: 32A 40: 40A	
HDB3wZ: DC MCB (Direct Current) without indicator	Default: 6kA (1P: 250V, 2/3P: 500V)	1: 1P 2: 2P 3: 3P	B: Type B C: Type C	1: 1A (Type C) 2: 2A (Type C) 3: 3A (Type C) 4: 4A (Type C) 5: 5A (Type C) 6: 6A 8: 8A 10: 10A	13: 13A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A	

Online Content



HDB3w



HDB3wH



HDB3w-125



HDB3wP



HDB3wHP



HDB3wZ

3 Series MCB

Standard: IEC/EN 60898-1



3 Series MCB

IEC/EN 60898-1



FEATURES

- High performance and long durability
- Smart design provides easy installation
- With indicator window to display the breaker status
- Complete range of accessories including Shunt release and Alarm contact

SPECIFICATIONS

- High Breaking Capacity upto 6kA
- Current range from 1A to 63A
- Available in 1P/2P/3P/4P/1P+N/3P+N
- Wide Operating Temperature from -20°C to +60°C

www.himel.com

3 Series MCB

Standard: IEC/EN 60898-1



Technical Parameters						
MCB	HDB3w	HDB3wH	HDB3w-125	HDB3wP	HDB3wHP	HDB3wZ
Description	18mm Miniature Circuit Breaker without indicator	18mm Miniature Circuit Breaker with indicator	27mm Miniature Circuit Breaker with indicator	18mm Phase Neutral MCB without indicator	18mm Phase Neutral MCB with indicator	18mm DC MCB without indicator
Indication: red and green tripping indication window	No	Yes	Yes	No	Yes	No
Electrical characteristics						
Standard	IEC 60898-1		IEC 60947-2	IEC 60898-1		IEC60947-2
Certificate	CE, TUV, CB, ROHS		CE, CB, TUV, ROHS	CE, CB, TUV, ROHS		CE, CB, ROHS
Rated insulation voltage U_i	500V		500V	500V		500V
Frequency	50/60Hz		50/60Hz	50/60Hz		/
Rated operational voltage U_e	240 (1P, 1P+N) 415V (2P, 3P, 4P, 3P+N)		230V (1P) 400V (2P, 3P, 4P)	240V		DC 250V (1P) DC 500V (2P/3P)
Rated short-circuit capacity I_{cn}	6kA		6kA 10kA	4.5kA		6kA
Rated impulse withstand voltage U_{imp}	4kV		4kV	4kV		4kV
Pollution class	2		2	2		2
Isolation function	Yes		Yes	Yes		Yes
Tripping characteristics	B, C, D Type		B, C, D Type	C, D Type		B, C Type
Mechanical characteristics						
Mechanical endurance	25000		8500 ($I_n \leq 100A$) 7000 ($I_n > 100A$)	10000		20000
Electrical endurance	6000		1500 ($I_n \leq 100A$) 1000 ($I_n > 100A$)	4000		3000
Protection class	IP40(Installed in DB box) IP20(Installed directly)		IP40 (Installed in DB box) IP20 (Installed directly)	IP40 (Installed in DB box) IP20 (Installed directly)		IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms		30g, 3 shocks, lasting 11ms	30g, 3 shocks, lasting 11ms		30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C		30°C	30°C		30°C
Operating ambient temperature	-20°C ~ +60°C		-20°C ~ +60°C	-20°C ~ +60°C		-20°C ~ +60°C
Storage temperature	-40°C ~ +70°C		-40°C ~ +70°C	-40°C ~ +70°C		-40°C ~ +70°C
Installation features						
Maximum wiring capacity	25mm ²		50mm ²	16mm ²		25mm ²
Maximum torque	2.5N.m		3.5N.m	1.5N.m		2.5N.m
Tool	Cross head screwdriver or flat head screwdriver		Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver		Cross head screwdriver or flat head screwdriver
Installation	35mm DIN rail		35mm DIN rail	35mm DIN rail		35mm DIN rail
Line incoming type	Top or bottom		Top or bottom	Top or bottom		Top or bottom

FINAL DISTRIBUTION

3 Series RCBO

Standard: IEC/EN 61009-1



Range Presentation

Himel 3 series range of Residual Current Operated Circuit Breakers (RCBO) is designed to protect people and power system from short circuit, overload faults and earth leakage.

3 series RCBO is mainly used in commercial and residential buildings including standard RCBO and phase neutral RCBO.

Features

- ◆ Full product range
- ◆ Short circuit protection
- ◆ Overload protection
- ◆ Isolating function
- ◆ Earthleakage protection function
- ◆ Residual Current Operated Circuit Breaker over voltage protection function

Selection Code

Range name	Breaking capacity	Number of poles	Tripping type	Rated current	Residual current	Over-voltage protection
HDB3wLE125	N	1	C	6	R50	G
HDB3wLE125: RCBO with indicator, up to 125A	Default: 10kA	1: 1P+N 2: 2P 3: 3P 4: 4P 6: 3P+N	C: Type C D: Type D	63: 63A 80: 80A 100: 100A 125: 125A	Default: 30mA W: 50mA Q: 75mA Y: 100mA T: 300mA	Default: NO G: Over-voltage protection
Product name	Incoming mode	Number of poles	Trip type	Rated current	Residual current	Other functions
HDB3LE	R	2	C	16	R10	A
HDB3LE: RCBO with indicator	Default: Line R: Bottom	2: 2P 3: 3P 4: 4P	C: C type D: D type	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A	Default: 30mA R10: 10mA R50: 50mA R75: 75mA R100: 100mA R300: 300mA	Default: AC type A: A type
Product name	Number of poles	Trip type	Rated current	Other functions		
HDB3PLE	Default	C	16	G		
HDB3PLE: Phase Neutral RCBO with indicator	Default: 1P+N	C: C type D: D type	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A	Default: No G: Overvoltageprotection		

3 Series RCBO

Standard: IEC/EN 61009-1



The advertisement features a red background with the Himel logo at the top left. A white banner at the top right reads "Compact Protection". The main title is "CompaPRO RCBO" in white, followed by the tagline "Protection and safety for your loved ones from electric shocks". A list of features is provided in white text, accompanied by three images of the RCBO units: a single-pole unit, a two-pole unit, and a three-pole unit.

Himel Compact Protection

CompaPRO RCBO

Protection and safety for your loved ones from electric shocks

- Smaller size, greater cost saving
30-50% more compact, fits in smaller size distribution board
- Greater functionality
Available in A-Type to suit both AC and pulse DC environments
- Bigger wiring terminal
Enhanced convenience with 25 mm² wiring capacity
- Next-generation technology
Anti-arc spray and quicker break for greater safety
- Enhanced life
Quick connect function for more durability
- RoHS Compliant
Safeguard life, property and environment
- Protection in extreme temperatures
Tested for wide range temperature -35°C ~ 70°C
- Integral overcurrent protection
Complies with IEC61009-1

Online Content



HDB3wLE125



HDB3LE



HDB3PLE

FINAL DISTRIBUTION

3 Series RCBO

Standard: IEC61009-1



Technical Parameters				
RCBO	HDB3wLE125	HDB3LE	HDB3PLE	
Certification	CE, CB, RoHS	CE, CB, RoHS	CE, CB, RoHS	
Electrical characteristics				
Rated insulation voltage U_i (V)	500	500	500	
Maximum working voltage U_{Bmax} 1P+N (V)	"230VAC (1P+N, 2P) 400VAC (3P,4P,3P+N)"	"230VAC (2P) 400VAC (3P,4P)"	230VAC	
Rated short-circuit capacity I_{cn} (kA)	10(IEC/EN 60947-2)	6 (IEC/EN 60898)	3.5 (IEC/EN61009-1)	
Rated impulse withstand voltage U_{imp} (1.2/50) (kA)	4	4	4	
Isolating function	Available	Available	Available	
Pollution class	2	2	2	
Electric shock protection grade	II	II	II	
Tripping type	Thermal magnetic tripping	Thermal magnetic tripping	Thermal magnetic tripping	
	C curve (5I _n ~10I _n)	Y	Y	Y
	D curve (10I _n ~14I _n)	Y	Y	Y
Electrical and mechanical accessories	-	Y	Y	
Mechanical characteristics				
Trip indication	Upspring of the reset button indicates leakage of trip	Upspring of the reset button indicates leakage of trip	Upspring of the reset button indicates leakage of trip	
Handle	Red, pad printing indicating ON-OFF position	Red, pad printing indicating ON-OFF position	Red, pad printing indicating ON-OFF position	
Mechanical life	8,500 times	20,000 times	20,000 times	
Electrical life	3,000 times	10,000 times	10,000 times	
Protection rating	Installed in distribution box IP40 Installed directly IP20	Installed in distribution box IP40 Installed directly IP20	Installed in distribution box IP40 Installed directly IP20	
Mechanical shock resistance	30g, 3 shocks, last for 11ms (No significant vibration or shock)	30g, 3 shocks, last for 11ms (No significant vibration or shock)	30g, 3 shocks, last for 11ms (No significant vibration or shock)	
Anti-vibration (IEC/EN 60068-2-6)	No significant vibration or shock	No significant vibration or shock	No significant vibration or shock	
Reference ambient temperature °C	30°C	30°C	30°C	
Operating ambient temperature (daily mean temperature ≤ +35°)°C	-20°C~+60°C	-35°C~+70°C	-35°C~+70°C	
Storage temperature °C	-40°C~+70°C	-40°C~+85°C	-40°C~+85°C	
Installation Features				
Terminal form	U type	U type	U type	
Wiring capacity (A)	Max 50mm ²	25mm ²	25mm ²	
Ultimate torque	3.5N.m	2.5N.m	2.5N.m	
Tool	Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver	
Installation	Installed on standard DIN guide rail (35mm)	Installed on standard DIN guide rail (35mm)	Installed on standard DIN guide rail (35mm)	
Line incoming mode	Top	Top & Bottom (only for 2P)	Top	

HDB3LT Longtail Residual Current Operated Circuit Breaker

Standard: IEC/EN 61009-1



Function

HDB3LT Longtail Residual Current Operated Circuit Breaker has the following features:

- ◆ Overload protection
- ◆ Short-circuit protection
- ◆ Earth leakage current protection
- ◆ Isolating function
- ◆ Extend Neutral-wire and Ground-wire

Online Content



HDB3LT

Selection Guide

Product Name	Breaking Capacity	Number of Poles	Trip Type	Rated Current	Residual Current	Temperature
HDB3LT	H	1	C	32	R100	D
HDB3LT : Electronic RCBO	H : 10kA N : 6kA	1P+N	C type	6 : 6A 10 : 10A 16 : 16A 20 : 20A 25 : 25A 32 : 32A 40 : 40A 50 : 50A 50A(only for 10kA)	R10 : 10mA R30 : 30mA R100 : 100mA R300 : 300mA	Default : 30°C D : 50°C

Functions and Features

Electrical Characteristics

Standard	IEC/EN 61009-1
Certificates	CE, CB, SEMKO, ROHS
Rated insulation voltage U_i	(V) 500
Rated operating voltage U_e	(V) 230~240VAC
Rated short-circuit capacity I_{cn} (IEC/EN60898)	(kA) 6kA, 10kA
Rated impulse withstand voltage U_{imp}	(kV) 4
Dielectric test voltage	2500
Isolating function	Available
Pollution class	2
Electric shock protection grade	II
Type	AC
Trip type	Thermal magnetic trip
Thermal magnetic trip characteristics	Type B curve (3In~5In) / Type C curve (5In~10In) Type D curve (10In~14In) /
Electrical and mechanical accessories	/

Mechanical Characteristics

Handle	Red, pad printing indicating ON-OFF position
Mechanical endurance	Times 20,000
Electrical endurance	Times 10,000
Protection grade	Installed directly IP20 ; Installed in distribution box IP40
High temperature humidity resistant	Category 2, 28 cycles Relative humidity <50% at 60°C Relative humidity <90% at 20°C
Rated ambient temperature	30°C
Operating ambient temperature (daily mean temperature $\leq +35^\circ\text{C}$)	-20°C~+60°C ; Storage temperature -40°C~+70°C

Installation Features

Terminal form	U type
Wiring capacity (A)	25mm ²
Ultimate torque	Input terminal 2.0N.m Output terminal 1.2N.m
Tool	Cross head screwdriver or flat head screwdriver
Installation	Installed on standard DIN guide rail (35mm)
Line incoming mode	Top

FINAL DISTRIBUTION

3 Series Switch Disconnectors

Standard: IEC/EN 60947-3



Range Presentation

HDG3 is the Himel 3 series range of switch disconnector designed to switch on and off the power system.

The 3 series switch disconnector is mainly used in commercial and residential buildings.

Features

- ◆ Full product portfolio from 20A to 125A
- ◆ Suitable for industrial application

Online Content



HDG3

Selection Code

Range name	Number of poles	Rated current
HDG3	3	32
HDG3	1: 1P 2: 2P 3: 3P 4: 4P	20: 20A 63: 63A 25: 25A 80: 80A 32: 32A 100: 100A 40: 40A 125: 125A 50: 50A

Technical Parameters	
Switch Disconnectors	HDG3
Electrical characteristics	
Standard	IEC 60947-3
Certificate	CE, CB, ROHS
Rated insulation voltage U_i	500V
Frequency	50/60Hz
Rated operational voltage U_e	230 (1P) 400V (2P, 3P, 4P)
Rated short-time withstand current I_{cw} (kA)	20le/1s
Rated short-circuit making capacity I_{cm} (kA)☒	28, 1le
Rated impulse withstand voltage U_{imp}	4kV
Pollution class	2
Isolation function	Yes
Mechanical characteristics	
Mechanical endurance	8500(≤100A) 7000(125A)
Electrical endurance	3000
Protection class	IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C
Operating ambient temperature	-20°C ~ +60°C
Storage temperature	-40°C ~ +70°C
Installation Features	
Maximum wiring capacity	25mm ²
Maximum torque	2.5N.m
Installation	35mm DIN rail
Line incoming type	Top or bottom

FINAL DISTRIBUTION

3 Series RCCB

Standard: IEC/EN 61008-1



Range Presentation

HDB3VR is Himel 3 series range of Residual Current Circuit Breaker (RCCB) designed to protect people and power system from earth leakage. HDB3VR RCCB can be widely used in commercial and residential buildings.

Features

- ◆ Full range from 10A to 100A
- ◆ 4 residual current sensitivity: 10mA, 30mA, 100mA, and 300mA
- ◆ Two types for application: AC type and A type
- ◆ HDB3VR: Safety mark (Singapore) TSE (Turkey)
- ◆ SNI (Indonesia)

Online Content



HDB3VR

Selection Code

Range name	Number of poles	Rated current	Residual current	Type
HDB3VR	2	10	L	C
HDB3VR : Electromagnetic Type RCCB	2: 2P 4: 4P	10: 10A 16: 16A 25: 25A 40: 40A 63: 63A 80: 80A 100: 100A	L: 10mA S: 30mA Y: 100mA T: 300mA	C: AC Type A: A Type

Technical Parameters	
RCCB	HDB3VR
Electrical characteristics	
Standard	IEC 61008-1
Certificate	CE, TUV, ROHS
Rated insulation voltage U_i	500V
Frequency	50/60Hz
Rated operational voltage U_e	240 (2P) 415V (4P)
Rated short-circuit capacity I_{cn}	6kA
Rated impulse withstand voltage U_{imp}	4kV
Pollution class	2
Type	A, AC Type
Isolation function	Yes
Rated residual operating current $I_{\Delta n}$	10, 30, 100, 300mA
Mechanical characteristics	
Endurance	Mechanical endurance: 8500(\leq 100A) 7000(125A) Electrical endurance: 3000
Protection class	IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C
Operating ambient temperature	-20°C ~ +60°C
Storage temperature	-40°C ~ +70°C
Installation Features	
Maximum wiring capacity	25mm ² (\leq 63A) 35mm ² ($>$ 63A)
Maximum torque	Rated current 6-32A: 2.5N.m Rated current 40-63A: 3N.m
Installation	35mm DIN rail
Line incoming type	Top or bottom

3 Series RCCB

Standard: IEC/EN 61008-1



HIMEL ON, SAFETY ON

HDB3VR is Himel 3 series range of Residual current circuit breaker (RCCB) designed to protect people and power system from earth leakage.



Features

- Standard IEC/EN 61008-1
- Operating Temperature -20°C to 60°C
- Suitable for A-Type & AC-Type applications
- ROHS Compliant

Specifications

- Sensitivity range 10mA, 30mA, 100mA, 300mA
- Current range from 10A to 100A
- Available in 2P & 4P

FINAL DISTRIBUTION

3 Series Accessories for MCB & RCBO

Standard: IEC/EN 60947



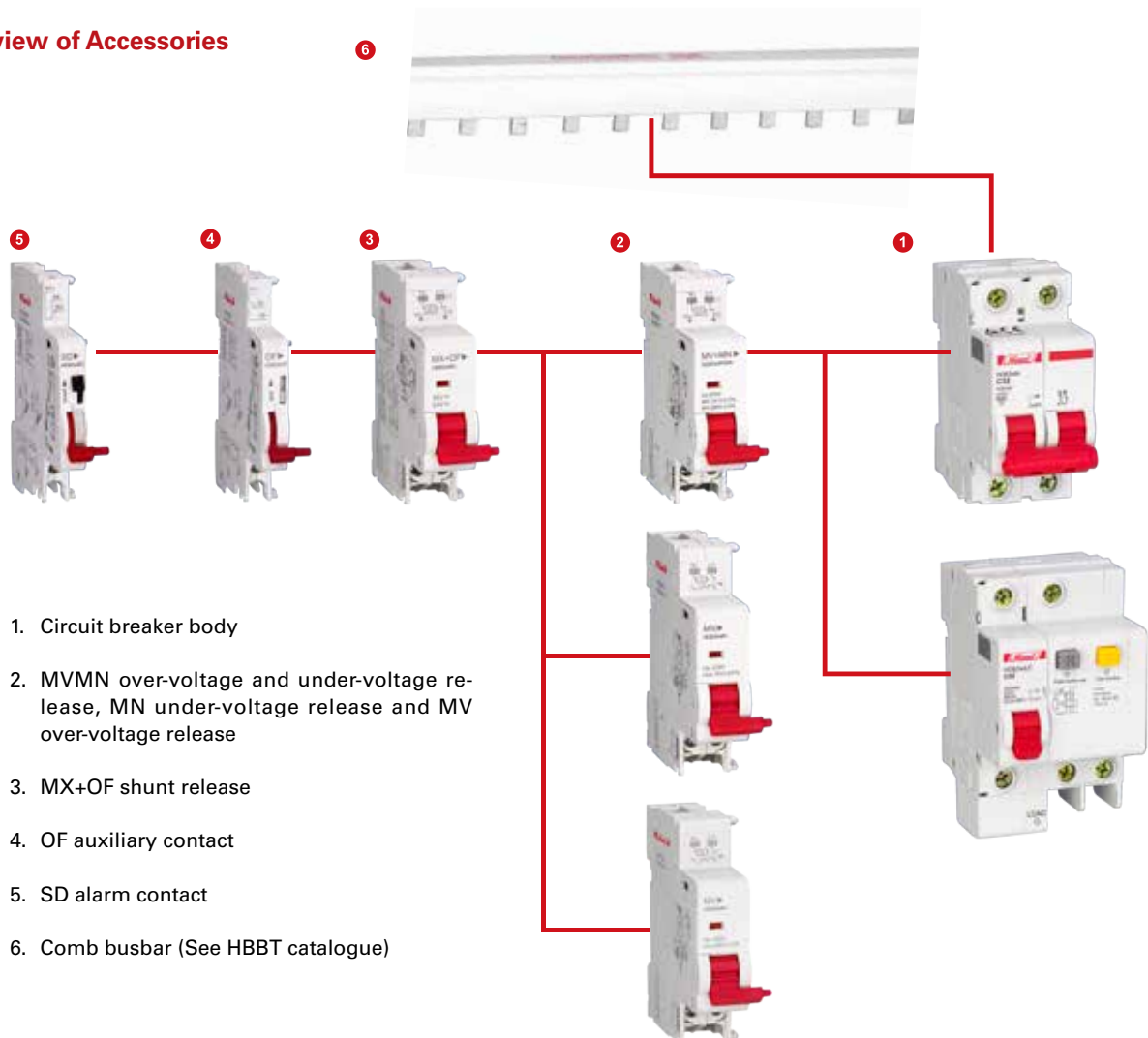
Compatible with HDB3w, HDB3wH, HDB3wP, HDB3wHP, HDB3LE, HDB3PLE

Technical Parameters

MCB Accessories	OF	SD	MO	MV	MN	MVMN
Description	Auxiliary contact	Alarm contact	Shunt release	Over-voltage release	Under-voltage release	Over-voltage and under-voltage release
Reference	HDB3wOFN	HDB3wSDN	HDB3wMO220N (AC 130-415V, DC 110-130V) HDB3wMO24N (AC/DC 24-48V)	HDB3wMVN	HDB3wMNN	HDB3wMVMNN
Rated voltage	AC 240/415 DC 130V,48V,24V	AC 240/415 DC 130V,48V,24V	AC 130V~415V DC 110~130V AC/DC 24V-48V (AC/DC 24~48V)	AC 130V~415V DC 110~130V AC/DC 24V-48V	AC 240V	AC 240V
Wiring capacity	1~2.5mm ²	1~2.5mm ²	1~2.5mm ²	1~2.5mm ²	1~2.5mm ²	1~2.5mm ²
Width	9mm	9mm	18mm	18mm	18mm	18mm
Installation side of MCB	Left	Left	Left	Left	Left	Left
Max installation quantity	6	3	2	2	2	2

Remark: Maximum width of the accessory assembly is 54mm

Overview of Accessories



FINAL DISTRIBUTION

9 Series MCB

Standard: IEC/EN 60898-1



Range Presentation

HDB9 series is Himel 9 series range of Miniature Circuit Breakers designed to protect the power system from short circuit and overload. HDB9 is Himel's most advanced range of miniature circuit breakers.

9 series MCB can be widely used in commercial and residential buildings including 18mm AC MCB, phase neutral MCB, and DC MCB.

Features

- ◆ Breaking capacity up to 10kA
- ◆ Energy limiting class 3
- ◆ Standard open and close state indication window
- ◆ High performance
- ◆ HDB9:
 - SNI (Indonesia), SIRIM (Malaysia),
 - TSE (Turkey), PS MARK (Philippines)

Selection Code

Range name	Breaking capacity	Number of poles	Tripping type	Rated current
HDB9	N63A	3	C	10
HDB9: MCB	N63A: 6kA H63A: 10kA	1: 1P 2: 2P 3: 3P 4: 4P 5: 1P+N 6: 3P+N	B: Type B C: Type C D: Type D	1: 1A 20: 20A 2: 2A 25: 25A 4: 4A 32: 32A 6: 6A 40: 40A 10: 10A 50: 50A 16: 16A 63: 63A
HDB9P: Phase Neutral MCB	a40: 4.5kA N40: 6kA	Default: all are 1P+N in single pole	C: Type C	6: 6A 10: 10A 16: 16A 20: 20A 32: 32A 40: 40A
HDB9Z: DC MCB (Direct Current)	63: 1P/2P 125V/250V(10kA) 1P/2P/4P 250V/500V/1000V (6kA)	1: 1P 2: 2P 4: 4P	B: BType C: CType	1: 1A 20: 20A 2: 2A 25: 25A 4: 4A 32: 32A 6: 6A 40: 40A 10: 10A 50: 50A 16: 16A 63: 63A

Online Content



HDB9



HDB9P



HDB9Z

9 Series MCB

Standard: IEC/EN 61009-1



Miniature Circuit Breaker 9 Series



FEATURES

- Wide breaking capacity up to 10kA
- Smart design and easy installation
- Energy limiting class 3
- Complete range of accessories

APPLICATION

- Residential and office
- Hospital and school
- Manufacturing and industry
- As component of electrical appliances

www.himel.com

9 Series MCB

Standard: IEC/EN 60898-1



Technical Parameters			
MCB	HDB9	HDB9P	HDB9Z
Description	18mm Miniature Circuit Breaker	18mm Phase neutral MCB	18mm DC Miniature Circuit Breaker
Indication: red and green tripping indication window	Yes	Yes	Yes
Electrical characteristics			
Standard	IEC 60898-1	IEC 60898-1	IEC60947-2
Certificate	CE, KEMA, CB, ROHS	CE, CB, TUV, ROHS	CE, CB, SEMKO, ROHS
Rated insulation voltage U_i	500V	500V	1000V
Frequency	50/60Hz	50/60Hz	/
Rated operational voltage U_e	230 (1P, 1P+N) 400V(2P, 3P, 3P+N, 4P)	240V	DC 125V, 250V (1P) DC 250V, 500V (2P) DC 1000V (4P)
Rated short-circuit capacity I_{cn}	6kA 10kA	6kA	10KA (125V/1P,250V/2P) 6kA (250V/1P, 500V/2P, 1000V/4P)
Rated impulse withstand voltage U_{imp}	4kV	4kV	6kV
Pollution class	2	2	2
Isolation function	Yes	Yes	Yes
Tripping characteristics	B, C, DType	CType	B, C, DType
Energy limiting class 3	B, CType	No	No
Mechanical characteristics			
Mechanical endurance	20000	20000	20000
Electrical endurance	10000	10000	3000
Protection class	IP40 (Installed in DB box) IP20 (Installed directly)	IP40 (Installed in DB box) IP20 (Installed directly)	IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms	30g, 3 shocks, lasting 11ms	30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C	30°C	30°C
Operating ambient temperature	- 30°C ~ + 70°C	- 30°C ~ + 70°C	- 30°C ~ + 70°C
Storage temperature	- 40°C ~ + 70°C	- 40°C ~ + 70°C	- 40°C ~ + 70°C
Installation Features			
Maximum wiring capacity	25mm ²	16mm ²	25mm ²
Maximum torque	2.5N.m	1.5N.m	2.5N.m
Tool	Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver
Installation	35mm DIN rail	35mm DIN rail	35mm DIN rail
Line incoming type	Top or bottom	Top or bottom	Top or bottom

9 Series RCBO

Standard: IEC/EN 61009-1



Range Presentation

HDB9LE series is Himel 9 series range of Residual Current Operated Circuit Breakers, designed to protect people and power system from short circuit, overload faults, earth leakage.

9 series RCBO can be widely used in commercial and residential building. It includes electronic type and electromagnetic type (HDB9LM).

Features

- ◆ Multi-selection: Electronic or electromagnetic type.
- ◆ High performance: up to 6kA breaking capacity
- ◆ Standard open and close state indication

Selection Code

Range name	Breaking capacity	Number of poles	Tripping type	Rated current	Residual current
HDB9LE	N63A	2	C	6	R50
HDB9LE: Electronic RCBO	N32A: 6kA for rating up to 32A N63A: 6kA for rating above 32A	1: 1P+N 2: 2P 3: 3P 4: 4P 6: 3P+N	C: Type C	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A	S: 30mA Y: 100mA T: 300mA
HDB9LM: Electromagnetic RCBO	63: 6kA	5: 1P+N 6: 3P+N	C: Type C	6: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A	S: 30mA T: 300mA
HDB9PLE: Phase Neutral RCBO	N: 6kA	Default: 1P+N	C: Type C	6: 6A 10: 10A 16: 16A 20: 20A 32: 32A 40: 40A	L: 10mA S: 30mA

Online Content



HDB9LE



HDB9LM



HDB9PLE

9 Series RCBO

Standard: IEC/EN 61009-1



Technical Parameters			
RCBO	HDB9LE	HDB9LM	HDB9PLE
Description	Electronic RCBO	Electromagnetic RCBO	Electronic phase neutral RCBO
Indication: red and green tripping indication window	Yes	Yes	Yes
Electrical characteristics			
Standard	IEC 61009-1	IEC 61009-1	IEC 61009-1
Certificate	CE, ROHS (2P, 3P, 4P)	CE, CB, TUV, RoHS	CE, CB, TUV, RoHS
Rated insulation voltage U_i	500V	500V	500V
Frequency	50/60Hz	50/60Hz	50/60Hz
Rated operational voltage U_e	230 (1P+N, 2P) 400V (3P, 4P, 3P+N)	230 (1P+N) 400V (3P+N)	240V
Rated short-circuit capacity I_{cn}	6kA	6kA	6kA
Rated impulse withstand voltage U_{imp}	4kV	4kV	4kV
Pollution class	2	2	2
Tripping type	Thermal magnetic tripping	Thermal magnetic tripping	Thermal magnetic tripping
Isolation function	Yes	Yes	Yes
Rated residual operating current $I_{\Delta n}$	30, 50, 75, 100, 300mA	30, 300mA	30mA
Tripping characteristics	C, DType	CType	C, DType
Mechanical characteristics			
Mechanical endurance	20000	20000	20000
Electrical endurance	10000	10000	4000
Protection class	IP40 (Installed in DB box) IP20 (Installed directly)	IP40 (Installed in DB box) IP20 (Installed directly)	IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms	30g, 3 shocks, lasting 11ms	30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C	30°C	30°C
Operating ambient temperature	-30°C ~ +70°C	-30°C ~ +70°C	-30°C ~ +70°C
Storage temperature	-40°C ~ +70°C	-40°C ~ +70°C	-40°C ~ +70°C
Installation features			
Maximum wiring capacity	Rated current 6-32A: 16mm ² Rated current 40-63A: 25mm ²	25mm ² (< 40A) 35mm ² (≥ 40A)	16mm ²
Maximum torque	Rated current 6-32A: 2N.m Rated current 40-63A: 2.5N.m	3N.m (< 40A) 3.5N.m (≥ 40A)	1.5N.m
Tool	Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver	Cross head screwdriver or flat head screwdriver
Installation	35mm DIN rail	35mm DIN rail	35mm DIN rail
Line incoming type	Top	Top	Top

9 Series Switch Disconnectors

Standard: IEC 60947-3



Range Presentation

HDG9 is Himel 9 series range of Switch disconnectors designed to switch on and off the power system.

9 series switch disconnector is mainly used in commercial and residential buildings.

Features

- ◆ Rated current up to 125A
- ◆ High performance

Online Content



HDG9

Selection Code

Range name	Frame	Number of poles	Rated current
HDG9	125	3	32
HDG9	125	1: 1P 2: 2P 3: 3P 4: 4P	32: 32A 63: 63A 100: 100A 125: 125A

Technical Parameters	
Switch Disconnectors	HDG9
Electrical characteristics	
Standard	IEC 60947-3
Certificate	CE, CB, TUV, ROHS
Rated insulation voltage U_i	500V
Frequency	50/60Hz
Rated operational voltage U_e	230V (1P) 400V (2P, 3P, 4P)
Rated short-time withstand current I_{cw}	20le/1s
Rated short-circuit making capacity I_{cm}	28,1le
Rated impulse withstand voltage U_{imp}	4kV
Pollution class	2
Isolation function	Yes
Mechanical characteristics	
Mechanical endurance	50000
Electrical endurance	30000 (32A) 20000 (63A) 10000 (100A) 2500 (125A)
Protection class	IP40 (Installed in DB box) IP20 (Installed directly)
Mechanical shock resistance	30g, 3 shocks, lasting 11ms
Rated ambient temperature	30°C
Operating ambient temperature	-30°C ~ +70°C
Storage temperature	-40°C ~ +70°C
Installation Features	
Maximum wiring capacity	50mm ²
Maximum torque	3.5N.m
Installation	35mm DIN rail
Line incoming type	Top or bottom

FINAL DISTRIBUTION

9 Series Accessories

Standard: IEC/EN 60947



Compatible with HDB9, HDB9P, HDB9LE, HDB9PLE

Technical Parameters

MCB Accessories	OF	SD	MX	MV	MN	MVMN
Description	Auxiliary contact	Alarm contact	Shunt release	Over-voltage release	Under-voltage release	Over-voltage and under-voltage release
Reference	HDB963OFN	HDB963SDN	HDB963MX24N (AC/DC 12~24V) HDB963MX48N (AC/DC 48V) HDB963MX415N (AC 100~415V, DC 110~130V)	HDB9MVN	HDB9MNN	HDB9MVMNN
Standard	IEC 60947-5-1	IEC 60947-5-1	IEC 60947-1	IEC 60947-2	IEC 60947-2	IEC 60947-2
Rated voltage	AC 240/415 DC130V, 48V, 24V	AC 240/415 DC 130V, 48V, 24V	AC 100-415V DC 110V-130V AC/DC 12/24/48V	AC 100-415V DC 110V-130V AC/DC 12/24/48V	240V	240V
Wiring capacity	1-2.5mm ²	1-2.5mm ²	1-2.5mm ²	1-2.5mm ²	1-2.5mm ²	1-2.5mm ²
Width	9mm	9mm	18mm	18mm	18mm	18mm
Installation side of MCB	Left	Left	Left	Left	Left	Left
Max installation quantity (From left to right)	3	3	2	2	2	2

Remark: The total width of the accessory assembly is within 54mm

Overview of Accessories

Sketch map of installation with breaker



SD

+



OF

+



MX+OF

+



FINAL DISTRIBUTION

HDBK Plug in MCB

Standard: IEC/EN 60898-1



Range Presentation

HDBK series is Himel plug in MCB designed to protect power system from short circuit, overload faults.

HDBK can be used with NEMA load center.

Features

- ◆ Plug in installation
- ◆ Breaking capacity: up to 10kA

Online Content



HDBK

Selection Code

Range name	Number of poles	Tripping type	Rated current
HDBK	3	C	10
HDBK: Plug in MCB	1: 1P 2: 2P 3: 3P	C: Type C	6: 6A 32: 32A 10: 10A 40: 40A 16: 16A 50: 50A 20: 20A 63: 63A 25: 25A

Technical Parameters

Plug in MCB	HDBK
Electrical features	
Rated current In(A)	6, 10, 16, 20, 25, 32, 40, 50, 63
Pole(P)	1, 2, 3
Rated voltage Ue(V)	AC 240/415
Insulation voltage Ui(V)	500
Rated frequency(Hz)	50/60
Rated breaking capacity(A)	6000 (AC 240/415V) 10000 (AC 120V)
Rated impulse withstand voltage(1.2/50)Uimp(V)	4000
Pollution degree	2
Thermo-magnetic trip characteristic	C
Mechanical features	
Electrical durability(t)	4000
Mechanical durability(t)	10000
Protection degree(V)	IP20
Reference temperature for setting of thermal element(V)	50
Ambient temperature(with daily average≤35°C)	15~+60
Storage temperature(°C)	-25~+70
Installation	
Terminal size for cable(mm ²)	25
Torque(N.m)	2
Mounting	Plug in
Connection	Top

FINAL DISTRIBUTION

HDPZ50 Consumer Boxes

Standard: IEC/EN 60670



Range Presentation

HDPZ50 series is Himel Distribution Box designed to be used with Himel MCB, RCBO, RCCB and surge protection device.

Distribution box can be widely used in commercial and residential building.

Features

- ◆ Multiple material selection: full plastic, metal box and plastic cover
- ◆ Multiple installation: surface installation or flush installation
- ◆ IP30 protection grade
- ◆ Fire-retardancy option is available

Online Content



HDPZ50

Selection code of Metal Box and Plastic cover DB

Range name	Installation	Number of ways
HDPZ50	M	4
HDPZ50	M: Surface installation R: Flush installation	6: 6 ways 8: 8 ways 12: 12 ways 16: 16 ways 20: 20 ways 24: 24 ways

Selection code of full plastic DB

Range name	Installation	Number of ways	IP Grade	Fire-retardancy
HDPZ50P	M	4	IP30	NF
HDPZ50P	M: Surface installation R: Flush installation	4: 4 ways 6: 6 ways 8: 8 ways 12: 12 ways 15: 15 ways 18: 18 ways 24: 24 ways 36: 36 ways	Default: IP30 for non fire-retardancy IP30: IP30 protection grade for fire-retardancy	F: Fire-retardancy NF: Non fire-retardancy

2 Pole MCB Plastic cover is available on demand

Technical Parameters

Consumer Boxes	HDPZ50	HDPZ50P
Material	Box: Metal, Cover: Plastic	Full Plastic
Fire-resistancy	Fire-resistant	Optional
Protection grade	IP30	IP30
Rated operation voltage	230/400V	230/400V
Rated insulated voltage	500V	500V
Rated operating current	100A	100A
Withstand current	6kA	6kA

FINAL DISTRIBUTION

HDPZ50 Consumer Boxes

Standard: IEC/EN 60670

Overall Dimensions

HDPZ50

Unit: mm

Metal Box & Plastic	Surface Installation		Flush Installation		Thickness
	A	B	A	B	C
6	170	222	163	200	90
8	206	222	199	200	90
12	279	222	272	200	90
16	350	222	343	200	90
20	419	222	413	200	90
24	309	390	282	364	90

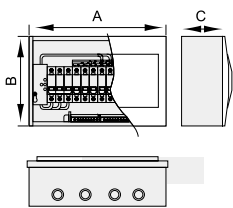
HDPZ50P

Unit: mm

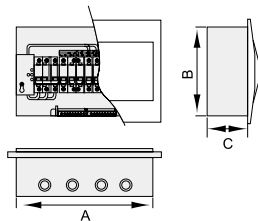
Full Plastic Loop Number	Dimension for Flush Installation				Dimension for Surface Installation				
	Height	Width	Thickness		Height	Width	Thickness	Installation Dimension	
	A	B	C	C1	D	E	F	H	I
4	200	114	61	78	200	111	91	144	-
6	200	150	61	78	200	148	96	144	-
8	200	186	61	78	200	184	96	144	-
12	200	258	61	78	200	256	96	144	-
15	200	312	61	78	200	310	96	144	-
18	215	365	61	78	220	362	96	156	290
24	310	258	68	88	326	270	96	230	207
36	440	258	68	88	460	270	96	385	207

HDPZ50

Surface installation

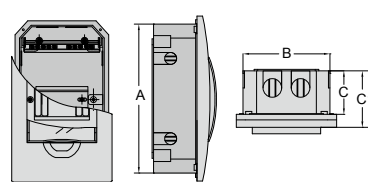


Flush installation

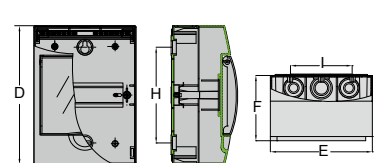


HDPZ50P

Flush installation



Surface installation



FINAL DISTRIBUTION

HEDB Series Distribution Box

Standard: IEC/EN60439



Function

HEDB distribution box provide:

- Control, monitoring, measurement and protection for the electric power loops and main power
- Controlling equipment

Main Features

	full plastic	Metal base and plastic cover
Standard	IEC/EN60670	IEC/EN60670
Number of ways	2-4,4-6,7-9,10-13	2-4,4-6,7-9,10-13,14-17,17-20,20-26
Installation method	Surface/Flush installation	Flush installation
Color	White box, grey cover	White box, grey cover
Rated voltage	AC 230/400V	AC 230/400V
Frequency	50/60Hz	50/60Hz
Rated current	100A/one phase 63A/three phase	100A/one phase 63A/three phase
IP grade	IP30	IP30
Temperature	- 25~50°C	- 25~50°C
Material of cover	PP	PP
Material of base	PVC	Cold rolled steel
Thickness of cover	1.5mm	1.5mm
Thickness of base	1.5mm	2~20 ways/0.6mm,20~26ways.0.8mm

HEDB Selection Guide

HEDB

M

F

4

Economic DB

M: Metal base & plastic cover
P: Full plastic

F: Flush installation
S: Surface installation

4: 2~4 ways
6: 4~6 ways
9: 7~9 ways
13: 10~13 ways
17: 14~17 ways
20: 17~20 ways
26: 20~26 ways

Online Content



HEDB

FINAL DISTRIBUTION

HEDB Series Distribution Box

Standard: IEC/EN60439

	Picture	Description	Dimension(mm)
HEDBPF4		2~4ways full plastic flush installation	160.1(A)*185.1(B)*90.7(C) 138(D)*159(E)*76(F)
HEDBPF6		4~6ways full plastic flush installation	200.1(A)*215.1(B)*90.7(C) 178(D)*184(E)*76(F)
HEDBPF9		7~9ways full plastic flush installation	254.1(A)*215.1(B)*90.7(C) 232(D)*184(E)*76(F)
HEDBPF13		10~13ways full plastic flush installation	326.1(A)*215.1(B)*90.7(C) 303(D)*184(E)*76(F)
HEDBPS4		2~4ways full plastic surface installation	140(A)*160(B)*90.7(C) 138(D)*159(E)*76(F)
HEDBPS6		4~6ways full plastic surface installation	180(A)*185(B)*90.7(C) 178(D)*184(E)*76(F)
HEDBPS9		7~9ways full plastic surface installation	234(A)*185(B)*90.7(C) 232(D)*184(E)*76(F)
HEDBPS13		10~13ways full plastic surface installation	305(A)*185(B)*90.7(C) 303(D)*184(E)*76(F)
HEDBMF4		2~4ways metal box and plastic cover flush installation	160.1(A)*185.1(B)*90.7(C) 130(D)*165(E)*78(F)
HEDBMF6		4~6ways metal box and plastic cover flush installation	200.1(A)*215.1(B)*90.7(C) 168(D)*196(E)*78(F)
HEDBMF9		7~9ways metal box and plastic cover flush installation	254.1(A)*215.1(B)*90.7(C) 222(D)*196(E)*78(F)
HEDBMF13		10~13ways metal box and plastic cover installation	326.1(A)*215.1(B)*90.7(C) 294(D)*196(E)*78(F)
HEDBMF17		14~17ways metal box and plastic cover flush installation	395.1(A)*215.1(B)*90.7(C) 365(D)*196(E)*78(F)
HEDBMF20		17~20ways metal box and plastic cover flush installation	449.1(A)*215.1(B)*90.7(C) 419(D)*196(E)*78(F)
HEDBMF26		20~26ways metal box and plastic cover flush installation	324.1(A)*429.1(B)*90.7(C) 294(D)*412(E)*78(F)

FINAL DISTRIBUTION

HJXF Metal Enclosures

Standard: IEC/EN 60529



Range Presentation

HJXF is Himel metal enclosure designed to be used with Himel MCB, RCBO, RCCB and surge protection device.

HJXF can be widely used in commercial and residential building.

Features

- ◆ Multiple protection grade: IP43, IP54

Online Content



HJXF

Selection Code

Range name	Height	Width	Depth	Protection grade
HJXF	25	20	14	B
HJXF: Metal Enclosure	25: 250 30: 200 40: 400 50: 500 60: 600 70: 700 80: 800 100: 1000	20: 200 25: 250 30: 300 40: 400 50: 500 60: 600 80: 800	14: 140 16: 160 18: 180 20: 200 25: 250 30: 300	B: IP 43 Q: IP 54

Available combination see below

Order Information

Type	Thickness	Dimension (mm)								Lock	Reference
		Overall			Installation		Mounting				
		H	W	D	H1	B1	H6	B6	Thick		
HJXF - 2520/14 IP43 Improved	1.0	250	200	140	295	128	130	128	1.0	1	HJXF252014B
HJXF - 3025/14 IP43 Improved	1.0	300	250	140	345	178	180	178	1.0	1	HJXF302514B
HJXF - 3025/18 IP43 Improved	1.0	300	250	180	345	178	180	178	1.0	1	HJXF302518B
HJXF - 3030/14 IP43 Improved	1.0	300	300	140	345	228	180	228	1.0	1	HJXF303014B
HJXF - 3030/18 IP43 Improved	1.0	300	300	180	345	228	180	228	1.0	1	HJXF303018B
HJXF - 4030/14 IP43 Improved	1.0	400	300	140	445	228	280	228	1.0	1	HJXF403014B
HJXF - 4030/20 IP43 Improved	1.0	400	300	200	445	228	280	228	1.0	1	HJXF403020B
HJXF - 5040/14 IP43 Improved	1.0	500	400	140	545	328	380	328	1.0	2	HJXF504014B
HJXF - 5040/20 IP43 Improved	1.0	500	400	200	545	328	380	328	1.0	2	HJXF504020B
HJXF - 5040/25 IP43 Improved	1.0	500	400	250	545	328	380	328	1.0	2	HJXF504025B
HJXF - 6040/14 IP43 Improved	1.2	600	400	140	645	328	480	328	1.2	2	HJXF604014B
HJXF - 6040/20 IP43 Improved	1.2	600	400	200	645	328	480	328	1.2	2	HJXF604020B
HJXF - 6040/25 IP43 Improved	1.2	600	400	250	645	328	480	328	1.2	2	HJXF604025B
HJXF - 6050/14 IP43 Improved	1.2	600	500	140	645	428	480	428	1.2	2	HJXF605014B
HJXF - 6050/20 IP43 Improved	1.2	600	500	200	645	428	480	428	1.2	2	HJXF605020B
HJXF - 6050/25 IP43 Improved	1.2	600	500	250	645	428	480	428	1.2	2	HJXF605025B
HJXF - 7050/16 IP43 Improved	1.2	700	500	160	745	428	580	428	1.2	2	HJXF705016B
HJXF - 7050/20 IP43 Improved	1.2	700	500	200	745	428	580	428	1.2	2	HJXF705020B
HJXF - 7050/25 IP43 Improved	1.2	700	500	250	745	428	580	428	1.2	2	HJXF705025B
HJXF - 8060/20 IP43 Improved	1.5	800	600	200	845	528	680	528	1.5	2	HJXF806020B
HJXF - 8060/25 IP43 Improved	1.5	800	600	250	845	528	680	528	1.5	2	HJXF806025B
HJXF - 10080/20 IP43 Improved	1.5	1000	800	200	1045	728	880	728	1.5	2	HJXF1008020B
HJXF - 10080/25 IP43 Improved	1.5	1000	800	250	1045	728	880	728	1.5	2	HJXF1008025B
HJXF - 10080/30 IP43 Improved	1.5	1000	800	300	1045	728	880	728	1.5	2	HJXF1008030B

HJXF Metal Enclosures

Standard: IEC/EN 60529



Metal Enclosures HJXF Series

Standard: IEC/EN 60529



HJXF is a metal enclosure designed to be used with Himel MCB, RCBO, RCCB, and Surge Protection Devices.

HJXF can be widely used in commercial and residential building.

FINAL DISTRIBUTION

HJXF Metal Enclosures

Standard: IEC/EN 60529

Order Information

Type	Thickness	Dimension (mm)								Lock	Reference
		Overall			Installation		Mounting				
		H	W	D	H1	B1	H6	B6	Thick		
HJXF - 2520/14 IP54	1.2	250	200	140	310	150	172	122	2.0	1	HJXF252014Q
HJXF - 3025/14 IP54	1.2	300	250	140	360	200	222	172	2.0	1	HJXF302514Q
HJXF - 3025/18 IP54	1.2	300	250	180	360	265	222	172	2.0	1	HJXF302518Q
HJXF - 3030/14 IP54	1.2	300	300	140	360	265	222	222	2.0	1	HJXF303014Q
HJXF - 3030/18 IP54	1.2	300	300	180	360	265	222	222	2.0	1	HJXF303018Q
HJXF - 4030/14 IP54	1.2	400	300	140	460	365	322	222	2.0	1	HJXF403014Q
HJXF - 4030/20 IP54	1.2	400	300	200	460	365	322	222	2.0	1	HJXF403020Q
HJXF - 5040/14 IP54	1.2	500	400	140	560	465	422	322	2.0	2	HJXF504014Q
HJXF - 5040/20 IP54	1.2	500	400	200	560	465	422	322	2.0	2	HJXF504020Q
HJXF - 5040/25 IP54	1.2	500	400	250	560	465	422	322	2.0	2	HJXF504025Q
HJXF - 6040/14 IP54	1.5	600	400	140	660	565	522	322	2.0	2	HJXF604014Q
HJXF - 6040/20 IP54	1.5	600	400	200	660	565	522	322	2.0	2	HJXF604020Q
HJXF - 6040/25 IP54	1.5	600	400	250	660	565	522	322	2.0	2	HJXF604025Q
HJXF - 6050/14 IP54	1.5	600	500	140	660	565	522	422	2.0	2	HJXF605014Q
HJXF - 6050/20 IP54	1.5	600	500	200	660	565	522	422	2.0	2	HJXF605020Q
HJXF - 6050/25 IP54	1.5	600	500	250	660	565	522	422	2.0	2	HJXF605025Q
HJXF - 7050/16 IP54	1.5	700	500	160	760	665	622	422	2.0	2	HJXF705016Q
HJXF - 7050/20 IP54	1.5	700	500	200	760	665	622	422	2.0	2	HJXF705020Q
HJXF - 7050/25 IP54	1.5	700	500	250	760	665	622	422	2.0	2	HJXF705025Q
HJXF - 8060/20 IP54	1.5	800	600	200	860	765	722	522	2.0	2	HJXF806020Q
HJXF - 8060/25 IP54	1.5	800	600	250	860	765	722	522	2.0	2	HJXF806025Q
HJXF - 10080/20 IP54	1.5	1000	800	200	1060	965	922	722	2.0	2	HJXF1008020Q
HJXF - 10080/25 IP54	1.5	1000	800	250	1060	965	922	722	2.0	2	HJXF1008025Q
HJXF - 10080/30 IP54	1.5	1000	800	300	1060	965	922	722	2.0	2	HJXF1008030Q

Technical Parameters

Metal Enclosures	HJXF
Protection grade	IP43, IP54
Standard	IEC/EN60529
Sheet thickness	1.0 -1.5mm
Mounting plate thickness	1.0 -1.5mm
Hinge	Enhanced
Sealing rubber gasket	Black rubber gasket
Cable gland	Bottom only

FINAL DISTRIBUTION

HBBT Comb Busbars

Standard: IEC/EN 60439



Range Presentation

HBBT is compatible with both 3 series and 9 series

Features

- ◆ 2 connection options: PIN or U type
- ◆ 2 PIN thickness options: 1.2mm and 1.5mm

Online Content



HBBT

Selection Code

Range name	Number of poles	Max current	Thickness of pin	Type of terminal
HBBT	1P	40A	12	P
HBBT	1P: 1 pole 2P: 2 Poles 3P: 3 Poles 4P: 4 Poles	40A: 40A 63A: 63A 75A: 75A 80A: 80A 85A: 85A	12: 1.2mm 15: 1.5mm	P: Pin type F: U type

Technical Parameters

Comb Busbars	HBBT
Material of busbar	E-CU-F25
Material of insulation	PVC
Short-circuit strength	50kA
Nominal voltage	415V
Operating voltage	Max 500V
Surge voltage	4kV
Standard length	1m

FINAL DISTRIBUTION

HDCH8S Modular Contactors

Standard: IEC 61095



Range Presentation

HDCH8S is Himel modular contactor designed to switch on and switch off lighting or other equipment, can be widely used in commercial and residential building.

Features

- ◆ Multi-selection for main contacts
- ◆ Full range from 16A to 63A

Online Content



HDCH8S

Selection Code

Range name	Current	Number of poles	Contacts
HDCH8S	16	3	20
HDCH8S	16: 16A 20: 20A 25: 25A 40: 40A 63: 63A	2: 2P 3: 3P 4: 4P	20: 2NO (2P) 12: 1NO 2NC (3P) 02: 2NC (2P) 40: 4NO (4P) 11: 1NO 1NC (2P) 04: 4NC (4P) 30: 3NO (3P) 22: 2NO 2NC (4P) 03: 3NC (3P) 31: 3NO 1NC (4P) 21: 2NO 1NC (3P)

Technical Parameters			HDCH8S					
Modular Contactors			16A	20A	25A	40A	63A	
Type			16A	20A	25A	40A	63A	
Standard			IEC 61095					
Certificate			CE, CB					
Rated current I _n (A)	AC-7a		16	20	25	40	63	
	AC-7b		6	7	8.5	15	20	
Conventional free air thermal current I _{th} (A)			25	25	25	63	63	
Rated insulation voltage u _i (V)			500					
Rated voltage u _e (V)			250 400					
Rated impulse withstand voltage u _{imp} (V)			4kV					
Ambient temperature			-5°C~ 60°C					
Making and breaking capacity (AC-7a)			1.05I _e					
Main contacts		2P	1NO1NC, 2NO, 2NC					
		3P	3NO, 3NC, 2NO1NC, 1NO2NC					
		4P	2NO2NC, 3NO1NC, 4NO, 4NC					
Controlled power (kW)	AC-7a	250V	3.5	4.5	5.5	9	14	
		400V	6.5	8	10	16	25	
	AC-7b	250V	1.4	1.6	2	3.5	4.5	
		400V	2.4	2.8	3.4	6	8	
Operation frequency	times		≥30000					
Operation frequency /1h (AC-7a)			360					
Coil voltage U _s (V)			AC24V AC220-240V 50/60Hz					
IP grade			IP20					
Wiring Ability (mm ²)	Control circuit	Hard wire	1.5-2.5 mm ²			2×1.5mm ²		
		Soft wire	1.5-2.5 mm ²			2×2.5mm ²		
	Main circuit	Hard wire	1.5-6mm ²			6-25mm ²		
		Soft wire	1-4 mm ²			6-16mm ²		

FINAL DISTRIBUTION

HDY3N Power Surge Protector

Standard: IEC 61643-11



Main features							
Rated voltage U _o	230V						
Poles	1P, 2P, 3P, 4P, 1P+N, 3P+N						
Protection rating	II						
Waveform	8/20us						
Product model	HDY3N-20	HDY3N-40	HDY3N-65	HDY3N-80	HDY3N-120	HDY3N-160	
Nominal discharge current I _n	10kA	20kA	30kA	40kA	60kA	80kA	
Maximum discharge current I _{max}	20kA	40kA	65kA	80kA	120kA	160kA	
Maximum allowable backup fuse strength(gL)	50A	100A	125A	160A	200A	250A	
Maximum continuous operating voltage U _c	275/385/440V	275/385/440V	275/385/440V	275/385/440V	275/385/440V	275/385/440V	
Protection level Up	1.3/1.6/1.8kV	1.5/1.8/2.0kV	1.6/2.0/2.2kV	1.8/2.2/2.2kV	2.2/2.5/2.5kV	3.2/3.3/3.4kV	
Response time	≤25ns						
Operating state indicator	Green: normal; red: fault						
Terminal wiring capacity	Solid line≤35mm ² , soft line 2.5-25mm ² ,torque 3.5N.m						
Optional accessories	Available (YX remote signaling)						

HDY3N Selection Guide

Product name	Protection Type	Maximum discharge current	Poles	Maximum continuous voltage	Accessories
HDY3N	Default	65	2	275	YX
HDY3N	Default: II	20: 20kA 40: 40kA 65: 65kA 80: 80kA 120: 120kA 160: 160kA	1: 1P 2: 2P 3: 3P 4: 4P 5: 1P+N 6: 3P+N	Default: 385V 275: 275V 440: 440V	YX: Remote signaling Default: No remote signaling

Online Content



HDY3N



LOW-VOLTAGE DISTRIBUTION

Value Engineered to Match Industry Standards



Himel Low-Voltage Distribution products facilitate affordable, efficient and reliable electrical infrastructure so that you utilize electricity with utmost safety



Proven for superior application performance, safe power supply and load management in buildings, industrial plants, and infrastructure projects



Tested against regional and international quality standards, Himel products ensure reliable power supply anywhere, anytime



Himel Low-Voltage Distribution products improve operational efficiency and modernize existing installations in the most cost-efficient way

LOW VOLTAGE DISTRIBUTION



HDM3 Molded Case Circuit Breakers



HDM3

Rated current : 10-1600A

Pole: 3P/4P

Sharing accessories for 3/3E/3L

Certificates:CB,CE,TUV,KEMA

044

HDM3STM Adjustable Molded Case Circuit Breaker



HDM3S

Rated current : 25-630A

Pole: 3P/4P

TM adjustable

Thermal & Magnetic

Certificates:CB,CE,TUV

112

HDM3E Electronic Circuit Breakers



HDM3E

Rated current: 32-1600A

Pole: 3P/4P

Sharing accessories for 3/3E/3L

Certificates:CB,CE,TUV

044

HDM2 Molded Case Circuit Breakers



HDM2

Rated current: 10-125A

Pole: 1P/2P

Certificates:CB,CE,SEMKO

130

HDM3L Earth-Leakage Circuit Breakers



HDM3L

Rated current : 16-630A

Pole: 3P/4P

Sharing accessories for 3/3E/3L

Certificates: CE

044

HDM2L Earth-leakage Circuit Breaker



HDM2L

Rated current : 16-250A

Pole: 2P

Adjustable residual current protection

Adjustable time delay

135

LOW VOLTAGE DISTRIBUTION

HDW3 Air Circuit Breakers



HDW3

Rated current : 400A-6300A
Pole: 3P/4P
3 types of intelligent controllers
Certificates:KEMA

139

HDGL Switch Disconnectors



HDGL

Rated current: 16-3150A
Pole: 3P/4P

210

ATSE Automatic Transfer Switch Controllers



ATSE

3 kinds of power interlock available
Suitable for ACB application

185

HRT Fuse



HRT16

Rated current: 2-630A
Certificates:CB,CE



HRT18

Rated current: 2-63A
Certificates:CB,CE

212

HDQ3HB Automatic Transfer Switch



HDQ3HB

Rated current In: 16 - 630A
Poles: 3 & 4
Integrated or split intelligent controller

196

HDM3/3L/3E Series MCCB



Range Presentation

HDM3 is Himel 3 series range of Molded Case Circuit Breakers with fixed thermal magnetic trip unit, providing line protection and motor protection, up to 1600A.

HDM3E is Himel 3 series range of MCCB with electronic type trip unit, providing LSI protection, up to 1600A.

HDM3L is Himel 3 series range of earth leakage MCCB, providing protection against residual current, up to 630A.

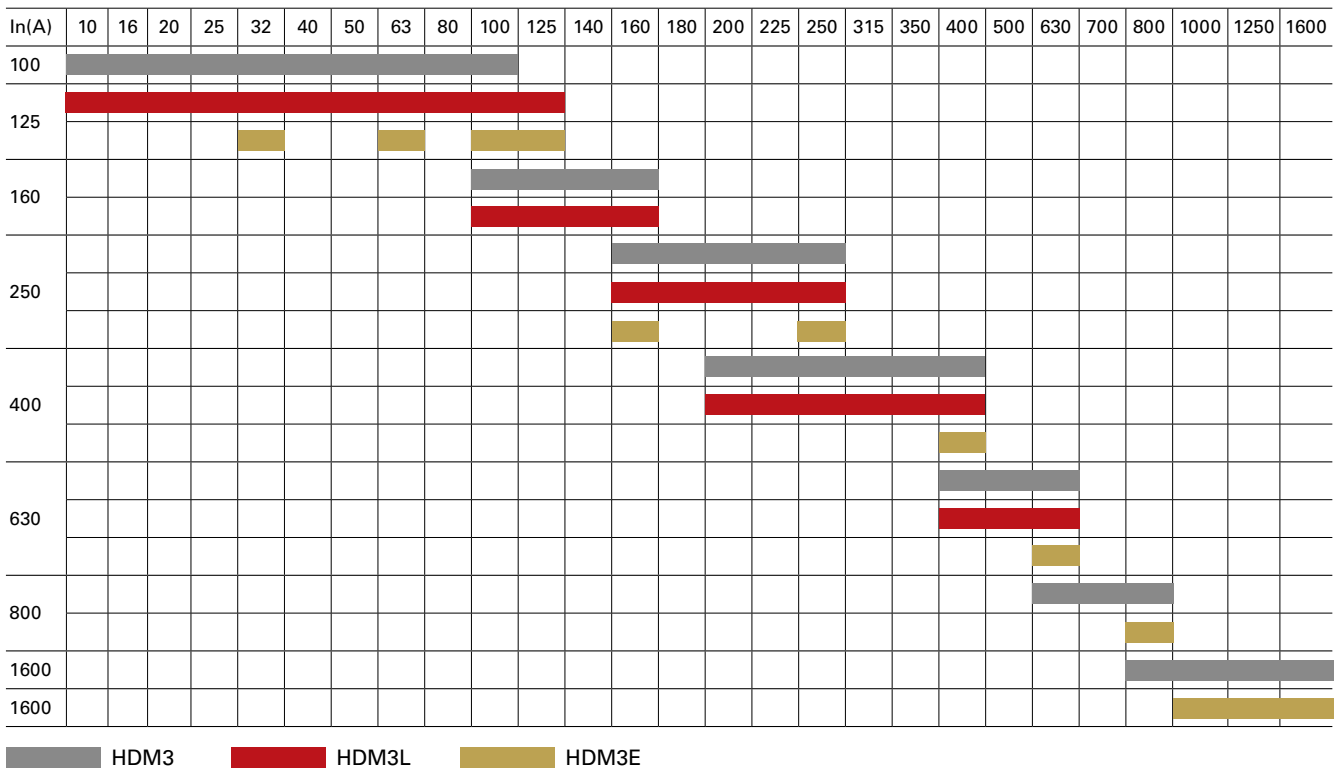
Features

Easy Installation and Safe Operation

- ◆ Double-deck cover design assures easy installation and removal of accessories.

High Performance

- ◆ Patented design ensures quick extinguishing of arc.
- ◆ Suitable for wide environment conditions, max. -40°C~+70°C



Online Content



HDM3



HDM3E



HDM3L

HDM3/3L/3E Series MCCB



Selection Guide

HDM3 MCCB Selection Code-@40° Products

Range Name	Frame Size	Breaking Capacity (Icu/Ics)	Rated current	Poles	Protection
HDM3	250	L	250	3	3XX
HDM3 MCCB	100: 100A	L: 18/18kA S: 25/18kA	10,16,20,25,32, 40,50,63,100A	3: 3P B*: 4P	2XX2: Mag only motor protection 3XX: Mag-Therma line protection
		T: 30/30kA N: 50/30kA	40,50,63,100A		
	160: 160A	L: 21/21kA S: 35/21kA T: 36/36kA N: 60/36kA	100,125,140,160A		
	250: 250A	L: 21/21kA S: 35/21kA T: 36/36kA N: 60/36kA	160,180,200, 225,250A		
	400: 400A	F: 50/30kA T: 39/39kA N: 70/39kA	200,225,250,315, 350,400A		
	630: 630A	F: 50/30kA T: 39/39kA N: 70/39kA	400,500,630A		
	800: 800A	M: 40/40kA F: 70/40kA	500,630,700,800A		
	1600: 1600A	N: 70/50kA	800,1000,1250,1600A		

Note: for more details of HDM3-1600 characteristics, please see its individual catalogue

HDM3E MCCB Selection Code-@40° Products

Range Name	Frame Size	Breaking Capacity (Icu/Ics)	Rated current	Poles	Protection
HDM3E	250	M	250	3	3XX
HDM3E Electronic type MCCB	125: 125A	M: 50/50kA	32: 32A 63: 63A 100: 100A 125: 125A	3: 3P C*: 4P	3XX: Electronic tripping, line protection
			250: 250A		
	400: 400A		400: 400A		
	630: 630A		630: 630A		
	800: 800A		800: 800A		

HDM3/3L/3E Series MCCB



HDM3 MCCB Selection Code-@50° Products

Range name	Frame size	Breaking capacity (Icu/Ics)	Rated current	Poles	Protection	Temperature
HDM3	250	S	250	3	3XX	T
HDM3 MCCB	100: 100A	S: 25/18kA F: 35/26kA N: 50/30kA	10, 16, 20, 25, 32, 40, 50, 63, 80, 100A	3: 3P *A: 4P *B: 4P	2XX2: Mag only motor protection 3XX: Mag-Therma line protection	T: 50
	160: 160A	S: 35/21kA F: 50/30kA N: 60/36kA	100, 125, 140, 160A			
	250: 250A	S: 35/21kA F: 50/30kA N: 60/36kA	100, 125, 140, 160, 180, 200, 225, 250A			
	400: 400A	S: 35/21kA F: 50/30kA N: 70/39kA	200, 225, 250, 315, 350, 400A			
	*800: 800A	F: 50/30kA N: 70/40kA	500,630,700,800A			

HDM3E MCCB selection Code-@50° Products

Range Name	Frame Size	Breaking apacity (Icu/Ics)	Rated current	Poles	Protection	Temperature
HDM3E	250	M	250	3	3XX	T
HDM3E Electronic type MCCB	125: 125A	M: 50/50kA	125: 125A	3: 3P *C: 4P	3XX: Electronic tripping, line protection	T: 50
	250: 250A		250: 250A			
	400: 400A		400: 400A			
	630: 630A		630: 630A			
	800: 800A		800: 800A			

Note:

- *A: The N phase is directly connected with a wire, and without contacts. It's always closed.
- *B: The N phase is equipped with contacts, but without protection. It closes earlier and opens later than the other 3 poles.
- *C: The N phase is equipped with contacts, and with protection. It closes earlier and opens later than the other 3 poles.
- *There is no motor protection for frame current 800A breaker.

HDM3 * HDM3Eoffer is available only in Middle East / North African countries. For more information, contact local Himel Sales.

HDM3/3L/3E Series MCCB



HDM3L Earth Leakage MCCB Selection Code-@40° Products

Series Name	Frame Size	Breaking capacity	Rated current	Poles	Trip unit and Protection	Residual current	Time delay
HDM3L	25	F	250	3	3X0	A	1
HDM3L	12: 125A	F: 50/30kA	16,20,25,32,40,50,63, 80,100,125A	3: 3P B*: 4P	3X0: line protection	A: 30/100/300 B: 100/300/500 C: 300/500/1000	0: No delay 1: 0.1/0.2/0.3s 2: 0.4/0.5/1s 3: 0.1/0.3/0.5s
	16: 160A		100,125,140,160A				
	25: 250A		160,180, 200, 225,250 A				
	40: 400A	F: 70/42kA	200,225,250,315, 350,400				
	63: 630A	F: 70/40kA	400,500,630A				

HDM3E 1600A MCCB Selection Code-@40°/50° Products

Series Name	Frame size	Breaking Capacity	Rated current	Poles	Trip unit	MCH +XF	MX	MN	Controller	Temperature
HDM3E	16	M	16	3	F	5	5	5	L	T
HDM3E	16: 1600A	M: 50/50kA	10: 1000A	3: 3P 4: 4P	F: Fixed front connection	5: Without MCH+XF N: AC230V V: AV400V D: DC220V	5: Without Shunt release N: AC230V V: AV400V D: DC220V	5: Without undervoltage release N: AC230V V: AV400V	L: iTR326	T: 50° Default: 40°
			12: 1250A							
			16: 1600A							

Note:

B: The N phase is equipped with contacts, but without protection. It closes earlier and opens later than the other 3 poles.

C: The N phase is equipped with contacts, and with protection. It closes earlier and opens later than the other 3 poles.

"T" is thermal trip calibrated in 50 degree. please contact with HIMEL local office for further information.

HDM3/3L/3E Series MCCB



Technical Parameters-@ 40° Products																						
MCCB		HDM3-100				HDM3-160				HDM3-250				HDM3-400			HDM3-630			HDM3-800		
Rated Voltage Ue(V)																						
Rated insulation Voltage Ui(V)		800				800				800				800			800			800		
Rated impulse withstand voltage Uimp(kV)		8				8				8				8			8			8		
Rated frequency(Hz)																						
Rated current In(A)		10-100				100-160				160-250				200-400			400-630			630-800		
Number of poles		3/4																				
Use Category		A																				
Breaking capacity	Breaking Class	L	S	T	N	L	S	T	N	L	S	T	N	F	T	N	F	T	N	M	F	
	Icu(kA) 400/415V AC	18	25	30	50	21	35	36	60	21	35	36	60	50	39	70	50	39	70	40	70	
	Ics(kA) 400/415V AC	18	18	30	30	21	21	36	36	21	21	36	36	30	39	39	30	39	39	40	40	
Mechanical life		20000				20000				20000				10000			10000			5000		
Electrical life AC 400/415V		8000				8000				8000				7500			7500			2500		
Power distribution protection		■				■				■				■			■			■		
Motor protection		■				■				■				■			■			-		
Isolation function		■				■				■				■			■			■		
Certification		TUV, CE				KEMA, CE				KEMA, CE				KEMA, CE			KEMA, CE			KEMA, CE		

Note: for HDM3-100T/N support rated current from 40~100A

Technical Parameters-@ 50° Products																		
Frame current		HDM3-100				HDM3-160				HDM3-250			HDM3-400			HDM3-800		
Rated Voltage Ue(V)		400/415																
Rated insulation Voltage Ui(V)		800				800				800			800			800		
Rated impulse withstand voltage Uimp(kV)		8				8				8			8			8		
Rated frequency(Hz)		50/60																
Rated current In(A)		10-100		40-100		100-160				100-250			200-400			500-800		
Number of poles		3/4																
Use Category		A																
Breaking capacity	Breaking Class	S	F	N	S	F	N	S	F	N	S	F	N	F	N			
	Icu(kA) 400/415V AC	25	35	50	35	50	60	35	50	60	35	50	70	50	70			
	Ics(kA) 400/415V AC	18	26	30	21	30	36	21	30	36	21	30	39	30	40			
Mechanical life		20000				20000				20000			10000			5000		
Electrical life AC 400/415V		8000				8000				8000			7500			2500		
Power distribution protection		■				■				■			■			■		
Motor protection		■				■				■			■			-		
Isolation function		■				■				■			■			■		
Certification		TUV, CE				TUV, CE				TUV, CE			TUV, CE			TUV, CE		

HDM3/3L/3E Series MCCB



Technical Parameters-@40°/50°products

Electronic type MCCB		HDM3E-125			HDM3E-250		HDM3E-400		HDM3E-630		HDM3E-800		HDM3E-1600		
Rated Voltage Ue(V)		400/415													
Rated insulation Voltage Ui(V)		800			800		800		800		1000		1000		
Rated impulse withstand voltage Uimp(kV)		8			8		8		8		12		12		
Rated frequency(Hz)		50/60													
Rated current In(A)		32	63	100,125	160,250	400		630		800		1000/1250/1600			
Number of poles		3/4													
Use Category		A			A		B		B		B		B		
Breaking capacity	Breaking Class	M			M		M		M		M		M		
	Icu(kA) 400/415V AC	50			50		50		50		50		50		
	Ics(kA) 400/415V AC	50			50		50		50		50		50		
	Icw(kA) 400/415V AC	0.5(1s)	1(1s)	2.5(1s)	2.5(1s) ¹⁾	5(1s)		8(1s)		10(1s)		42(1s)			
Mechanical life		20000			20000		1000		1000		5000		12500		
Electrical life	AC 400/415V	8000			8000		7500		7500		2500		6000		
Power distribution protection	Electronic trip unit														
Isolation function															
Certification		TUV, CE			TUV, CE		TUV, CE		TUV, CE		TUV, CE		TUV, CE		

Note:

1) Icw will upgrade to 3kA(1s) soon.

HDM3/3L/3E Series MCCB



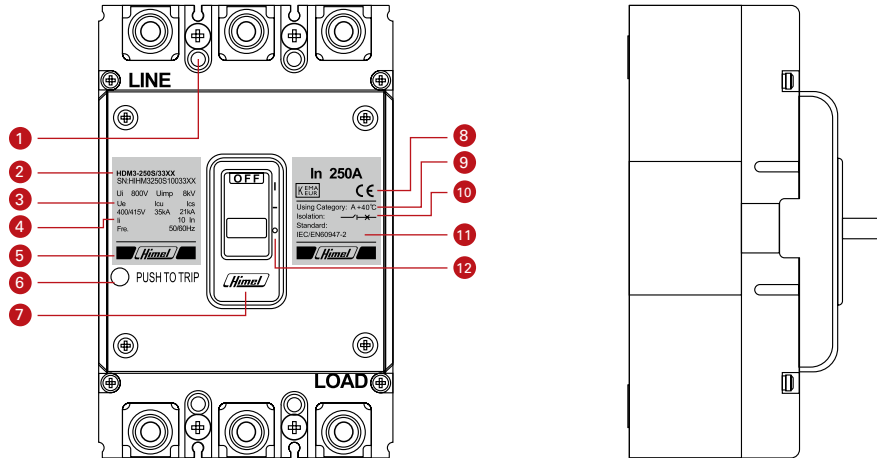
Technical Parameters-@40° Products						
Earth leakage MCCB		HDM3L-125	HDM3L-160	HDM3L-250	HDM3L-400	HDM3L-630
Rated voltage Ue(V)		400/415				
Rated insulation voltage Ui(V)		800	800	800	800	800
Rated impulse withstand voltage Uimp(kV)		8	8	8	8	8
Rated frequency(Hz)		50/60				
Rated current In(A)		16-125	100-160	160-250	200-400	400-630
Number of poles		3/4				
Use category		A				
Breaking capacity	Breaking class	F	F	F	F	F
	Icu(kA) 400/415V AC	50	50	50	70	70
	Ics(kA) 400/415V AC	30	30	30	42	40
	Icw(kA) 400/415V AC	25% Icu				
Mechanical life		20000	20000	20000	10000	10000
Electrical life	AC 400/415V	8000	8000	8000	7500	7500
Power distribution protection	Electronic trip unit	■	■	■	■	■
Isolation function		■	■	■	■	■
Leakage protection						
Rated residual operating current I _{Δn} mA (three rating adjustable)	Non-delay type	30, 100, 300	30, 100, 300	30, 100, 300	100, 300, 500	100, 300, 500
		100, 300, 500	100, 300, 500	100, 300, 500	300, 500, 1000	300, 500, 1000
	Delay type	100, 300, 500	100, 300, 500	100, 300, 500	100, 300, 500	100, 300, 500
		100, 300, 500	100, 300, 500	100, 300, 500	300, 500, 1000	300, 500, 1000
Rated residual non-tripping current I _{Δno} (mA)		50% I _{Δn}				
Non-delay type: breaking time (s)		≤ 0.2				
Fixed delay: 2I _{Δn} limit non-actuating time (s)		0.1/0.2/0.3/0.4/0.5/1	0.1/0.2/0.3/0.4/0.5/1	0.1/0.2/0.3/0.4/0.5/1	0.1/0.2/0.3/0.4/0.5/1	-
Delay adjustable type: 2I _{Δn} limit non-actuating time (s)	0.1/0.2/0.3	0.1/0.2/0.3	0.1/0.2/0.3	0.1/0.2/0.3	0.1/0.2/0.3	0/0.2/0.5
	0.4/0.5/1	0.4/0.5/1	0.4/0.5/1	0.4/0.5/1	0.4/0.5/1	-
Certification		CE	CE	CE	CE	CE

HDM3/3L/3E Series MCCB



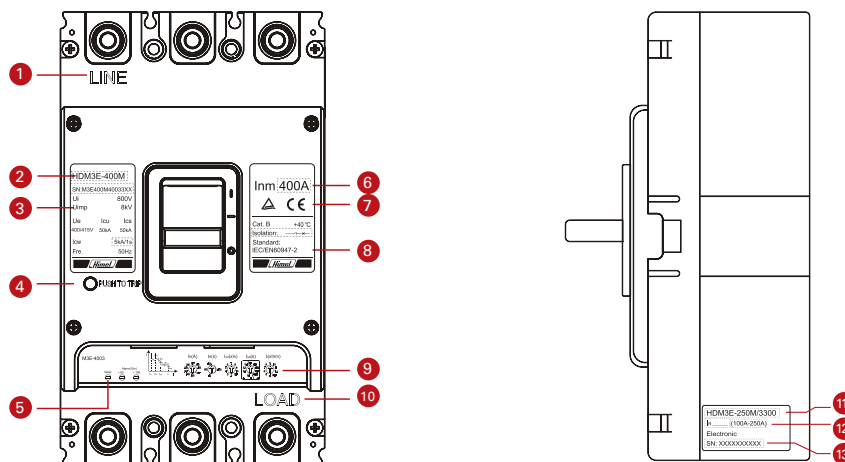
Front Overview

HDM3 100-800



1	Mounting hole	6	Test button	11	Complied standard
2	Product name	7	Brand trademark	12	Closing, tripping and opening
3	Technical parameters	8	Certification mark		
4	Breaking capacity	9	Use category		
5	Brand name	10	Breaker with isolating function		

HDM3E 125-800

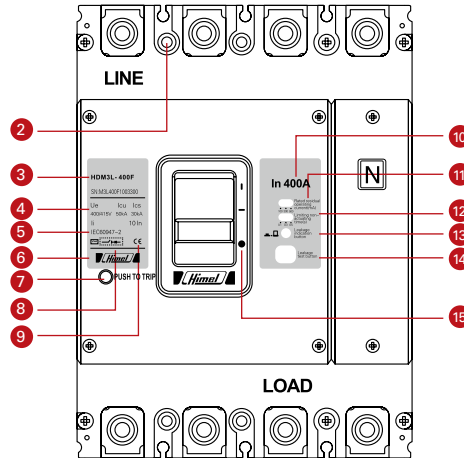
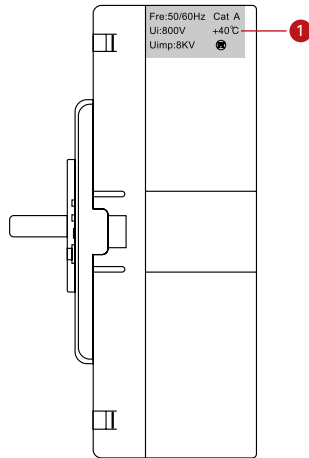


1	Inlet line	6	Frame Current inm	11	Product type
2	Product type	7	Certificate Mark	12	Overload delay time setting current
3	Technical Parameters	8	Standard	13	Reference code
4	Tripping button	9	Parameter adjust knob		
5	Alarm light	10	Outlet line		

HDM3/3L/3E Series MCCB



HDM3L 125-630

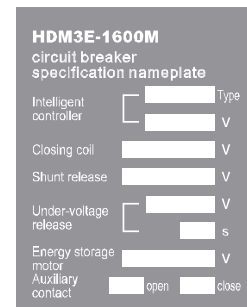
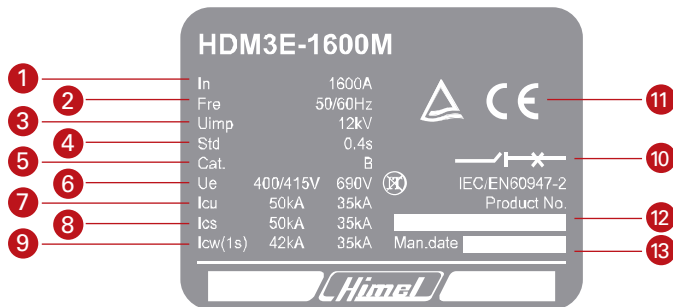
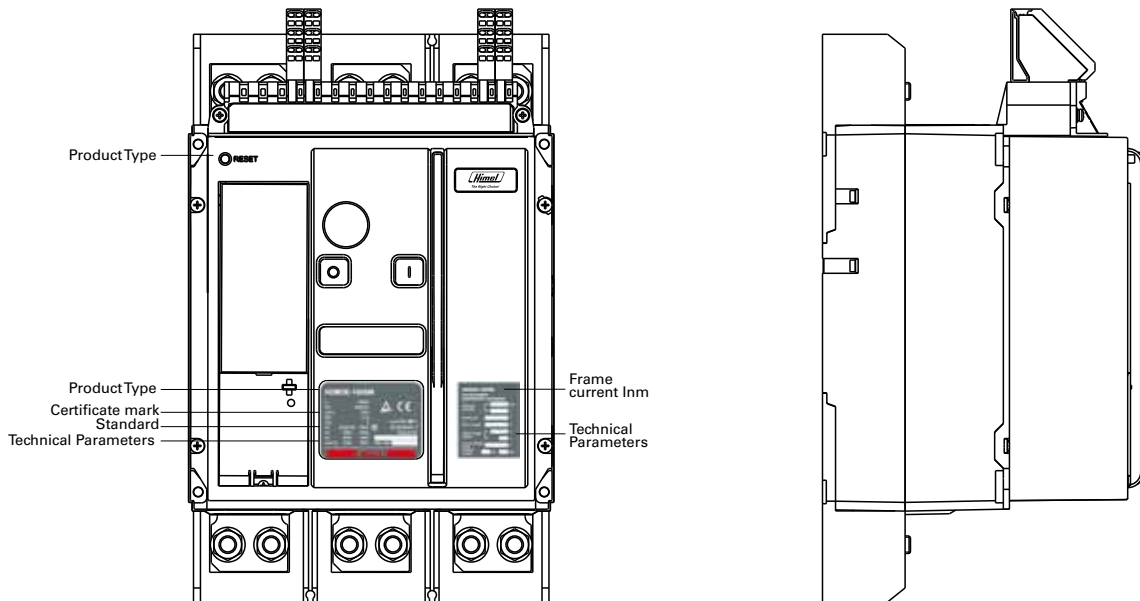


1	Technical parameters	6	Manufacturer trademark	11	Rated residual operating current
2	Mounting hole	7	Trip button	12	Limiting non-actuating time
3	Product model	8	Breaker with isolating function	13	Leakage indication button
4	Breaking capacity	9	Certification mark	14	Leakage test button
5	Conformance standard	10	Rated current	15	Closing, tripping and opening

HDM3/3L/3E Series MCCB



HDM3E 1600



1	Rated current	6	Rated voltage	11	Certification and standard
2	Rated frequency	7	Breaking capacity of limit short circuit	12	Ex-factory code
3	Rated impulse withstand voltage	8	Breaking capacity of operation short circuit	13	Production date
4	Maximum short circuit delay time	9	Rated short time withstand current		
5	Application category	10	Applicability		

Operating Conditions

Pollution Degree

HDM3 products operate in the environment (industrial environment) with pollution class 3 defined in IEC/EN 60947-1 and IEC/EN 60947-2 standards.

Wet and heat resistance

Dry and cold
Dry and heat
Wet and heat

Environment temperature

- HDM3 series can work for a long time under normal environment and operating temperature between -5°C and 50°C.
- Refer to the temperature derating factor table or contact us if the operating ambient temperature exceeds 40°C (motor protection exceeds 60°C).
- Storage temperature ranges between -20°C and 70°C.

Altitude

- Altitude at normal installation site does not exceed 2000m.
- If the altitude exceeds 2000m, the changes in the dielectric strength and the air temperature drop must be considered. Refer to the altitude derating factor table or contact us.

Humidity

The following conditions must be met during normal operation:

- The relative humidity of atmosphere does not exceed 50% if the ambient air temperature is +40°C. The product can be used at a high relative humidity if the temperature is low.
- The monthly average relative humidity at the wettest month is 90%.
- The impact of the condensation generated on the product surface on the product property shall be considered.

Reliable contact indication with isolating function

HDM3 moulded case circuit breaker complies with the isolation defined in IEC standard 60947-2

- The isolated location corresponds to O (OFF)
 - The operating handle can indicate "OFF" only when the contact is really open
 - The rotation handle or electric operating mechanism will not change the reliability of the contact indication system.
- Through the test, the isolating function must guarantee:
- Mechanical reliability of contact indication system
 - No leakage current
 - There is a certain overvoltage resistance capacity between the input and output terminals.

Protection class

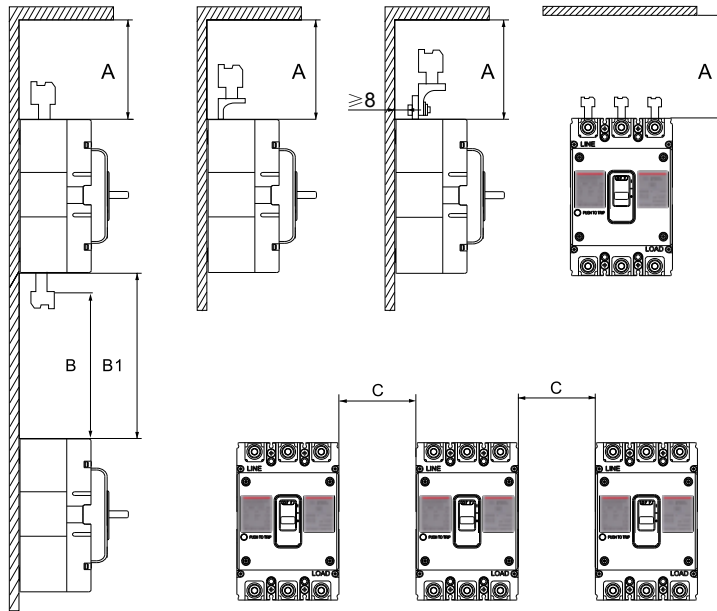
- IP protection class of circuit breaker body: IP20
- Circuit breaker installed in the switch cabinet:
circuit breaker with a toggle handle: IP40
circuit breaker with an electric operating mechanism: IP40

HDM3/3L/3E Series MCCB



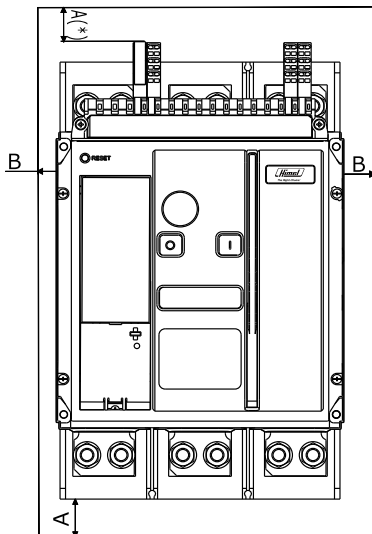
Safety Distance

HDM3/3L/HDM3E-125~800



Product type	A(mm)	B(mm)	B1(mm)	C(mm)
HDM3-100/160/250 HDM3E-125/250 HDM3L-125/160/250	60	60	Bare cable length+B	30
HDM3-400/630/800 HDM3E-400/630/800 HDM3L-400/630	110	110		70

HDM3E-1600



	Insulation part	Metal part	Charged part
A	0	120	180
B	0	10	60

Note: X and Y are front plane symmetric axis.

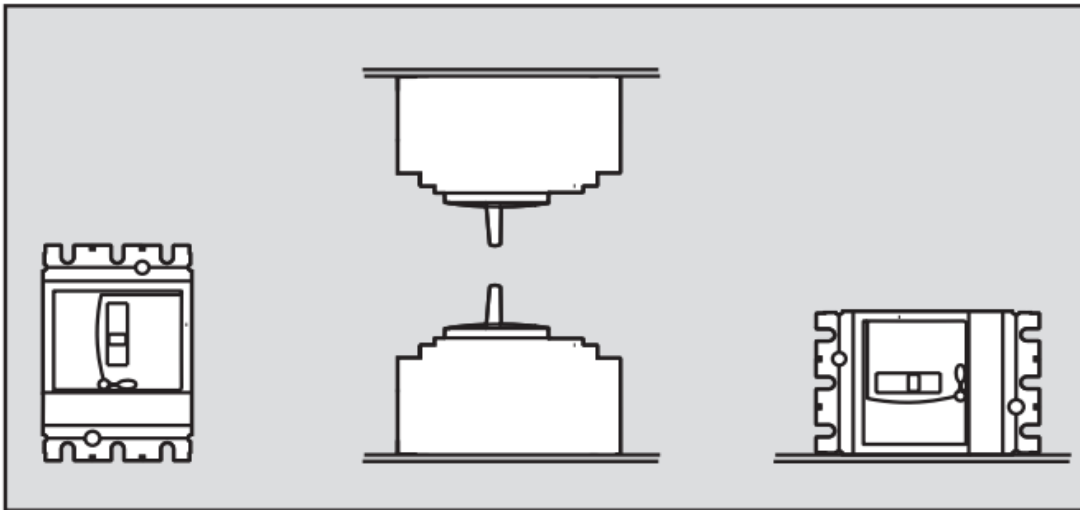
(*) 50mm safety distance for removing arcing cover, 20mm safety distance for removing terminals.

F : Reference point.

HDM3/3L/3E Series MCCB



Installation Type



Deratig of Temperature

Product type	Ambient temperature (40°C product)				
	40	45	50	55	60
HDM3-100L/S/T/N	1	0.96	0.89	0.83	0.75
HDM3-160/250 HDM3L-160/250	1	0.92	0.85	0.79	0.71
HDM3-400/630 HDM3L-400	1	0.94	0.87	0.81	0.73
HDM3-800 HDM3L-630	1	0.95	0.88	0.82	0.74

Product type	Ambient temperature (40°C product)				
	40	45	50	55	70
HDM3E-125	1	1	1	Inm=80A	Inm=63A
HDM3E-250	1	1	1	Inm=200A	Inm=160A
HDM3E-400	1	1	1	Inm=315A	Inm=250A
HDM3E-630	1	1	1	Inm=500A	Inm=400A
HDM3E-800	1	1	1	Inm=560A	Inm=500A
HDM3E-1600	1	1	Inm=1500A	Inm=1250A	Inm=1000A

Note: Max IR is smaller than Inm

HDM3/3L/3E Series MCCB



Derating of Altitude

Altitude	2000m	3000m	4000m	5000m
Insulation voltage U_i (V)	800	728	664	616
U_{imp} (kV)	8	7	6.5	6
Power frequency withstand voltage (V)	3000	2500	2100	1800
Rated heat value at 40°C (A)	I_n	$0.94I_n$	$0.88I_n$	$0.85I_n$

Power Consumption for Three Poles

Product type	Rated current (A)	Front connection (W)	Rear connection (W)	Plug-in connection (W)	Withdrawable connection (W)
HDM3-100L/S	100	26	29	29	-
HDM3-100T/N	100	40	50	50	-
HDM3-160	160	60	87	87	-
HDM3-250	250	63	90	90	-
HDM3-400	400	115	120	125	128
HDM3-630	630	180	190	200	205
HDM3-800	800	200	230	290	300

Product type	Rated current (A)	Front connection (W)	Rear connection (W)	Plug-in connection (W)	Withdrawable connection (W)
HDM3E-125	125	60	87	87	-
HDM3E-250	250	63	90	90	-
HDM3E-400	400	115	120	125	128
HDM3E-630	630	180	190	200	250
HDM3E-800	800	200	230	290	300
HDM3E-1600	1600	250	-	-	-

HDM3/3L/3E Series MCCB



Trip Units

Thermal and magnetic trip unit HDM3/HDM3L 63-800

Protection

The circuit breaker equipped with TM thermomagnetic release is mainly for protection of the cable, which is on the power distribution system for transformer power supply.

Overload protection: thermal protection I_r (Fixed)

The overload protection function provides inverse time limit curve on the basis of bimetal. If the limit is exceeded, the deformation of the bimetal can lead in the tripping of the circuit breaker operating mechanism.

Test No.	I/I_n	Conventional time	Breaker status	Initial status
1	1.05	$> 1h(I_n \leq 63A)$ $> 2h(I_n > 63A)$	Non-tripping	Cold status
2	1.3	$\leq 1h(I_n \leq 63A)$ $\leq 2h(I_n > 63A)$	Tripping	Immediately after test 1

Short circuit protection: magnetic protection I_i (Fixed)

Magnetic protection achieves short circuit protection through a magnetic trip device. The circuit breaker will trip instantaneously. I_i set at $10I_n$.

Test No.	I	Breaker status	Conventional time
1	$80\%I_i$	Non-tripping	$\geq 0.2s$
2	$120\%I_i$	Tripping	$\leq 0.2s$

Magnetic

The circuit breaker equipped with magnetic release is mainly for protection of the motor.

Short circuit protection: magnetic protection I_i (Fixed)

Magnetic protection achieves short circuit protection through a magnetic trip device. The circuit breaker will trip instantaneously. I_i set at $12I_n$

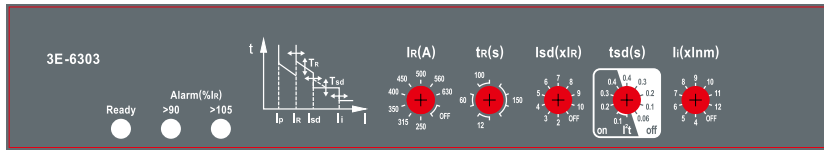
Test No.	I	Breaker status	Conventional time
1	$80\%I_i$	Non-tripping	$\geq 0.2s$
2	$120\%I_i$	Tripping	$\leq 0.2s$

HDM3/3L/3E Series MCCB

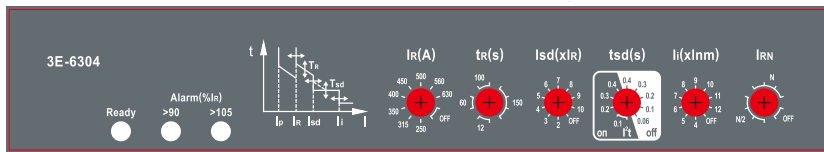


Electronic trip unit HDM3E-125~800

3P controller



4P controller



Controller Description

- I_R : Overload long delay setting current
- I_{sd} : Short-circuit short delay setting current
- I_i : Short-circuit instantaneous setting current
- Ready : Run light
- $> 90\%I_R$: pre-alarm light
- : LSI three section protection curve

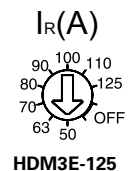
- t_R : Overload long delay setting time
- t_{sd} : Short-circuit short delay setting time
- I_{RN} : Short-circuit short delay setting time
- Alarm : Alarm light
- $>105\%I_R$: Overload alarm light

1) Overload long delay setting current I_R

Adjust I_R knob, can select the different current value of HDM3E, to satisfy the rated operating current requirement of different electrical wiring.

Following sketch is the adjust knob: I_R

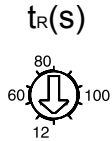
Product Type	Overload long delay current protection feature setting value I_R (A)	Remark
HDM3E-125 32A	14,16,18,20,25,28,30,32	OFF means close overload long delay protection
HDM3E-125 63A	32,36,40,45,50,56,60,63	OFF means close overload long delay protection
HDM3E-125 100A	40,45,50,63,70,80,90,100	OFF means close overload long delay protection
HDM3E-125 125A	50,63,70,80,90,100,110,125	OFF means close overload long delay protection
HDM3E-250 160A	80,90,100,110,125,140,150,160	OFF means close overload long delay protection
HDM3E-250 250A	100,125,140,160,180,200,225,250	OFF means close overload long delay protection
HDM3E-400 400A	160,200,225,250,300,315,350,400	OFF means close overload long delay protection
HDM3E-630 630A	250,315,350,400,450,500,560,630	OFF means close overload long delay protection
HDM3E-800 800A	350,400,450,500,560,630,700,800	OFF means close overload long delay protection



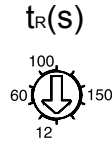
HDM3/3L/3E Series MCCB



2) Overload long delay setting time t_R



HDM3E-125/250



HDM3E-400/630/800

t_R Action time @ $2I_R$

The following table is action value corresponding for different overload long delay time when the fault current is $1.5I_R$, $2I_R$, $6I_R$

Actual Current	Action time to different knob t_R (s), accuracy $\pm 10\%$, $t = (2I_R / I)^2 \times t_R$				
	12	60	80	100	150
$1.5I_R$	21.3	106.7	142.2	177.8	266.7
$2I_R$	12	60	80	100	150
$6I_R$	1.33	6.67	8.89	11.11	16.67

As example of HDM3E-400 product, how to set the overload long delay setting current and time. If select I_R 300, T_r is 60.

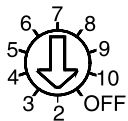
When overload current is $1.5I_R$ (450A), the range of overload action time is $106.7 \pm 10.67s$. When overlaod current is $2I_R$ (600A), the range of overload action time is $60 \pm 6s$.

When overlaod current is $6I_R$ (1800A), the range of overload action time is $6.67 \pm 0.667s$.

It is the same theroy for the other section knob value.

3) Short-circuit short delay setting current I_{sd}

$I_{sd} (\times I_R)$

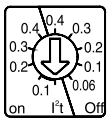


Selection knob of short-circuit short delay setting current I_{sd} : 2、 3、 4、 5、 6、 7、 8、 9、 10、 OFF

Setting current I_{sd} vaule is the tap position of xI_R (can adjust by overload tripping current setting value) OFF means close the action option of short-circuit short delay time .

4) Short-circuit short delay setting time t_{sd}

$t_{sd}(s)$



Short time delay protection is used to ensure the selectivity coordination with the downstream circuit breakers. There are I^2t ON (inverse time limit) and I^2t OFF (fixed time limit) two type. The following table is the value of short delay tripping

time t_{sd} : $t = (8I_{sd} / I)^2 \times t_{sd}$

t_{sd} action time@ $8I_{sd}$

I^2t ON @ $8I_{sd}$	Setting time $t_{sd}(s)$	-	0.1	0.2	0.3	0.4
	$I > 8I_R$ delay time(s)	-	0.1	0.2	0.3	0.4
I^2t OFF	Setting time $t_{sd}(s)$	0.06	0.1	0.2	0.3	0.4
	Return time(ms)	20	80	140	230	350
	Max break time(ms)	100	140	220	320	500

As example of HDM3E-250, how can we set inverse time limit setting time of short-circuit short delay.

If I_R is selected 200, I_{sd} is selected on $2xI_R$ position, t_{sd} is selected on I^2t ON, t_{sd} is selected on 0.2 position When short-circuit current is $2xI_R$ (400A), the short-circuit short time delay action time is 3.2s.

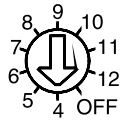
Note: when $I_R = OFF$, short-circuit short delay action current I_{sd} is matching to I_{nm} .

HDM3/3L/3E Series MCCB



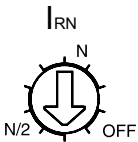
5) Short-circuit Instantaneous setting current $I_i (\times I_{nm})$

$I_i (\times I_{nm})$



Short-circuit Instantaneous setting current $I_i (\times I_{nm})$	HDM3E-125/250 /400/630/800	(4,5,6,7,8,9,10,11,12,OFF) $\times I_{nm}$
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6) Neutral phase setting protection $I_{RN} (\times I_R / I_{nm})$



Setting current I_{RN} value selected knob is $\times I_R / I_{nm}$. Neutral phase protection is special for 4 poles circuit breakers. There are three type:

- OFF: Close neutral phase protection function, used for power distribution system without neutral protection situation
- N/2: Used for neutral phase wiring conductor cross-section equal to half of phase line of power distribution system long time delay, short time delay are also equal to the 1/2 of setting value of phase line protection in this status
- N: Used for neutral phase wiring conductor cross-section equal to phase line of power distribution system long time delay, short time delay instantaneous setting value are also equal to setting value of phase line protection in this status.

Note: When I_R is OFF, controller will automatically use the basic reference (I_{nm}) current as the neutral phase protection

7) Controller working status indicate

Following table is status of Run indicate light(Ready), Alarm indicate light(Alarm):

Run status	Ready	Alarm		Remark
	Green	Yellow	Red	
Normal	Blink	Extinguish	Extinguish	$I < 0.9 I_R$
Pre-alarm	Blink	Blink	Extinguish	$0.9 I_R \leq I \leq I_R$
Tripping	Extinguish	Extinguish	Extinguish	$1.05 I_R < I$

Note:

- 1, I is current of main circuit, I_R is overload long time delay setting current value.
- 2, When yellow light blink, that means intelligent controller had worker on overload long time delay, setting parameters on the controller board is unavailable in this process.

HDM3/3L/3E Series MCCB



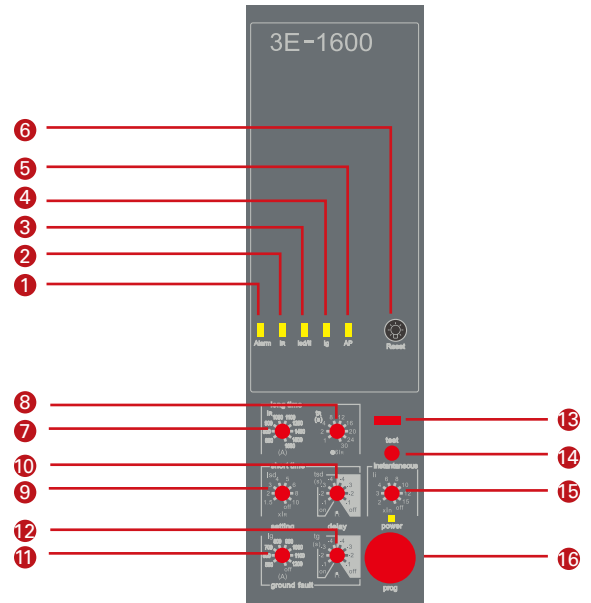
Electronic trip unit HDM3E-1600

Controller Function and Characteristics

3E-1600(Basic type)

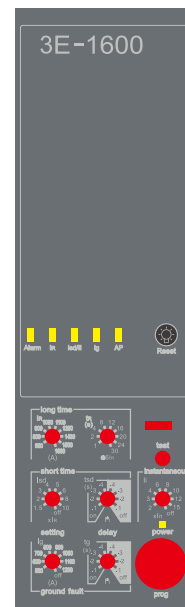
Indicate and button description

- | | |
|---|---------------------------------------|
| ① Alarm indicate light | ⑨ Short time delay Isd |
| ② Long time delay tripping indicate | ⑩ Short time delay tripping delay tsd |
| ③ Short time delay or Instantaneous tripping indicate | ⑪ Earthing fault tripping Ig |
| ④ Earthing tripping indicate | ⑫ Earthing fault tripping delay tg |
| ⑤ High level protection | ⑬ Lock position |
| ⑥ Reset button | ⑭ Testing button |
| ⑦ Long time delay current setting I_R | ⑮ Instantaneous tripping current |
| ⑧ Long time delay tripping delay t_R | ⑯ Testing connection port |



Electronic unit HDM3E-1600

Protection Function	Long-time delay protection I_R Short-time delay protection I_{sd} Instantaneous protection I_i Earthing protection I_g
Miscellaneous Function	Pre-alarm Self-diagnosis function



3E-1600

HDM3/3L/3E Series MCCB

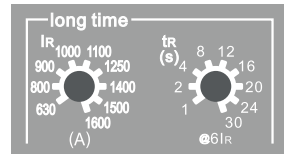


Intelligent controller protection characteristics

Intelligent controller protection characteristics have inverse time limit and fixed time limit. When fault current exceed the setting value of inverse time limit, controller will work on the delay time protection according to fixed time limit setting. Inverse time limit curve conform to characteristics curve $I^2 t$

1) Overload long time dealy protection characteristics I_r

Overload long time delay protection action threshold vaule
 $< 1.05 I_{r}; > 2h$ inaction
 $\geq 1.2 I_{r}$;action delay
 I_r current setting range:630A,800A,900A,1000A,1100A,1250A,1400A,1500A,1600A

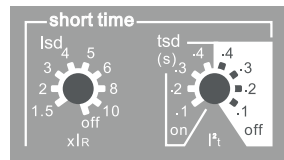


Inverse time limit action characteristics		$I^2 t: t=(6/N)^2 * t_R$							
Setting current	Action time s								
1.5 I _r	16s	32s	64s	128s	192s	256s	320s	384s	480s
2 I _r	9s	18s	36s	72s	108s	144s	180s	216s	270s
6 I _r	1s	2s	4s	8s	12s	16s	20s	24s	30s

Notes: N---- Fault current divide by setting current I/I_r
 t-----Fault action delay time
 t_r ----Long time delay setting value
 Action time permissible error±10%

2) Short-circuit short time dealy protection characteristics I_{sd}

Short-circuit short time delay protection action threshold vaule
 $< 0.9 I_{sd}$ inaction
 $\geq 1.1 I_{sd}$; action delay
 I_{sd} current setting range:1.5 I_r ,2 I_r ,3 I_r ,4 I_r ,5 I_r ,6 I_r ,8 I_r ,10 I_r ,OFF



Setting current	Action time					
I _{sd} < I ≤ 8I _r	Inverse time limit	Action character	$I^2 t = (8I_{sd}/t)^2 t_{sd}$			
		Delay time s	0.1, 0.2, 0.3, 0.4			
I ≥ 1.1I _{sd}	Fixed time limit, returned time is minimum value	Setting time s	0.1	0.2	0.3	0.4
		Min s	0.08	0.14	0.23	0.35
		Max s	0.14	0.2	0.32	0.5

Notes: I_{sd} ---- Short time delay current setting value
 I ---- Fault current value
 I_r ---- Long delay time current setting value
 t ---- Fault action delay time
 t_{sd} ---- Short time delay inverse time limit setting value
 Action time permissible error ± 20%

(The off of time means I² t is inverse time limit closed, this state is fixed inverse limit; use current konb is off, that means short time delay protection function is closed.)

HDM3/3L/3E Series MCCB



3) Instantaneous protection characteristics li

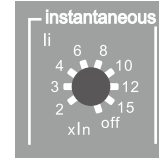
Short-circuit instantaneous protection action threshold value

< 0.85 li inaction

> 1.15 li action

Instantaneous action current setting value 2In, 3In, 4In, 6In, 8In, 10In, 12In, 15In, OFF

Note: Action time permissible error ≤ 50ms.



4) Earthing fault protection action characteristics lg

Earthing fault protection action threshold value

< 0.9 lg;inaction

≥ 1. 1 lg;action delay

Ig current setting range:500A, 600A, 700A, 800A, 900A, 1000A, 1100A, 1200A, OFF

tg(s)	Inverse time limit	Action Charater				
		$t = \frac{(I_f)^2}{I^2} \times t_g$				
Fixed time limit, returned time is minimum value	Settingtime (s)	0.1	0.2	0.3	0.4	
	Settingtime (s)	0.1	0.2	0.3	0.4	
	Min (s)	0.08	0.14	0.23	0.35	
	Max (s)	0.14	0.2	0.32	0.5	

Notes: IJ Earthing protection setting value, IJ =1200A

I Fault current value

T Fault action delay time

tg Earthing inverse time limit setting value

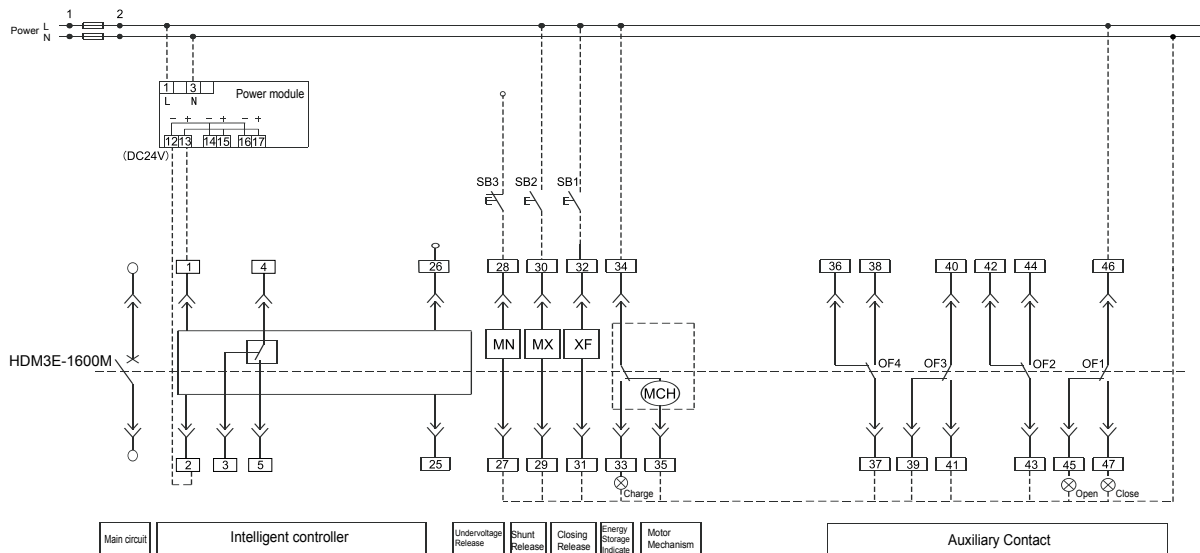
Inverse time limit action permissible error ± 20%

(The off means is inverse time limit closed, this state is fixed time limit. Use current knob is off, that means earthing protection function is closed.)

5) Intelligent controller setting value

	Long time delay		Short time delay		Instantaneous	Earthing fault		Thermal memory
Tripping curve	I _R	t _R	I _{sd}	t _s	li	I _g	t _g	
I _{2t}	1600A	30s	6In	0.2s	10In	1100A	0.4s	20min

Controller Function and Characteristics



Controller Introduction:

Power: Power supply

1#,2# is auxiliary power DC24V , 1# is connect to positive terminal, and 2# is connect to negative terminal.

SWT: Fault tripping contact outlet(alarm contact)

3#,4#,5# are a set of transfer contact, and 4# is the common terminal, AC 400V,5A.

Note 1: 27#, 28# is under-voltage release terminal, connect from main circuit.

Note 2: controller must connect power supply, when voltage power is AC220~400V, use iAPU334 power module; when power is DC220/110V, use iAPU332D power module.

Note 3: HDM3E-1600M standard equipped with 4 NO 4 NC close contact.

Note 4: MN, MX, XF,MCH are also optional accessories.

Note 5: Terminal 35# can not only be connected to power supply directly, achieve pre-storage energy automatically, but also can connect to the power supply by tandem connection with normal open button (achieve pre-storage energy manually). The dotted line part need connect by user.

Button by users:

SB1—closing button

SB2—opening button

SB3—emergency cut-off button

Components:

MN— Under-voltage release

MX— Shunt release

XF— Closing release

MCH— Motor mechanism

OF1-OF4—Auxiliary contacts

- Function introduction
- In direct current, supply auxiliary power supply for intelligent controller

HDM3/3L/3E Series MCCB



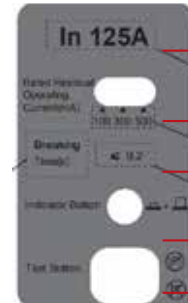
Earth leakage protection

Residual current circuit breakers are used to provide protection against leakage current which may cause insulation failure , electric shock to equipment and human body. HDM3L ELCB also can provide protection against over load & short circuit.

- ① Rated Current In
- ② Rated residual operating current I Δ n
- ③ IBreaking time
- ④ Indicator button
- ⑤ Test button



Time-delayed type
(Time adjustable)



Non-time-delayed type

Rated residual operating current I Δ n:

Adjustable I Δ n can select different value to provide protection against leakage current in different condition.

Product type	Time-delayed type	Non-time-delayed type
	Rated residual operating current I Δ n/mA	
HDM3L-125	100/300/500	30/100/300; 100/300/500
HDM3L-160	100/300/500	30/100/300; 100/300/500
HDM3L-250	100/300/500	30/100/300; 100/300/500
HDM3L-400	100/300/500; 300/500/1000	100/300/500;300/500/1000
HDM3L-630	100/300/500; 300/500/1000	100/300/500;300/500/1000

Limiting non-actuating time

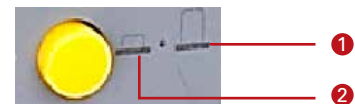
Maximum delay during which a residual current higher than the rated residual non-operating current can be applied to the ELCB without bringing it actually to operate. The limiting non-actuating time is defined at 2 IΔn.

Product type	Time-delayed type
	Limiting non-actuating time(s) @2 IΔn
HDM3L-125	0.1/0.2/0.3; 0.4/0.5/1
HDM3L-160	0.1/0.2/0.3; 0.4/0.5/1
HDM3L-250	0.1/0.2/0.3; 0.4/0.5/1
HDM3L-400	0.1/0.2/0.3; 0.4/0.5/1
HDM3L-630	0.1/0.3/0.5

For Non-time-delayed type ELCB, break times ≤ 0.2S

Indicator button

- ① Status means that breaker is tripped by leakage current.
- ② Status means that if breaker is tripped, it is caused by overload or short circuit



Test button

It is used to simulate the passing through the detecting device of a residual current, in order to allow periodic testing of the ability of ELCB to operate.

Attention:

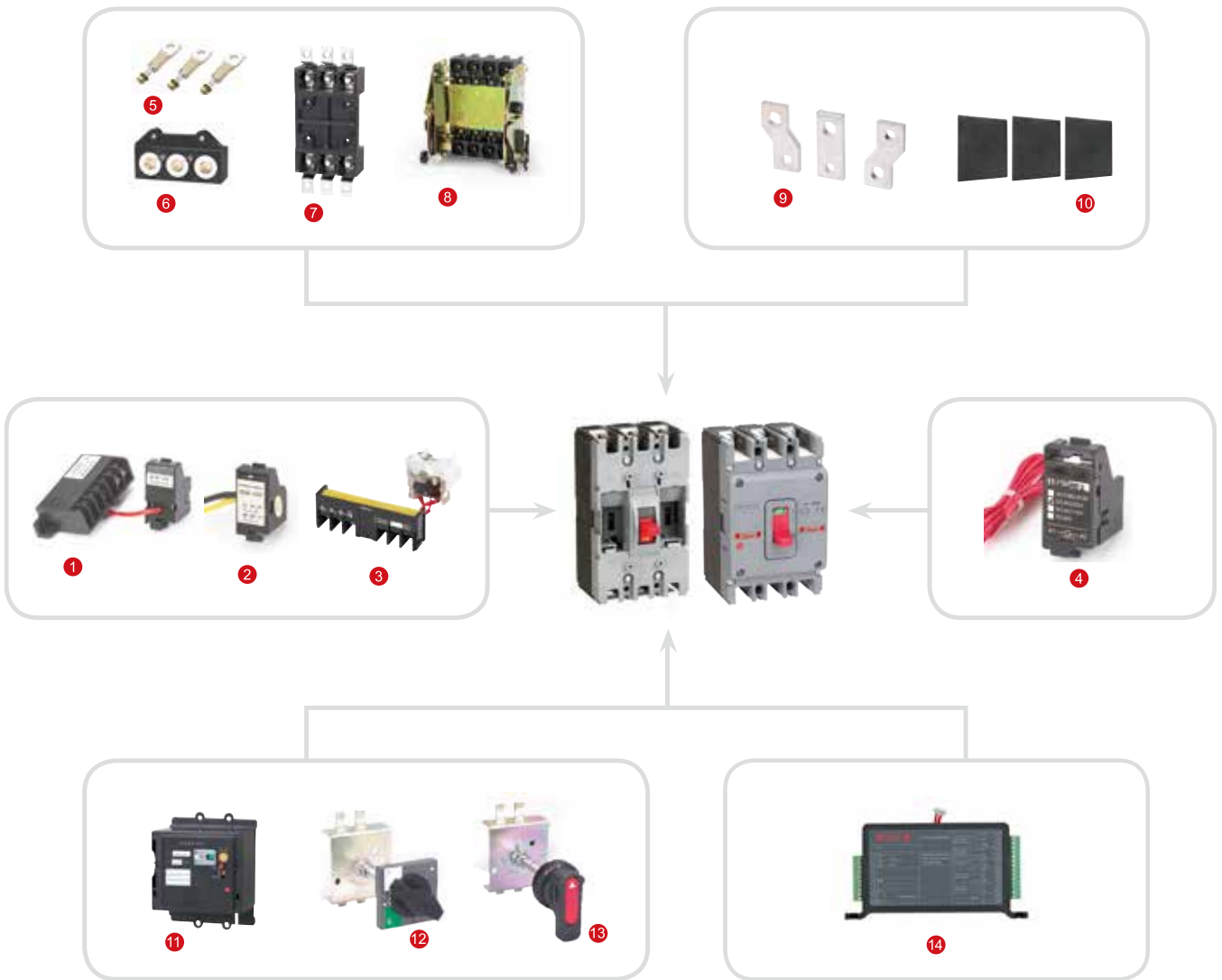
Wiring power input from load side is not permitted.

HDM3/3L/3E Series MCCB



Accessories HDM3/HDM3L/HDM3E 125-800

Overview of Accessories



1	Undervoltage release	6	Plug-in rear connection	11	Electric operating mechanism
2	Auxiliary contact	7	Plug-in front connection	12	Square handle operating mechanism
3	Alarm contact	8	Withdrawable connection	13	Round handle operating mechanism
4	Shunt release	9	Extension terminal	14	Modbus RTU (for HDM3E 125-800)
5	Fixed rear connection	10	Interphase barriers		

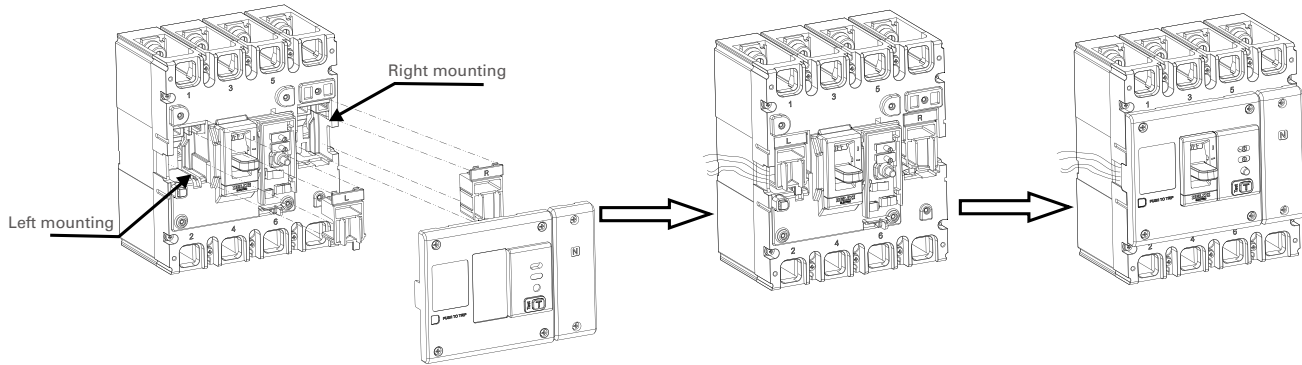
*Note: For more information about the accessories, please download MCCB catalogue from Himel website.

HDM3/3L/3E Series MCCB



Internal Accessories

Accessories installation



Take the top cover down, and put accessories into left and right chamber of the middle cover and compress it. and install the top cover, tighten the screws. An accessory can be installed in the left or right position, including shunt release, undervoltage release, auxiliary contact, alarm and auxiliary contact.

Auxiliary contact

An accessory connected in the auxiliary circuit of the switching device to indicate the circuit breaker status of ON, OFF or TRIP

Electrical wiring diagram

Accessory name	ON	OFF/TRIP
Auxiliary		



Electrical parameters

Conventional Thermal Current		3A	
Use category		AC 15	DC 13
Working electricity 50Hz	AC 400V	0.3A	/
	DC 220V	/	0.15A

Alarm contact

An accessory used to indicate the circuit breaker status of ON, OFF or TRIP. When the alarm contact indicates that the circuit breaker is at Trip status, there are the following five possibilities

- Overload or short circuit fault
- Manual test button trip
- Line fault and undervoltage release action
- Residual current fault
- Shunt release action

Electrical wiring diagram

Accessory name	ON	OFF/TRIP
Alarm		

Electrical parameters

Conventional Thermal Current		3A	
Use category		AC 15	DC 13
Working electricity 50Hz	AC 400V	0.3A	/
	DC 220V	/	0.15A

HDM3/3L/3E Series MCCB



Undervoltage release

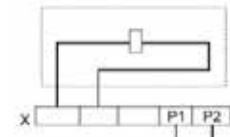
- The undervoltage release shall reliably trip the circuit breaker at the voltage between 35% and 70% of the rated operational voltage;
- The undervoltage release shall ensure that the circuit breaker can be switched on at the voltage between 85% and 110% of the rated operational voltage;
- The undervoltage release shall prevent the circuit breaker from switching on when voltage is below 35% of the rated operational voltage

Electric wiring diagram of undervoltage release

Note: X- terminal block

Note: In the dashed box,

it is the wiring diagram of accessories in the circuitbreaker.



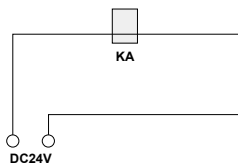
Power input

Product type	Undervoltage release power consumption(W)	
	AC400V	AC230V
HDM3-100L/S	4	3.1
HDM3-100T/N HDM3L-125	3.9	3.2
HDM3-160/250 HDM3L-160/250 HDM3E-125/250	4.3	3.3
HDM3-400 HDM3L-400 HDM3E-400	3.6	2.5
HDM3-630 HDM3E-630/800	3.4	2.5
HDM3-800 HDM3L-630	2	1.6

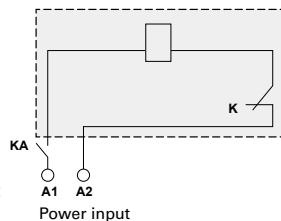
Shunt release

>The shunt release shall reliably trip the circuit breaker at the voltage between 70% and 110% of the rated control power voltage U

>The circuit breaker shall be reset on the site after tripping through the shunt release.



KA: DC24V intermediate relay with the contact current capacity of 1A



Product type	Shunt release power loss(W)		
	AC400V	AC230V	DC24V
HDM3-100L/S	91.6	76.1	91.2
HDM3-100T/N HDM3L-125	96.8	73	91.2
HDM3-160/250 HDM3L-160/250 HDM3E-125/250	112	68.6	85.3
HDM3-400 HDM3L-400 HDM3E-400	67	62.3	100
HDM3-630 HDM3E-630/800	68	58.2	100
HDM3-800 HDM3L-630	163	153	120

HDM3/3L/3E Series MCCB



External accessories

	Fixed front	Fixed rear	Plug-in front	Plug-in rear	Withdrawable
HDM3-100	■	■	■	■	/
HDM3-160	■	■	■	■	/
HDM3-250 HDM3E-125/250	■	■	■	■	/
HDM3-400 HDM3E-400	■	■	/	■	■
HDM3-630 HDM3E-630	■	■	/	■	■
HDM3-800 HDM3E-800	■	■	/	■	■
HDM3E-1600	■	/	/	/	/

Plug-in

The wiring type is divided into plug-in Rear Connection and plug-in Front Connection. The plug-in connection for the products is easy for maintenance and replacement, but plug-in and plug-out cannot be done with the electricity.



Draw out

The drawer-out products can be easily maintained and replaced. Visual connection and break-up.



Handle

Handle operating mechanism

The circuit breaker can be operated by the rotation of the handle and the ergonomically designed rotation handle makes the operation of the circuit breaker more flexible.



2 types of rotation handle operating mechanisms:

- > Direct rotation handle (round handle operating mechanism and square handle operating mechanism)
- > Extended rotation handle (round extending handle operating mechanism and square extended handle operating mechanism)

User visualization information/settings:

- > 3 position indications: OFF, ON and TRIP
- > The circuit breaker cannot be switched on when the door is open
- > The door cannot be opened when the circuit breaker is switched on
- > The axial length of the extended handle can be custom made according to the distance from the back of the circuit breaker to the door.



HDM3/3L/3E Series MCCB



Rear connection

Easy to install and connect the products in the rear connection.



Expend terminal

The extension terminal is connected to the standard terminal of the circuit breaker, in order to provide many other wiring schemes in the limited space:

- >Direct extension terminal
- >Extension terminal with inter-electrode distance



The busbar and extension terminal can be connected to the inlet or outlet terminal of the circuit breaker.

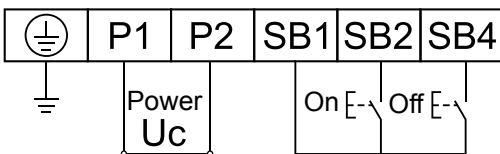
Interphase barriers

The interphase barriers can enhance the insulating performances between phase and phases . They can be installed from the product front even though the products had mounted. Interphase barriers will be offered by standard, 3P product(4pcs), 4P product(6pcs).



Motor

- Apply to remote electric connection, disconnection and re-trip of the circuit breaker and the automation control occasions.
- Rated voltage of electric operating mechanism: AC400V;AC230V/DC220V;AC/DC110V;DC24V
- Operating voltage range of electric operating mechanism: 85%-110% Ue



- There are two types of electric operating mechanisms:
 - CD2 General electric operating mechanism for AC and DC(HDM3-63~800)
- CD2 electric operating voltage and tolerance range:
 - CD2:63A-250A:Operating frequency ≤ 180 times/hour and actuation ; time \leq greater than 0.7s
 - CD2:400A-630A:Operating frequency of ≤ 60 times/hour; actuation time ≤ 1 s
- The voltage tolerance range is 184~253VAC/187~242VDC when the rated control power voltage is 230VAC/220VDC.
 - The voltage tolerance range is 320~440VAC when the rated control power voltage is 400VAC.
 - As for different operating forces of the circuit breaker, the switch with relatively small force can be normal.

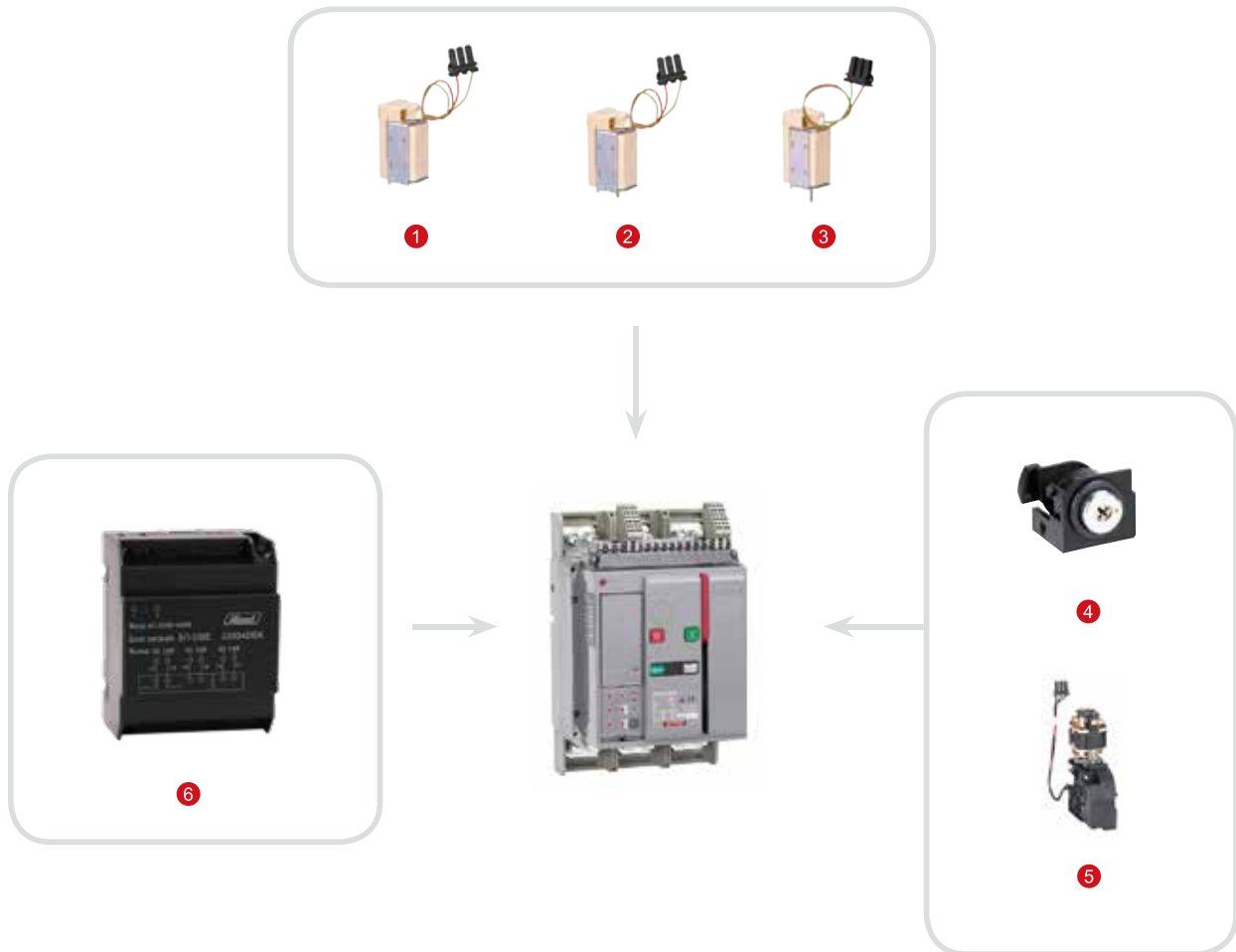


HDM3/3L/3E Series MCCB



Accessories HDM3E 1600

Overview of Accessories



1 Close release

2 Shunt release

3 Undervoltage release

4 Key lock

5 Motor

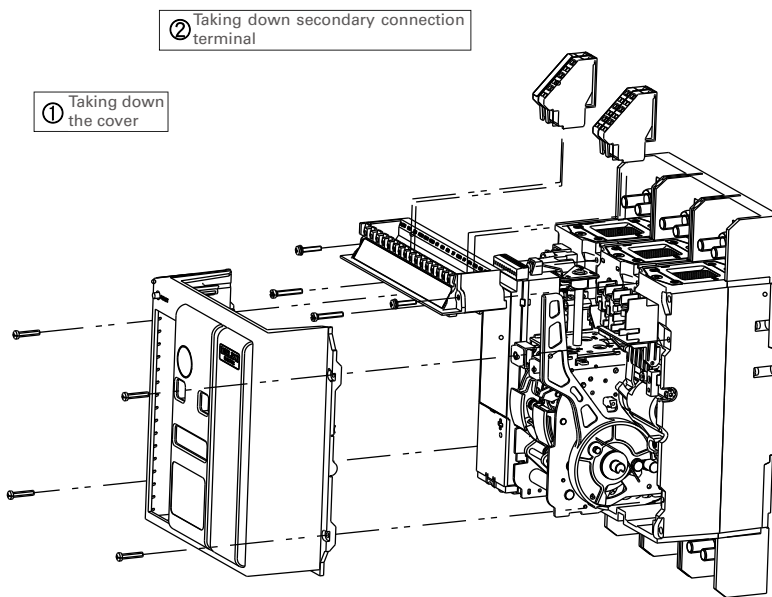
6 Power Module

HDM3/3L/3E Series MCCB



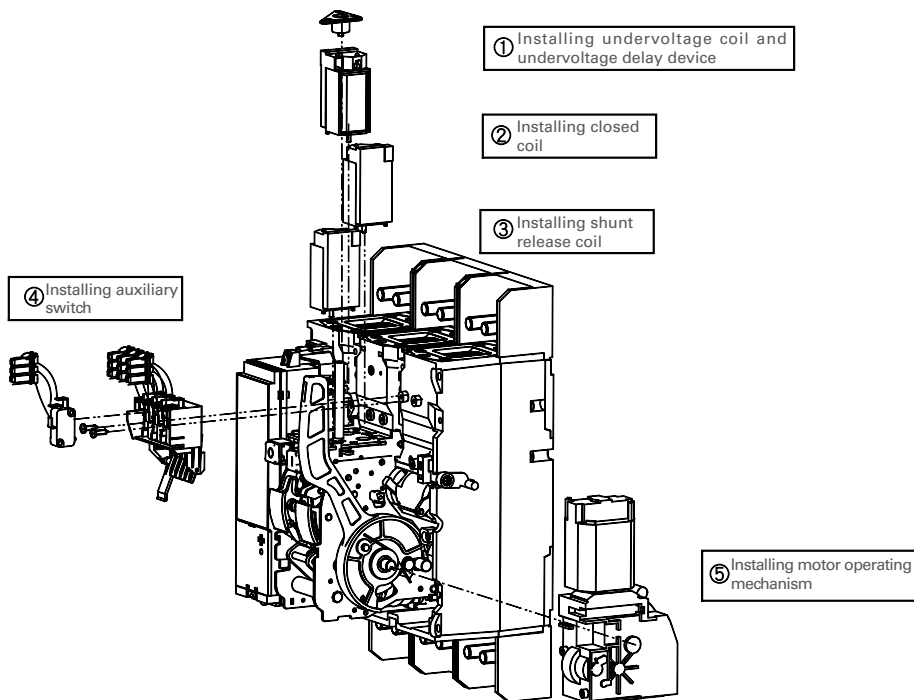
HDM3E 1600 Accessories install and wiring

Taking down the cover and secondary connection terminal.



Danger:
Make sure power supply shut down before installation

Installing coil, motor operating mechanism and auxiliary contact

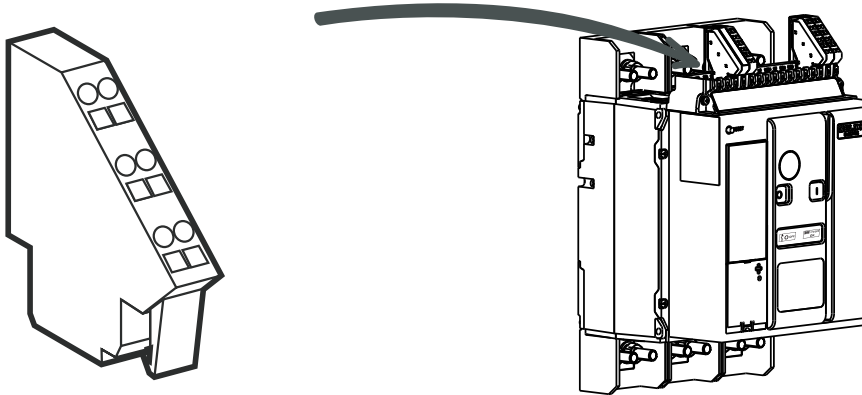


HDM3/3L/3E Series MCCB

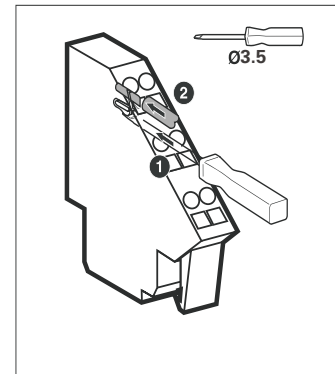
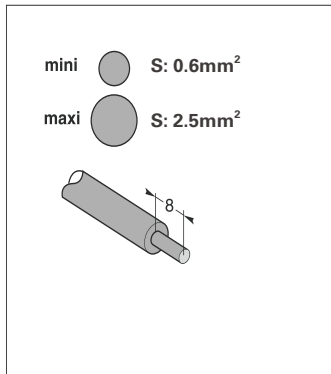


Fixing auxiliary terminal

Fixed type
Inserting auxiliary terminal into groove directly



Wiring for auxiliary terminal



Sectional area of wire
Min 0.6mm²
Max 2.5mm²
The stripper wire needs at least 8mm

- 1 Insert screwdriver into the box and press down
- 2 Meanwhile insert wire into circle
- 3 Release screwdriver, make sure wire connect with auxiliary terminal

Terminal layout

DC24V

Res(SWT2)	UM	ZSI	Pow	SWT	Com	CT	MN	MX	XF	MCH	PF	OF4	OF3	OF2	OF1
	22	13 17	1	5	10	25	27	29	31	35		38	41	44	47
	23	16 19		3	12					33		36	39	42	45
	21 24	14 15	2	4	11	26	28	30	32	34		37	40	43	46
Control Unit							Remote Operating					Auxiliary Switch			

1. Check terminal serial number
2. Inserting same serial number of connection port
3. Pow 1,2 is DC24V power supply port, make sure use with DC 24V from factory. Note:DC24V can be positive and negative connection, do not access directly to 230V power.

HDM3/3L/3E Series MCCB



Undervoltage release

- Function introduction
- The under-voltage release automatically opens a circuit breaker when voltage drops to a value ranging between 35% to 70% of the line voltage. After tripping the circuit breaker cannot be re-closed again when the voltage goes below 35% or until it returns to 85% of line voltage. Under-voltage relay release makes the breaker break in 1s-3s (adjustable)



Accessory parameter	
Rated operational voltage V	AC400V AC230V
Operational voltage	$(0.35-0.7)U_e$
Dependable closing voltage	$(0.85-1.1)U_e$
Unable closing voltage	$\leq 0.35U_e$
Consumption	12VA
Delay time	1s-3s

Shunt release

- Function introduction
- When the breaker is stored and under specified voltage, Shunt release can make the breaker break through long-distance remote control.



Accessory parameter	
Rated operational voltage V	AC230V AC400V DC220V
Operation voltage	$(0.7-1.1)U_s$
Consumption	300VA(AC) 40W(DC)
Breaking time	<30ms

Closing release

- Function introduction
- When the breaker is stored and under specified voltage, Shunt release can make the breaker close through long-distance remote control.

Accessory parameter	
Rated operational voltage V	AC230V AC400V DC220V
Operational voltage	$(0.85-1.1)U_s$
Consumption	300VA(AC) 40W(DC)
Breaking time	<70ms

HDM3/3L/3E Series MCCB



Motor

- When the breaker is open with power supply, MCH can store energy for ACB automatically, thus the breaker can be opened and closed with the operation of MX, MN, XF. It can be manually stored when there is no power.

Accessory parameter	
Rated control power voltage V	AC230V AC400V DC220V
Action voltage	(0.85-1.1)Us
Consumption	150W (maxi.)
Energy storage time	<5s



Power supply

- Function introduction
- In direct current, supply auxiliary power supply for intelligent controller

Accessory parameter		
Model	Input	Output
IAPU334	AC220V~400V	DC24V 0.4A
IAPU332D	DC220V/110V	



HDM3/3L/3E Series MCCB

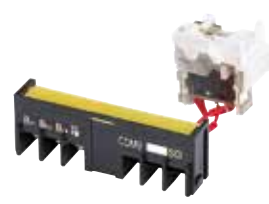


Accessories Selection Guide



Frame size	Contact	Auxiliary contact with wire		Auxiliary contact with Terminal		
		Left	Right	Left	Right 3P	Right 4P
HDM3-100L/S	1NC+1NO	HDM3100SOF11K1BL	HDM3100SOF11K1BR	HDM3100SOF21K1BL	HDM3100SOF21K1BR3	HDM3100SOF21K1BR4
HDM3-100T/N HDM3L-125	1NC+1NO	HDM3100FNOF11K1BL	HDM3100FNOF11K1BR	HDM3100FNOF21K1B	HDM3100FOF21K1BR3	HDM3100FOF21K1BR4
HDM3-160/250 HDM3E-125/250 HDM3L-160/250	1NC+1NO	HDM3250OF11K1BL	HDM3250OF11K1BR	HDM3250OF21K1BL	HDM3250OF21K1BR3	HDM3250OF21K1BR4
	2NC+2NO	HDM3E250OF12K2BL	HDM3E250OF12K2BR	HDM3E250OF22K2BL	HDM3E250OF22K2BR3	HDM3E250OF22K2BR4
HDM3-400/630 HDM3E-400/630/800 HDM3L-400	1NC+1NO	HDM3630OF11K1BL	HDM3630OF11K1BR	HDM3630OF21K1BL	HDM3630OF21K1BR3	HDM3630OF21K1BR4
	2NC+2NO	HDM3E630OF12K2BL	HDM3E630OF12K2BR	HDM3E630OF22K2BL	HDM3E630OF22K2BR3	HDM3E630OF22K2BR4
HDM3-800 HDM3L-630	1NC+1NO	HDM3800OF11K1BL	HDM3800OF11K1BR	HDM3800OF21K1BL	HDM3800OF21K1BR3	HDM3800OF21K1BR4

Note: Right side mounted part is not adept with HDM3L MCCB



Frame size	Alarm contact with wire		Alarm contact with Terminal		
	Left	Right	Left	Right 3P	Right 4P
HDM3-100L/S	HDM3100SAL1L	HDM3100SAL1R	HDM3100SAL2L	HDM3100SAL2R3P	HDM3100SAL2R4P
HDM3-100T/N HDM3L-125	HDM3100FNAL1L	HDM3100FNAL1R	HDM3100FNAL2L	HDM3100FNAL2R3P	HDM3100FNAL2R4P
HDM3-160/250 HDM3E-125/250 HDM3L-160/250	HDM3250AL1L	HDM3250AL1R	HDM3250AL2L	HDM3250AL2R3P	HDM3250AL2R4P
HDM3-400/630 HDM3E-400/630/800 HDM3L-400	HDM3630AL1L	HDM3630AL1R	HDM3630AL2L	HDM3630AL2R3P	HDM3630AL2R4P
HDM3-800 HDM3L-630	HDM3800AL1L	—	HDM3800AL2L	—	—

Note: Right side mounted part is not adept with HDM3L MCCB

HDM3/3L/3E Series MCCB



Frame size	Auxiliary Alarm with wire		Auxiliary Alarm with Terminal		
	Left	Right	Left	Right 3P	Right 4P
HDM3-100L/S	HDM3100SOFAL1L	HDM3100SOFAL1R	HDM3100SOFAL2L	HDM3100SOFAL2R3P	HDM3100SOFAL2R4P
HDM3-100T/N HDM3L-125	HDM3100FNOFAL1L	HDM3100FNOFAL1R	HDM3100FNOFAL2L	HDM3100FNOFAL2R3	HDM3100FNOFAL2R4
HDM3-160/250 HDM3E-125/250 HDM3L-160/250	HDM3250OFAL1L	HDM3250OFAL1R	HDM3250OFAL2L	HDM3250OFAL2R3P	HDM3250OFAL2R4P
HDM3-400/630 HDM3E-400/630/800 HDM3L-400	HDM3630OFAL1L	HDM3630OFAL1R	HDM3630OFAL2L	HDM3630OFAL2R3P	HDM3630OFAL2R4P
HDM3-800 HDM3L-630	HDM3800OFAL1L	—	HDM3800OFAL2L	—	—

Note: Right side mounted part is not adept with HDM3L MCCB



Frame size	Under voltage release with Terminal	
	Voltage	Left
HDM3-100L/S	AC230V	HDM363MNA2L
	AC400V	HDM363MNA3L
HDM-100T/N HDM3L-125	AC230V	HDM3100FNMA2L
	AC400V	HDM3100FNMA3L
HDM3-160/250 HDM3L-160/250 HDM3E-125/250	AC230V	HDM3E125250MNA2L
	AC400V	HDM3E125250MNA3L
HDM3-400/630 HDM3L-400 HDM3E-400/630/800	AC230V	HDM3E400630MNA2L
	AC400V	HDM3E400630MNA3L
HDM3-800 HDM3L-630	AC230V	HDM3800MNA2L
	AC400V	HDM3800MNA3L

Under voltage release with Terminal

HDM3/3L/3E Series MCCB



Frame size	Voltage	Shunt release with wire		Shunt release with Terminal		
		Left	Right	Left	Right 3P	Right 4P
HDM3-100L/S	AC230V	—	HDM3100SMX1A2	—	HDM3100SMX2A23P	HDM3100SMX2A24P
	AC400V	—	HDM3100SMX1A3	—	HDM3100SMX2A33P	HDM3100SMX2A34P
	DC24V	—	HDM3100SMX1D2	—	HDM3100SMX2D23P	HDM3100SMX2D24P
HDM3-100T/N	AC230V	HDM3100FNMX1A2L	HDM3100FNMX1A2	HDM3100FNMX2A2L	HDM3100FNMX2A23P	HDM3100FNMX2A24P
	AC400V	HDM3100FNMX1A3L	HDM3100FNMX1A3	HDM3100FNMX2A3L	HDM3100FNMX2A33P	HDM3100FNMX2A34P
	DC24V	HDM3100FNMX1D2L	HDM3100FNMX1D2	HDM3100FNMX2D2L	HDM3100FNMX2D23P	HDM3100FNMX2D24P
HDM3-160/250 HDM3E-125/250 HDM3L-160/250	AC230V	HDM3250MX1A2L	HDM3250MX1A2	HDM3250MX2A2L	HDM3250MX2A23P	HDM3250MX2A24P
	AC400V	HDM3250MX1A3L	HDM3250MX1A3	HDM3250MX2A3L	HDM3250MX2A33P	HDM3250MX2A34P
	DC24V	HDM3250MX1D2L	HDM3250MX1D2	HDM3250MX2D2L	HDM3250MX2D23P	HDM3250MX2D24P
	DC110V	—	HDM3E125250MX1D11	—	HDM3E250MX2D113P	HDM3E250MX2D114P
	DC220V	—	HDM3E125250MX1D22	—	HDM3E250MX2D223P	HDM3E250MX2D224P
HDM3-400/630 HDM3E-400/630/800 HDM3L-400	AC230V	HDM3630MX1A2L	HDM3630MX1A2	HDM3630MX2A2L	HDM3630MX2A23P	HDM3630MX2A24P
	AC400V	HDM3630MX1A3L	HDM3630MX1A3	HDM3630MX2A3L	HDM3630MX2A33P	HDM3630MX2A34P
	DC24V	HDM3630MX1D2L	HDM3630MX1D2	HDM3630MX2D2L	HDM3630MX2D23P	HDM3630MX2D24P
	DC110V	—	HDM3E400630MX1D11	—	HDM3E630MX2D113P	HDM3E630MX2D114P
	DC220V	—	HDM3E400630MX1D22	—	HDM3E630MX2D223P	HDM3E630MX2D224P
HDM3-800 HDM3L-630	AC230V	HDM3800MX1A2L	HDM3800MX1A2R	HDM3800MX2A2L	HDM3800MX2A2R3P	HDM3800MX2A2R4P
	AC400V	HDM3800MX1A3L	HDM3800MX1A3R	HDM3800MX2A3L	HDM3800MX2A3R3P	HDM3800MX2A3R4P
	DC24V	HDM3800MX1D2L	HDM3800MX1D2R	HDM3800MX2D2L	HDM3800MX2D2R3P	HDM3800MX2D2R4P

Note: Right side mounted part is not adept with HDM3L MCCB

HDM3/3L/3E Series MCCB



Front connection



Rear connection

Frame size	Plug-in		
	Connection type	3P	4P
HDM3-100L/S	Front connection	HDM3100SPFC3	HDM3100SPFC4
	Rear connection	HDM3100SPRC3	HDM3100SPRC4
HDM3-100T/N	Front connection	HDM3100FNPF3	HDM3100FNPF4
	Rear connection	HDM3100FNPR3	HDM3100FNPR4
HDM3-160/250L/S	Front connection	HDM3250SPFC3	HDM3250SPFC4
	Rear connection	HDM3250SPRC3	HDM3250SPRC4
HDM3-160/250M/F/T/N HDM3E-125/250	Front connection	HDM3E125250PFC3	HDM3E125250PFC4
	Rear connection	HDM3E125250PRC3	HDM3E125250PRC4
HDM3-400 HDM3E-400 HDM3-630 HDM3E-630	Rear connection	HDM3E630PRC3	HDM3E630PRC4
HDM3-800	Rear connection	HDM3800PRC3	HDM3800PRC4
HDM3E-800	Rear connection	HDM3E800PRC3	HDM3E800PRC4



Frame size	Motor		
	AC230V	AC400V	DC220V
HDM3-100L/S	HDM3100SD1A2	HDM3100SD1A3	HDM3100SD2
HDM3-100T/N	HDM3100FND1A2	HDM3100FND1A3	HDM3100FND2
HDM3-160/250L/S HDM3-160/250M/F/T/N	HDM3250FD1A2	HDM3250FD1A3	HDM3250FD2
HDM3E-125/250	HDM3E125250D2	HDM3E125250D4	—
HDM3-630 HDM3E-630	HDM3630D1A2	HDM3630D1A3	HDM3630D2
HDM3-800	HDM3800D1A2	HDM3800D1A3	—
HDM3E-800	HDM3E800D2	HDM3E800D4	—

HDM3/3L/3E Series MCCB



Frame size	Rotation Handle		
	Handle shape	Direct	Extended (Default 150mm)
HDM3-100L/S	Round	HDM3100SH1	HDM3100SHL1
	Square	HDM3100SH2	HDM3100SHL2
HDM3-100T/N	Round	HDM3100FNH1	HDM3100FNHL1
	Square	HDM3100FNH2	HDM3100FNHL2
HDM3-160/250	Round	HDM3250H1	HDM3250HL1
	Square	HDM3250H2	HDM3250HL2
HDM3-400/630	Round	HDM3630H1	HDM3630HL1
	Square	HDM3630H2	HDM3630HL2
HDM3-800	Round	HDM3800H1	HDM3800HL1
	Square	HDM3800H2	HDM3800HL2
HDM3E-125/250	Round	HDM3E125250H1	HDM3E125250HL1
	Square	HDM3E125250H2	HDM3E125250HL2
HDM3E-400/630	Round	HDM3E400630H1	HDM3E400630HL1
	Square	HDM3E400630H2	HDM3E400630HL2
HDM3E-800	Round	HDM3E800H1	HDM3E800HL1
	Square	HDM3E800H2	HDM3E800HL2



Round



Square

Note: Default length of rod is 150mm. On further requirement, please order below rod individually.

	300mm
Under 250A:	HDM3-8x8ROD300
Over 250A:	HDM3-10x10ROD300

Frame size	Draw-out		
	Connection type	3P	4P
HDM3-400 HDM3E-400	Horizontal connection	HDM3E400DOR3	HDM3E400DOR4
HDM3-630 HDM3E-630	Horizontal connection	HDM3E630DOR3	HDM3E630DOR4
HDM3E-800	Horizontal connection	HDM3E800DOR3	HDM3E800DOR4



HDM3/3L/3E Series MCCB



Frame size	Expanding terminal	
	3P(3pcs)	4P(4pcs)
HDM3-100L/S	DM3100FNC3	HDM3100FNC4
HDM3-100T/N HDM3L-125		
HDM3-160/250L/S HDM3-160/250M/F/T/N HDM3L-160/250 HDM3E-125/250	HDM3250C3	HDM3250C4
HDM3-400 HDM3L-400 HDM3E-400	HDM3400C3	HDM3400C4
HDM3-630 HDM3E-630	HDM3630C3	HDM3630C4
HDM3-800 HDM3E-800 HDM3L-630	HDM3E800C3	HDM3E800C4



Frame size	Modbus RTU module
HDM3E-125	HDM3ECOM
HDM3E-250	
HDM3E-400	
HDM3E-630	
HDM3E-800	



Frame size	Interphase barriers	
	3P(2pcs)	4P(3pcs)
HDM3-100L/S	HDM3100SIB3	HDM3100SIB4
HDM3-100T/N HDM3L-125	HDM3100FNIB3	HDM3100FNIB4
HDM3-160/250L/S	HDM3250SIB3	HDM3250SIB4
HDM3-160/250M/F/T/N HDM3L-160/250 HDM3E-125/250	HDM3250FIB3	HDM3250FIB4
HDM3-400 HDM3L-400 HDM3E-400 HDM3-630 HDM3E-630	HDM3630IB3	HDM3630IB4
HDM3-800 HDM3L-630	HDM3800IB3	HDM3800IB4
HDM3E-800	HDM3E800IB3	HDM3E800IB4



HDM3/3L/3E Series MCCB



Frame size	Rear connection	
	3P(6pcs)	4P(8pcs)
HDM3-100L/S	HDM363RC3	HDM363RC4
HDM3-100T/N HDM3L-125	HDM3100FNRC3	HDM3100FNRC4
HDM3-160/250 HDM3L-160/250 HDM3E-125/250	HDM3250RC3	HDM3250RC4
HDM3-400/630 HDM3L-400 HDM3E-400/630	HDM3630RC3	HDM3630RC4
HDM3-800 HDM3E-800 HDM3L-630	HDM3800RC3	HDM3800RC4



Frame size	Terminals	Torque	Cross-section of cable/mm ²	Minimum order quantity
HDM3-100L/S	LUG100S1E (Extend)	12	20~70	84pcs/box
HDM3-100T/N HDM3L-125	LUG100F1 (Normal)	12	20~70	84pcs/box
	LUG100F1E (Extend)	12	20~70	84pcs/box
HDM3-160 HDM3L-160 HDM3E-125	LUG1601 (Normal)	20	25~200	36pcs/box
	LUG1601E (Extend)	20	25~200	24pcs/box
HDM3-160/250 HDM3L-160/250 HDM3E-125/250	— (Normal)	—	—	—
	LUG2502E (Extend)	20	25~150	12pcs/box
HDM3-400 HDM3L-400 HDM3E-400	LUG4001 (Normal)	30	95~240	12pcs/box
	LUG4001E (Extend)	35	50~240	12pcs/box
HDM3-400/630 HDM3L-400 HDM3E-400/630	— (Normal)	—	—	—
	LUG6302E (Extend)	35	50~240	6pcs/box
HDM3-800 HDM3L-630 HDM3E-800	— (Normal)	—	—	—
	LUG8004E (Extend)	35	50~240	3pcs/box



HDM3E-1600A Accessories		
Acc Name	AC230V	AC400V
Close release	HDW3XF2A	HDW3XF3A
Shunt release	HDW3MX2A	HDW3MX3A
Undervoltage release	HDW3MN2A	HDW3MN3A
Motor	HDW3MCH162A	HDW3MCH163A



1600A Accessories		
Acc Name	AC220~400V Input	DC220/110V Input
Power module	IAPU334	IAPU332D

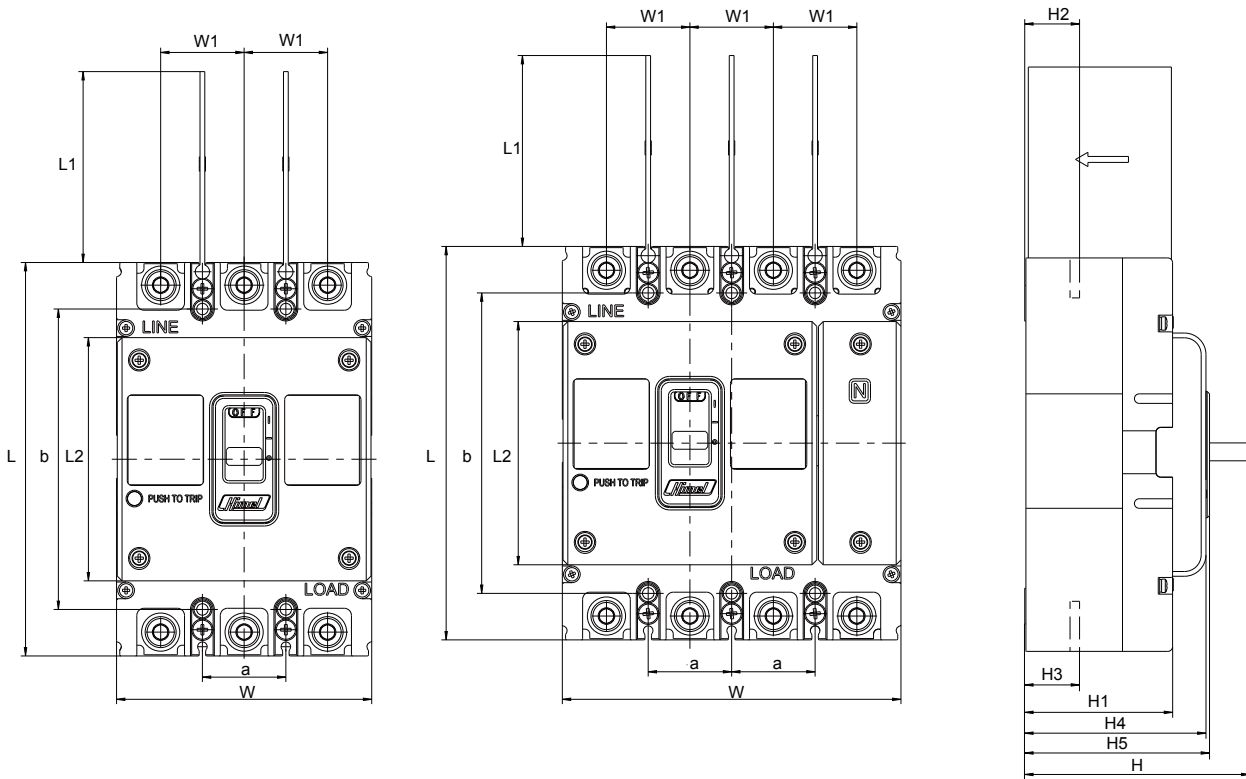


HDM3/3L/3E Series MCCB



Dimensions and connection HDM3/HDM3L/HDM3E 125-800

Fixed MCCB mounting dimension
Front connection(mm)

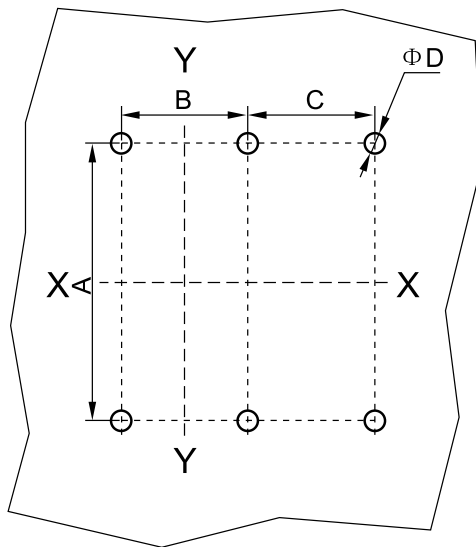


Product type	Poles	Overall dimension											Installation dimension		
		L	L1	L2	W	W1	H	H1	H2	H3	H4	H5	a1	a2	b
HDM3-100L/S	3/4	130	50	83	75/100	25	81.5	54	24	24	68	70.5	25	25	111
HDM3-100T/N HDM3L-125	3/4	150	50	96	92/122	30	111.5	81	28.5	28	93.5	95.5	30	30	129
HDM3-160/250S	3/4	165	50	102	107/142	35	94.5	62	23	23	76	77.5	35	35	126
HDM3-160/250FN HDM3L-160/250	3/4	165	80	102	107/142	35	112.5	80	23	23	94	95.5	35	35	126
HDM3E-125								86	21.5						
HDM3E-250								86	23						
HDM3-400 HDM3L-400	3/4	257	104.5	102	150/198	48	145.9	96.2	36	36.5	107.5	112.5	44	-	215
HDM3E-400				161.5											
HDM3-630				150											
HDM3E-630				161.5											
HDM3L-630	3/4	280	102	102	210/280	70	160	108	40.5	41.5	111	119	70	70	243
HDM3-800	3/4	280	104.5	102	210/280	70	146.5	97.5	32.5	35.5	100	114	70	70	243
HDM3E-800				154			103	40.5	47	116	121				

HDM3/3L/3E Series MCCB



Fixed front installation hole dimensions



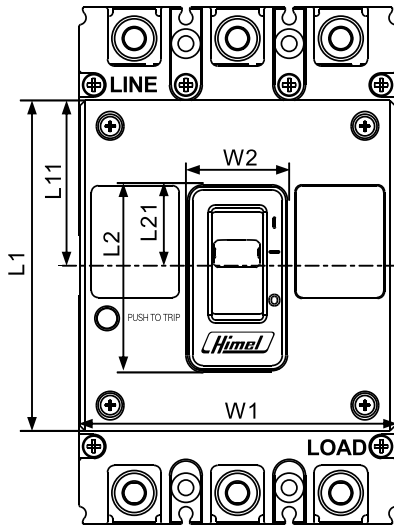
Note: X-X and Y-Y is the center of the three-pole breaker

Product type	Poles	Installation dimension			
		A	B	C	D
HDM3-100L/S	3	111	25	/	4.5
	4	111	25	25	
HDM3-100T/N HDM3L-125	3	129	30	/	5
	4	129	30	30	
HDM3-160/250 HDM3L-160/250	3	126	35	/	5.5
	4	126	35	35	
HDM3-400/630 HDM3L-400	3	215	44	/	6.5
	4	215	44	/	
HDM3L-630	3	243	70	/	7.5
	4	243	70	70	
HDM3-800	3	243	70	/	7.5
	4	243	70	70	
HDM3E-800	3	243	70	/	7.5
	4	243	70	70	

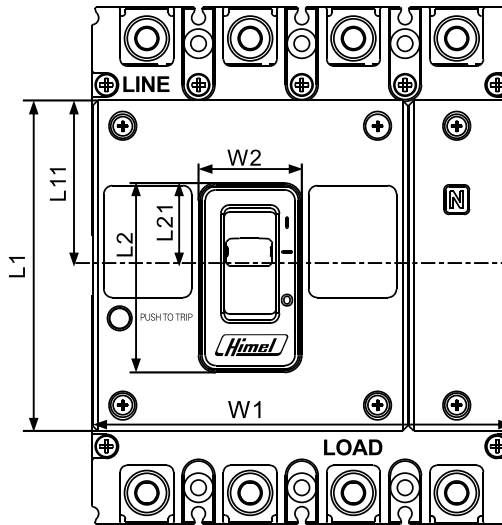
HDM3/3L/3E Series MCCB



Fixed and insert type breaker panel cut off dimensions



HDM3L 125-800 3P



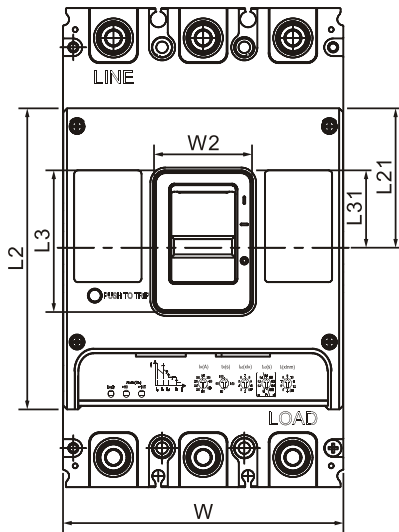
HDM3L 125-800 4P

Model	Poles	Exposed front cover			Exposed toggle handle		
		W1	W2	L11	W2	L2	L21
HDM3-100L/S	3P	75	83	41.5	22	50	26
	4P	100	83	41.5	22	50	26
HDM3-100T/N HDM3L-125	3P	92	96	48	30	55	24
	4P	122	96	48	30	55	24
HDM3-160 HDM3-250 HDM3L-160 HDM3L-250	3P	107	102	51	26	54	27
	4P	142	102	51	26	54	27
HDM3-400 HDM3-630 HDM3L-400	3P	150	150	75	52.5	75.5	41
	4P	198	150	75	52.5	75.5	41
HDM3-800 HDM3L-630	3P	210	200	100	65	105	51
	4P	280	200	100	65	105	51

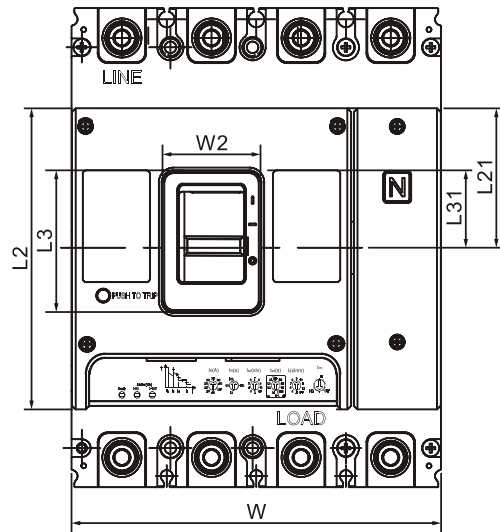
HDM3/3L/3E Series MCCB



Hole dimensions of fixed and inserted panels (mm)



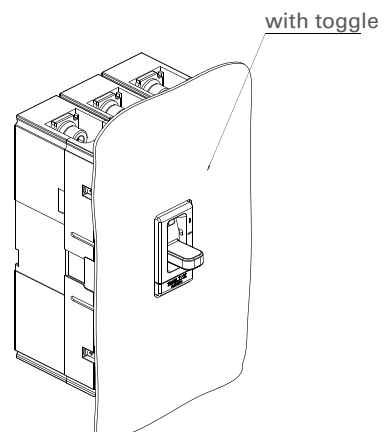
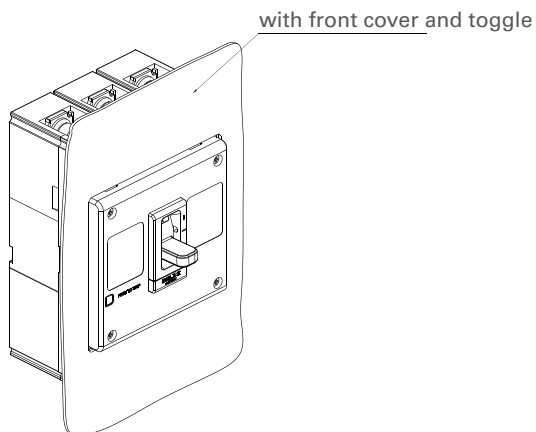
HDM3E 125-800 4P



HDM3E 125-800 4P

Notes: dimension shown in the table is the actual dimension of the product
Please control the clearance of installation on your own

Product Model	Poles	Exposed Panel and toggle handle			Only the toggle handle is exposed		
		W	L2	L21	W2	L3	L31
HDM3E-125/250	3	107	102.5	51	26	50.5	26.5
	4	142					
HDM3E400/630	3	150	161.5	75	52.5	75.5	41
	4	198					
HDM3E-800	3	210	170	67.5	55	85	42.5
	4	280					

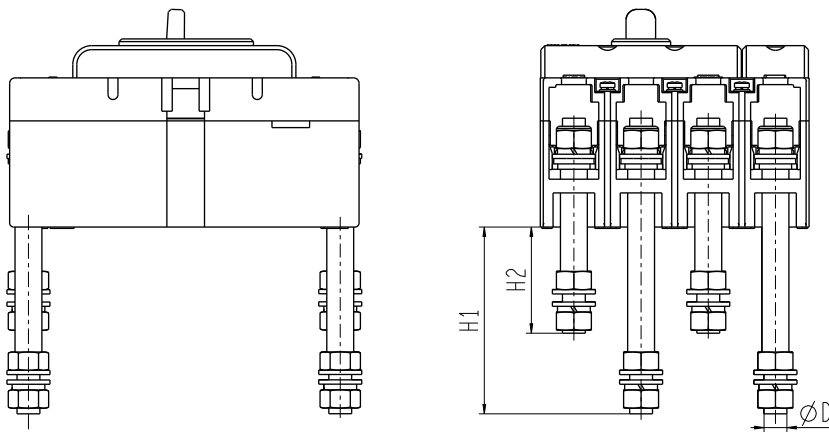


HDM3/3L/3E Series MCCB



Rear connection (mm)

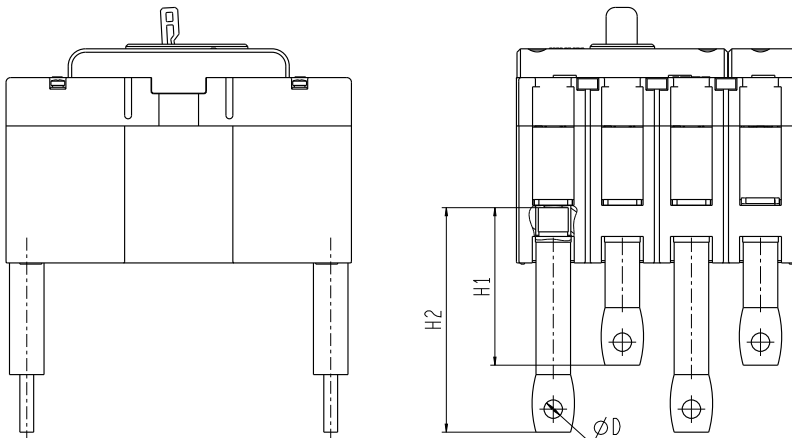
Product type	H1	H2	D
HDM3-100L/S	80	67	8
HDM3-100T/N	97	47	8
HDM3-160	102	72	10
HDM3-250	102	72	10
HDM3E-125/250	102	72	10



Under 250A dimension drawing

Installation dimensions

Product type	H1	H2	D
HDM3-400	98	134	12.5
HDM3-630	98	134	12.5
HDM3-800	107	141	12.5
HDM3E-400/630	92	128	12.5
HDM3E-800	129	129	13

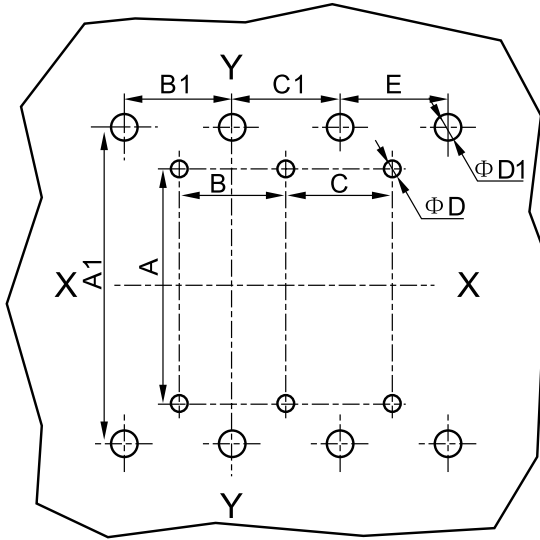


Above 250A dimension drawing

HDM3/3L/3E Series MCCB



Fixed rear installation hole dimensions



Note: X-X and Y-Y is the center of the three-pole breaker

Product type	Poles	A	B	C	D	A1	B1	C1	E	D
HDM3-100L/S	3	111	25	/	4.5	116	25	25	/	12
	4			25					25	
HDM3-100T/N	3	129	30	/	5	132	30	30	/	12
	4			30					30	
HDM3-160/250 HDM3E-125/250	3	126	35	/	5.5	145	35	35	/	15
	4			35					35	
HDM3-400/630	3	215	44	/	6.5	225	48	48	/	18
	4			/					48	
HDM3E-400/630	3	215	44	/	6.5	225	48	48	/	32
	4			/					48	
HDM3-800	3	243	70	/	7.5	243	70	70	/	27
	4			70					70	
HDM3E-800	3	243	70	/	7.5	243	70	70	/	40
	4			70					70	

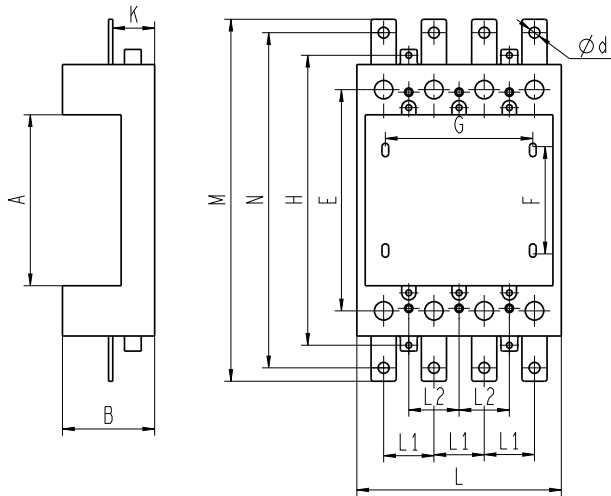
HDM3/3L/3E Series MCCB



Plug-in MCCB mounting dimension

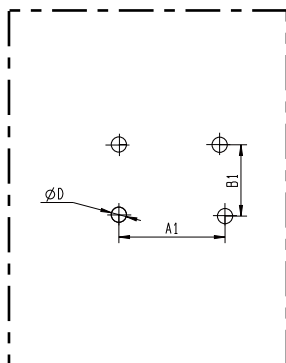
Front connection(mm)

Product type	A	B	E	F	G _(3P/4P)	H	L _(3P/4P)	L1	L2	M	N	K	d
HDM3-100L/S	91.5	48.2	111	60	50/75	145	75/100	25	25	190	173	22.5	6
HDM3-100T/N	100.5	56.2	132	67	60/90	170	90/120	30	30	216	198	25	6.5
HDM3-160/250 HDM3E-125/250	108.5	73.2	144	74	70/105	191	105/140	35	35	243	223	37.5	8.5



Plug-in front hot position drawing

Product type	Number of poles	A1	B1	D
HDM3-100L/S	3	50	60	5.5
	4	75		
HDM3-100T/N	3	60	67	6.5
	4	90		
HDM3-160/250 HDM3E-125/250	3	70	74	6.5
	4	105		

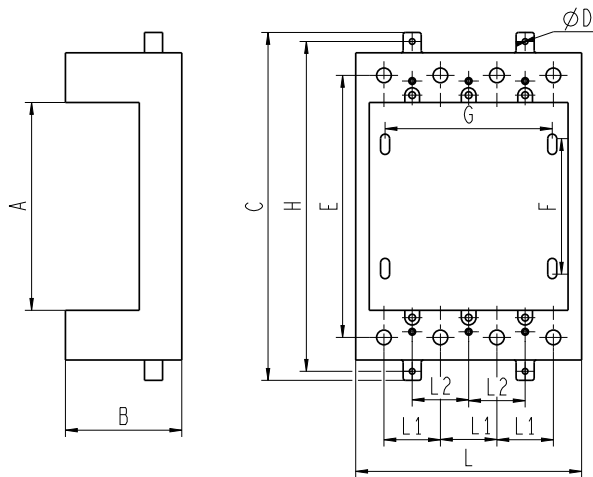


HDM3/3L/3E Series MCCB

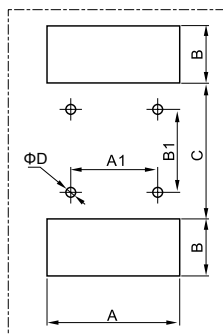


Rear connection(mm)

	A	B	C	D	E	F	G(3/4P)	H	L(3/4P)	L1	L2
HDM3-100L/S	91.5	48.2	154	M3	111	60	50/75	145	75/100	25	25
HDM3-100T/N	100.5	56.2	180	M4	132	67	60/90	170	90/100	30	30
HDM3-160/250 HDM3E-125/250	108.5	73.2	203	M4	144	74	70/105	191	105/140	35	35
HDM3-400/630 HDM3E-400/630	170	60	/	/	225	130	60/108	/	152/200	48	44
HDM3800	187	62	/	/	243	143	140/210	/	210/280	70	70
HDM3E-800	187	125	342	M5	243	143	140/210	328	210/280	70	70



Product type	Poles	A	A1	B	B1	C	D
HDM3-100L/S	3	79	50	30	60	90	5.5
	4	104	75				
HDM3-100T/N	3	94	60	40	67	90	6.5
	4	124	90				
HDM3-160/250 HDM3E-125/250	3	110	70	45	74	100	6.5
	4	145	105				
HDM3-400/630 HDM3E-400/630	3	157	88	60	145	170	8.5
	4	205	132				
HDM3-800	3	212	140	62	143	185	11
	4	282	210				
HDM3E-800	3	212	140	64	143	185	11
	4	282	210				

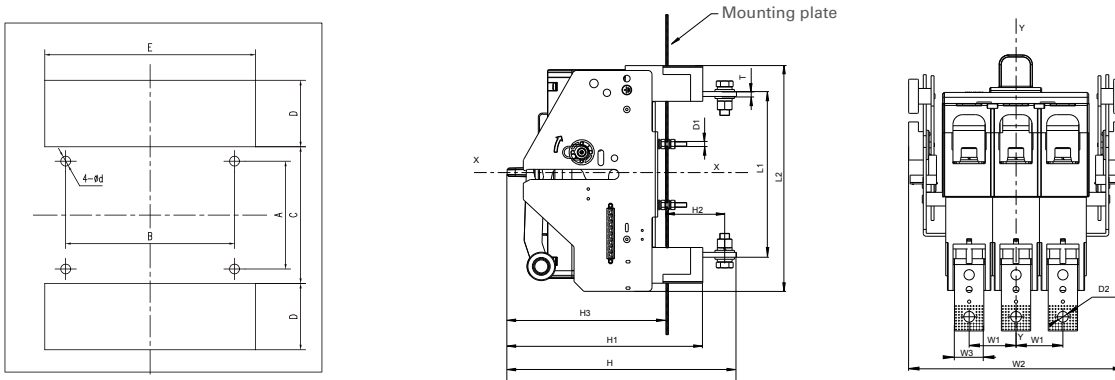


HDM3/3L/3E Series MCCB

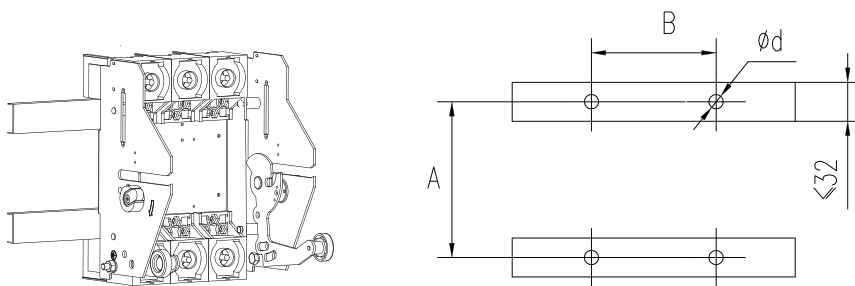


Draw out mounting dimension

Rear connection(mm)



Product type	Poles	Installation Dimensions						Dimensions										
		A	B	C	D	E	d	L1	L2	H	H1	H2	H3	W1	W2	W3	φD1	φD2
HDM3-400	3	140	96	178	47	147	7	203	269	281	240	77	189	48	223	30	φ6.2	φ11
HDM3E-400	4	140	144	178	47	195	7	203	269	281	240	77	189	48	271	30	φ6.2	φ11
HDM3-630	3	140	96	178	47	147	7	207	269	281	240	77	189	48	223	30	φ6.2	φ11
HDM3E-630	4	140	144	178	47	195	7	207	269	281	240	77	189	48	271	30	φ6.2	φ11
HDM3-800	3	131	140	170	77	213	7	241	317	302	250	73	208	70	289	40	φ6.2	φ13
HDM3-800	4	131	210	170	77	283	7	241	317	302	250	73	208	70	359	40	φ6.2	φ13
HDM3E-800	3	131	140	170	77	213	7	241	317	302	250	73	208	70	289	40	φ6.2	φ13
HDM3E-800	4	131	210	170	77	283	7	241	317	302	250	73	208	70	359	40	φ6.2	φ13



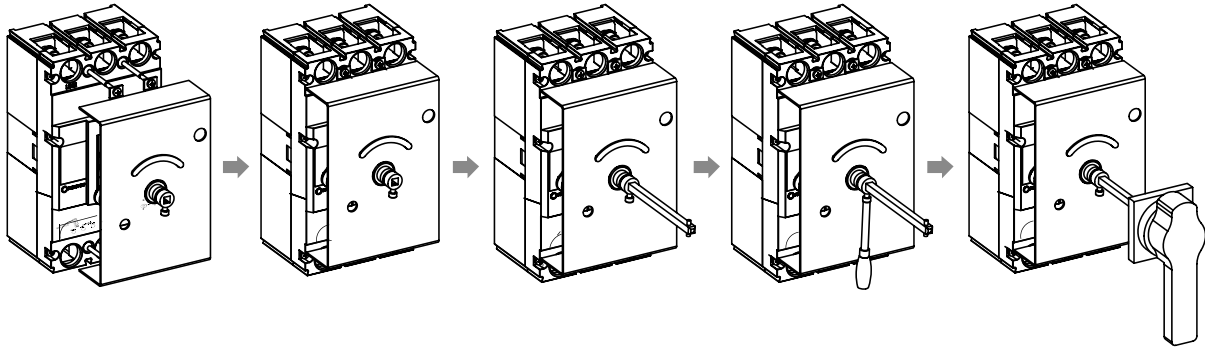
Product type	Poles	Installation Dimensions		
		A	B	d
HDM3-400	3	140	96	7
HDM3E-400	4	140	144	7
HDM3-630	3	140	96	7
HDM3E-630	4	140	144	7
HDM3-800	3	131	140	7
HDM3E-800	4	131	210	7

HDM3/3L/3E Series MCCB

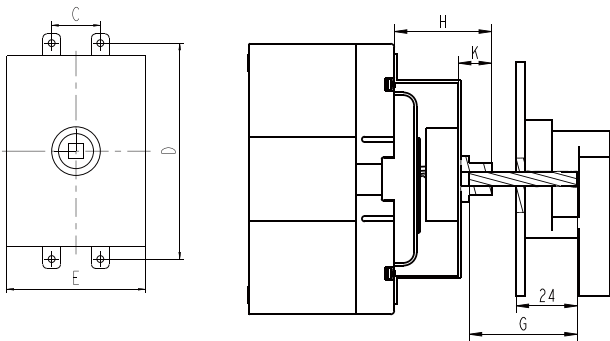


Rotary handle dimension

Handle operation mechanism installation

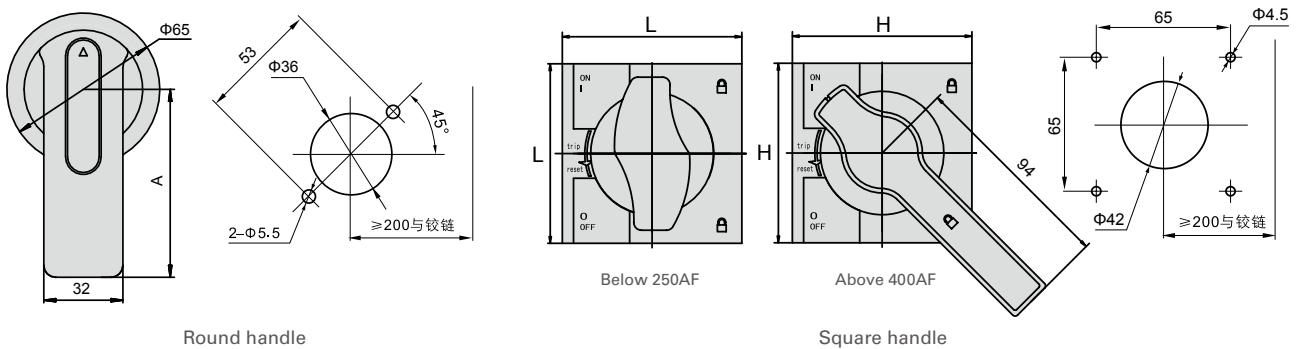


Mounting with MCCB dimensions(mm)



Product type	C	D	E	H	K
HDM3-100L/S	25	111	75	54	20
HDM3-100T/N	30	129	92	57	20
HDM3-160/250	35	143	100	54	20
HDM3E-125/250	35	143	100	49	20
HDM3-400/630	44	215	150	78	20
HDM3E-400/630	44	215	140	76	20
HDM3-800A	70	243	/	76	20
HDM3E-800A	70	243	210	76	20

Installation hole dimensions



Round handle

Square handle

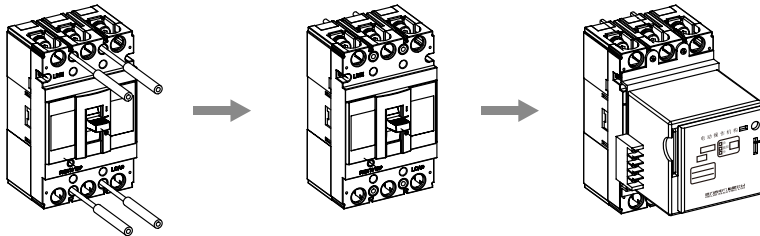
Product type	Round handle	Square handle	
	A	L	H
HDM3-100L/S	65	80	80
HDM3-100T/N	65	80	80
HDM3-160/250 HDM3E-125/250	65	80	80
HDM3-400/630 HDM3E-400/630	95	80	80
HDM3-800 HDM3E-800	95	80	80

HDM3/3L/3E Series MCCB

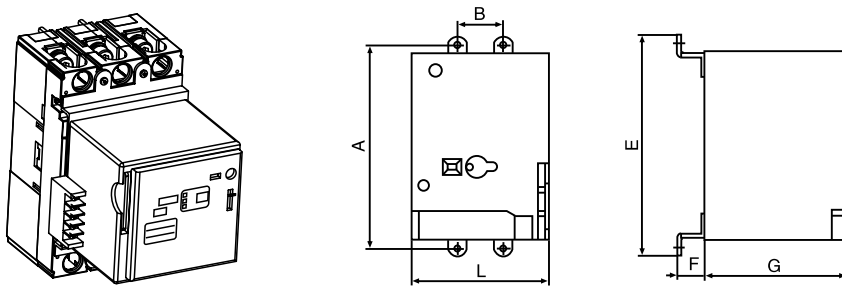


Motor Mounted with MCCB Dimensions (mm)

Installation of electric operating mechanism



! After tripping of the breaker with an electrically operated mechanism, the electrically operated mechanism must be opened first before closed.

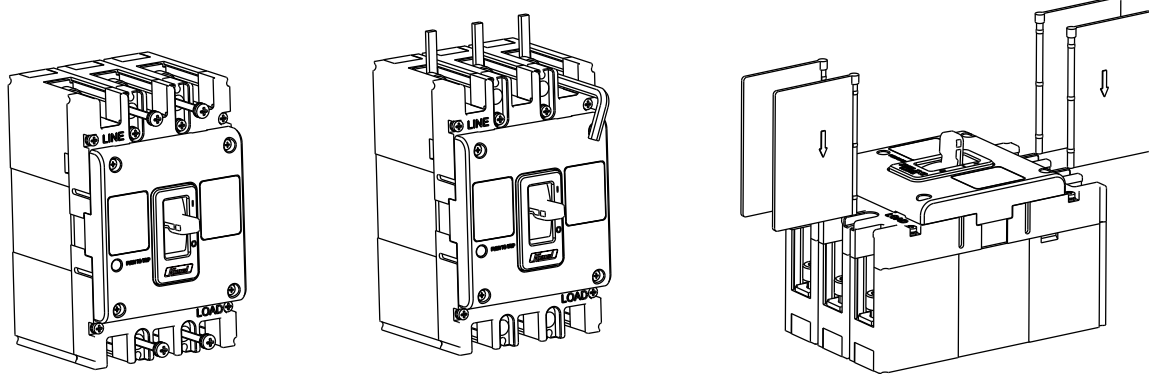


Product type	A	B	E	F	G	L
HDM3-100L/S	111	25	120	15	79	74
HDM3-100T/N	129	30	140	16	77	90
HDM3-160/250	126	35	140	17	77	90
HDM3E-125/250	126	35	140	12	77	90.5
HDM3-400/630	215	44	232	32	115	130
HDM3E-400/630						
HDM3-800	243	70	/	31	115	/
HDM3E-800	243	70	260	31	115	130

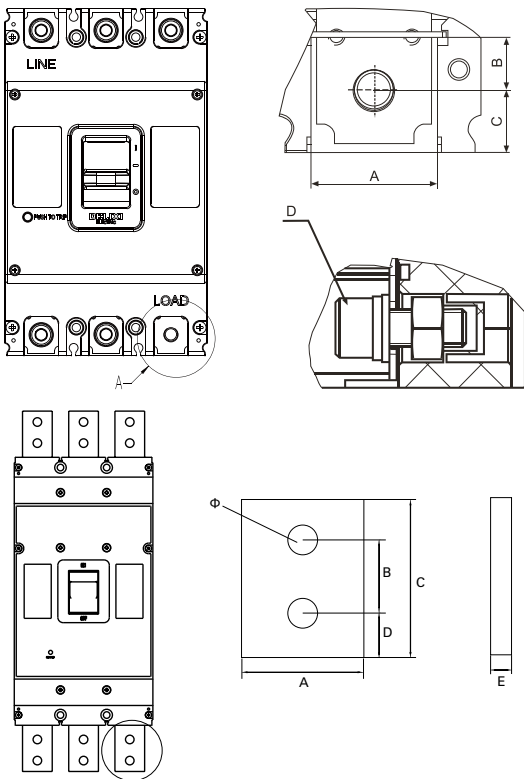
HDM3/3L/3E Series MCCB



Terminal Connection Dimensions (mm)



Connection terminal and torque table



Product type	A	B	C	D	Torque(N.M)
HDM3-100L/S	16	7.5	7	M6	4-8
HDM3-100T/N HDM3L-125	18	7.5	9	M8	4-8
HDM3-160/250 HDM3L-160/250	25	12.5	9.5	M8	9.5-10.5
HDM3E-125/250	25.5	12	10	M8	9.5-10.5
HDM3-400/630 HDM3L-400	32	14	16	M10	19.5-20.5
HDM3E-400/630	32	13	16	M10	19.5-20.5
HDM3-800 HDM3L-630	44.5	12	16	M12	29.5-30.5
HDM3E-800	45.5	16.8	18.5	M12	29.5-30.5

Connecting conductor (mm²)

Rated current A	10	16 20	25	32	40 50	63	80	100	140	160	180 200 225	250	315	400
Cross-section of conductor	1.5	3	4	6	10	16	25	35	50	70	95	120	185	240

Rated current A	Quantity	Copper conductor or insulated copper wire Cross section mm ²	Copper busbar Size: mm x mm
500	2	150	30x5
630	2	185	40x5
700-800	2	240	50x5

HDM3/3L/3E Series MCCB



Expanding Terminal Information

Frame Size	Outside view	Size (mm)	QTY	
			3P	4P
HDM3-100 L/S/T/N HDM3L-125			3	4
HDM3-160/250L/S HDM3-160/250M/F/T/N HDM3L-160/250 HDM3E-1125/250			1	2
			2	2
HDM3-400 HDM3L-400 HDM3E-400 HDM3-630 HDM3E-630			2	2
			1	2
HDM3-800 HDM3E-800 HDM3L-630			3	4

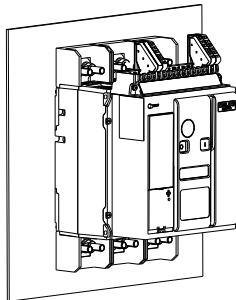
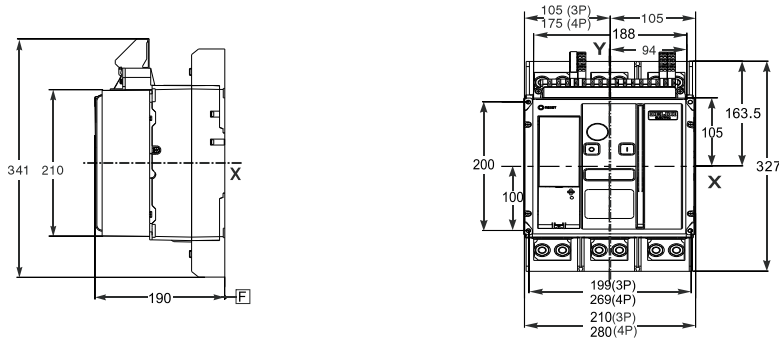
HDM3/3L/3E Series MCCB



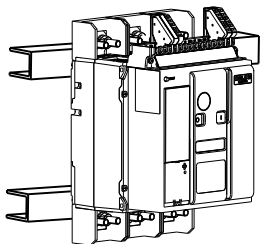
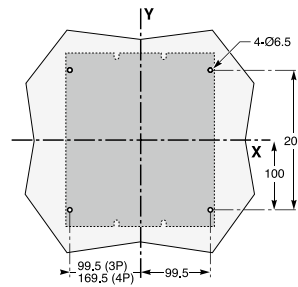
Dimensions and Connection for HDM3E-1600

Fixed MCCB mounting dimension (mm)

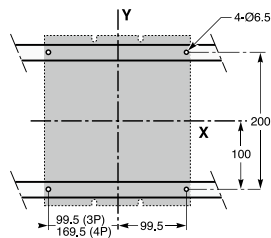
Unit:mm



Installed on plate

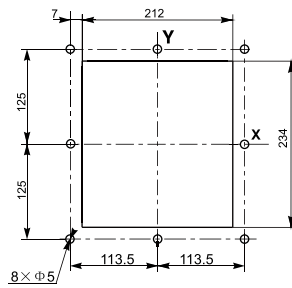


Installed on din rail

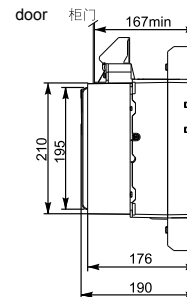
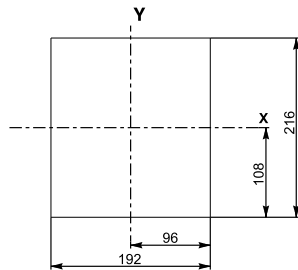


Note: X and Y are plane of symmetry of 3 pole breaker Z is back plane of breaker.

With doorframe:
Holes dimension on door



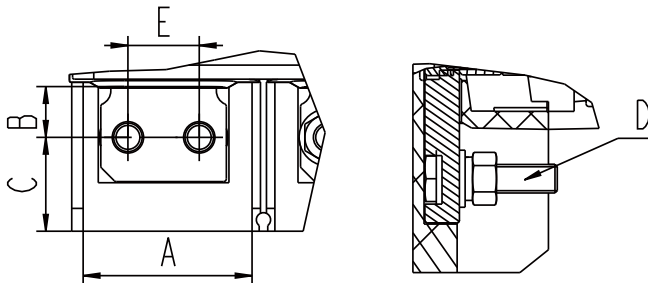
Without doorframe:
Holes dimension on door



HDM3/3L/3E Series MCCB

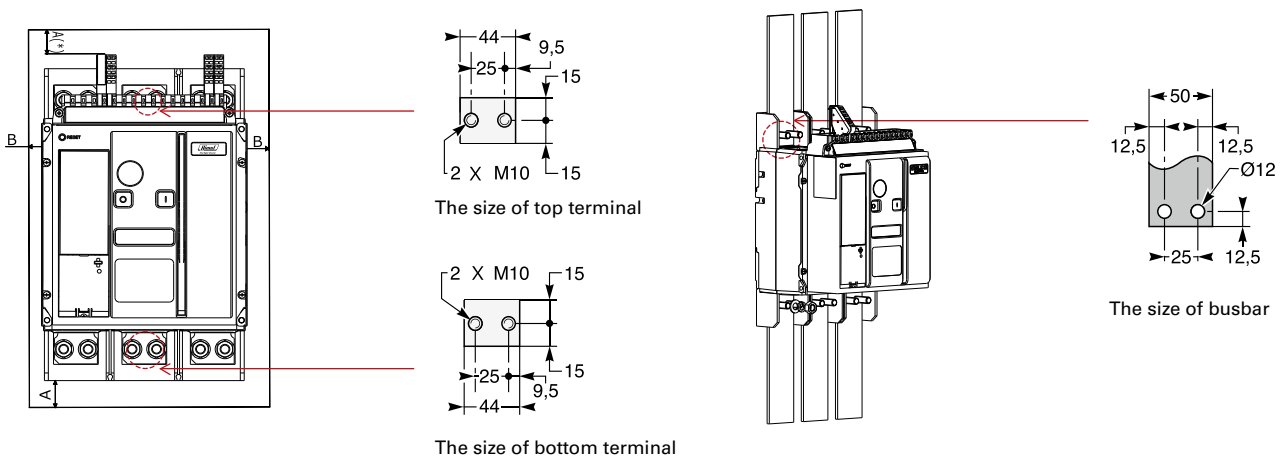


Terminal connection dimensions (mm)



Product type	A	B	C	D	E	Torque(N.M)
HDM3E-1600	59	17.2	32.8	M10	25	50

Terminal and busbar dimensions (mm)



Max current	Ti:40°C the number of busbar		Ti:50°C the number of busbar		Ti:60°C the number of busbar	
	5mm Thickness	10mm Thickness	5mm Thickness	10mm Thickness	5mm Thickness	10mm Thickness
1000	3b.50x5	1b.63 x 10	3b.50x5	2b.50 X 10	3b.63x5	2b.50 x 10
1250	3b.50x5	2b.40 x 10	3b.50x5	2b.50 X 10	3b.63x5	2b.50 x 10
	2b.80x5	2b.40 x 10	2b.80x5			
1600	3b.80x5	2b.63 x 10	3b.80x5	2b.63 x 10	3b.80x5	2b 50 x 10

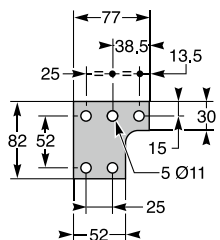
HDM3/3L/3E Series MCCB



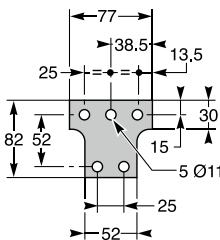
Expanding terminal dimensions (mm)

Unit:mm

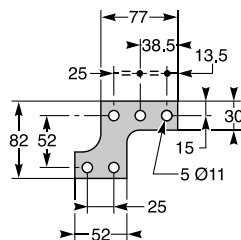
Extension terminal for A phase or B phase of 4 pole



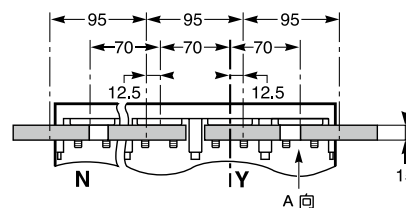
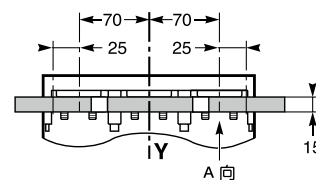
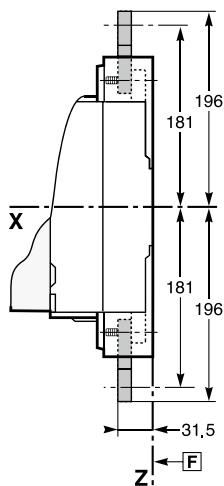
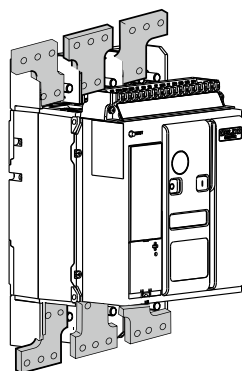
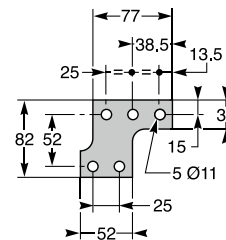
Extension terminal for B phase of 3 pole



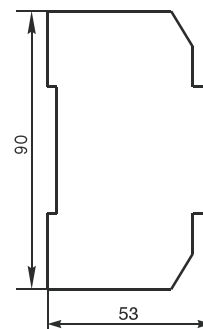
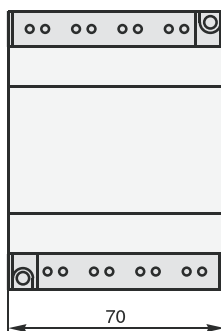
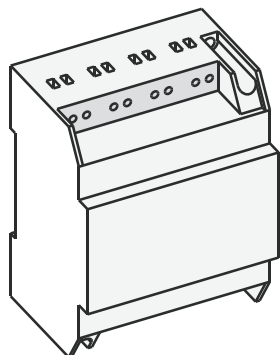
Extension terminal for N phase or C phase of 4 pole



Extension terminal for A phase or C phase of 3 pole



Dimensions of power module (35mm Dim rail fitted)



HDM3/3L/3E Series MCCB

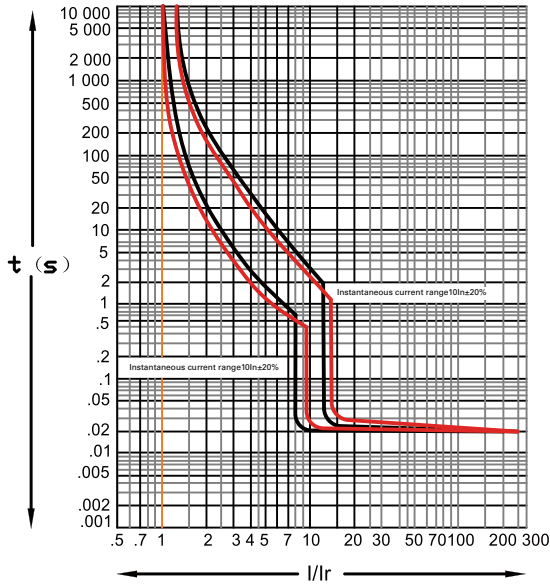


Tripping curve

HDM3-100L/S

HDM3-100L/S 10~100A

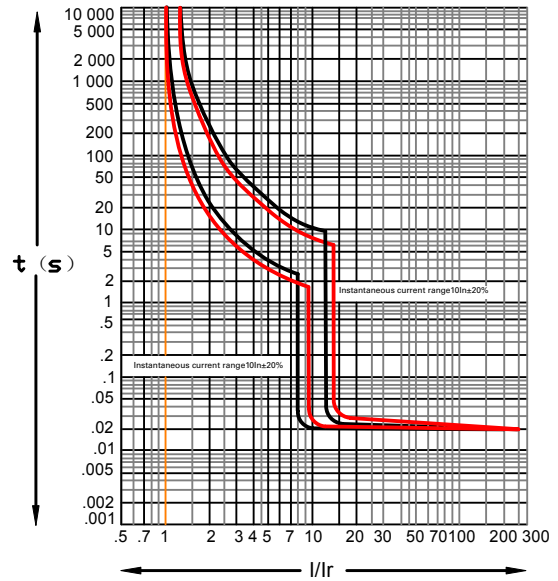
Black line: power distribution protection,
red line: motor protection;



HDM3-100T/N

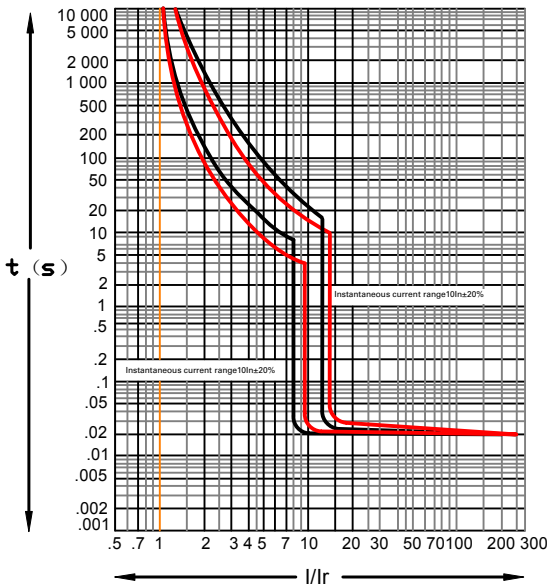
HDM3-100T/N 40A-100A

Black line: power distribution protection ,
red line: motor protection;



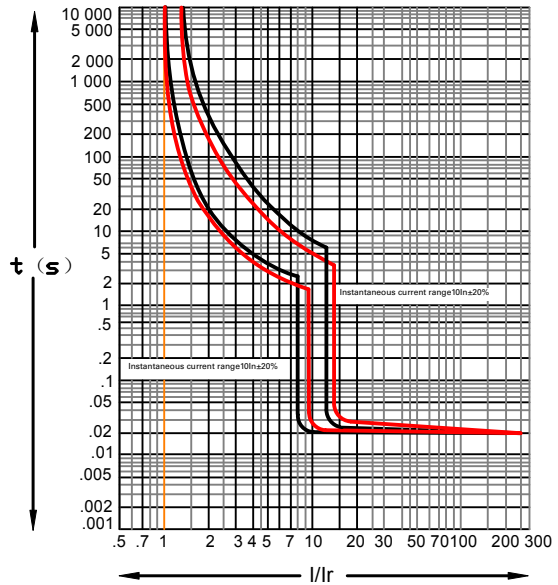
HDM3-160/250

Black line: power distribution protection ,
red line: motor protection;



HDM3-400

Black line: power distribution protection ,
red line: motor protection;



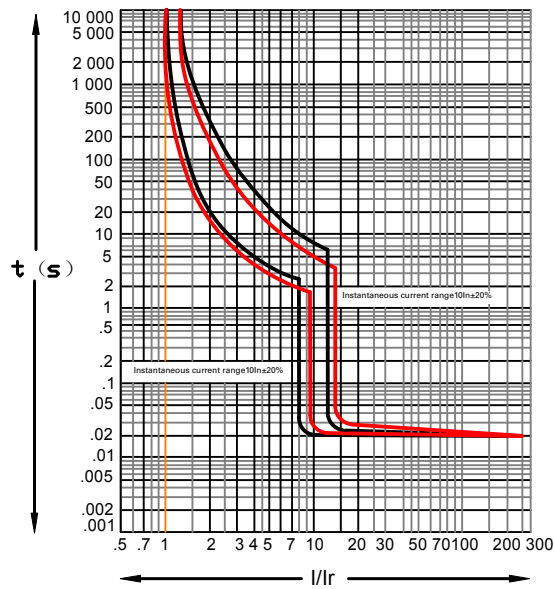
LOW VOLTAGE DISTRIBUTION

HDM3/3L/3E Series MCCB



HDM3-630

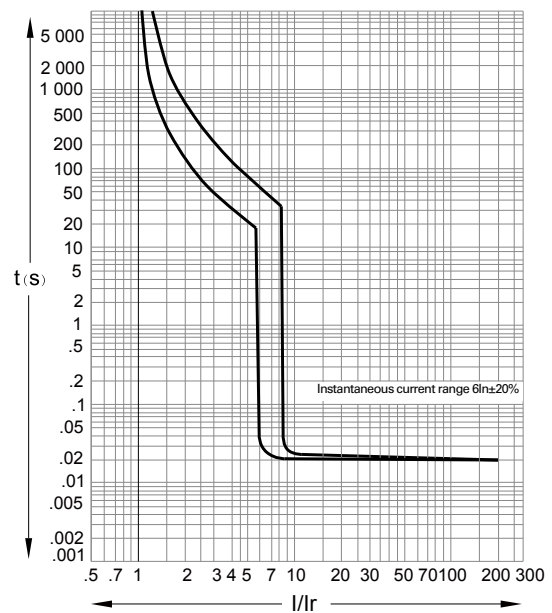
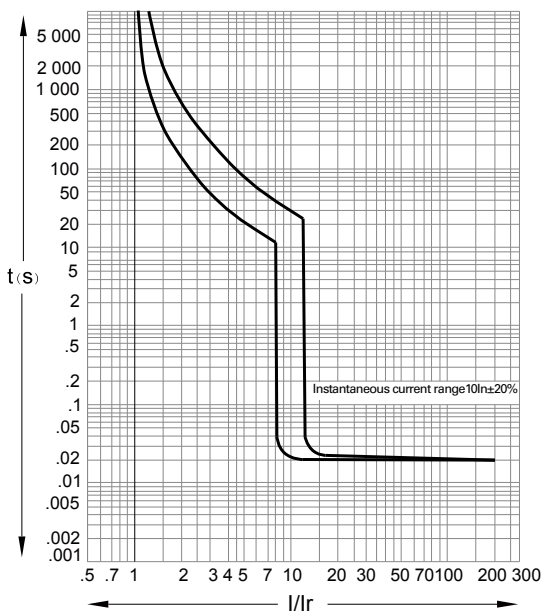
Black line: power distribution protection ,
red line: motor protection;



HDM3-800A

HDM3-800A 630A

For power distribution



HDM3-1600 MCCB



Range Presentation

HDM3 is Himel 3 series range of molded case circuit breakers with fixed thermal magnetic trip unit, providing line protection and motor protection, up to 1600A.

HDM3E is Himel 3 series range of MCCB with electronic type trip unit, providing LSI protection, up to 1600A.

HDM3L is Himel 3 series range of earth leakage MCCB, providing protection against residual current, up to 630A.

Features

Easy Installation and Safe Operation

- ◆ Double-deck cover design assures easy installation and removal of accessories.

High Performance

- ◆ Patented design ensures quick extinguishing of arc.
- ◆ Suitable for wide environment conditions, max. -40°C~+70°C

Selection Guide

MCCB Selection Code-@40°products

Range Name	Frame Size	Breaking capacity (Icu/Ics)	Rated current	Poles	Protection
HDM3	1600	N	1600	3	3XX
HDM3 MCCB	1600: 1600A	N: 70/50	800,1000,1250,1600A	3: 3P	3XX: Mag-Therma line protection

Commercial Ref	Commercial Ref Desc
HDM31600N80033XX	HDM3-1600N 800A 3P 40°C
HDM31600N100033XX	HDM3-1600N 1000A 3P 40°C
HDM31600N125033XX	HDM3-1600N 1250A 3P 40°C
HDM31600N160033XX	HDM3-1600N 1600A 3P 40°C
HDM31600OF12K2BR	Auxiliary contact (Right/wire) 2NO+2NC HDM3-1600
HDM31600AL1R	Alarm (Right/wire HDM3-1600
HDM31600OFAL1R	Auxiliary/Alarm (Right/wire) HDM3-1600
HDM31600HL2	Square Extended Rotation Handle HDM3-1600
HDM31250CD1A2	Motor Mechanism AC230V HDM3-1600
HDM31250CD1A3	Motor Mechanism AC400V HDM3-1600
HDM31600MNA2	Undervoltage release (Left/Wire) AC230V HDM3-1600
HDDM31600MNA3	Undervoltage release (Left/Wire) AC400V HDM3-1600
HDDM31600MX1A2L	Shunt Release (Left/Wire) AC230V HDM3-1600
HDDM31600MX1A3L	Shunt Release (Left/Wire) AC400V HDM3-1600
HDDM31600MX1D2L	Shunt Release (Left/Wire) DC24V HDM3-1600

HDM3-1600 MCCB



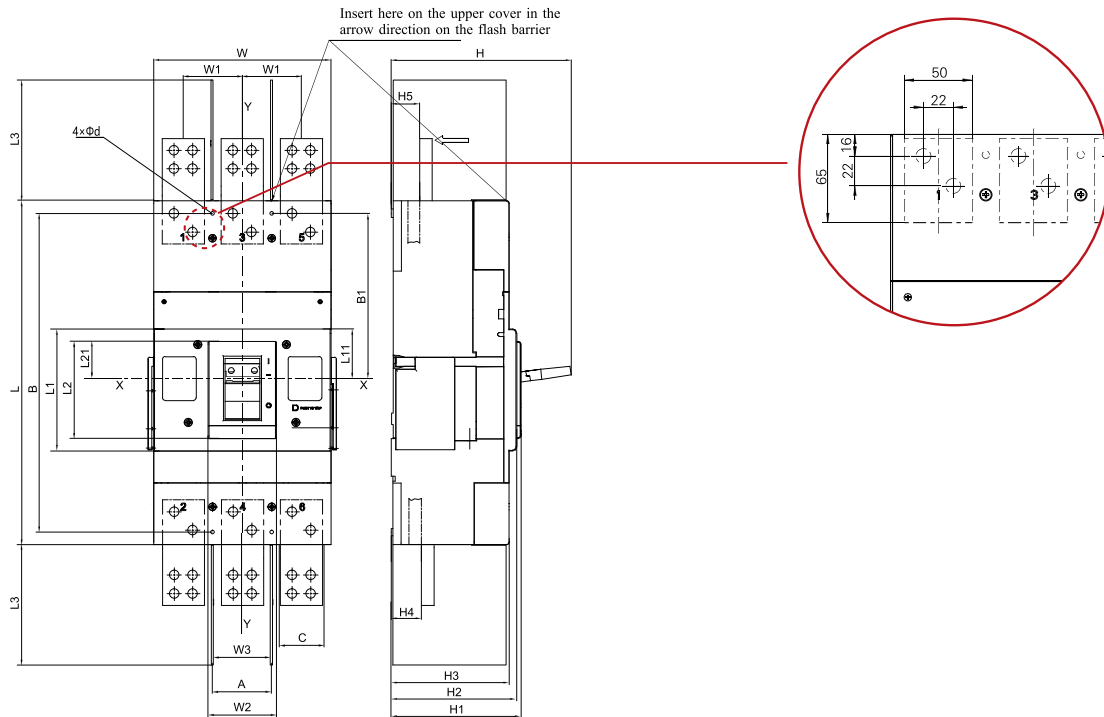
Technical Parameters-@40°products

MCCB		HDM3-1600
[Ue] rated operational voltage 50/60Hz		400/415
[Ui] rated insulation voltage		1000
[Uimp] rated impulse withstand voltage		12
[In]Current (A)		800/1000/1250/1600
Pole		3
Breaking Capacity		N
Icu(KA)	AC 400/415V	70
Ics(KA)	AC 400/415V	50
Mechanical Life		5000
Electrical Life	AC 415V	2500
Trip units	line protection	
	Thermal & magnetic (10In)	
connection type	Front connection	
Accessory	Undervoltage release	
	Shunt Release	
	Alarm	
	Auxiliary/Alarm	
	Auxiliary contact	
	Motor Mechanism	
	Square Extended Rotation Handle)	
Suitability for isolation		
Utilisation category		A
Certification		TUV-CB

HDM3-1600 MCCB



Dimensions and connection HDM3 1600



Unit:mm

Product model HDM3-	Number of poles	Outline dimensions															Installation dimensions					
		L	L1	L11	L2	L21	L3	W	W1	W2	W3	H	H1	H2	H3	H4	H5	A	B	B1	C	Φd
1600F/N	3	408	145	52	115	37	140	223	70	81	68	213	154	149	140	36	34	70	378	189	50	6

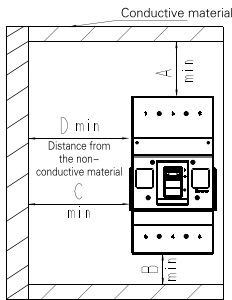
Recommended value for the wiring capacity

Rated current(A)	700 800	1000	1250	1600
Recommended sectional area of wire(mm ²)	240x2	-	-	-
Recommended sectional area of copper busbar(mm ²)	250x2	300x2	400x2	500x2

Recommended value of the wiring screw tightening torque

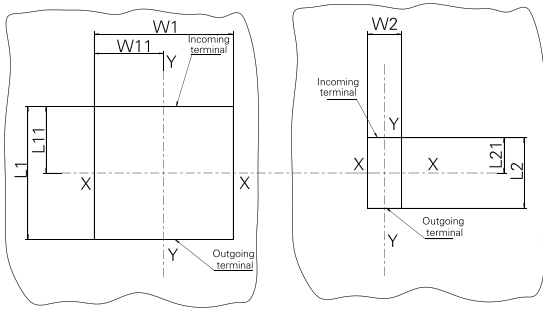
Product model HDM3-	1600
Socket hex wiring screw	M10
Torque(N.m)	11-14

HDM3-1600 MCCB



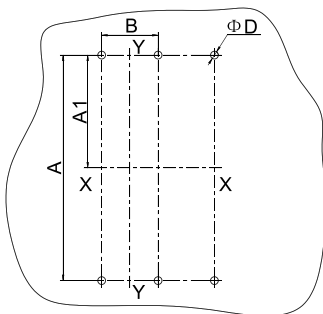
Safety Distance

Product model HDM3-	Amin	Bmin	Cmin	Dmin
1600F/N	110	55	10	0



Hole dimensions of fixed and inserted panels (mm)

Product model HDM3-	Number of poles	1600 Exposed front cover and toggle handle				Exposed toggle handle		
		L1	L11	W11	W1	L2	L21	W2
1600/F	3P	148	53.5	106.5	213	118	38.4	84



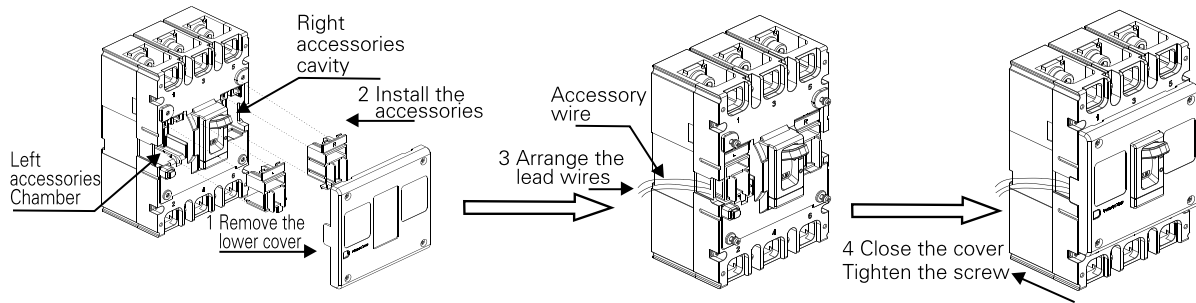
Size of the hole on the mounting plate

Product model HDM3-	Number of poles	A	A1	B	Φd
1600/F	3P	378	189	70	6.2

Internal accessories and expansion functions

Internal accessories(undervoltage release, shunt release, assists, alarm, dualassist, and auxiliary alarm)

- Assembly diagram

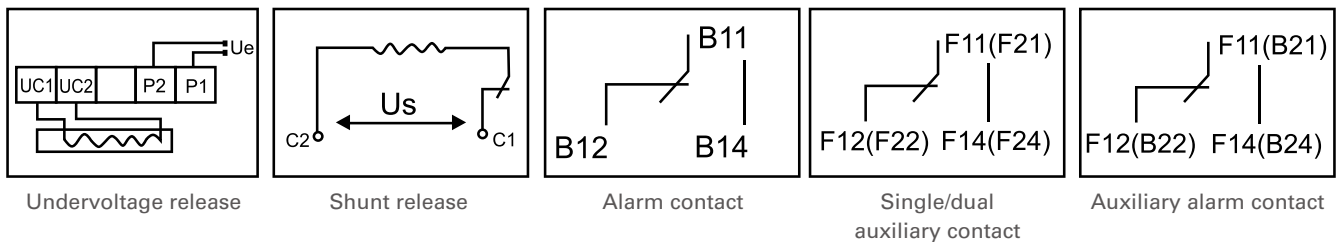


- Installable accessories in each cavity

Left accessory cavity for: left shunt, and left undervoltage

Right accessory cavity for: right single assist, right dual assist, right alarm, and right auxiliary alarm

- Wiring and schematic diagram



- Electrical parameters

Product model HDM3- 1600F/N	Undervoltage coil holding power consumption(W)		Min. power for suction of undervoltage coil(W)	
	AC400V	AC230V	AC400V	AC230V
	1.12	1.08	Auxiliary suction type	Auxiliary suction type

Product model HDM3- 1600	Installation position AC400V Left cavity-	Min. power for suction of undervoltage coil(W)		
		AC400V	AC230V	DC24
		175	130	80

Alarm and assist electrical parameters

Resistive current	3A		
Use category(GB/T 14048.5-1)	AC15		DC13
Working voltage 50/60Hz	AC400V	0.3A	-
	DC220V	-	0.15A

• Test requirements for internal accessories

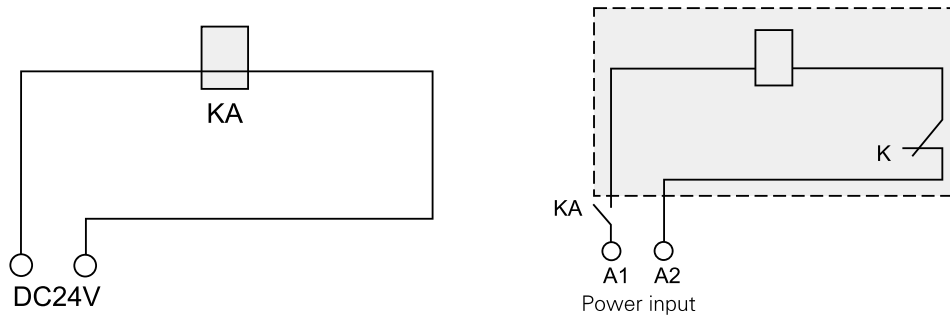
- Undervoltage release
 - When the rated working voltage is ranged 35% to 70%, the undervoltage release will work to trip the circuit breaker;
 - When the rated working voltage is ranged 85% to 110%, the undervoltage release can work to allow the circuit breaker can be closed reliably;
 - When the rated working voltage is below 35%, the undervoltage release can work to prevent the circuit breaker from being closed;
- When 70%~110% rated voltage is applied onto the shunt release, the circuitbreaker can be open reliably, and the handle is turned to the Trip position;
- For circuit breaker with an auxiliary contact, when the circuit breaker is open or closed, the conversion signal of the auxiliary contact shall be issued normally;
- For circuit breaker with an alarm contact, when the circuit breaker is closed or trips (press the red trip button), the conversion signal of the alarm contact shall be issued normally.

⚠ Attention

When the rated power voltage of the shunt release is DC24V, the maximum length of the copper wire cannot exceed the value listed in the table below.

Rated control power voltage U_s (DC24V)	Sectional area is 1.5mm^2	Sectional area is 2.5mm^2
100% U_s	150m	250m
80% U_s	100m	160m

If the requirements of the above table cannot be met, it is recommended to use the following figure for the design of the control circuit of the shunt release:



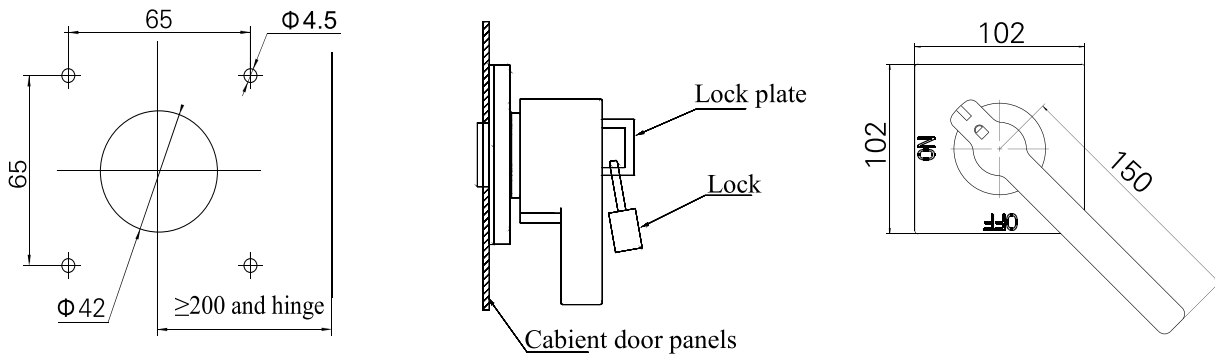
HDM3-1600 MCCB



External Accessories

Manual operating mechanism

- Optional handle style and size



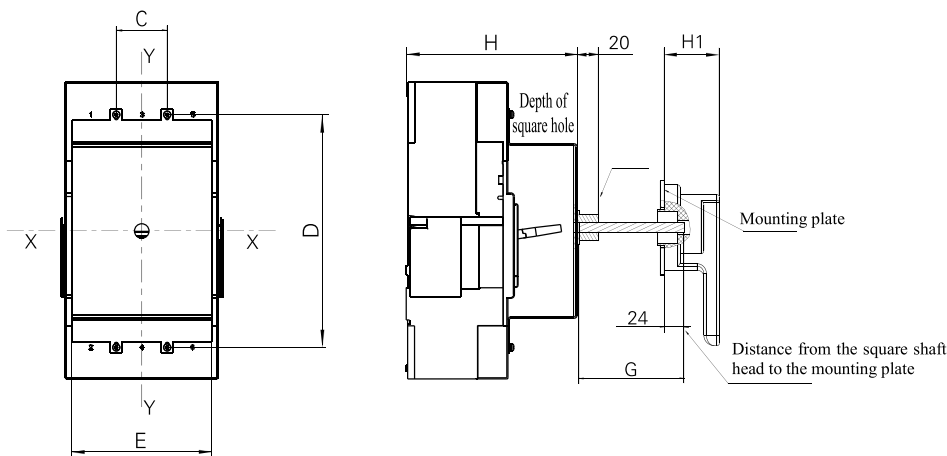
Dimensions of the mounting hole for handle cabinet door

- Features of the operating handle:

When the circuit breaker is at the Closed state, the cabinet door cannot be opened;

When at the Closed or Open state, pull the lock plate marked with on the square operating handle for locking (lock with a diameter ranged 5 to 8m self-provided by the user).

- Outline dimensions of manual operating mechanism



Model HDM3-	A*	C	D	E	H	G*direct manual operating mechanism	G* extended manual operating mechanism (by default)	Height of round handle H1
1600F/N	-	70	320	193	236	40	150	91

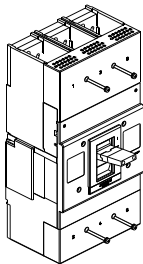
⚠ Attention

G* For other length to be customized, please contact the manufacturer.

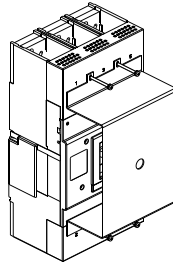
HDM3-1600 MCCB



• Manual operating mechanism installation method



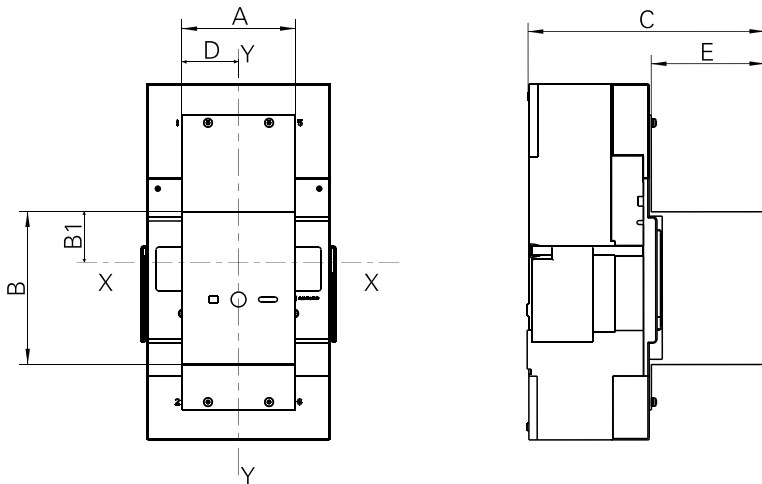
Step 1
Remove four screws from the cover of circuit breaker



Step 2
Insert the handle of the circuit breaker into the manual operating mechanism, and tighten the screw; Insert the square shaft, and tighten the screw with a screwdriver; assemble the handle and check whether the product can be closed and opened normally.

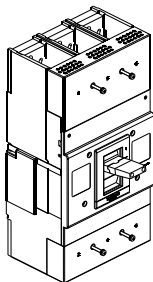
Electric operating mechanism

• Electric operating mechanism installation dimensions

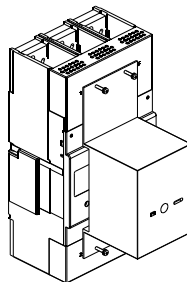


Model HDM3-	A	B	B1	C	D	E
1600F/N	131	177	63	281	65.5	141

• Installation method



Step 1
Turn the handle to the Open position



Step 2
Install the electric operating mechanism, and tighten the screw and nut

⚠ Attention

Check whether the handle can be inserted into the electric operating mechanism before operation.

Electric operating mechanism wiring diagram

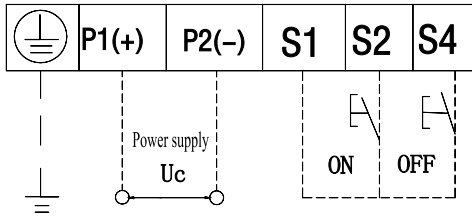


Figure: 1. P1 and P2 are connected to the power wire;
 2.S1 is the common terminal; closed if S1 and S2 are powered on, and opened if S1 and S4 are powered on.

⚠ Attention

1. When the circuit breaker of the electric operating mechanism trips, the electric operating mechanism must be opened firmly and then closed;
2. At the manual operation mode, turn it clockwise 180° rather than counter clockwise operation.
3. Voltage withstand test: The 50HZ,1890V power frequency voltage can be withstood between the incoming terminals P1 and P2(not including S1,S2 and S4) of the power supply and the electric operating mechanism mounting screw.
- 4 For electric operating mechanism, P1 and P2 cannot be connected to the S1, S2, and S4.

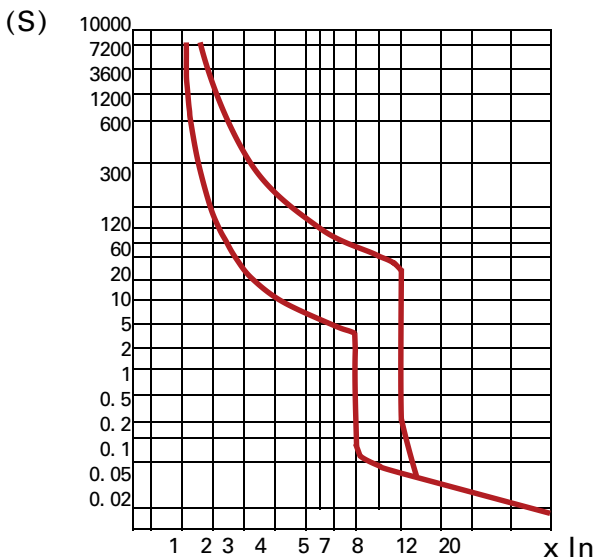
Technical Parameters of Electric Operating Mechanism

Model of electric operating mechanism	Action current(A)	Motor power(W)
	230VAC / 400VAC	
1600	≤2	35

* Rated control power voltage: When AC 230V, the allowable voltage tolerance is ranged AC184~253V.

* Rated control power voltage: At AC 400V, the allowable voltage tolerance is ranged 320 to 440V.

Trip curve HDM3 1600



HDM3S MCCB



Range Presentation

HDM3S is Himel 3 series range of Molded Case Circuit Breakers with adjustable thermal magnetic trip unit, providing line protection, up to 630A.

Features

- ◆ Double-deck cover design assures easy installation and removal of accessories.
- ◆ Thermal adjustable range (0.8~1)In ,magnetic adjustable range (5~10)In
- ◆ All series Ics=100%Icu.

Online Content



HDM3S

MCCB Selection Code

Range name	Frame size	Breaking capacity	Rated current	Poles	Protection	Temperature
HDM3S	160	M	160	3	3XX	
	160: 160A 250: 250A	M: 35/35kA	025: 25A 032: 32A ...	3: 3P B: 4P*	3XX: Thermal-magnetic adjustable 2XX: Magnetic protection, Magnetic adjustable only 1XX: Thermal-magnetic protection, Thermal adjustable only	Default: 40°C T: 50°C
	400: 400A 630: 630A	M: 50/50kA	500: 500A 630: 630A			

- Note: 1. B: The N phase is equipped with contacts, but without protection. It closes earlier and opens later than the other 3 poles.
 2. If 2xx, 1xx products required, please contact local Himel sales.
 3. Thermal -magnetic adjustable (3XX) , the minimum In=63A
 4. "T" is thermal trip calibrated in 50 degree. For further requirement, please contact local sales.

Frame size(A)	Rated Current (A) @40°C In															
	25	32	40	50	63	80	100	125	140	160	200	250	320	400	500	630
160	█															
250								█								
400											█					
630															█	

Technical Parameters

Frame	HDM3S-160	HDM3S-250	HDM3S-400	HDM3S-630
Standard	IEC 60947-2	IEC 60947-2	IEC 60947-2	IEC 60947-2
[Uimp] rated impulse withstand voltage	8kV	8kV	8kV	8kV
[Ui] rated insulation voltage	AC1000V	AC1000V	AC1000V	AC1000V
Network frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
[Ue] rated operational voltage	400/415VAC	400/415VAC	400/415VAC	400/415VAC
Poles	3/4	3/4	3/4	3/4
Suitability for isolation	Yes	Yes	Yes	Yes
Utilisation category	Category A		Category A	Category A
[In]Current	25/32/40/50	63/80/100/125/160	140/160/200/250	250/320/400
Thermal Adjustable	0.8,0.9,1.0	0.8,0.9,1.0	0.8,0.9,1.0	0.8,0.9,1.0
Magnetic Adjustable	/	5,6,7,8,9,10	5,6,7,8,9,10	5,6,7,8,9,10
Breaking Capacity	M	M	M	M
400VAC Icu	35	35	50	50
400VAC Ics	35	35	50	50
Mechanical Life	8500	7000	4000	4000
Electrical Life	1500	1000	1000	1000
Dimension (WxHxD)	90-155-108(3P)/ 120-155-108(4P)	105-165-116(3P)/ 140-165-116(4P)	140-257-155(3P)/ 184-257-155(4P)	140-257-155(3P)/ 184-257-155(4P)
Ambient air temperature for operation	40/50 °C	40/50 °C	40/50 °C	40/50 °C
Certificates	TUV/ CB	TUV/ CB	TUV/ CB	TUV/ CB

HDM3S MCCB



Operating Conditions

Pollution degree

HDM3S products operate in the environment (industrial environment) with pollution class 3 defined in IEC/EN 60947-1 and IEC/EN 60947-2 standards.

Environment temperature

- HDM3S series can work for a long time under normal environment and operating temperature between -5°C and 50°C.
- Refer to the temperature derating factor table or contact us if the operating ambient temperature exceeds 40°C
- Storage temperature ranges between -20°C and 70°C.

Altitude

- Altitude at normal installation site does not exceed 2000m.
- If the altitude exceeds 2000m, the changes in the dielectric strength and the air temperature drop must be considered. Refer to the altitude derating factor table or contact us.

Humidity

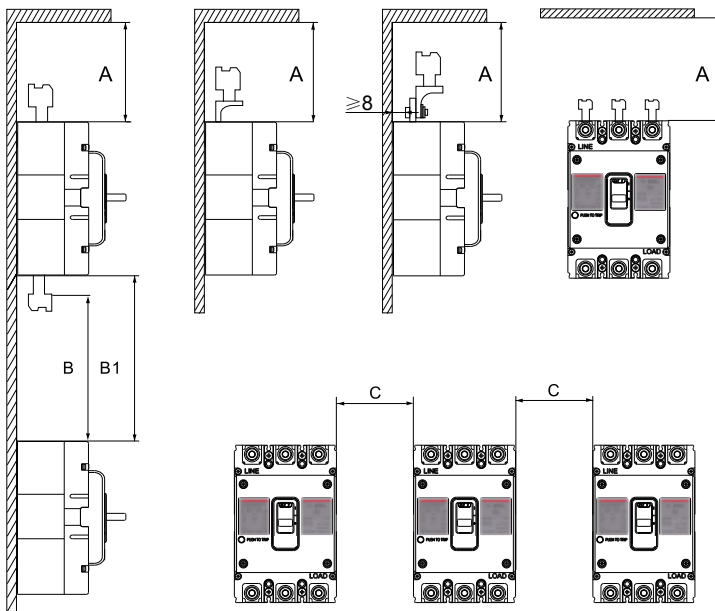
The following conditions must be met during normal operation:

- The relative humidity of atmosphere does not exceed 50% if the ambient air temperature is +40°C. The product can be used at a high relative humidity if the temperature is low.
- The monthly average relative humidity at the wettest month is 90%.
- The impact of the condensation generated on the product surface on the product property shall be considered.

Protection class

- IP protection class of circuit breaker body: IP20
- Circuit breaker installed in the switch cabinet:
circuit breaker with a toggle handle IP40
circuit breaker with an electric operating mechanism IP40

Safety Distance




Model	A	B	C(mm)
HDM3S-160	60	60	30
HDM3S-250	60	60	30
HDM3S-400	110	110	70
HDM3S-630	110	110	70




This offer is available only in Middle East / North African countries.
For more information, contact local Himel Sales.

HDM3S MCCB



Molded Case Circuit Breakers HDM3s Series



APPLICATIONS

- 🏠 Utility
- 🏢 Building and Residential
- 🏭 Industrial
- 🏠 Panel Building

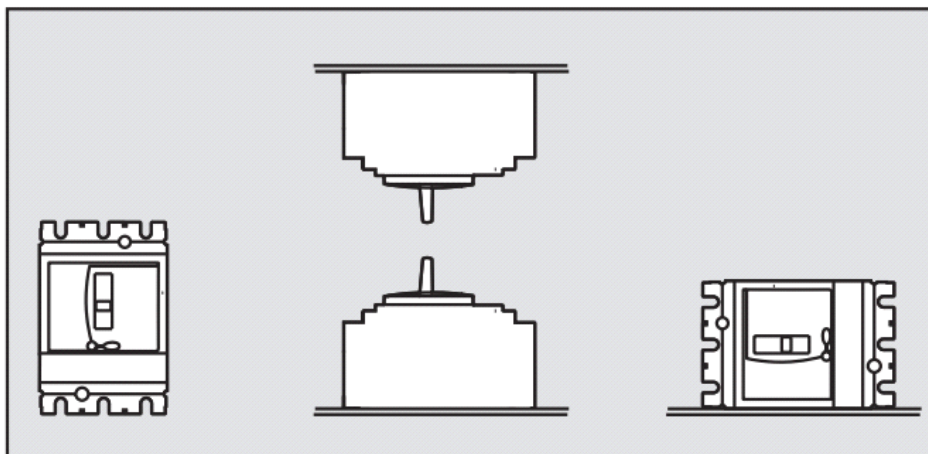
FEATURES

- ✂ Double-deck cover design
- ⚙ $I_{cs} = I_{cu}$
- 🔧 Wide Thermal and Magnetic Adjustable Ranges

HDM3S MCCB



Installation Position



Derating

Product type	Ambient temperature (40°C product)				
	40	45	50	55	60
HDM3S-160	1	0.96	0.89	0.83	0.75
HDM3S-250	1	0.92	0.85	0.79	0.71
HDM3S-400/630	1	0.94	0.87	0.81	0.73

Note: For 50°C product temperature derating, please confirm with local Himel sales office.

	Altitude			
	2000m	3000m	4000m	5000m
Insulation voltage U_i (V)	800	728	664	616
U_{imp} (kV)	8	7	6.5	6
Power frequency withstand voltage (V)	3000	2500	2100	1800
Rated heat value at 40°C (A) $*I_n$	1	0.94	0.88	0.85

Power loss of three poles(W)

Product type	Rated current	Front connection	Rear connection	Plug-in connection	Withdrawable connection
HDM3S-160	160	60	87	87	–
HDM3S-250	250	63	90	90	–
HDM3S-400	400	115	120	120	128
HDM3S-630	630	180	190	190	205

HDM3S MCCB

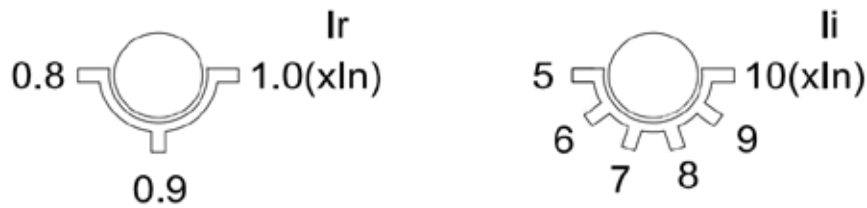


Trip Units

Thermal and magnetic

Protection

The circuit breaker equipped with TM thermomagnetic release is mainly for protection of the cable, which is on the power distribution system for transformer power supply.



Overload protection: thermal protection Ir (Adjustable)

The overload protection function provides inverse time limit curve on the basis of bimetal. If the limit is exceeded, the deformation of the bimetal can lead in the tripping of the circuit breaker operating mechanism.

Thermal adjustable range: 0.8, 0.9, 1.0In

Test No.	I/In	Conventional time	Breaker status	Initial status
1	1.05	> 1h(In ≤ 63A) > 2h(In > 63A)	Non-tripping	Cold status
2	1.3	≤ 1h(In ≤ 63A) ≤ 2h(In > 63A)	Tripping	Immediately after test 1

Note: For 160A breaker, rated current is under 50A, only have thermal adjustable breaker.

Short circuit protection: magnetic protection li (Adjustable)

Magnetic protection achieves short circuit protection through a magnetic trip device. The circuit breaker will trip instantaneously.

Magnetic adjustable range: 5, 6, 7, 8, 9, 10In

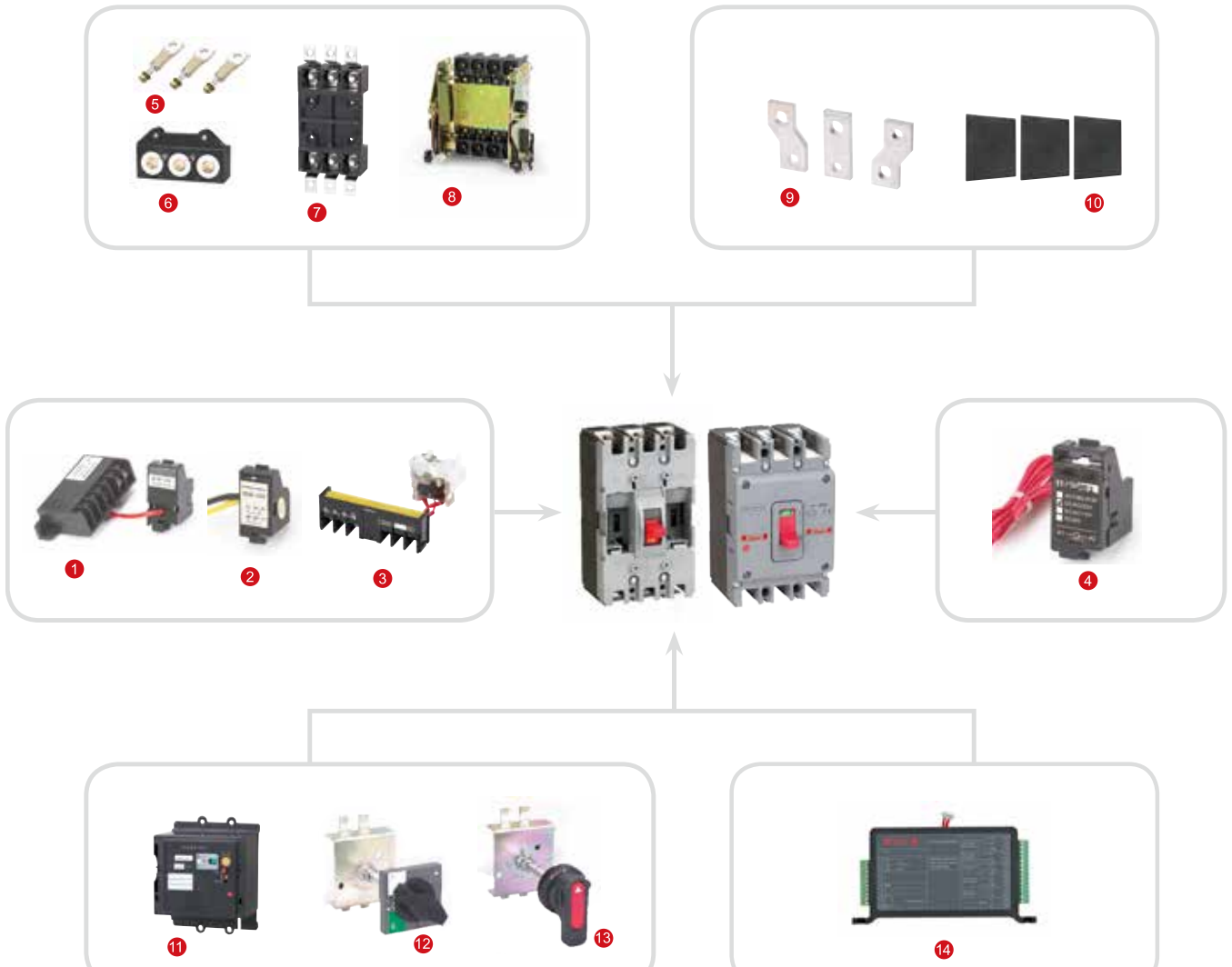
Test No.	I	Breaker status	Conventional time
1	80%li	Non-tripping	≥ 0.2s
2	120%li	Tripping	≤ 0.2s

HDM3S MCCB



Accessories

Overview of Accessories



1	Undervoltage release	7	Plug-in front connection	13	Round handle operating mechanism
2	Auxiliary contact	8	Withdrawable connection	14	Hand lock
3	Alarm contact	9	Extension terminal	15	Terminal cover
4	Shunt release	10	Interphase barriers	16	Cage lug
5	Fixed rear connection	11	Electric operating mechanism		
6	Plug-in rear connection	12	Square handle operating mechanism		

Note:

For more information about the accessories, please go to Himel website and download MCCB catalogue.

HDM3S MCCB



Internal Accessories

Auxiliary contact

An accessory connected in the auxiliary circuit of the switching device to indicate the circuit breaker status of ON or not.

Electrical wiring diagram

Accessory name	ON	OFF/TRIP
Auxiliary		

Electrical parameters

Conventional Thermal Current	3A		
Use category		AC 15	DC 13
Working electricity 50Hz	AC 400V	0.3A	
	DC 220V		0.15A

Alarm contact

An accessory used to indicate the circuit breaker status of ON or not. When the alarm contact indicates that the circuit breaker is at Trip status, there are the following five possibilities.

- Overload or short circuit fault.
- Residual current fault.
- Shunt release action.
- Line fault and undervoltage release action.

Electrical wiring diagram

Accessory name	ON/OFF	TRIP
Alarm		

Electrical parameters

Conventional Thermal Current	3A		
Use category		AC 15	DC 13
Working electricity 50Hz	AC 400V	0.3A	
	DC 220V		0.15A

Undervoltage release

- The undervoltage release shall reliably trip the circuit breaker at the voltage between 35% and 70% of the rated operational voltage;
- The undervoltage release shall ensure that the circuit breaker can be switched on at the voltage between 85% and 110% of the rated operational voltage;
- The undervoltage release shall prevent the circuit breaker from switching on when voltage is below 35% of the rated operational voltage.

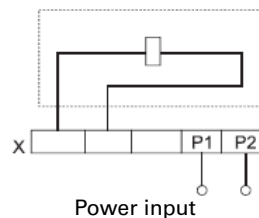
Electric wiring diagram of undervoltage release

Wiring diagram

Note: X- terminal block

Note: In the dashed box,

it is the wiring diagram of accessories in the circuitbreaker.



Electrical parameters

Electrical parameters	Undervoltage release power loss(W)	
	AC400V	AC230V
HDM3S-160	3.9	3.2
HDM3S-250	4.3	3.3
HDM3S-400/630	3.6	2.5



HDM3S MCCB



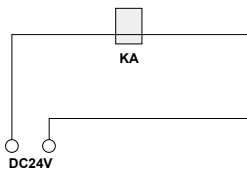
Internal Accessories

Shunt release

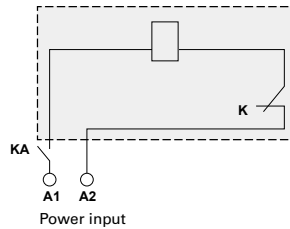
>The shunt release shall reliably trip the circuit breaker at the voltage between 70% and 110% of the rated control power voltage U

>The circuit breaker shall be reset on the site after tripping through the shunt release.

Electrical wiring diagram



KA: DC24V intermediate relay with the contact current capacity of 1A



Electrical parameters

Product type	Shunt release power loss(W)		
	AC400V	AC230V	DC24V
HDM3S-160	96.8	73	91.2
HDM3S-250	112	68.6	85.3
HDM3S-400/630	67	62.3	100

External Accessories

Model	Fixed front	Fixed rear	Plug-in front	Plug-in rear	Withdrawable
HDM3S-160	■	■	■	■	-
HDM3S-250	■	■	■	■	-
HDM3S-400	■	■	■	■	■
HDM3S-630	■	■	■	■	■

Plug-in

The wiring type is divided into plug-in Rear Connection and plug-in Front Connection

The plug-in connection for the products is easy for maintenance and replacement, but plug-in and plug-out cannot be done with the electricity.



Draw out

The drawer-out products can be easily maintained and replaced Visual connection and break-up.



Extended Handle

Handle operating mechanism

The circuit breaker can be operated by the rotation of the handle and the ergonomically designed rotation handle makes the operation of the circuit breaker more flexible.

2 types of rotation handle operating mechanisms:

>Direct rotation handle (round handle operating mechanism and square handle operating mechanism)

>Extended rotation handle (round extending handle operating mechanism and square extended handle operating mechanism)



User visualization information/settings:

> 3 position indications: OFF, ON and TRIP

>The circuit breaker cannot be switched on when the door is open

>The door cannot be opened when the circuit breaker is switched on

>The axial length of the extended handle can be custom made according to the distance from the back of the circuit breaker to the door.



HDM3S MCCB



Rear connection

Easy to install and connect the products in the rear connection.



Extend terminal

The extension terminal is connected to the standard terminal of the circuit breaker, in order to provide many other wiring schemes in the limited space:

- >Direct extension terminal
- >Extension terminal with inter-electrode distance



The busbar and extension terminal can be connected to the inlet or outlet terminal of the circuit breaker.

Interphase barriers

The interphase barriers can enhance the insulating performances between phase and phases . They can be installed from the product front even though the products had mounted.

Interphase barriers will be offered by standard, 3P product(4pcs), 4P product(6pcs).

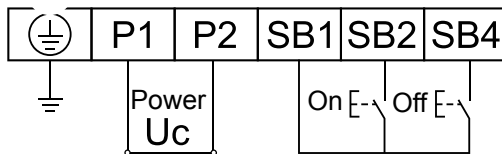


Motor

- Apply to remote electric connection, disconnection and re-trip of the circuit breaker and the automation control occasions.
- Rated voltage of electric operating mechanism: AC400V;AC230V/DC220V;AC/DC110V;DC24V
- Operating voltage range of electric operating mechanism: 85%-110% U_e.



Electrical wiring diagram



Electrical parameters

Product type	IP degree	Current	Voltage	Switch on/off time	Electric life
HDM3S160	20	≤ 1.5A	230v/380v	1S	12000
HDM3S250	20	≤ 1.5A	230v/380v	1S	12000
HDM3S400/630	20	≤ 2A	230v/380v	1S	8000



Terminal cover

Protection degree: IP40.

Protect from being contacted with main circuit.

Note: only for 3P.



Handle lock

Locking the breaker at the status of making.

Cage lug

It is used to connect with copper (aluminum) cable directly.



HDM3S MCCB



Accessories Selection Guide

Auxiliary contact with Wire

Frame size	Auxiliary contact with Wire	
	Contact	Left
HDM3S-160	1NC+1NO	HDM3S160OF11L
	2NC+2NO	HDM3S160OF21L
HDM3S-250	1NC+1NO	HDM3S250OF11L
	2NC+2NO	HDM3S250OF21L
HDM3S-400/630	1NC+1NO	HDM3S630OF11L
	2NC+2NO	HDM3S630OF21L



Auxiliary contact with Terminal

Frame size	Auxiliary contact with terminal	
	Contact	Left
HDM3S-160	1NC+1NO	HDM3S160OF12L
	2NC+2NO	HDM3S160OF22L
HDM3S-250	1NC+1NO	HDM3S250OF12L
	2NC+2NO	HDM3S250OF22L
HDM3S-400/630	1NC+1NO	HDM3S630OF12L
	2NC+2NO	HDM3S630OF22L



Alarm contact with Wire

Frame size	Alarm contact Wire	
	Left	
HDM3S-160	HDM3S160AL1L	
HDM3S-250	HDM3S250AL1L	
HDM3S-400/630	HDM3S630AL1L	



Alarm contact with Terminal

Frame size	Alarm contact terminal	
	Left	
HDM3S-160	HDM3S160AL2L	
HDM3S-250	HDM3S250AL2L	
HDM3S-400/630	HDM3S630AL2L	



Auxiliary Alarm with Wire

Frame size	Alarm contact Wire	
	Left	
HDM3S-160	HDM3S160OFAL1L	
HDM3S-250	HDM3S250OFAL1L	
HDM3S-400/630	HDM3S630OFAL1L	



HDM3S MCCB



Auxiliary Alarm with Terminal

Frame size	Alarm contact terminal	
	Left	
HDM3S-160	HDM3S160OFAL2L	
HDM3S-250	HDM3S250OFAL2L	
HDM3S-400/630	HDM3S630OFAL2L	



Shunt release with Wire

Frame size	Shunt release with Wire	
	Voltage	Right
HDM3S-160	AC230V	HDM3S160MX1A2R
	AC400V	HDM3S160MX1A3R
	DC110V	HDM3S160MX1D1R
	DC220V	HDM3S160MX1D2R
	DC24V	HDM3S160MX1D3R
HDM3S-250	AC230V	HDM3S250MX1A2R
	AC400V	HDM3S250MX1A3R
	DC110V	HDM3S250MX1D1R
	DC220V	HDM3S250MX1D2R
	DC24V	HDM3S250MX1D3R
HDM3S-400/630	AC230V	HDM3S630MX1A2R
	AC400V	HDM3S630MX1A3R
	DC110V	HDM3S630MX1D1R
	DC220V	HDM3S630MX1D2R
	DC24V	HDM3S630MX1D3R



Shunt release with Terminal

Frame size	Shunt release with Terminal	
	Voltage	Right
HDM3S-160	AC230V	HDM3S160MX2A2R
	AC400V	HDM3S160MX2A3R
	DC110V	HDM3S160MX2D1R
	DC220V	HDM3S160MX2D2R
	DC24V	HDM3S160MX2D3R
HDM3S-250	AC230V	HDM3S250MX2A2R
	AC400V	HDM3S250MX2A3R
	DC110V	HDM3S250MX2D1R
	DC220V	HDM3S250MX2D2R
	DC24V	HDM3S250MX2D3R
HDM3S-400/630	AC230V	HDM3S630MX2A2R
	AC400V	HDM3S630MX2A3R
	DC110V	HDM3S630MX2D1R
	DC220V	HDM3S630MX2D2R
	DC24V	HDM3S630MX2D3R



HDM3S MCCB



Under voltage release with Terminal

Frame size	Under voltage release with Terminal	
	Voltage	Right
HDM3S-160	AC230V	HDM3S160MN2A2R
	AC400V	HDM3S160MN2A3R
	DC110V	HDM3S160MN2D1R
	DC220V	HDM3S160MN2D2R
	DC24V	HDM3S160MN2D3R
HDM3S-250	AC230V	HDM3S250MN2A2R
	AC400V	HDM3S250MN2A3R
	DC110V	HDM3S250MN2D1R
	DC220V	HDM3S250MN2D2R
	DC24V	HDM3S250MN2D3R
HDM3S-400/630	AC230V	HDM3S630MN2A2R
	AC400V	HDM3S630MN2A3R
	DC110V	HDM3S630MN2D1R
	DC220V	HDM3S630MN2D2R
	DC24V	HDM3S630MN2D3R



Plug-in

Frame size	Plug-in		
	Connection type	3P	4P
HDM3S-160	Front connection	HDM3S160PF3	HDM3S160PF4
	Rear connection	HDM3S160PR3	HDM3S160PR4
HDM3S-250	Front connection	HDM3S250PF3	HDM3S250PF4
	Rear connection	HDM3S250PR3	HDM3S250PR4
HDM3S-400/630	Rear connection	HDM3S630PR3	HDM3S630PR4



Draw-out

Frame size	Plug-in		
	Connection type	3P	4P
HDM3S-400	Horizontal connection	HDM3S400DOR3	HDM3S400DOR4
HDM3S-630	Horizontal connection	HDM3S630DOR3	HDM3S630DOR4



Motor

Frame size	Motor				
	AC230V	AC400V	DC110V	DC220V	DC24V
HDM3S-160	HDM3S160MOA2	HDM3S160MOA3	HDM3S160MOD1	HDM3S160MOD2	HDM3S160MOD3
HDM3S-250	HDM3S250MOA2	HDM3S250MOA3	HDM3S250MOD1	HDM3S250MOD2	HDM3S250MOD3
HDM3S-400/630	HDM3S630MOA2	HDM3S630MOA3	HDM3S630MOD1	HDM3S630MOD2	HDM3S630MOD3



HDM3S MCCB



Rotation Handle

Frame size	Rotation Handle		
	Handle shape	Direct	Extended (Default 150mm)
HDM3S-160	Round	HDM3S160H1	HDM3S160HL1
	Square	HDM3S160H2	HDM3S160HL2
HDM3S-250	Round	HDM3S250H1	HDM3S250HL1
	Square	HDM3S250H2	HDM3S250HL2
HDM3S-400/630	Round	HDM3S630H1	HDM3S630HL1
	Square	HDM3S630H2	HDM3S630HL2



Rear connection

Frame size	Rear connection	
	3P(6pcs)	4P(8pcs)
HDM3S-160	HDM3S160RC3	HDM3S160RC4
HDM3S-250	HDM3S250RC3	HDM3S250RC4
HDM3S-400/630	HDM3S630RC3	HDM3S630RC4



Expanding terminal

Frame size	Expanding terminal	
	3P(3pcs)	4P(4pcs)
HDM3S-160	HDM3S160C3	HDM3S160C4
HDM3S-250	HDM3S250C3	HDM3S250C4
HDM3S-400/630	HDM3S630C3	HDM3S630C4



Interphase barriers

Frame size	Interphase barriers	
	3P(2pcs)	4P(3pcs)
HDM3S-160	HDM3S160IB3	HDM3S160IB4
HDM3S-250	HDM3S250IB3	HDM3S250IB4
HDM3S-400/630	HDM3S630IB3	HDM3S630IB4



Cage lug

Frame size	Cage lug
	Normal(1pcs)
HDM3S-160	HDM3S160LUG
HDM3S-250	HDM3S250LUG
HDM3S-400	HDM3S400LUG
HDM3S-630	HDM3S630LUG

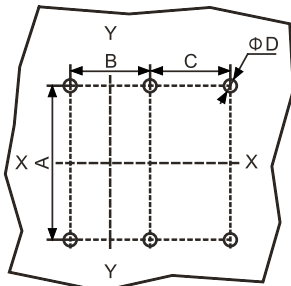


HDM3S MCCB

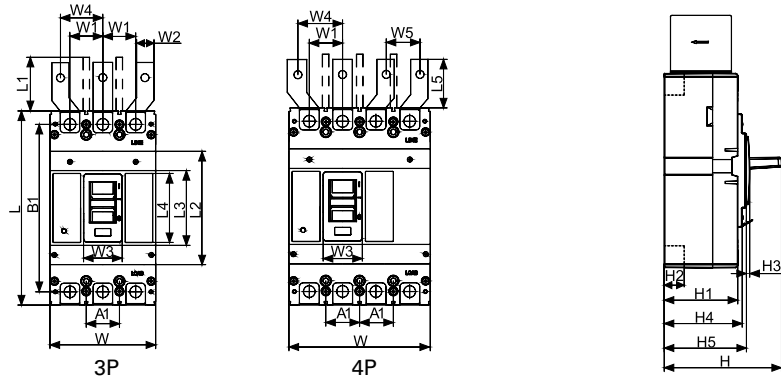


Fixed MCCB Mounting Dimension

Front connection(mm)



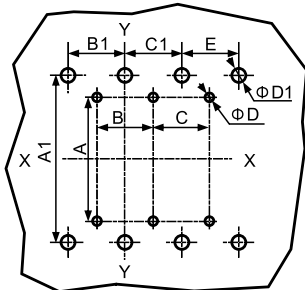
Note: X-X and Y-Y is the center of the three-pole breaker



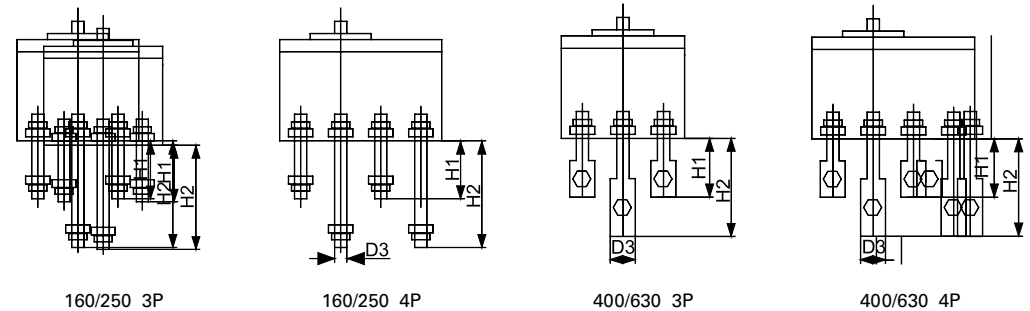
Model	Poles	Installation dimension			
		A	B	C	D
HDM3S-160	3	132	30	/	4.5
	4	132	30	30	4.5
HDM3S-250	3	126	35	/	4.5
	4	126	35	35	4.5
HDM3S-400/630	3	194	44	/	7
	4	194	44	44	7

Model	Poles	Overall dimensions																	Installation dimension		
		L	L1	L2	L3	L4	L5	W	W1	W2	W3	W4	W5	H	H1	H2	H3	H4	H5	A1	B1
HDM3S-160	3P	155	98	121	55	50	21.8	90	30	15	25.3	39	/	107	75	20	2.6	82	87	30	134
	4P	155	98	121	55	50	21.8	120	30	15	25.3	39	30	107	75	20	2.6	82	87	30	134
HDM3S-250	3P	165	98	102	59	50	41.8	105	35	20	24	42	/	116	81	23	3	88	93	35	144
	4P	165	98	102	59	50	41.8	140	35	20	24	42	35	116	81	23	3	88	93	35	144
HDM3S-400/630	3P	257	98	150	99	91	45.4	140	43.5	28	51	56	/	150	97	30	4	103	109	44	230
	4P	257	98	150	99	91	45.4	185	43.5	28	51	56	44	150	97	30	4	103	109	44	230

Rear connection(mm)



Note: X-X and Y-Y is the center of the three-pole breaker



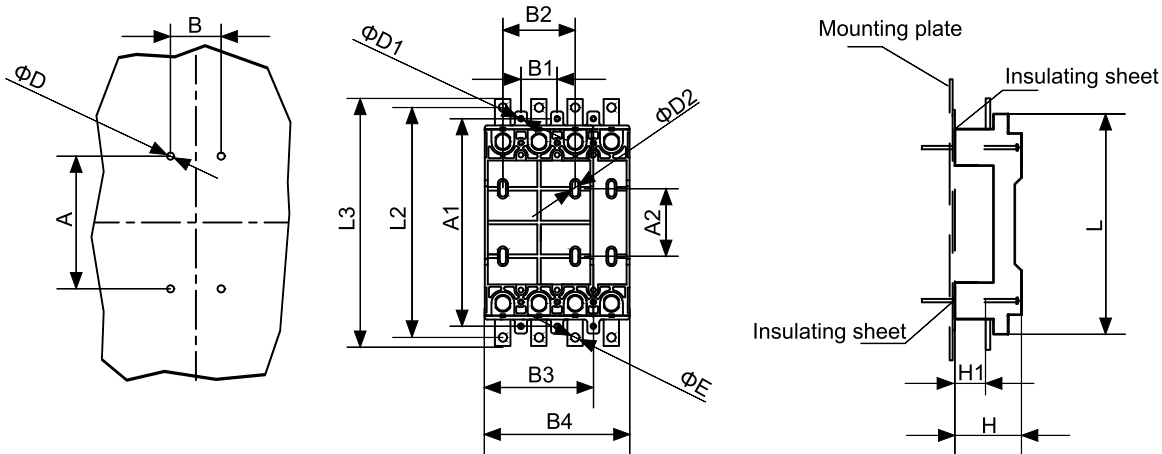
Model	Poles	Dimensions											
		A	B	C	D	A1	B1	C1	E	D1	H1	H2	D3
HDM3S-160	3	132	30	/	4.5	134	30	30	/	9.8	112	72	φ8
	4	132	30	30	4.5	134	30	30	30	9.8	112	72	φ8
HDM3S-250	3	126	35	/	4.5	144	35	35	/	8	126	87	φ8
	4	126	35	35	4.5	144	35	35	35	8	126	87	φ8
HDM3S-400	3	194	44	/	7	230	43.5	43.5	/	10.5	136	83	30
	4	194	44	44	7	230	43.5	43.5	44	10.5	136	83	30
HDM3S-630	3	194	44	/	7	230	43.5	43.5	/	10.5	136	83	32
	4	194	44	44	7	230	43.5	43.5	44	10.5	136	83	32

HDM3S MCCB



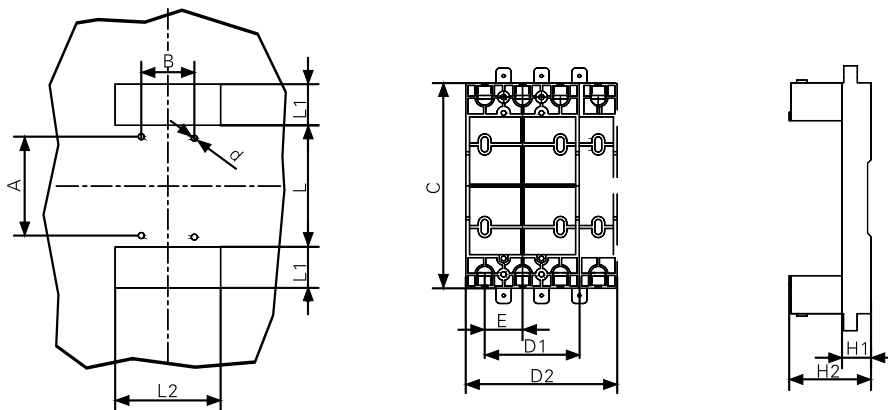
Plug-in MCCB Mounting Dimension

Front connection (mm)



Model	Poles	Dimension																
		A	B	L2	L3	D	E	H	H1	L	A1	B1	D1	A2	B2	B3	B4	D2
HDM3S-160	3	112	30	200	216	4.5	6.5	56	28	182	172	30	5.5	67	60	90	-	6.5
	4	112	30	200	216	4.5	6.5	56	28	182	172	30	5.5	67	60	-	120	6.5
HDM3S-250	3	150	35	223	243	4.5	8.5	74	33	202	191	35	5.5	74	70	105	-	6.5
	4	150	35	223	243	4.5	8.5	74	33	202	191	35	5.5	74	70	-	140	6.5
HDM3S-400	3	249	44	332	358	5.5	10.5	85	36	310	295	44	6.5	146	88	140	-	7
	4	249	44	332	358	5.5	10.5	85	36	310	295	44	6.5	146	88	-	184	7
HDM3S-630	3	249	44	332	358	5.5	10.5	85	36	310	295	44	6.5	146	88	140	-	7
	4	249	44	332	358	5.5	10.5	85	36	310	295	44	6.5	146	88	-	184	7

Rear connection(mm)



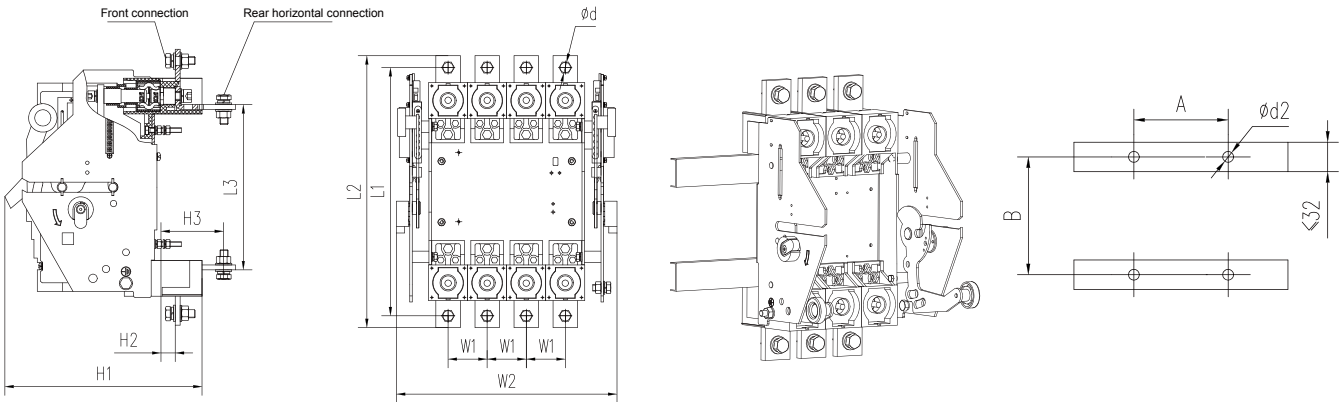
Model	Poles	Dimensions											
		A	B	L	L1	L2	d	C	D1	D2	E	H1	H2
HDM3S-160	3	67	60	90	51	94	φ6.5	162	90	-	30	20	56
	4	67	90	90	51	124	φ6.5	162	-	120	30	20	56
HDM3S-250	3	74	70	100	55	110	φ6.5	179	105	-	35	27	73
	4	74	105	100	55	145	φ6.5	179	-	140	35	27	73
HDM3S-400	3	146	88	183	70	135	φ7	279	132	-	44	45	85
	4	146	132	183	70	179	φ7	279	-	176	44	45	85
HDM3S-630	3	146	88	183	70	135	φ7	279	132	-	44	45	85
	4	146	132	183	70	179	φ7	279	-	176	44	45	85

HDM3S MCCB



Draw out Mounting Dimension

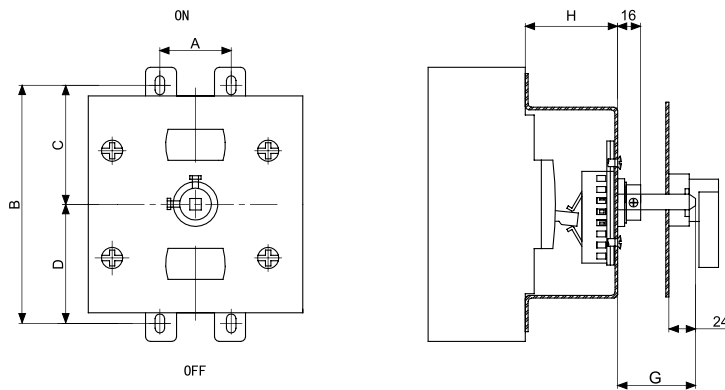
Rear connection(mm)



Model	Installation dimension										
	L1	L2	L3	H2	H3	W1	W2	φ D	A	B	φ c
HDM3S-400	316	345	210	25	78	44	211	11	88	146	6.5
HDM3S-630											

Rotary Handle Dimensions

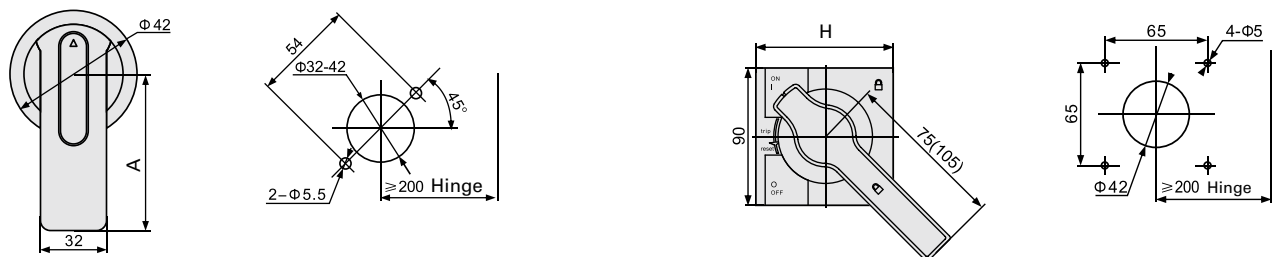
Mounting with MCCB dimensions(mm)



Model	A	B	C	D	H
HDM3S-160	30	132	66	66	46
HDM3S-250	35	126	63	63	51
HDM3S-400	128	194	97	97	76

Note: Default is 150mm

Handle and door cutting dimensions(mm)



Round handle dimensions

Model	A
HDM3S-160	60/90
HDM3S-250	60/90
HDM3S-400/630	60/90

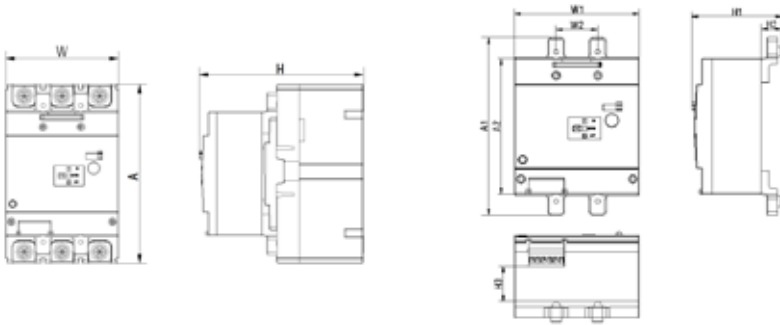
Square handle dimensions

Model	H
HDM3S-160	90
HDM3S-250	90
HDM3S-400/630	90

HDM3S MCCB

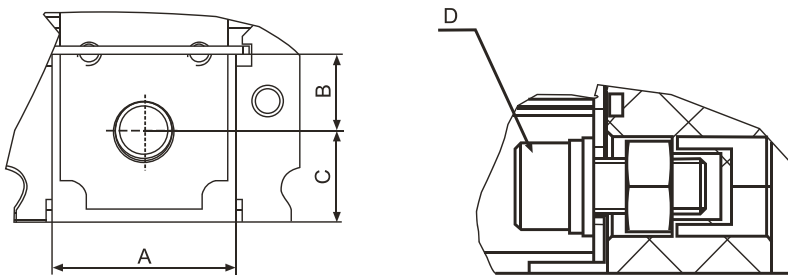


Motor Mounted with MCCB Dimensions (mm)



Model	A	A1	A2	W	W1	W2	H	H1	H2	H3
HDM3S-160	155	144	109.5	90	90	30	151	78.2	16.7	34.2
HDM3S-250	165	149.6	114	105	105	35	153.5	75.8	17.2	29.5
HDM3S-400	257	212	177	140	140	44	170.5	77	16.3	32.5
HDM3S-630	257	212	177	140	140	44	170.5	77	16.3	32.5
HDM3S-800	275.5	264	174	210	210	70	188.5	95	17	45

Terminal Connection Dimensions (mm)



Model	A	B	C	D
HDM3-160	16	7.7	10.5	M8*20
HDM3-250	21	10	11	M8*20
HDM3-400	27.5	15.3	13.4	M10*30
HDM3-630	27.5	15.3	13.4	M10*30

Copper Conductors Size for up to 400A MCCB

Rated current A	mm ²	25	32	40 50	63	80	100	125 140	160	200	250	315	400
Cross-section of conductor	mm ²	4	6	10	16	25	35	50	70	95	120	185	240

Copper Conductors or Bars Size for above 400A MCCB

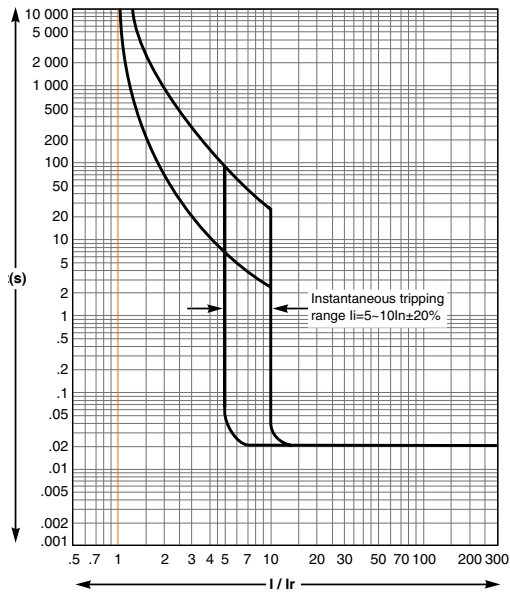
Rated current A	Quantity	Copper conductors Cross section mm ²	Copper busbar Size:mm*mm
500	2	150	30*5
630	2	185	30*5

HDM3S MCCB

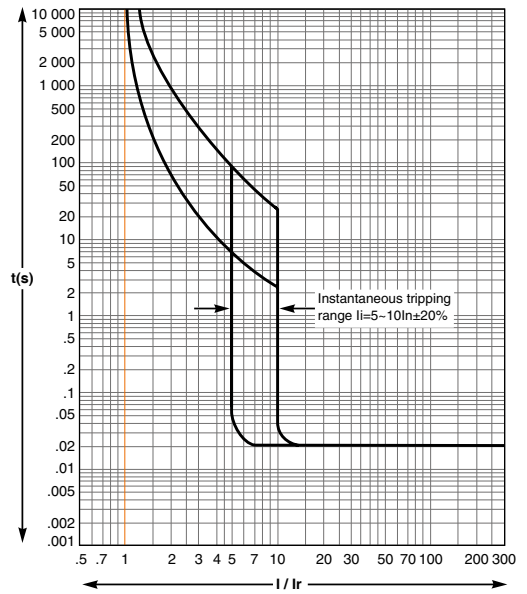


Tripping Curves

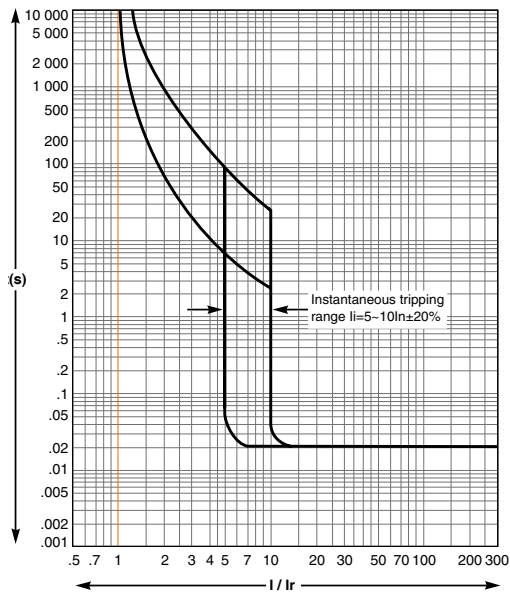
HDM3S-160



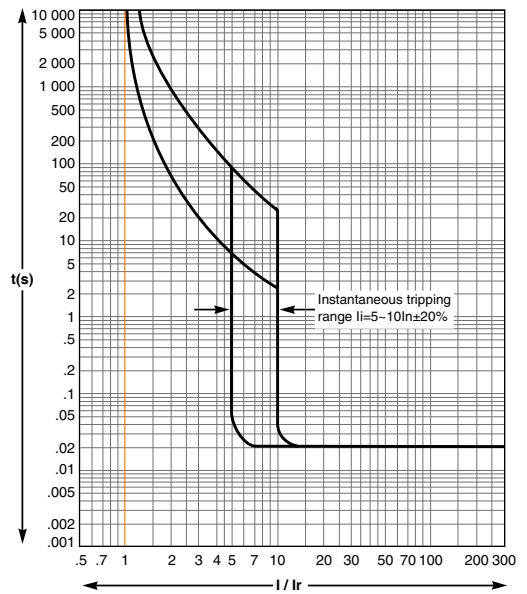
HDM3S-250



HDM3S-400



HDM3S-630



HDM2 MCCB



Range Presentation

HDM2 is Himel range of 1P/2P MCCB , rated current 10A to 125A, rated Voltage 220V/240V, 400V, suitable for AC 50/60Hz and mainly used in the power distribution system, to provide protection against overload and short circuit.

Features

- ◆ Rated current 10A to 125A
- ◆ Icu/Ics certified
 1P: Icu/Ics=20/15kA@220/240V
 2P: Icu/Ics=30/18kA@220/240V
 Icu/Ics=20/15kA@400V
- ◆ Thermal trip calibrated under 40°C and 50°C, suitable for higher ambient temperature

Online Content



HDM2

Selection Code

Range name	Frame size	Breaking capacity	Rated current	Poles	Temperature
HDM2	125	L	100	1	
HDM2	125: 125AF	L	010: 10A 016: 16A ... 100: 100A 125: 125A	1: 1P 2: 2P	Default: 40°C T: 50°C

Note: "T" is thermal trip calibrated in 50 degree. Please contact local sales for further information.

Technical Parameters

MCCB		HDM2-125	
Rated voltage Ue(V)		1P: 220/240VAC; 2P: 400VAC	
Rated frequency (Hz)		50/60Hz	
Rated insulation voltage Ui(V)		690V	
Rated impulse withstand voltage uimp(kV)		8kV	
Rated current In(A)		10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A, 80A, 100A,125A	
Utilization category		A	
Reference temperature		40°C	
Number of Poles		1P	2P
Icu(kA)	220/240VAC	20	30
Ics(kA)	220/240VAC	15	18
Icu(kA)	400VAC	/	20
Ics(kA)	400VAC	/	15
Mechanical life		9000	
Electrical life		2000	
Isolation function		Available	
Certification		SEMKO	

HDM2 MCCB



Ambient temperature (40°C product)												
Temperature	0°C	10°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	
Model												
HDM2-1P	1.19	1.16	1.12	1.1	1.08	1.03	1	0.95	0.86	0.81	0.73	
HDM2-2P	1.19	1.16	1.12	1.1	1.08	1.03	1	0.95	0.86	0.81	0.73	

Altitude derating table							
Altitude(m)	2000	2500	3000	3500	4000	4500	5000
Rated insulation voltage U_i (V)	690	627	627	572	572	531	531
Rated impulse withstand voltage U_{imp} (kV)	8	7	7	6.5	6.5	6	6
Rated operating voltage U_e (V)	400	400	330	305	280	265	250
De-rated rated current at ambient temperature of 40°C	1In	0.98In	0.94In	0.92In	0.88In	0.86In	0.85In

Installing and Operation

- ◆ Before installation :
 - (1) Check whether the parameters on nameplate comply with the application requirement;
 - (2) Make sure the handle at the "Trip" position;
 - (3) Open and close the circuit breakers 3 times, and the operation should be reliable and no clamping, and the handle should be at "OFF" position;
- ◆ When installing :
 - (1) Check whether the wire connection is correct, and connect "LINE" to power supply, and "LOAD" to equipments.
 - (2) Refer to below table 1 for recommended wiring cross section and related rated current, to make sure the breaker work properly;
 - (3) Refer to table 2 for wiring fastening torque;

Rated current and related wiring cross section

Rated current A	10	16,20	25	32	40,50	63	80	100	125
Cross section of wire mm ²	1.5	2.5	4	6	10	16	25	35	50

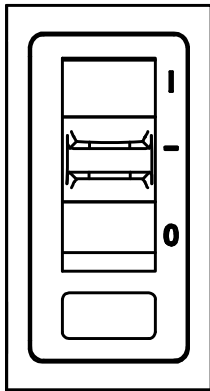
Fastening torque

Model	Screw	Fastening torque N·m
125AF	M8	9.5-10.5

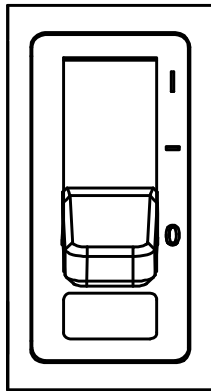
HDM2 MCCB



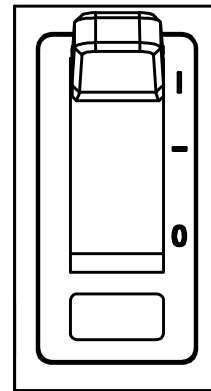
Handle Position Indication



TRIP

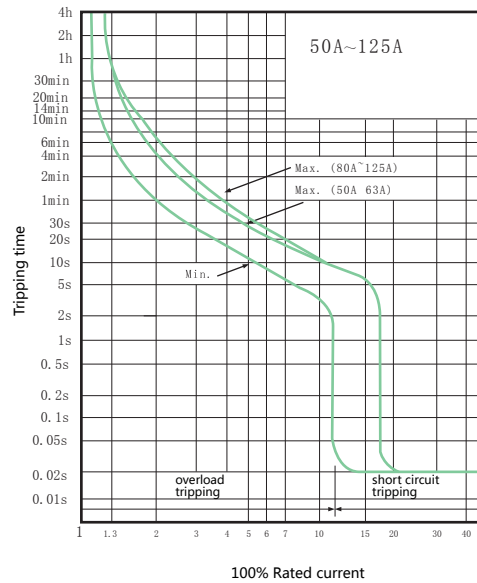
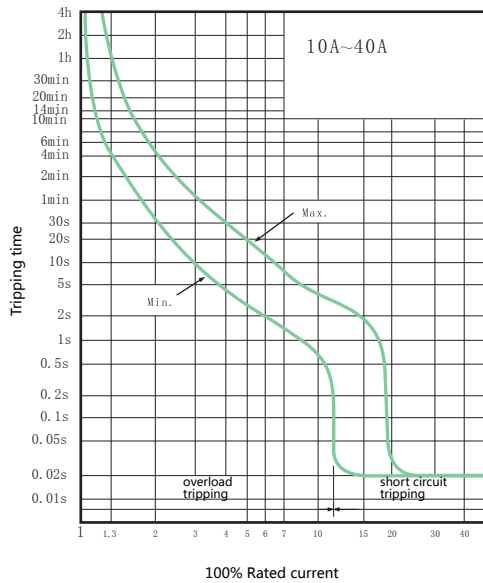


OFF



ON

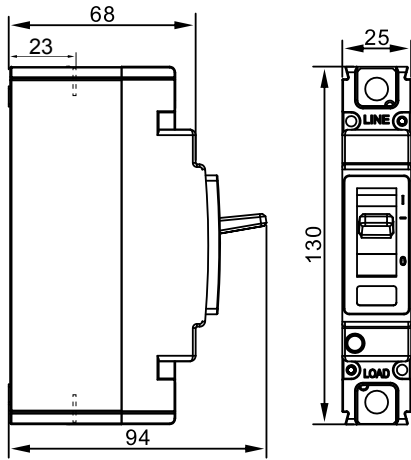
HDM2 Series Trip Curve



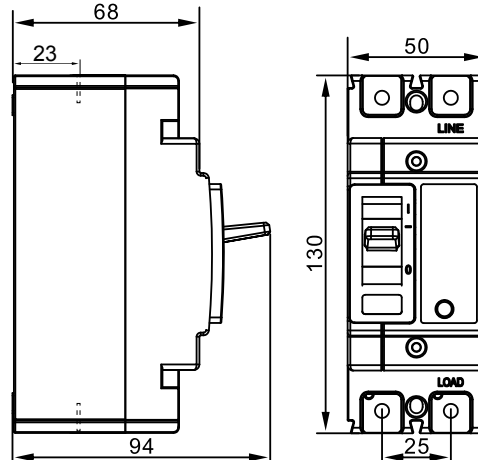
HDM2 MCCB



Dimensions

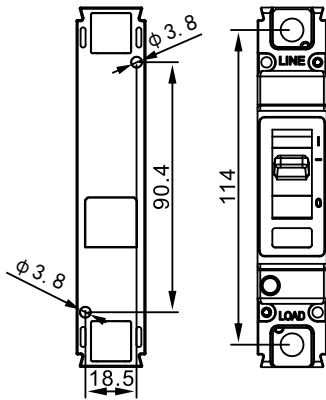


HDM2-125/1P

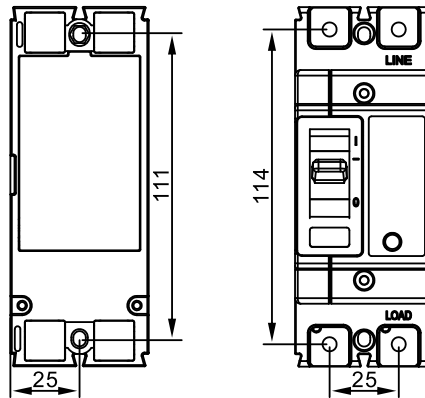


HDM2-125/2P

Installation Size

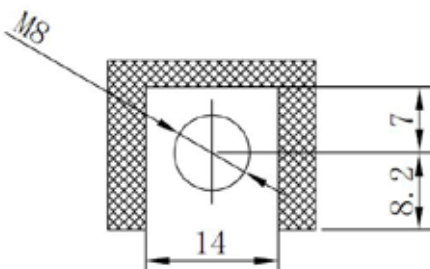


HDM2-125/1P



HDM2-125/2P

Terminal Connection Size



HDM2 MCCB



Maintenance and Care

- ◆ The maintenance and care must be implemented by qualified professional persons;
- ◆ Make sure that the breaker is electrically neutral;
- ◆ Conduct maintenance and care once a year under normal operation condition.
- ◆ See below table for maintenance content.

Type	Item	Content
Circuit Breaker	Appearance	Free of dust or condensation. Clean if there is any. Free of damage. No discoloration at the shell or connecting terminal.
	Terminal Connection	Not loose and tighten according to the torque specified in table 2
	Interphase barrier	Should be inserted tightly, and no damage
	Handle closing and opening	Operation shall be flexible
	Insulation test	Prohibited to test insulation between any two load phases by short circuit
	Test button	The handle should be at trip position after tripping
Circuit breaker with accessories (If applicable)	Installed with undervoltage release	The breaker shall open reliably when cut off the power supply of undervoltage release, and the handle should be at TRIP position
	Installed with shunt release	The breaker shall open reliably when energizing the shunt release with rated voltage, and the handle should be at TRIP position
	Installed with auxiliary contacts	Open and close the breaker, the auxiliary contacts shall transfer signal reliably.

HDM2L Earth-leakage Circuit Breaker



Range Presentation

HDM2L is Himel range of 2P ELCB with thermal magnetic trip unit and residual operating current protection, providing line protection, up to 250A

Features

- ◆ 125AF & 250AF , 2P, 2 frame size
- ◆ Rated current 16A to 250A
- ◆ Adjustable residual current protection
- ◆ Adjustable time delay with residual current protection

Online Content



HDM2L

Selection Code

Series Name	Frame Size	Breaking Capacity	Rated Current	Poles	Leakage current	Leakage current	Time delay
HDM2L	125	S	100	2	3C	C	1
HDM2L	125: 125A (16-125A) 250: 250AF (100-125A)	S	016: 16A 020: 20A 025: 25A 032: 32A 040: 40A 050: 50A 063: 63A 080: 80A 100: 100A 125: 125A 160: 160A 180: 180A 200: 200A 225: 225A 250: 250A	2: 2P	3C: thermal -Magnet with line protection, N pole with switch and protection	A: 30/100/300mA B: 100/300/500mA C: OFF/100/300mA	0: No delay 1: 0.1/0.2/0.3s

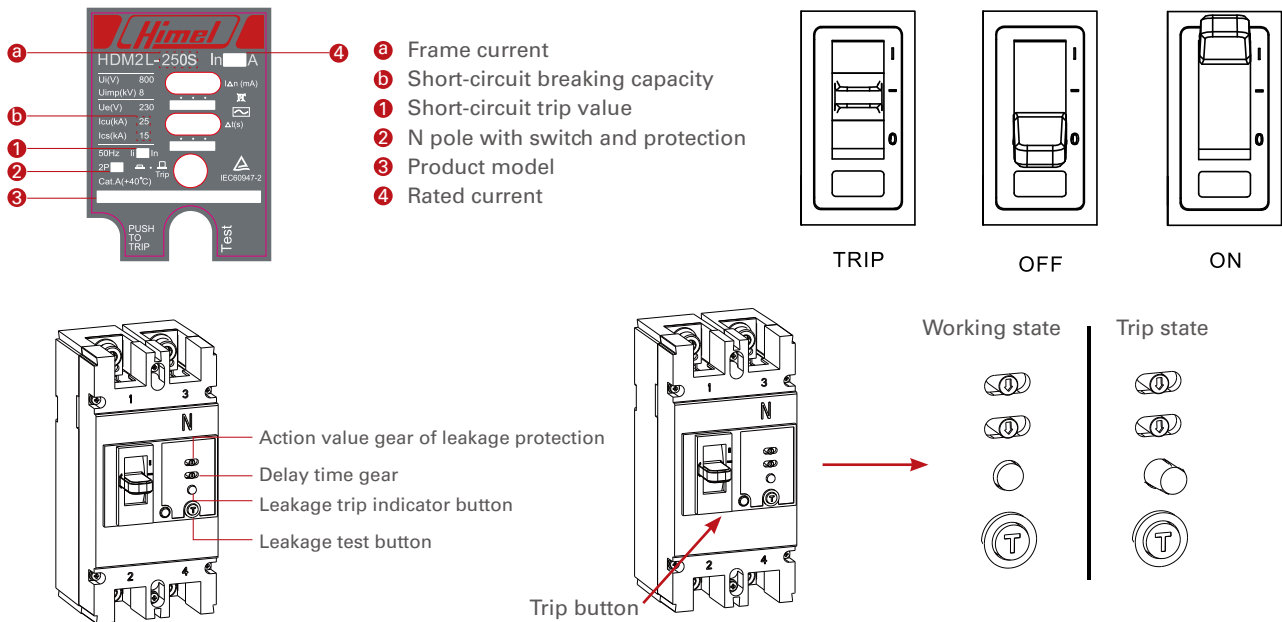
Technical Parameters		
Frame size	HDM3L-125	HDM3L-250
[Ue] rated operational voltage (V)	230	230
[In]Current (A)	16/20/25/32/40/50/63/80/100/125	100/125/140/160/180/200/225/250
[Ui] rated insulation voltage (V)	800	800
[Uimp] rated impulse withstand voltage (Kv)	8	8
Pole	2	2
Breaking Capacity (Ka)	S	S
Icu (230V)	35	35
Ics (230V)	21	21
Rated residual operating current $I_{\Delta n}$ (mA)	Non time delay	A:30/100/300mA B:100/300/500mA C: OFF/100/300mA
	Adjustable time delay	B:100/300/500mA B:100/300/500mA
rated residual non-operating current $I_{\Delta n}$ (mA)	50% $I_{\Delta n}$	50% $I_{\Delta n}$
Non time delay: tripping time (s)	≤ 0.1	≤ 0.1
Adjustable time delay: 2I Δn non tripping time (s)	Y1: 0.1/0.2/0.3s	Y1: 0.1/0.2/0.3s
Rated residual short-circuit connection capacity $I_{\Delta m}$ (kA)	25% Icu	25% Icu
Mechanical Life	10000	10000
Electrical Life	4000	4000
Utilisation category	Category A	
Trip unit technology	Thermal-magnetic (Fixed) , line protection (10xIn,400A below In=40A)	
Suitability for isolation	■	
IP degree of protection	IP20 conforming to IEC 60529	
Ambient air temperature for operation	upto...40 °C	
Certificates	IEC60947-2 TUV/CB	
Dimension (WxHxD)	62*150*72	75*165*74

HDM2L Earth-leakage Circuit Breaker

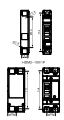


Operation

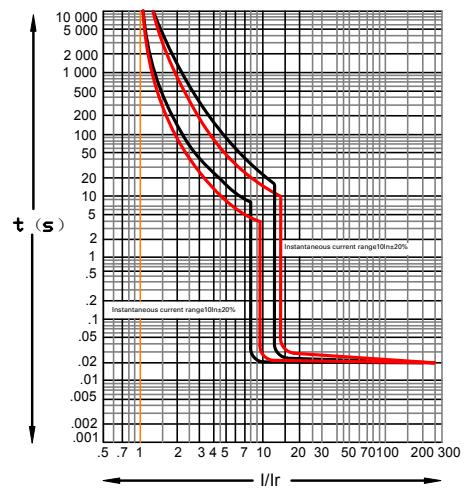
- Turn the handle to the “Trip” position before the shipment of circuit breaker;
- Turn the operating handle to the “Open” position before re-trip;
- Turn the circuit breaker to the “Closed” position;
- With the trip button pressed, the circuit breaker handle shall be return to the “Trip” position;
- The leakage test button shall be pressed once a month to check the leakage function of the product for failure;
- Select the action value gear and delay time gear of leakage protection properly.



Installation and Wiring Dimensions



HDM2L 125/250AF trip curve



X-X: Central axis of base Y-Y: Central axis of handle

Unit: mm

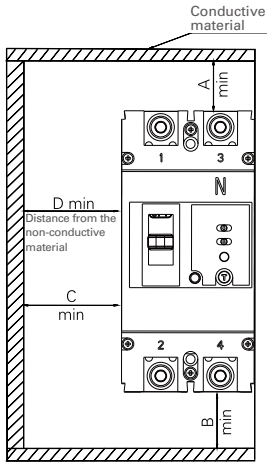
Installation dimensions	Number of poles	Installation dimensions																		
		L	L1	L2	L21	L3	W	W1	W2	H	H1	H2	H3	H4	H5	B	C	C1	C2	Ød
125	2	151	96	50	24.5	50	63	30	59	96	82	73	66	27	27	129	18	7.5	8.5	5
250	2	165	96	50.5	29	63	78	35	72	98	82	73.5	70	26	26.5	126.3	21.5	12.5	9	5

HDM2L Earth-leakage Circuit Breaker



Safety distance of circuit breaker

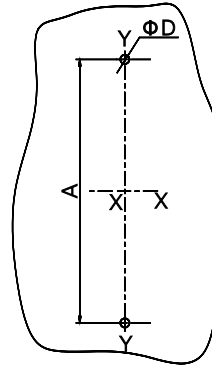
Unit: mm



Product model HDM2L	Amin	Bmin	Cmin	Dmin
125	60	30	10	0
250	85	42.5	10	0

Dimensions of holes on the mounting plate

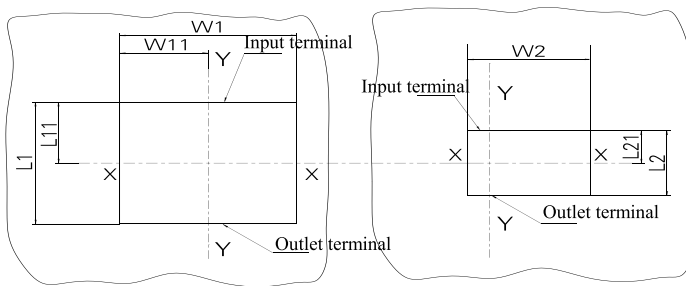
Unit: mm



Product model HDM2L	Number of poles	A	ΦD
125	2	129	5
250	2	126.3	5

Dimensions of holes on the circuit breaker panel

Unit: mm



Exposed front cover and toggle handle

Exposed toggle handle

Product model HDM2L	Number of poles	Exposed front cover and toggle handle				Exposed toggle handle		
		L1	L11	W11	W1	L2	L21	W2
125	2	99	49.5	17	66	53	26	62
250	2	99	49.5	23	75	53	31	75

HDM2L Earth-leakage Circuit Breaker



Wiring capacity and recommended value

Rated current (A)	10	16 20	25	32	40 50	63	80	100	125 140	160	180 200 225	250
Recommended cross section of wire (mm ²)	1.5	2.5	4	6	10	16	25	35	50	70	95	120

⚠ Attention: Please note the outline, installation, and dimensions C, C1 and C2 and corresponding wiring screw diameter in the wiring dimensions, and select the appropriate wiring terminals or bus bar according to the corresponding wiring capacity requirements.

Recommended tightening torques of wiring screws

Product Spec. HDM2L-	125	250
Wiring hex screw	M8	M8
Torque (N.m)	7-10	7-10

⚠ Attention: Please tighten the wiring screws according to the recommended torque, because too large or too small tightening torque will result in poor contact or damage to the shell.

Recommended self-tapping and self-drilling mounting screw (cross recessed countersunk self-tapping and self-drilling screw GB/T15856.2)

Product spec. HDM2L-	125	250
Model and specification of recommended self-tapping and self-drilling screw	ST4.2X42	ST4.2X70 (Without self-lock slot)

⚠ Attention: Some models of this product support the use of self-tapping and self-drilling screws for installation. Only general screws and nuts are provided with the product. Please purchase the self-tapping and self-drilling screws of the corresponding specifications.

Maintenance and Repair

- The maintenance and repair must be performed by the qualified professions.
- Cut off the product power;
- Please maintain and service the product once a year under normal operating conditions. The maintenance contents refer to the table below.

Item	Contents
Appearance	No dust, no condensation; clean if necessary; no damage to the shell.
Terminal connection	Tightened according to the torques listed in the recommended wiring screw tightening torque table of 4.5 without looseness.
Closed / open / trip operations via handle	The handle shall be operated flexibly without blockage. With the self-cleaning contact structure used, open and closed operations can be performed many times to peel the oxide layers of dynamic and static sliver points for any change of contact resistance due to oxidation to reduce the contact resistance.

Unpacking Inspection

Check the product for damage, check the exposed metal for rust, and check the product for defects due to poor transport or storage after unpacking. If found, do not use the product and please contact the supplier without hesitation.

Product model HDM2L-	Number of poles	Mounting screws - Qty.	Wiring screws - Qty.	Phase partition - Qty	Extended handle	Circuit breaker	Manual (with certificate)
125	2	M4x40-2	M8x16-4	2	-	1	1
250	2	M4x60-2	M8x20-4	2	-	1	1

LOW VOLTAGE DISTRIBUTION

Air Circuit Breakers



Range Presentation

HDW3 is Himel 3 series comprehensive range of Air Circuit Breakers designed to distribute electric energy and protect overload, under voltage, short circuit and ground faults

HDW3 can be mainly used in power stations, factories, mines and modern high-rise buildings with smart power distribution system.

Application standard: IEC/EN 60947-2

Features

- ◆ 6 frame size: 1000,1600,2000,3200,4000,6300AF
- ◆ Rated current In (A): 400 - 6300
- ◆ Rated voltage AC Ue (V): 400/415, 660/690
- ◆ Poles: 3 & 4
- ◆ 3 type of intelligent controllers

Online Content



HDW3

Selection code

Range name	Frame size	Breaking capacity	Rated current	Poles	Installation type
HDW3	16	M	16	3	FH
HDW3	10: 1000 16: 1600 20: 2000 32: 3200 40: 4000 63: 6300	M: Icu≠Ics=Icw S: Icu=Ics=Icw	04: 400A 06: 630A 08: 800A 10: 1000A 12: 1250A 16: 1600A 20: 2000A 25: 2500A 32: 3200A 40: 4000A 50: 5000A 63: 6300A(only 3P)	3: 3P 4: 4P	DH: Draw-out horizontal FH: Fixed horizontal
Motor mechanism (MCH)+Closing coil (XF)	Shunt release (MX)	Undervoltage release(MN)	Auxiliary contact	Intelligent controller	
5	5	5	4	M	
D: DC220V N: AC230V V: AC400V 5: Without MCH+XF	D: DC220V N: AC230V V: AC400V 5: Without shunt release	N: AC230V V: AC400V P: with undervoltage delayed AC230V T: with undervoltage delayed AC400V 5: Without undervoltage release	4: 4NO+4NC (1000,1600,4000AF) 6: 6NO+4NC (2000,3200,6300AF)	L: iTR326(50Hz) M: iTR326A(50Hz) H: iTR326H((50/60Hz) E: iTR326(60Hz) T: iTR326A(60Hz)	

Example: HDW316M163FH5554M: HDW3-1600M 1600A 3P Fixed breaker, M type controller, without accessory.

Note: 1000AF/1600AF the accessory is same parts.

Main Parameters

- Frame size: 1000,1600,2000,3200,4000,6300AF
- Rated current I_n (A): 400 ~ 6300
- Rated voltage AC U_e (V): 400/415, 660/690
- Poles: 3 & 4
- Installation method: Fixed type and draw-out type
- Wiring method: Horizontal rear connection, Vertical rear connection

Intelligent Controllers

iTR326 (basic type)
Basic protection (L, S, I & G)

iTR326A (standard type)
Basic protection
Basic measurement
Auxiliary function

iTR326H (advanced type)
Basic + high level protection
Multiple measurement
Auxiliary function
Advanced function
Communication

Accessories

- Motor operating mechanism: shunt coil, undervoltage coil, closing coil
- Intelligent controller accessories: N phase External transformer, Ground transformer, leakage current transformer, power module, Signal conversion module
- Lock: key lock , door lock
- Mechanical interlocking : cable interlocking
- Operation and protection: door frame, phase partition
- Indicator contact: auxiliary contact, alarm contact

Range of Application

HDW3 series air circuit breaker, the rated current is from 400A to 6300A, the rated voltage is 400V/415V, 660/690V, suitable for AC 50/60Hz and mainly used in Power distribution system networks, to distribute electric energy and protect the line and power supply equipment far away from the fault hazard of overload, under voltage, short circuit and single-phase grounding.

The circuit breaker can be widely used in power stations, factories, mines and modern high-rise buildings, especially the intelligent building power distribution system.

Application standard: IEC/EN 60947-2

Normal Working Condition

Environment temperature	Ambient temperature is $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$ (certification); mean value of 24h shall not exceed $+35^{\circ}\text{C}$. It can also be used at ultimate temperature $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$ (L type, M type controller).
Altitude	$\leq 5000\text{m}$
Electromagnetic interference	Applies to Environment A
Class of pollution	Class of pollution level 3 Installation position shall be vertical, inclination of each direction shall not more than 5°
Installation level	Circuit breaker main circuit and undervoltage trip coil, power transformer primary coil are level IV, auxiliary circuit and control circuit is level III
Transportation condition	Move gentle, do not put upside down, avoid collision

Air Circuit Breakers

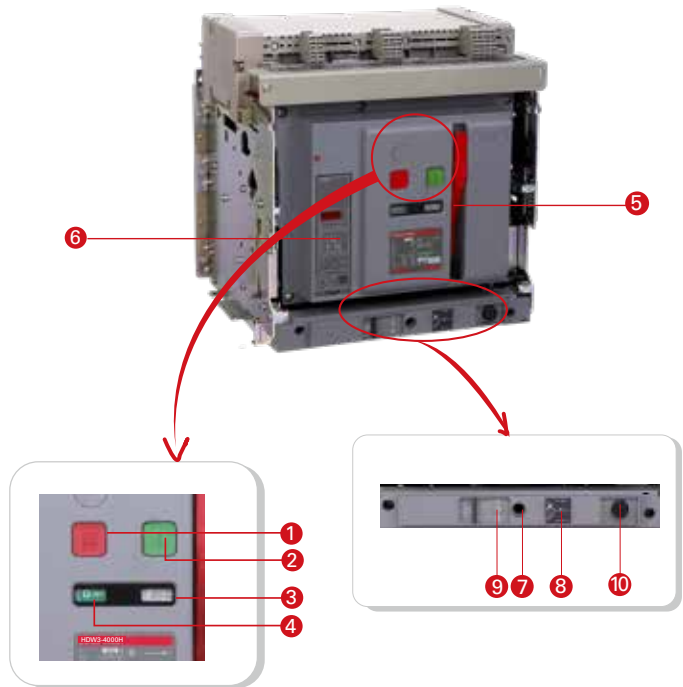


Front Face

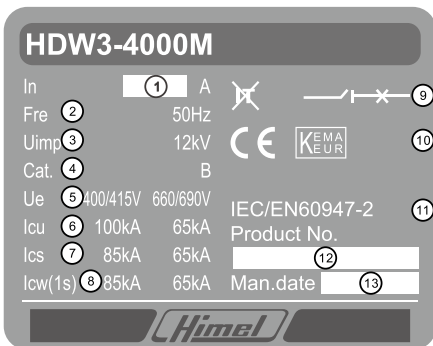
- 1 Open button
- 2 Closing button
- 3 Spring charge mechanism status indicator
 - Spring charged , closing is allowed
- ||||| charged
OK

 - Spring charged , closing is not allowed
- ||||| charged
OK

 - Spring released
- discharged
|||||
- 4 Main contact position indicator
 - OFF Open
 - ON Close
- 5 Spring charge operation handle
- 6 Controller
- 7 Draw in (out) device
- 8 Connection, test and disconnection position indication
- 9 Connect, test and disconnection position limiter
- 10 Rocker storage



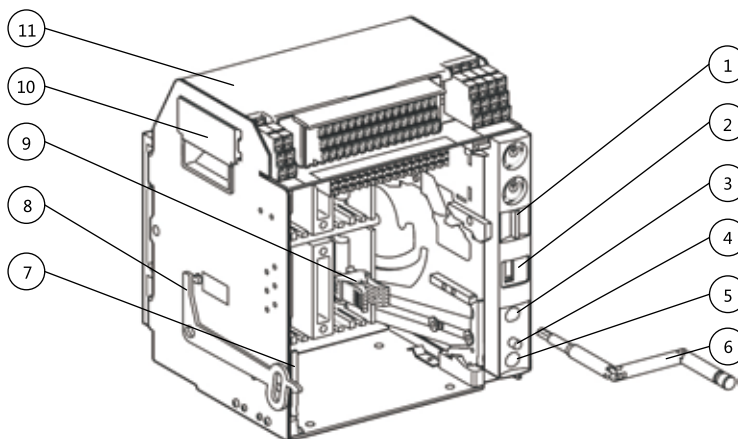
Name plate



1	Rated Current	8	Rated short-time withstand current
2	Rated frequency	9	Applicability
3	Rated impulse withstand voltage	10	Certificates
4	Utilization category	11	Standard
5	Rated voltage	12	Factory code
6	Rated ultimate short-circuitbreaking capacity	13	Manufacture date
7	Rated service short-circuit breaking capacity		

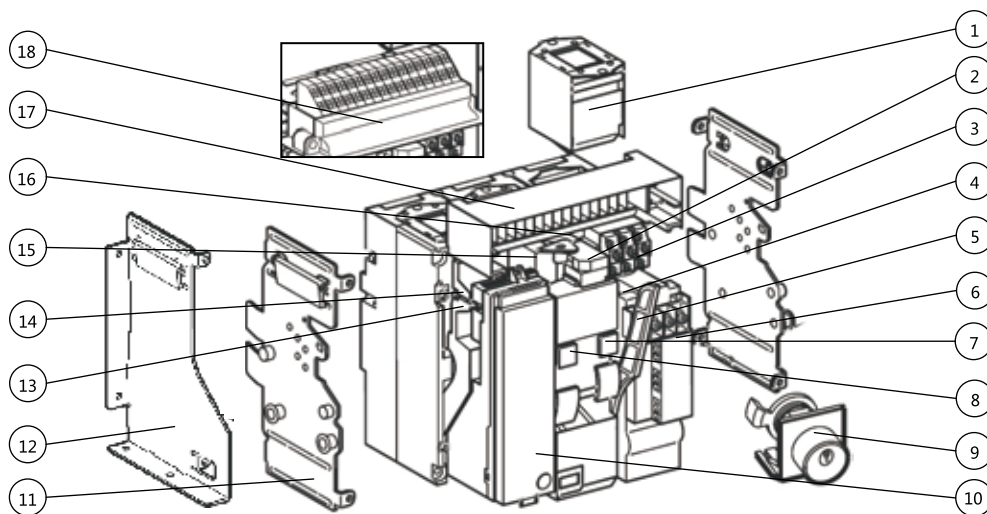
HDW3 structure

Draw-out base



1	key lock	5	rocker storage	9	cluster contact
2	Indicator	6	rocker	10	chassis handle
3	rocker entry	7	draw out handle	11	arc extinguish chamber cover
4	three -position unlocking button	8	door interlock		

Main body



1	arc extinguish chamber	7	Closing button	13	SWT Fault tripping contact
2	XF Closing release	8	Opening button	14	SWT/2 Fault tripping contact or remote restoration
3	OF auxiliary contact	9	Opening button	15	MN undervoltage release
4	PF Ready to close contact	10	ITR controller	16	MX shunt release
5	Energy storage handle	11	Draw-out type side plate	17	Draw-out type secondary circuit terminals
6	MCH motor mechanism	12	Fix type side plate	18	Fixed type secondary circuit terminals


LOW VOLTAGE DISTRIBUTION

Air Circuit Breakers



Technical Parameters

Common features

Pole	3, 4
Rated operational voltage Ue	AC400V/AC415V、AC660V/ AC690V
Rated insulation voltage Ui	1000 V
Rated impulse withstand voltage Uimp(kV)	12 kV
Rated frequency	50/60 Hz
Suitable for isolation	
Standard	EC 60947-2



Product		HDW3																					
Frame size		1000M		1600M		1600S		2000M		2000S		3200M		3200S		4000M		4000S		6300M		6300S	
Rated current In(A)																							
400		■		■		■																	
630		■		■		■		■		■													
800		■		■		■		■		■													
1000		■		■		■		■		■													
1250				■		■		■		■													
1600				■		■		■		■						■		■					
2000								■		■		■		■		■		■					
2500												■		■		■		■					
3200												■		■		■		■					
4000																■		■		■		■	
5000																				■		■	
6300																				■		■	
Breaking capacity		400V		690V		400V		690V		400V		690V		400V		690V		400V		690V		400V	
Icu (kA)		42	25	50	35	42	35	80	50	65	40	80	65	65	50	100	65	85	65	120	85	85	75
Ics (kA)		30	25	42	35	42	35	65	40	65	40	65	50	65	50	85	65	85	65	100	75	85	75
Icw(1s) (kA)		30	20	42	35	42	35	65	40	65	40	65	50	65	50	85	65	85	65	85	75	85	75
Service life																							
Mechanical life (with maintenance)		30000		25000				30000				30000				20000				5000			
Mechanical life (without maintenance)		15000		12500				15000				15000				10000				2500			
Electrical life(400V)		6500		6000				6500				6500				5000				800			
Electrical life(690V)		4000		4000				4000				4000				3000				500			
Dimension(mm)																							
Draw-out	3P	322*288*329		322*288*330				436*405*425				436*465*425				439*441*428.6				441.5*815*508			
	4P	322*358*329		322*358*330				436*500*425				436*580*425				439*556*428.6				441.5*930*508			
Fixed type	3P	310*276*235		301*276*229				397*364*327				397*428*327				352*422*329.5				/			
	4P	310*346*235		301*346*229				397*459*327				397*543*327				352*537*329.5				/			
Weight(KG)																							
Draw-out type	3P	27.8		34				73.6				93.8				78				233			
	4P	33.1		41				85.5				115				95				271.8			
Fixed type	3P	13		14				41.4				53.4				42				/			
	4P	15.8		17				52				68				52				/			
Tripping time																							
Tripping time with arc extinguishing												≤25ms											
Closing time												≤70ms											

Temperature derating table						
Frame	Current/temperature	-5°C~+40°C	+45°C	+50°C	+55°C	+60°C
HDW3-1000	400	400	400	400	400	400
	630	630	630	630	630	550
	800	800	800	800	800	700
	1000	1000	1000	1000	950	900
HDW3-1600	400	400	400	400	400	400
	630	630	630	630	630	550
	800	800	800	800	800	700
	1000	1000	1000	1000	950	900
	1250	1250	1200	1200	1150	1050
	1600	1600	1550	1500	1450	1350
HDW3-2000	630	630	630	630	630	630
	800	800	800	800	800	700
	1000	1000	1000	1000	1000	1000
	1250	1250	1250	1250	1250	1150
	1600	1600	1600	1500	1500	1300
	2000	2000	1900	1900	1800	1700
HDW3-3200	2000	2000	2000	2000	2000	2000
	2500	2500	2400	2300	2200	2200
	3200	3200	3000	3000	2800	2800
HDW3-4000	1600	1600	1600	1600	1600	1600
	2000	2000	2000	2000	2000	2000
	2500	2500	2500	2500	2500	2200
	3200	3200	3200	3200	3000	2500
	4000	4000	4000	3600	3400	3200
HDW3-6300	4000	4000				
	5000	5000				
	6300	6300				

All derating data is calculated based on experiment and theory, only for selection guide.

Altitude derating table

Altitude below 2000 m will not affect circuit breaker performance. Above this altitude, the diminution of air insulation characteristics and cooling capacity must be considered; The correction coefficients given in the table below are used for installation above 2000 meters:

Altitude (m)	2000	2500	3000	3500	4000	4500	5000
Isolation voltage (V)	1000	910	910	830	830	770	770
Withstand voltage (kV)	12	10.5	10.5	9.5	9.5	9	9
Maximum operation voltage (V)	690	690	690	660	600	600	550
Current on 40 °C	1In	0.98In	0.93In	0.91In	0.87In	0.84In	0.81In

If altitude is over 4000m, please contact the manufacture.

Air Circuit Breakers



Power loss and resistance per pole

Power loss is measuring at $I_n/50/60\text{Hz}$, input/output resistance is the value at cold state in per pole.

Frame	Rated Current (A)	Draw-out type		Fixed type	
		Power Loss (W)	Input/Output resistance($\mu\Omega$)	Power Loss (W)	Input/Output resistance($\mu\Omega$)
1000 1600	400	28.8	42.0	20.5	27
	630	55.6	42.0	32.8	27
	800	98.2	42.0	53.5	27
	1000	153.5	42.0	82.6	27
	1250	250.8	42.0	131.8	27
	1600	460.5	38.0	220	26
2000	630	56.8	48.5	26.5	21.9
	800	73.0	48.5	38.6	21.9
	1000	116.3	38.0	56.9	20.2
	1250	179.8	38.0	90.2	20.2
	1600	294.9	38.0	145.8	20.2
	2000	399.6	33.7	202.5	18
3200	2000	200.6	18.6	99.6	15.8
	2500	310.0	16.2	147.8	14.7
	3200	486.9	15.8	216.3	9.2
4000	1600	390.6	27.5	180.2	13
	2000	480.8	27.0	252.8	13
	2500	600.0	19.0	265	9
	3200	670.0	13.0	423.6	8.5
	4000	900.0	11.8	652.7	8
6300	4000	910.7	9.5	/	/
	5000	940.0	9.0	/	/
	6300	1150.0	8.5	/	/

Air Circuit Breakers iRT 326 Controller



Intelligent Controller Introduction

iTR326

iTR326A

iTR326H



L

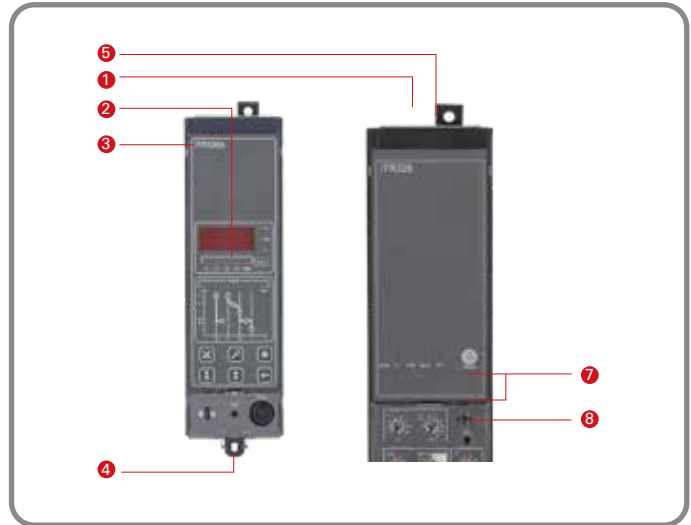
M

H

Protection function	Overload protection L Short-circuit protection with short delay S Short-circuit protection instantaneous I Ground protection G MCR Protection HSISC protection	Overload protection L Short-circuit protection with short delay S Short-circuit protection instantaneous I Ground protection G MCR protection HSISC protection	Overload protection L Short-circuit protection with short delay S Short-circuit protection instantaneous I Ground protection G MCR protection HSISC protection Under voltage protection/alarm Overvoltage protection/alarm Voltage unbalance protection /alarm Phase sequence protection/alarm Low frequency protection/alarm High frequency protection/alarm Reverse power protection/alarm
Measurement		Current measurement	Current measurement Voltage measurement Power measurement Frequency measurement Harmonics measurement
Auxiliary	Pre-alarm Event record Test	Pre-alarm Self-diagnostic Event record Test	Pre-alarm Self-diagnostic Event record Test
Display		LED	LCD
Special function			Load monitoring Zone selective interlock
Communication			Modbus

Air Circuit Breakers iRT 326 Controller

- ① Top fixation
- ② LED indicator light
- ③ Controller name plate
- ④ Bottom fixation
- ⑤ External connection terminal
- ⑥ Transformer connector
- ⑦ Flux/jogging connector



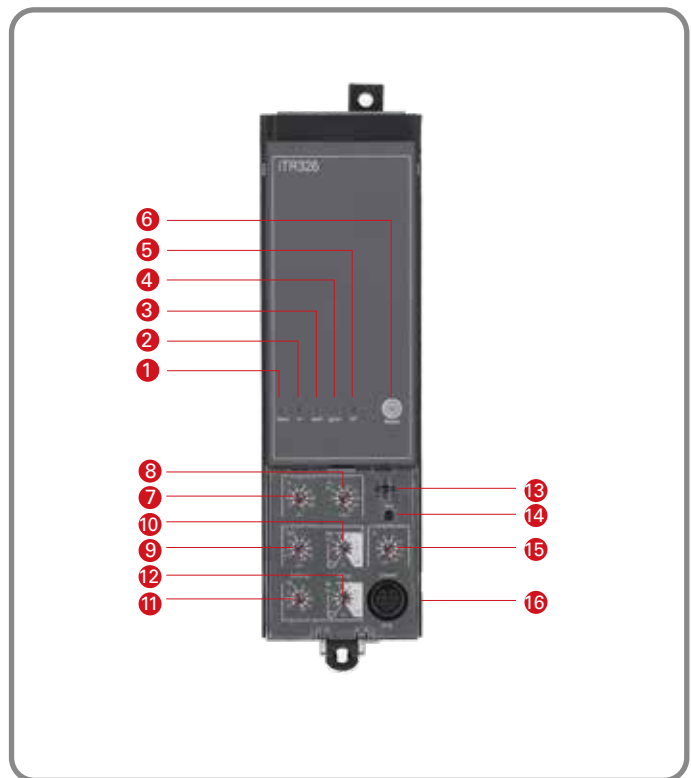
L type (basic type)

Indications

- ① Alarm lamp
- ② Over current tripping indication
- ③ Short delay or instantaneous tripping indication
- ④ Ground or leakage current fault tripping indication
- ⑤ Advanced protection
- ⑥ Reset button

Settings

- ⑦ Overload current setting IR
- ⑧ Over current time delay tR
- ⑨ Short delay tripping I_{sd}
- ⑩ Short delay tripping time t_{sd}
- ⑪ Ground fault tripping I_g
- ⑫ Ground fault tripping time t_g
- ⑬ Padlock position
- ⑭ Test button
- ⑮ Instantaneous tripping I_i
- ⑯ Test connection



Air Circuit Breakers iRT 326 Controller



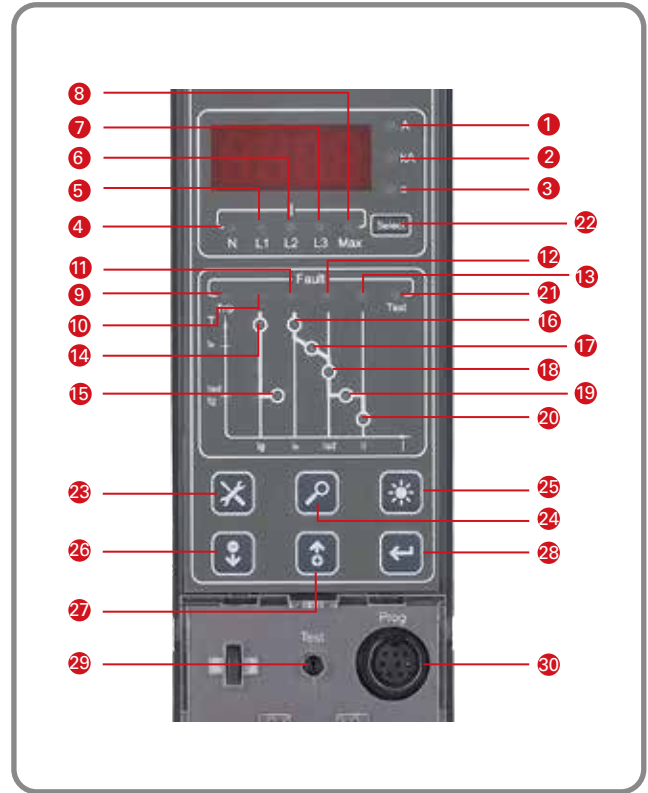
M type (standard type)

Indications and Settings

- 1 Current unit A
- 2 Current unit kA
- 3 Time unit S
- 4 N phase Current
- 5 A phase Current
- 6 B phase Current
- 7 C phase Current
- 8 Maximum Current
- 9 Tripping indication
- 10 Ground protection
- 11 Long delay protection
- 12 Short delay protection
- 13 Instantaneous protection
- 14 Ground Current set value
- 15 Ground time set value
- 16 Long delay Current set value
- 17 Long delay time set value
- 18 Short delay Current set value
- 19 Short delay time set value
- 20 Instantaneous Current set value
- 21 Tests action state

Navigation keys

- 22 Toggle key
- 23 Set key
- 24 Query key
- 25 Return /clear light
- 26 -/ down page
- 27 +/- up page
- 28 Enter key
- 29 Test key
- 30 Test connection



H type (advanced type)

Indications

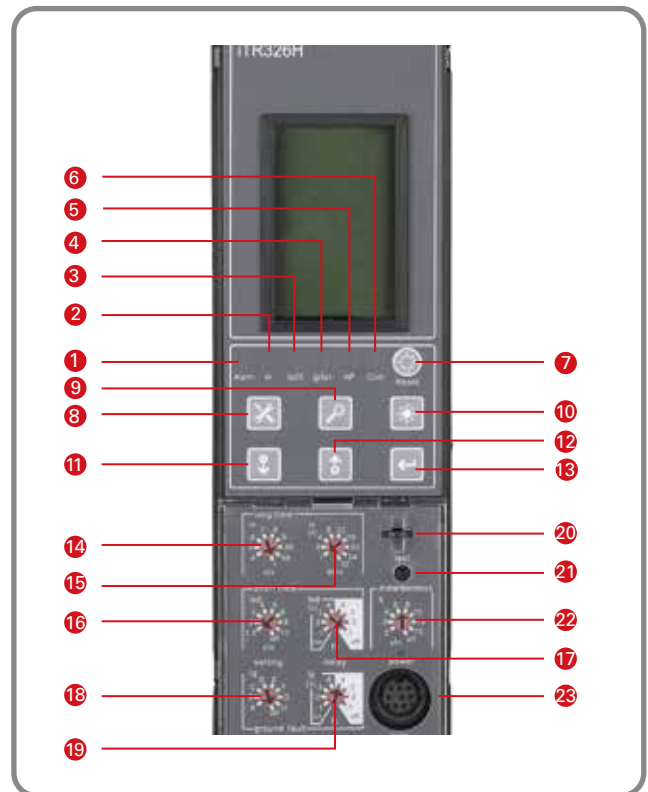
- 1 Alarm lamp
- 2 Long delay tripping indication
- 3 Short delay or instantaneous tripping indication
- 4 tripping indication
- 5 Ground or electric leakage fault tripping indication
- 6 Advanced protection
- 8 Communication function
- 9 Reset button

Navigation keys

- 8 Set key
- 9 Query key
- 10 Return/clear light
- 11 -/ Down page
- 12 +/- Up page
- 13 Enter key

Settings

- 14 Long delay Current setting IR
- 15 Long delay tripping time tR
- 16 Short delay tripping I_{sd}
- 17 Short delay tripping time t_{sd}
- 18 Ground fault tripping I_g
- 19 Ground fault tripping time t_g
- 20 Padlock position
- 21 Test button
- 22 Instantaneous tripping Current
- 23 Test connection
- 24 Button description adjustment panel



LOW VOLTAGE DISTRIBUTION

Air Circuit Breakers iRT 326 Controller



Intelligent Controller Protection

Intelligent controller protection characteristics are inverse time limit and constant time-lag, when fault Current exceeds inverse time limit set value, controller can have delay protection according to the constant time-lag.

Inverse time limit curve conforms to characteristic curve I^2t

Overload protection with long time delay

Threshold of overload protection with long time delay Threshold

$<1.05 I_R$: $>2h$ No tripping;

$>1.2 I_R$: $<1h$ Tripping

$\geq 1.2 I_R$: Tripping with time delay;

I_R Current setting range: $0.4I_n, 0.5I_n, 0.6I_n, 0.7I_n, 0.8I_n, 0.9I_n, 0.95I_n, 0.98I_n, 1.0I_n$

Inverse Time Protection Tripping Characteristics $I^2t: t=(6/N)^2 * t_R$

Setting electric current	Action time (s)								
$1.5 I_R$	16s	32s	64s	128s	192s	256s	320s	384s	480s
$2 I_R$	9s	18s	36s	72s	108s	144s	180s	216s	270s
$6 I_R$	1s	2s	4s	8s	12s	16s	20s	24s	30s

Note: N---- Overload current is divided from the setting current I/I_R

t---- time delay of overload current

t_R ---- time delay of setting value

Allowed tolerance of the tripping time $\pm 10\%$

Short circuit protection with short time delay

Threshold of Short circuit protection with short time delay

$<0.9 I_{sd}$: No tripping

$>1.1 I_{sd}$: Tripping;

$\geq 1.1 I_{sd}$: Tripping with time delay

I_{sd} setting range: $1.5 I_R, 2 I_R, 3 I_R, 4 I_R, 5 I_R, 6 I_R, 8 I_R, 10 I_R + OFF$

Short circuit current	Tripping Time		Formula of tripping curve $I^2t: t=(8I_R)^2 t_{sd}$			
$I_{sd} < I \leq 8I_R$	Inverse time protection	Setting time s	0.1	0.2	0.3	0.4
		Min. s	0.08	0.14	0.23	0.35
$I \geq 1.1I_{sd}$	constant time delay protection	Setting time s	0.1	0.2	0.3	0.4
		Max. s	0.14	0.2	0.32	0.5

Note: I_{sd} --- setting short circuit protection value

I---- short circuit current

I_R ---- setting current

t---- tripping time of short circuit

t_{sd} ---- setting time delay of short circuit protection

Allowed tolerance of the tripping time $\pm 20\%$

Short Circuit Instantaneous Protection

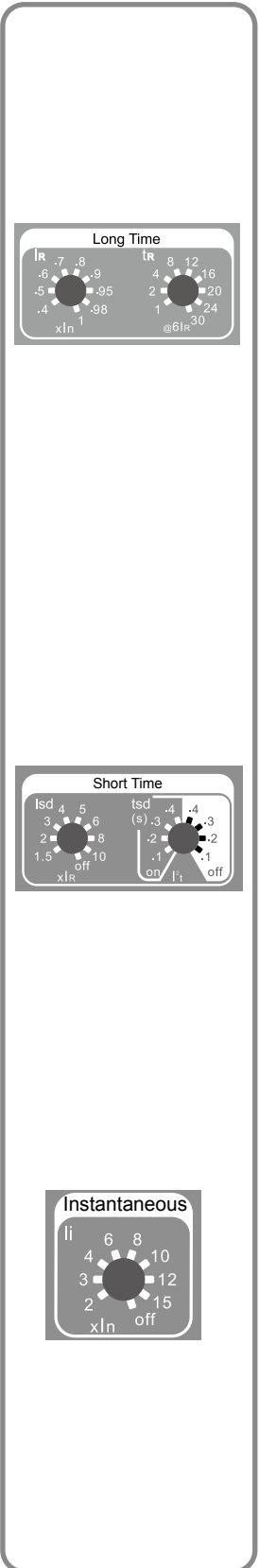
Short Circuit Instantaneous Protection Action Threshold

$<0.85I_i$: No tripping

$>1.15I_i$: tripping

Instantaneous action current setting: $2I_n, 3I_n, 4I_n, 6I_n, 8I_n, 10I_n, 12I_n, 15I_n + OFF$

Note: tolerance of the tripping time $\leq 50ms$



Ground Fault Protection Action

Ground Fault Protection Action Threshold

<0.9 I_g: No tripping

>1.1 I_g: tripping

≥1.1 I_g: Tripping with time delay

Current	A	B	C	D	E	F	G	H	OFF
In<1250	0.2In	0.3In	0.4In	0.5In	0.6In	0.8In	0.9In	In	
In≥1250	500A	600A	700A	800A	900A	1000A	1100A	1200A	

Ground current	tripping time					
	Inverse time protection	formula of tripping curve	$t = \frac{(I_g)^2}{I^2} \times t_g$			
tg(s)	Setting time		0.1	0.2	0.3	0.4
	constant time delay protection	Setting time	0.1	0.2	0.3	0.4
		Min. (s)	0.08	0.14	0.23	0.35
		Max. (s)	0.14	0.2	0.32	0.5

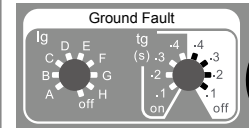
Note: I_g ground protection setting, when In ≥ 1250A, I_J=1200A, when In<1250A, I_J=In

I Ground fault current

T tripping time with time delay

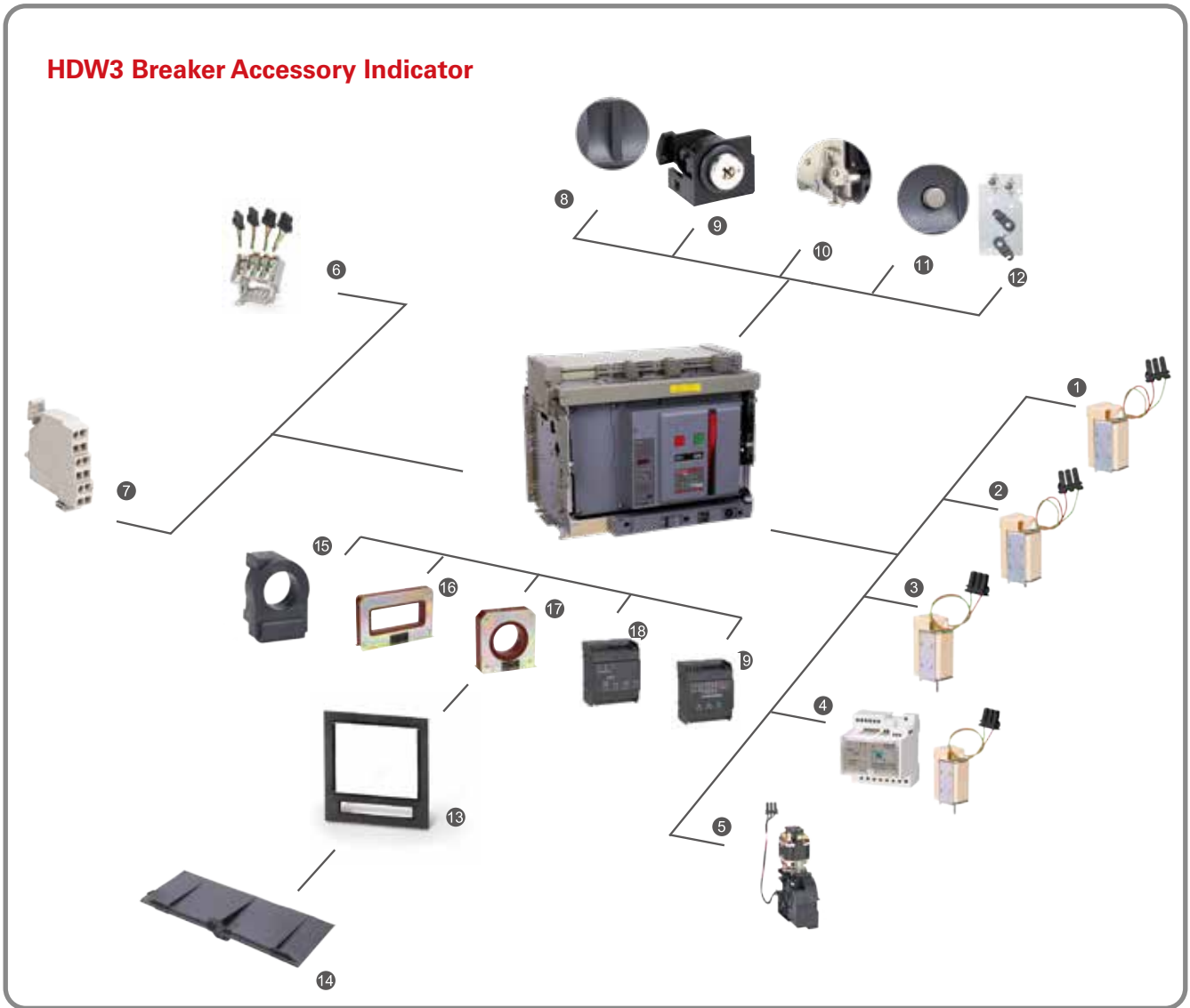
t_g setting tripping time of ground fault

Allowed tolerance of the inverse tripping time ±20%



Default setting

Tripping curves I ² t	over current		short circuit with time delay		Inst.	Ground fault		Thermal memory
	I _R	t _R	I _{sd}	t _s		I _g	t _g	
	1In	30s	6In	0.2s	10In	3P - "OFF" 4P - "G"	0.4s	20min



Remote Operation	Indication Contact	Lock and Connection	Operation and protection	Controller accessories
1 Shunt coil	6 Auxiliary switch OF	8 Padlock	13 Door frame	15 N phase external transformer
2 Closing coil	7 Secondary terminal	9 Key lock	14 Phase partition	16 Leakage current transformer
3 Undervoltage release		10 Door lock		17 Ground transformer
4 Undervoltage delay release		11 Connection, separation, test position locking mechanism		18 Power module
5 Motor operating mechanism		12 Mechanical interlocking		19 Signal conversion module

Note: 1000AF/1600AF the accessory is same parts.

Remote Operation

Shunt release MX

After circuit breaker is switched on, when shunt release is under specified power supply voltage, disconnect the circuit breaker instantaneously by remote operation.

- Rated control supply voltage AC220/AC230V, AC380/AC400V, DC220V, DC110V
- Operation voltage: (0.7-1.1) U_e
- Break-time: 50 ± 10ms

Closing coil XF

After spring be fully charged, Closing coil can make the circuit breaker close under the specified power supply voltage and can have remote operation.

- Rated control supply voltage AC220/AC230V, AC380/AC400V, DC220V, DC110V
- Operating voltage: (0.85-1.1) U_e
- Closing time: 55 ± 10ms

Undervoltage release MN

After the breaker switch on , Undervoltage release will tripped circuit breaker instantaneously when power supply drop down between 70%-35% U_e.

The breaker can be switched on when the power supply is 85% U_e.

- Rated control supply voltage AC220/AC230V, AC380/AC400V
- Operation voltage: (0.35-0.7) U_e
- Reliable Closing voltage: (0.85-1.1) U_e
- Non closing voltage: ≤ 0.35U_e
- Delay time: 0.5s, 1s, 1.5s, 3s (1600, 4000), 1s, 3s, 5s (2000, 3200)

Under voltage release with time delay MNR

The MNR (when voltage drop) will switched off the circuit breaker with certain time delay , 0.5s, 1s, 1.5s, 3s(1600, 4000), 1s, 3s, and 5s (2000, 3200).

Motor Operating Mechanism MCH

When the circuit breaker is disconnected and power supply is available, motor operating mechanism can automatically charge the spring of the circuit breaker, so that the circuit breaker is disconnected or closed under the action of shunt excitation, undervoltage trip and closing electromagnet. In the absence of power supply, the handle can be used to store energy for the circuit breaker.

- Rated control supply voltage AC220/AC230V, AC380/AC400V, DC220V, DC110V
- Operation voltage: (0.85-1.1) U_e
- Power dissipation: 75W/180W(1600), 85W(2000), 110W(3200), 180W(4000)
- Spring charging : <5s
- Utilization category: AC15, DC13



Air Circuit Breakers Accessory and Overview



Indication Contacts

Auxiliary Contact OF

4NO+4NC by default
 (4000H can provide 8NO+8NC and 6NO+6NC, 2000, 3200 also can provide 6NO+6NC)
 It can be used to monitor the status of circuit breakers, such as connecting circuit breaker position indicator and disconnecting indicator
 Rated thermal current Ith: AC380V/AC400V 0.75A, DC220V 0.15A, AC220V/AC230V 1.3A

Lock

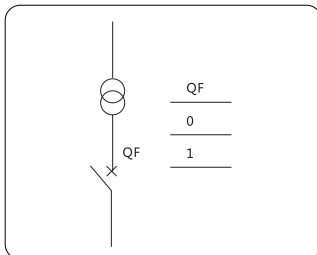
Drawer Padlock

Lock provided by user
 If the padlock is provided by the user himself, and the circuit breaker is in the position of "separation", pull out the padlock plate. After locking, the crank handle cannot be inserted.

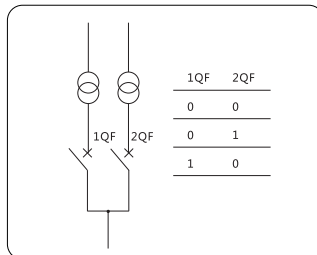
Keylock

The breaker can be locked by key lock in switch off position . When the key is inserted into the lock and turned on to "on" position, the breaker can be allowed to switched on. (Key turned off or removed from lock, breaker can be switched on)
 There are 3 options of key lock available (available for 2 Breaker Interlock & 3 Breaker Interlock)

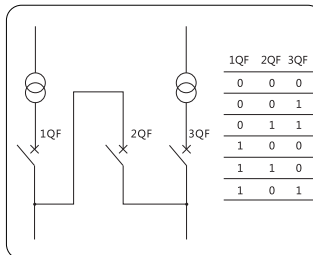
• One lock one key



• Two locks one key



• Three locks two key

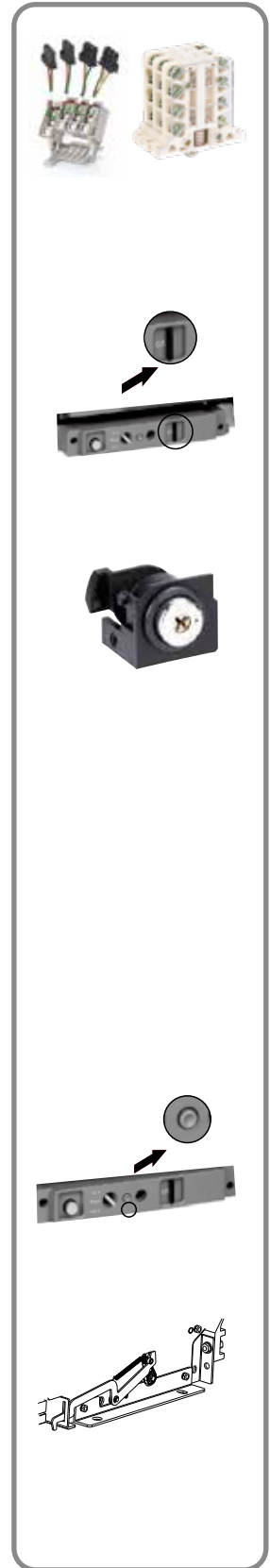


Drawer Position Locking Mechanism

It is a locker when the breaker is in the position of "connection," "test," and "disconnection" in a drawer type circuit breaker. Circuit breaker three positions are indicated through the indicator, the advance and retreat handle is locked in the exact position and is unlocked through the reset button.

Door Lock

It is suitable for cabinet frame of 2000 and 3200
 In drawer type circuit breaker, it is installed on the side of circuit breaker and linkages to distribution cabinet door. It can not be opened when the circuit breaker is connected or tested. The cabinet door can be opened in the open position. It can prevent the circuit breaker from slipping and causing damage.



Operation and Protection

Mechanical interlock

- The mechanical interlocks are available for fixed and drawout circuit breakers, enabling the direct interlocking of the breakers, mounted side by side or stacked.
- The interlocking systems are available in one configuration for 2 breakers and in three others for 3 breakers.

Door Frame

- The door frame installed on the door of distribution cabinet can increase IP protection level to IP40
- It is applicable to stationary type and drawer type.

Phase Partition

- The insulation board installed in the middle of the breaker bus can increase the creepage distance and improve the insulation capacity

Controller Accessories

N Phase External Transformer

In a 3P+N grounding mode, an External transformer used to measure neutral phase current is harnessed to the wiring bus by the user

Ground Transformer

- A special External transformer is used to measure the earth current when the ground current returns. It can protect the upper and lower ground faults of the circuit breaker at the same time
- It is only applicable to iTR326H controller

Leakage Current Transformer

- When the earth protection is leakage type, a special rectangular transformer is added
- It is only applicable to iTR326H controller

Power Module






- It can provide auxiliary power for intelligent controller at the circuit of AC220V/AC230V, AC380V/AC400V, DC220V, DC110V
- Input is AC220V/AC230V, AC400V/AC380V, DC220V, DC110V, output is DC24V
The input fluctuation range is 20%, the output fluctuation range is 5%, and the total power of 4 sets of DC24V is 7W.

Signal Conversion Module

- Output signal unit is applicable to communication function, such as regional interlocking, signal processing of four remote functions or fault alarm or indication, etc.
- It is only applicable to iTR326H controller



Accessory Coding

	Accessory coding	Accessory name
Controller 	HDW3TUL	Controller iTR326
	HDW3TUM	Controller iTR326A
	HDW3TUH	Controller iTR326H
	HTE100C	HDW3 Test Kits
Remote Operation		
Shunt release 	HDW3MX12A	Shunt tripper AC230V(CDW3-2000AF/3200AF/6300AF)
	HDW3MX13A	Shunt tripper AC400V(CDW3-2000AF/3200AF/6300AF)
	HDW3MX12D	Shunt tripper DC220V(CDW3-2000AF/3200AF/6300AF)
	HDW3MX11D	Shunt tripper DC110V(CDW3-2000AF/3200AF/6300AF)
	HDW3MX2A	Shunt tripper AC230V(CDW3-1600AF/4000AF)
	HDW3MX3A	Shunt tripper AC400V(CDW3-1600AF/4000AF)
	HDW3MX2D	Shunt tripper DC220V(CDW3-1600AF/4000AF)
	HDW3MX1D	Shunt tripper DC110V(CDW3-1600AF/4000AF)
Closing Coil 	HDW3XF12A	Closing tripper AC230V(CDW3-2000AF/3200AF/6300AF)
	HDW3XF13A	Closing tripper AC400V(CDW3-2000AF/3200AF/6300AF)
	HDW3XF12D	Closing tripper DC220V(CDW3-2000AF/3200AF/6300AF)
	HDW3XF11D	Closing tripper DC110V(CDW3-2000AF/3200AF/6300AF)
	HDW3XF2A	Closing tripper AC230V(CDW3-1600AF/4000AF)
	HDW3XF3A	Closing tripper AC400V(CDW3-1600AF/4000AF)
	HDW3XF2D	Closing tripper DC220V(CDW3-1600AF/4000AF)
	HDW3XF1D	Closing tripper DC110V(CDW3-1600AF/4000AF)
Undervoltage release 	HDW3MN12A	Undervoltage tripper AC230V(CDW3-2000AF/3200AF/6300AF)
	HDW3MN13A	Undervoltage tripper AC400V(CDW3-2000AF/3200AF/6300AF)
	HDW3MN2A	Undervoltage tripper AC230V(CDW3-1600AF/4000AF)
	HDW3MN3A	Undervoltage tripper AC400V(CDW3-1600AF/4000AF)
Undervoltage Delay release 	HDW3MNR12A	Undervoltage delay tripper AC230V(CDW3-2000AF/3200AF/6300AF)
	HDW3MNR13A	Undervoltage delay tripper AC400V(CDW3-2000AF/3200AF/6300AF)
	HDW3MNR2A	Undervoltage delay tripper AC230V(CDW3-1600AF/4000AF)
	HDW3MNR3A	Undervoltage delay tripper AC400V(CDW3-1600AF/4000AF)

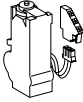

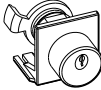
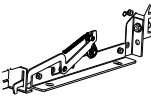
NOTE:

HDW3Test Kits can test overload , short circuit , instantenous , gourd trip on site.

HDW3Test kits adapt with L & H type controller, Do not test on M type controller (iTR326A) If you have any requirement of test kits please contact with local HIMEL sales team.

Air Circuit Breakers Accessory and Overview

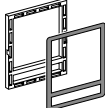
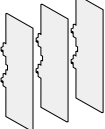




Remote Operation	Accessory Coding	Accessory Name
Motor Mechanism 	HDW3MCH202A	Motor mechanism AC230V(HDW3-2000AF)
	HDW3MCH203A	Motor mechanism AC400V(HDW3-2000AF)
	HDW3MCH202D	Motor mechanism DC220V(HDW3-2000AF)
	HDW3MCH201D	Motor mechanism DC110V(HDW3-2000AF)
	HDW3MCH322A	Motor mechanism AC230V(HDW3-3200AF)
	HDW3MCH323A	Motor mechanism AC400V(HDW3-3200AF)
	HDW3MCH322D	Motor mechanism DC220V(HDW3-3200AF)
	HDW3MCH321D	Motor mechanism DC110V(HDW3-3200AF)
	HDW3MCH162A	Motor mechanism AC230V(HDW3-1600AF)
	HDW3MCH163A	Motor mechanism AC400V(HDW3-1600AF)
	HDW3MCH162D	Motor mechanism DC220V(HDW3-1600AF)
	HDW3MCH161D	Motor mechanism DC110V(HDW3-1600AF)
	HW3MCH402A	Motor mechanism AC230V(HDW3-4000AF)
	HDW3MCH403A	Motor mechanism AC400V(HDW3-4000AF)
	HDW3MCH402D	Motor mechanism DC220V(HDW3-4000AF)
	HDW3MCH401D	Motor mechanism DC110V(HDW3-4000AF)
	HDW3MCH632A	Motor mechanism AC230V(HDW3-6300AF)
	HDW3MCH633A	Motor mechanism AC400V(HDW3-6300AF)
HDW3MCH632D	Motor mechanism DC220V(HDW3-6300AF)	
Indicator Contact		
Auxiliary Contact 	HDW3OF1644	Auxiliary contact 4 open 4 close (HDW3-1600AF)
	HDW3OF3266	Auxiliary contact 6 open 6 close (HDW3-2000/3200/6300AF)
	HDW3OF4044	Auxiliary contact 4 open 4 close (HDW3-4000AF)
Lock		
Key Lock 	HDW316L3	3 locks 2 keys HDW3-1600AF
	HDW316L2	2 locks 1 key HDW3-1600AF
	HDW316L1	1 lock 1 key HDW3-1600AF
	HDW3L3	3 locks 2 keys HDW3-2000AF/3200AF/6300AF
	HDW3L2	2 locks 1 key HDW3-2000AF/3200AF/6300AF
	HDW3L1	1 lock 1 key HDW3-2000AF/3200AF/6300AF
	HDW340L3	3 locks 2 keys HDW3-4000AF
	HDW340L2	2 locks 1 key HDW3-4000AF
	HDW340L1	1 lock 1 key HDW3-4000AF
Door Lock 	HDW316DLR	Drawout type Door interlock HDW3-1600AF
	HDW320DLR	Drawout type Door interlock HDW3-2000AF
	HDW332DLR	Drawout type Door interlock HDW3-3200AF
	HDW340DLR	Drawout type Door interlock HDW3-4000AF
	HDW363DLR	Drawout type Door interlock HDW3-6300AF

NOTE: Door interlock is not available for fix type HDW3




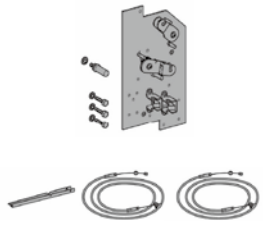
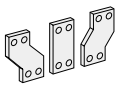
Air Circuit Breakers Accessory and Overview



Operation and Protection	Accessory Coding	Accessory Name
Door Frame 	HDW316FCDP	Fixed type door frame HDW3-1600AF
	HDW316DCDP	Drawer type door frame HDW3-1600AF
	HDW320FCDP	Fixed type door frame HDW3-2000AF
	HDW320DCDP	Drawer type door frame HDW3-2000AF
	HDW332FCDP	Fixed type door frame HDW3-3200AF
	HDW332DCDP	Drawer type door frame HDW3-3200AF
	HDW340FCDP	Fixed type door frame HDW3-4000AF
	HDW340DCDP	Drawer type door frame HDW3-4000AF
	HDW363DCDP	Drawer type door frame HDW3-6300AF
Phase Partition 	HDW316FD	Fixed type phase partition 3PHDW3-1600AF
	HDW316DD	Drawer type phase partition 3PHDW3-1600AF
	HDW332FD	Fixed type phase partition 3PHDW3-2000/3200/6300AF
	HDW332DD	Drawer type phase partition 3PHDW3-2000/3200/6300AF
	HDW340FD	Fixed type phase partition 3PHDW3-4000AF
	HDW340DD	Drawer type phase partition 3PHDW3-4000AF
	HDW3164FD	Fixed type phase partition 4PHDW3-1600AF
	HDW3164DD	Drawer type phase partition 4PHDW3-1600AF
	HDW3324FD	Fixed type phase partition 4PHDW3-2000/3200/6300AF
	HDW3324DD	Drawer type phase partition 4PHDW3-2000/3200/6300AF
	HDW3404FD	Fixed type phase partition 4PHDW3-4000A
	HDW3404DD	Drawer type phase partition 4PDW3-4000AF
	Intelligent Controller Accessories	
N Phase Mutual Inductor 	HDW31604NCT	N phase External mutual inductor HDW3-1600AF/400A
	HDW3160616NCT	N phase External mutual inductor HDW3-1600AF/630-1600A
	HDW3200608NCT	N phase External mutual inductor HDW3-2000AF/630-800A
	HDW3201020NCT	N phase External mutual inductor HDW3-2000AF/1000-2000A
	HDW332NCT	N phase External mutual inductor HDW3-3200AF/2000-3200A
	HDW340NCT	N phase External mutual inductor HDW3-4000AF/1600-4000A
	HDW363NCT	N phase External mutual inductor HDW3-6300SF
Ground Mutual Inductor 	HDW3ZT100-400	Ground mutual inductor HDW3-400A (is only applicable to type H Controller)
	HDW3ZT100-630	Ground mutual inductor HDW3-630A (is only applicable to type H Controller)
	HDW3ZT100-800	Ground mutual inductor HDW3-800A (is only applicable to type H Controller)
	HDW3ZT100-1000	Ground mutual inductor HDW3-1000A (is only applicable to type H Controller)
	HDW3ZT100-1250	Ground mutual inductor HDW3-1250A (is only applicable to type H Controller)
	HDW3ZT100-1600	Ground mutual inductor HDW3-1600A (is only applicable to type H Controller)
	HDW3ZT100-2000	Ground mutual inductor HDW3-2000A (is only applicable to type H Controller)
	HDW3ZT100-2500	Ground mutual inductor HDW3-2500A (is only applicable to type H Controller)
	HDW3ZT100-3200	Ground mutual inductor HDW3-3200A (is only applicable to type H Controller)
	HDW3ZT100-6300	Ground mutual inductor HDW3-6300A(is only applicable to type H Controller)

Air Circuit Breakers Accessory and Overview



Intelligent controller accessories	Accessory coding	Accessory name
Leakage current mutual inductor 	HDW3ZCT1	Leakage current mutual inductor HDW3 (is only applicable to H controller)
Signal conversion module 	HDW3TR	Signal conversion module (H communication, regional interlocking, 4 remote controllers)
Power module 	iAPU334	Power module input AC220V-AC400V / output 24VDC
	iAPU332D	Power module input DC220/DC110V / output 24VDC
Mechanical interlocking		
Cable interlocking 	HDW316FL2	Fixed type cable interlocking (2 sets) HDW3-1600AF
	HDW332FL2	Fixed type cable interlocking (2 sets) HDW3-2000/3200/6300AF
	HDW340FL2	Fixed type cable interlocking (2 sets) HDW3-4000AF
	HDW332FL3	Fixed type cable interlocking (3 sets) HDW3-2000/3200/6300AF
	HDW340FL3	Fixed type cable interlocking (3 sets) HDW3-4000AF
	HDW316DL2	Drawer type cable interlocking (2 sets) HDW3-1600AF
	HDW332DL2	Drawer type cable interlocking (2 sets) HDW3-2000/3200/6300AF
	HDW340DL2	Drawer type cable interlocking (2 sets) HDW3-4000AF
	HDW332DL3	Drawer type cable interlocking (3 sets) HDW3-2000/3200/6300AF
	HDW340DL3	Drawer type cable interlocking (3 sets) HDW3-4000AF
Connection accessory		
	HDW3V3	Vertical L adaptor 3PW3-2000 (2000A Below)
	HDW3V4	Vertical L adaptor 4PW3-2000 (2000A Below)
	HDW3S3	Expanding terminal 3P (1600N)
	HDW3S4	Expanding terminal 4P (1600N)

Note

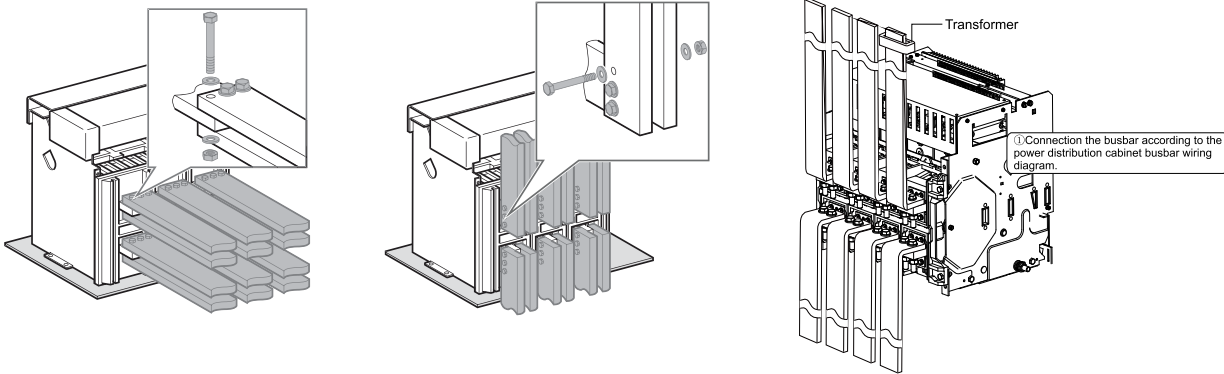
1. HDW3 series package is default with Power module / Door frame / Phase partition / Auxiliary contact.
2. shunt release / closing coil / under voltage release , 1600/4000 is common used , 2000 /3200/6300 is common used.
3. Door interlock requirement , please contact with local office.

Air Circuit Breakers Installation Dimension



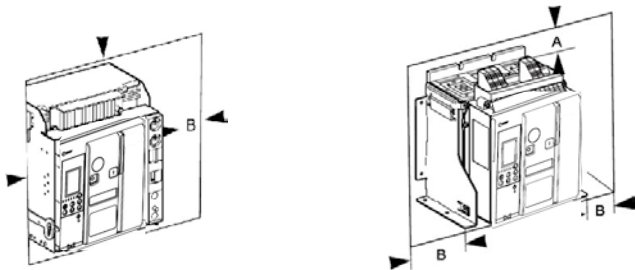
Busbar connection

Draw-out and fixed type



Remark: vertical connection only for 1600AF/4000AF

Safety clearances



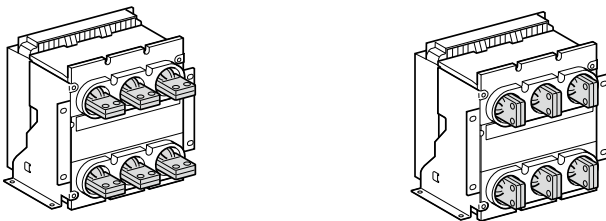
Safety clearances(mm)	Draw-out type*		Fixed type	
	A	B	A	B
Non-conductor	0	10	0	0
Metals	0	10	0	0
Energized conductor	30	60	100	60

*only suitable for 1000AF and 1600AF

Rear connection

Horizontal

Vertical



Note:

1. All shell frames are provided with horizontal connections, only 1600&4000 providing vertical connections
2. 1600 horizontal and vertical connections can be made by rotating the bus
3. The vertical connection of 2000 shell frame can be realized by optional vertical L adapter, which is only limited below 2000A.

Air Circuit Breakers Installation Dimension



Recommended dimension of busbar

Busbar type table in different temperatures

Busbar max temperature

Material of busbar is copper

Frame (AF)	Rated Current (A)	ambient temperature +40°C				ambient temperature +50°C				ambient temperature +60°C			
		5mm Busbar		10mm Busbar		5mm Busbar		10mm Busbar		5mm Busbar		10mm Busbar	
		Quantity	dimension	Quantity	dimension	Quantity	dimension	Quantity	dimension	Quantity	dimension	Quantity	dimension
1000	400	2	30*5	1	30*10	2	30*5	1	30*10	2	30*5	1	30*10
	630	2	40*5	1	40*10	2	40*5	1	40*10	2	40*5	1	40*10
	800	2	50*5	1	50*10	2	50*5	1	50*10	2	50*5	1	50*10
	1000	3	50*5	2	40*10	3	50*5	2	40*10	4	50*5	2	50*10
1600	400	2	30*5	1	30*10	2	30*5	1	30*10	2	30*5	1	30*10
	630	2	40*5	1	40*10	2	40*5	1	40*10	2	40*5	1	40*10
	800	2	50*5	1	50*10	2	50*5	1	50*10	2	50*5	1	50*10
	1000	3	50*5	2	40*10	3	50*5	2	40*10	3	50*5	2	40*10
	1250	4	40*5	2	40*10	4	50*5	2	50*10	4	50*5	2	50*10
	1600	4	50*5	2	50*10	4	50*5	2	50*10	4	50*5	2	50*10
2000	630	2	40*5	1	40*10	2	50*5	1	50*10	2	60*5	1	60*5
	800	2	50*5	1	50*10	2	50*5	1	50*10	2	60*5	1	60*5
	1000	3	50*5	2	40*10	3	50*5	2	40*10	3	60*5	2	50*5
	1250	3	60*5	2	50*10	3	60*5	2	50*10	3	60*5	2	50*5
	1600	4	60*5	2	60*10	4	60*5	2	60*10	4	60*5	2	60*5
	2000	6	60*5	3	60*10	6	60*5	3	60*10	6	60*5	3	60*5
3200	2000	4	100*5	2	100*10	4	100*5	2	100*10	4	100*5	2	100*10
	2500	4	100*5	2	100*10	4	100*5	2	100*10	4	100*5	2	100*10
	3200	8	100*5	4	100*10	8	100*5	4	100*10	8	100*5	4	100*10
4000	1600	2	100*5	1	100*10	2	100*5	1	100*10	2	100*5	1	100*10
	2000	4	100*5	2	100*10	4	100*5	2	100*10	4	100*5	2	100*10
	2500	4	100*5	2	100*10	4	100*5	2	100*10	4	100*5	2	100*10
	3200	8	100*5	4	100*10	8	100*5	4	100*10	8	100*5	4	100*10
	4000			5	100*10			5	100*10			6	100*10
6300	4000			5	100*10			5	100*10			6	100*10
	5000			7	100*10			7	100*10			8	100*10
	6300			8	100*10			8	100*10				

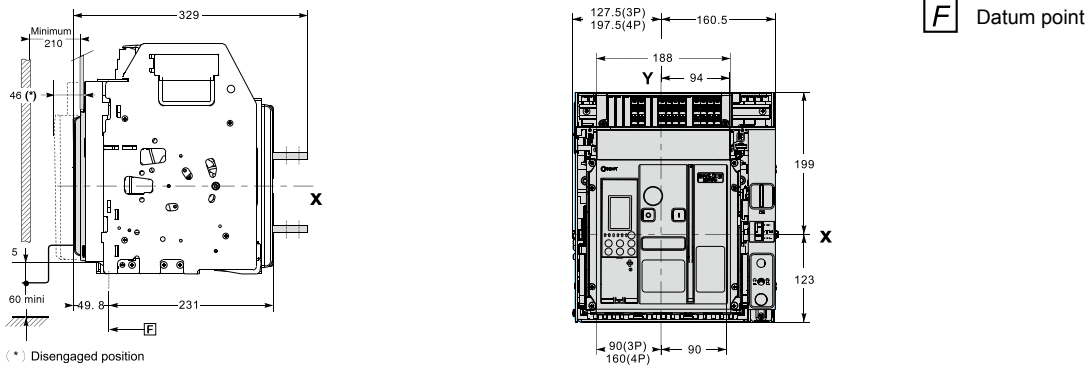
Screw table

	1000M	1600M&S	2000M&S	3200M&S	4000M&S	6300M&S
Screw dimension	M10	M10	M12	M12	M10	M12
Torque	50N·m	50N·m	95N·m	95N·m	50N·m	95N·m

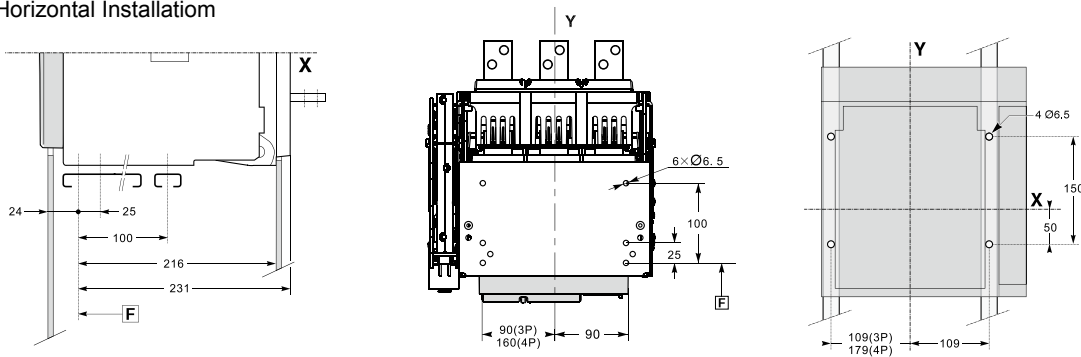
Holes dimension on busbar and installation torque

	1600M&S	1600M&S	2000M&S	3200M&S	4000M&S	6300M&S
Hole dimension	Ø11	Ø11	Ø13	Ø13	Ø11	Ø13
Torque	50N·m	50N·m	95N·m	95N·m	50N·m	95N·m

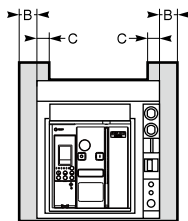
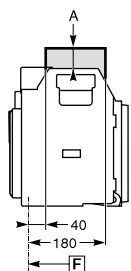
Dimensions HDW3-1000 Draw-out type 3P&4P



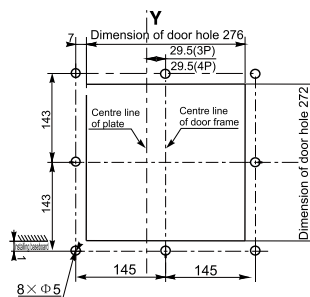
Horizontal Installation



Safety clearance



Holes size on door



F Datum point

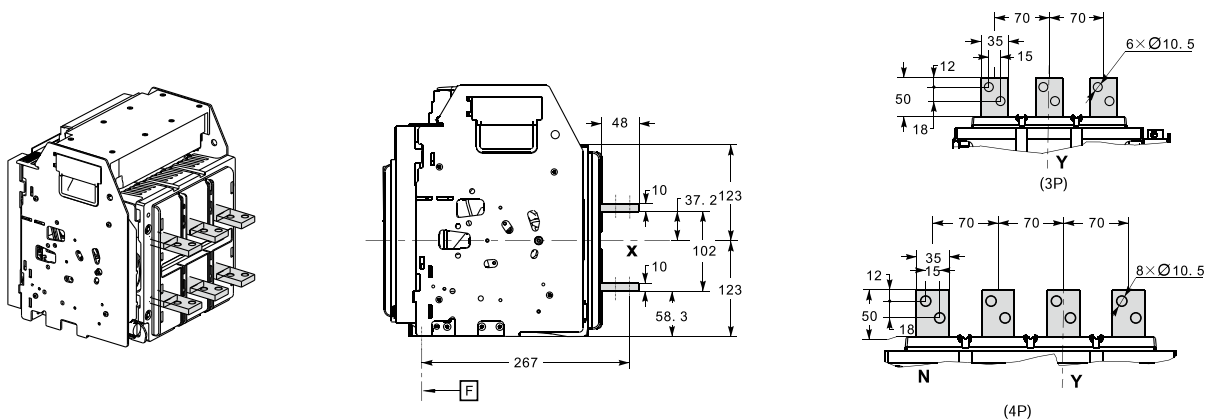
Safety clearance(mm)	Draw-out type		
	A	B	C
Non-conductor	0	10	0
Metals	0	10	0
Energized conductor	30	60	30

Air Circuit Breakers Installation Dimension

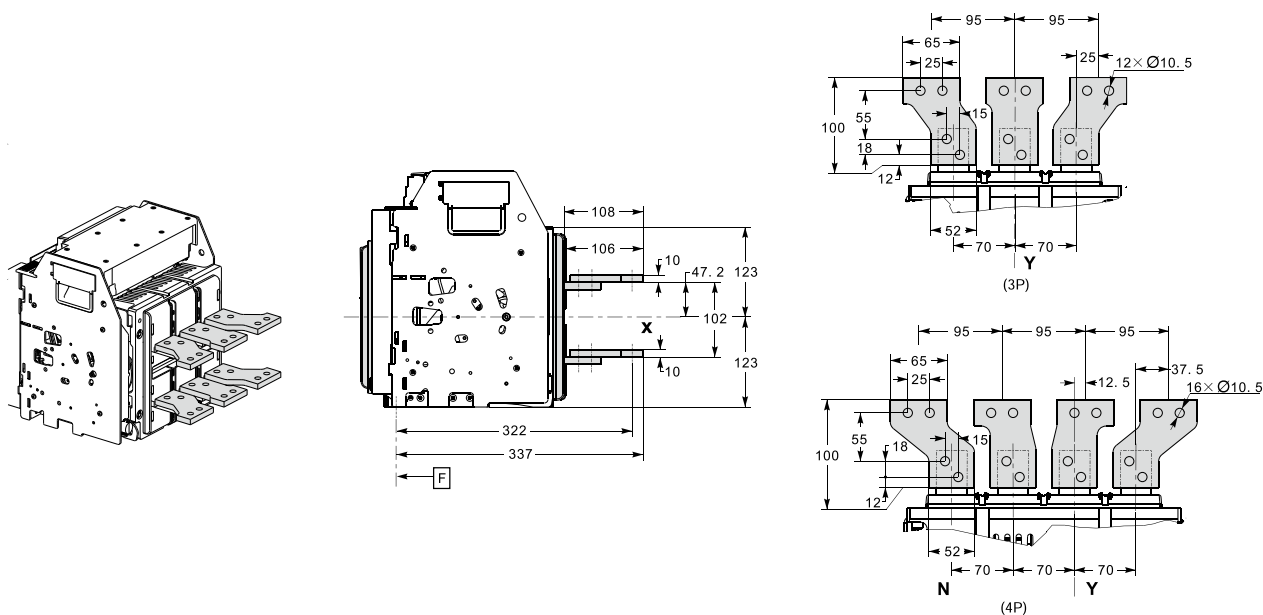


Dimensions HDW3-1000 Draw-out type 3P&4P

Horizontal connection



connection with expanding terminals



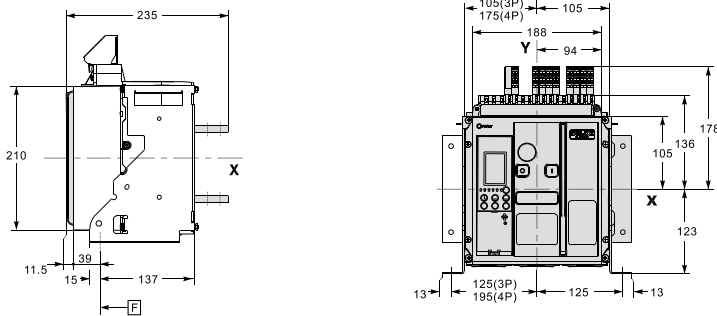
F Datum point

Air Circuit Breakers Installation Dimension



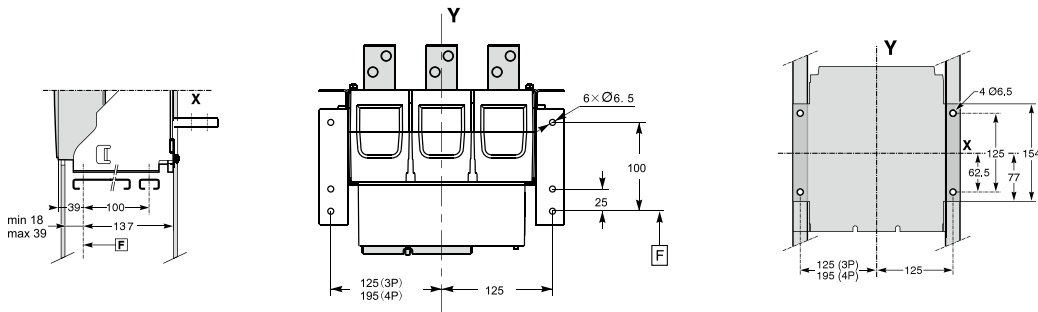
Dimensions HDW3-1000 Fixed type 3P&4P

F Datum point



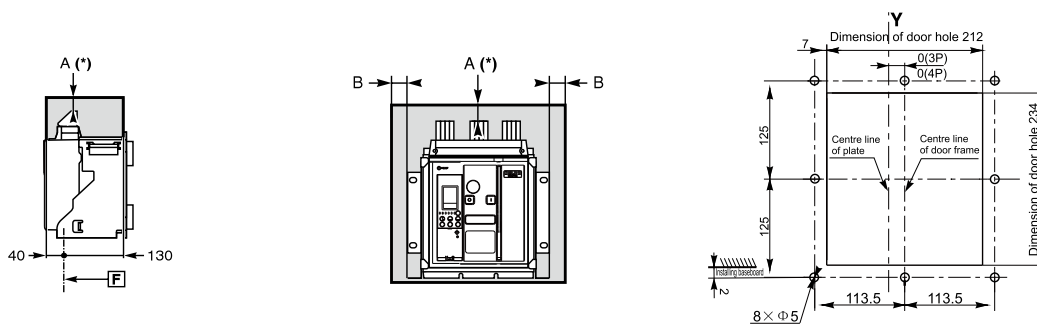
Horizontal Installation

Vertical installation



Safety clearance

Holes size on door



F Datum point

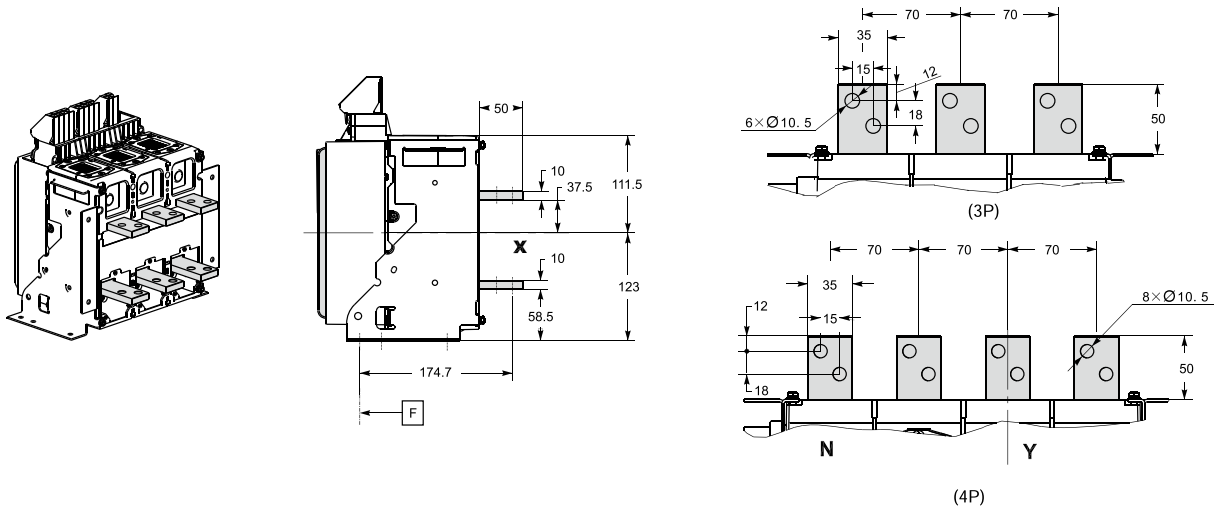
Safety clearance(mm)	Fixed type	
	A	B
Non-conductor	0	0
Metals	0	0
Energized conductor	100	60

Air Circuit Breakers Installation Dimension

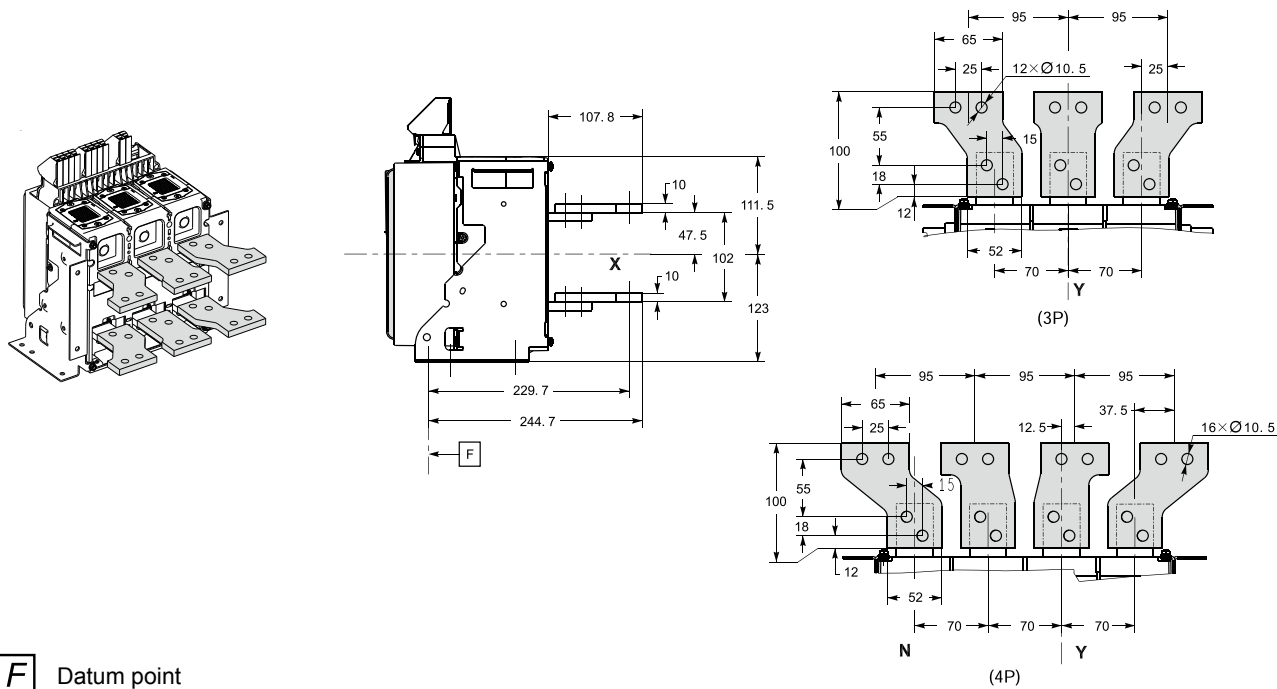


Dimensions HDW3-1000 Fixed type 3P&4P

Horizontal connection



connection with expanding terminals

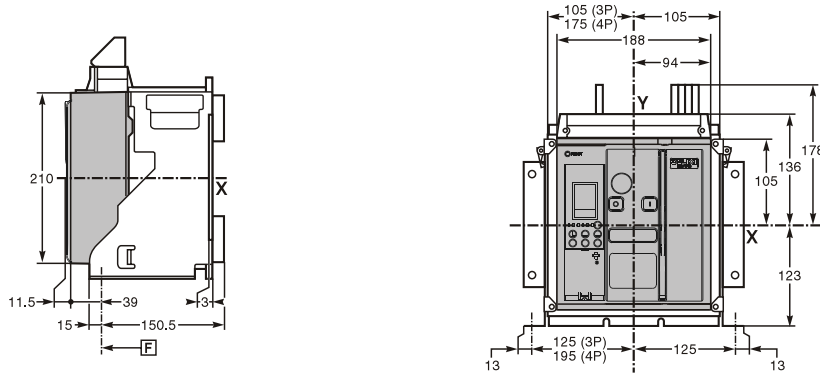


F Datum point

Air Circuit Breakers Installation Dimension

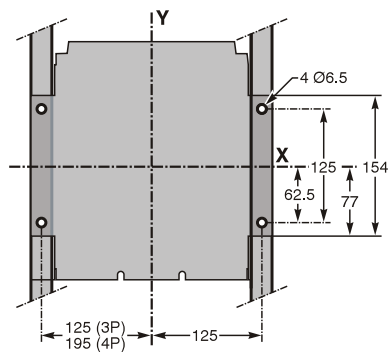
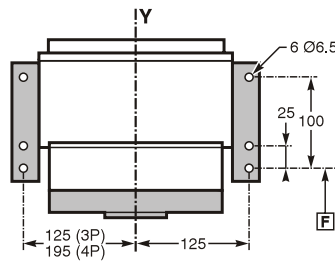
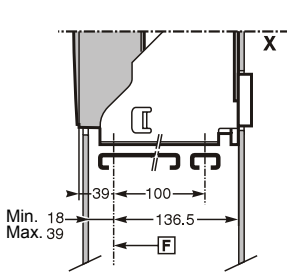


Dimensions HDW3-1600 Fixed type 3P&4P



Horizontal Fixed (On a substrate or track)

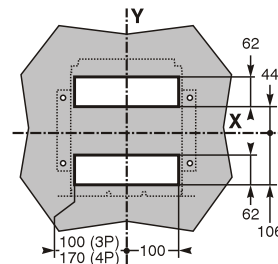
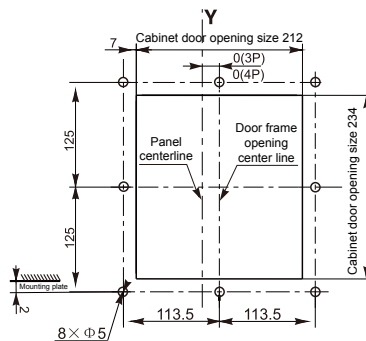
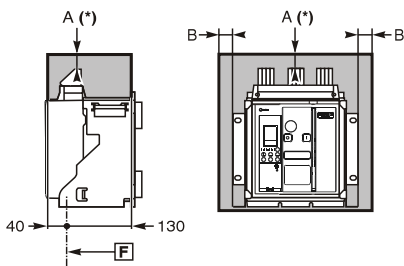
Vertical Fixed diagram (On the back or rack)



Safety clearance

Door open dimension

Back panel open dimension



F : Datum point

	Insulation parts	Metal parts	Energized parts
A	0	0	100
B	0	0	60

Note: the X and Y axes of the 3-pole breaker are symmetrical with the breaker front face mask.

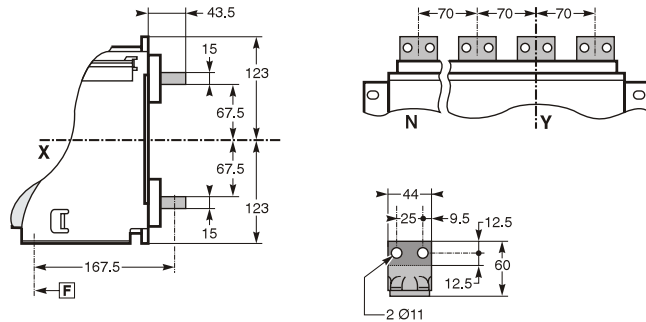
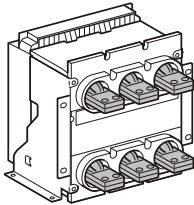
(*) For the safety distance, the space required for removing the arcing mask shall be considered as 50mm, and the safety distance for removing the terminal block shall be 20mm.

Air Circuit Breakers Installation Dimension

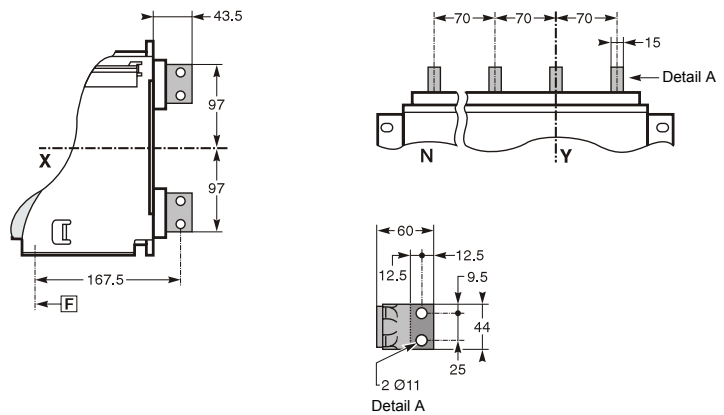
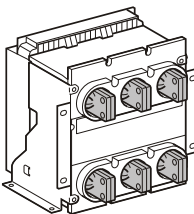


Connection HDW3-1600M&S fixed type

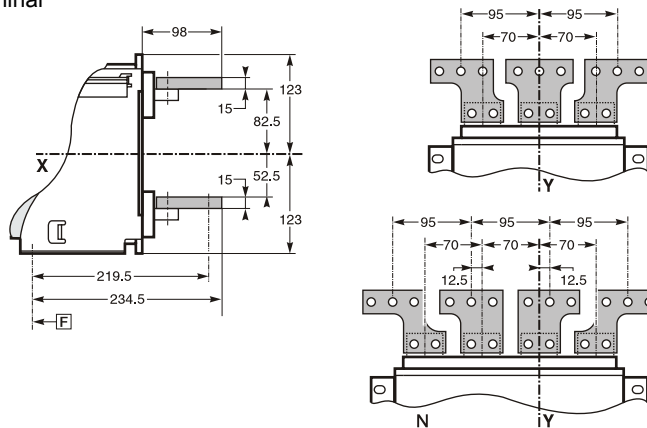
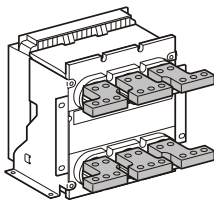
Horizontal back connection



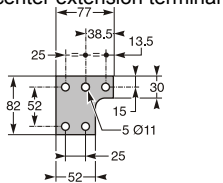
Vertical back connection



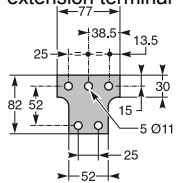
Back connection with expanding terminal



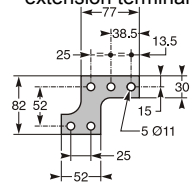
4-pole Left-center or right-center extension terminal



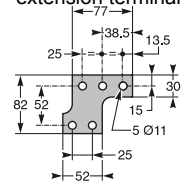
3-pole Intermediate extension terminal



4-pole Left or right extension terminal



3-pole Left or right extension terminal



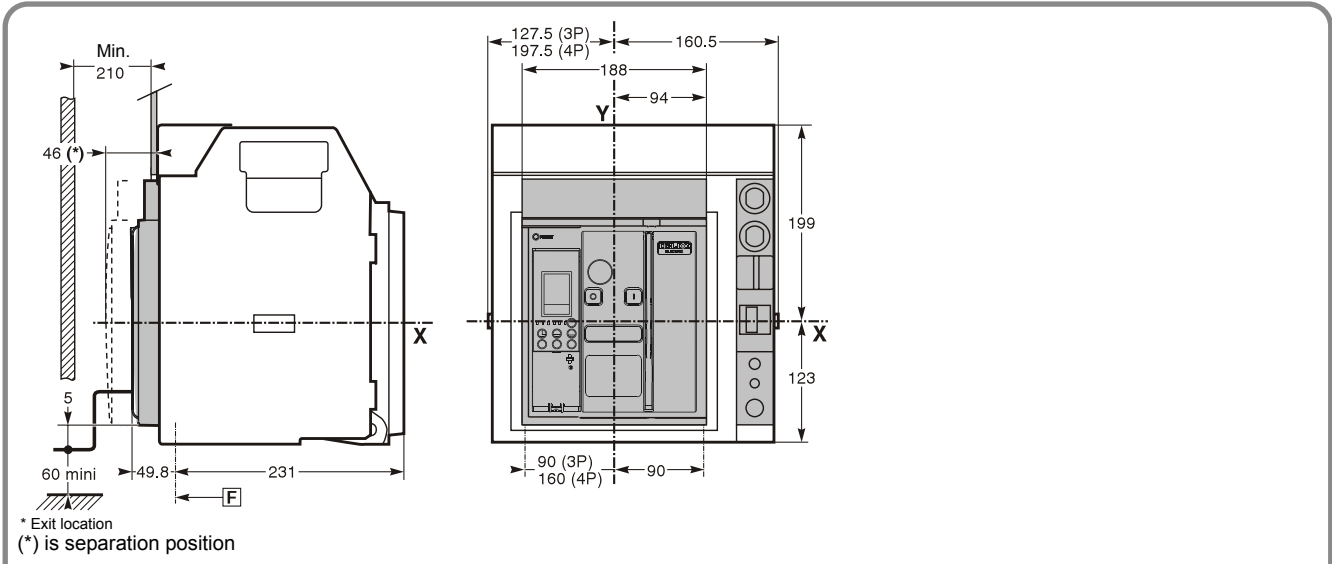
Note: The X and Y axes of the 3-pole breaker are symmetrical with the breaker nomenclature front face mask.

F : Datum point

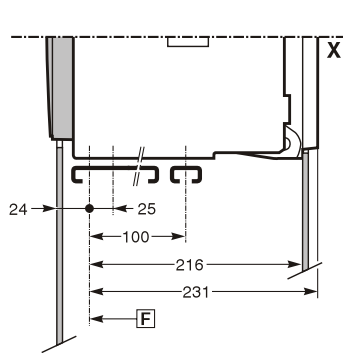
Air Circuit Breakers Installation Dimension



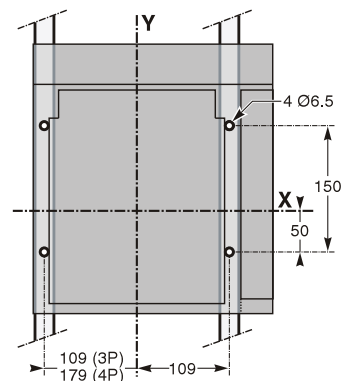
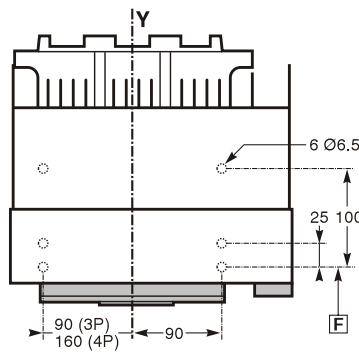
Dimensions HDW3-1600 draw-out type 3P&4P



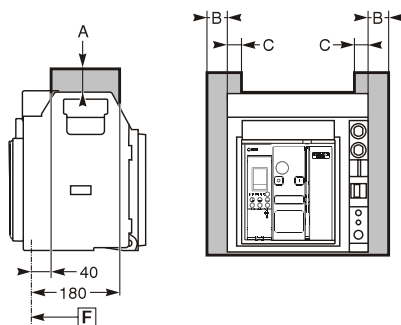
Horizontal Fixed (On a substrate or track)



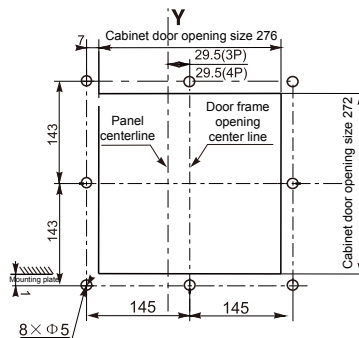
Vertical fixation diagram (On the back or rack)



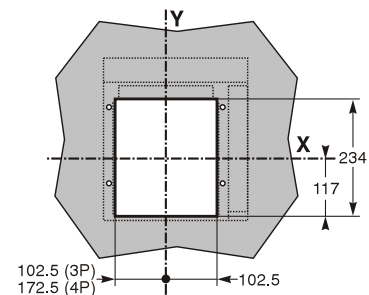
Safety clearance



Door open dimension



Back panel open dimension



	Insulation parts	Metal parts	Energized parts
A	0	0	30
B	10	10	60
C	0	0	30

Note: The X and Y axes of the 3-pole breaker are symmetrical with the breaker nomenclature front face mask.

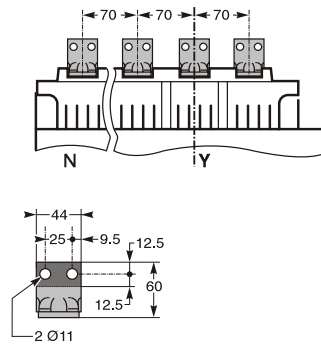
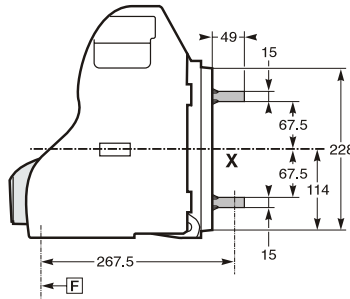
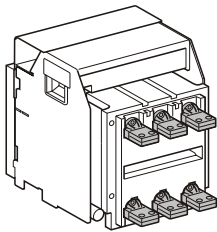
F : Datum point

Air Circuit Breakers Installation Dimension

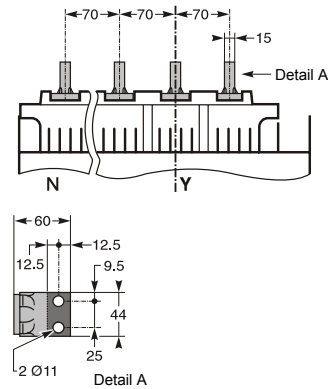
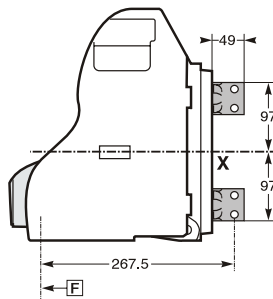
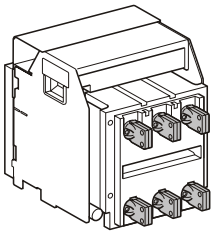


Connection HDW3-1600M&S drawout type

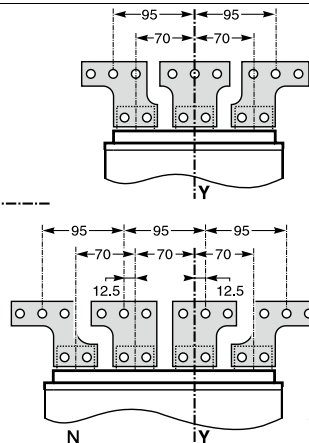
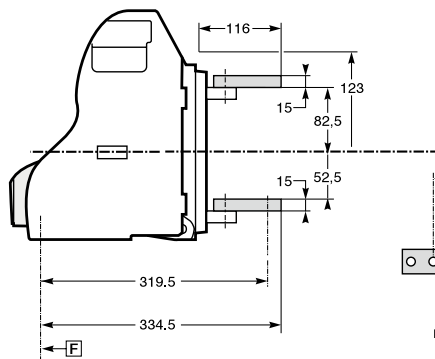
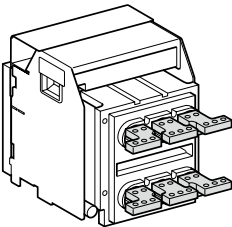
Horizontal rear connection



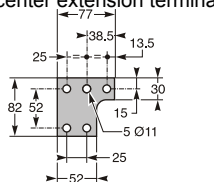
Vertical rear connection



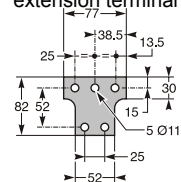
Rear connection with expanding terminal



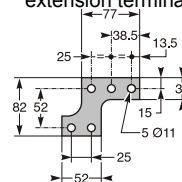
4-pole Left-center or right-center extension terminal



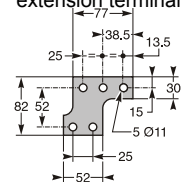
3-pole Intermediate extension terminal



4-pole Left or right extension terminal



3-pole Left or right extension terminal



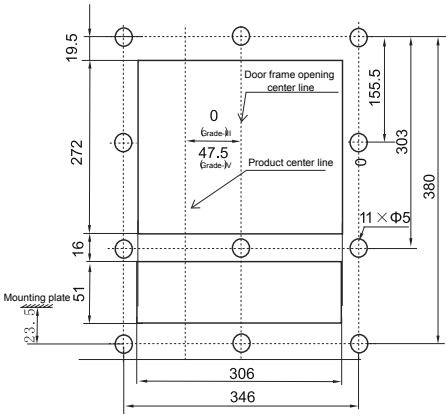
Note: The X and Y axes of the 3-pole breaker are symmetrical with the breaker nomenclature front face mask.

F : Datum point

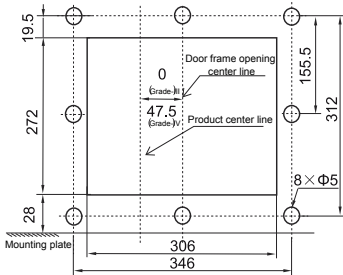
Dimensions of HDW3-2000 3P&4P

Door frame

• Draw-out type

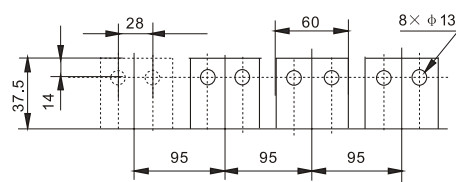


• Fixed type

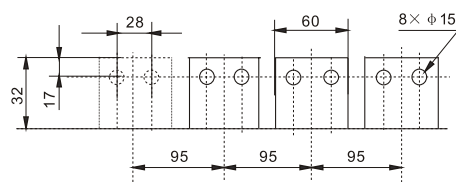


Busbar size

• Draw-out type

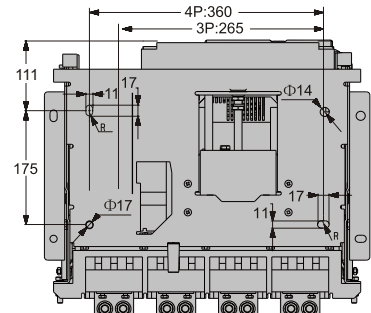
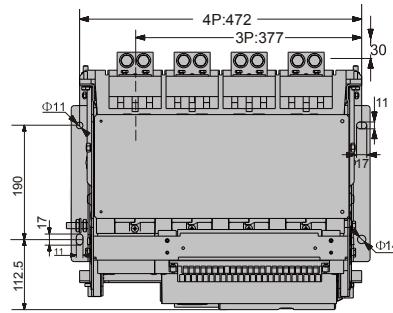
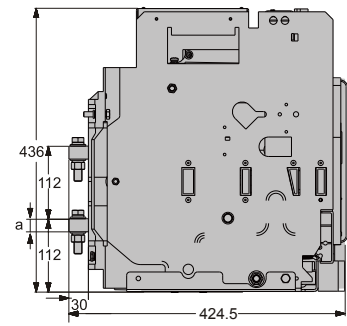
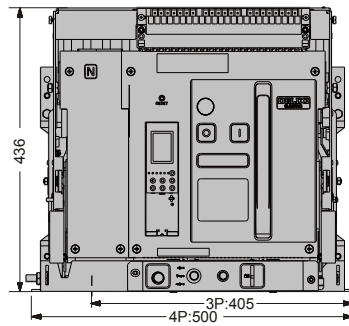


• Fixed type



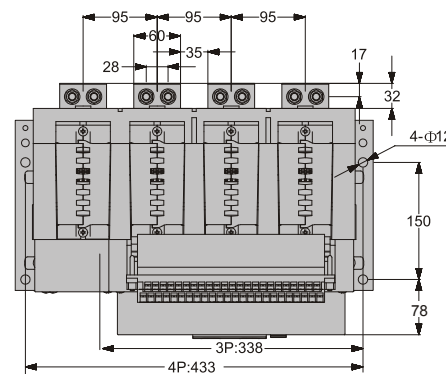
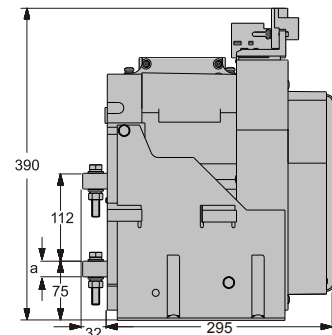
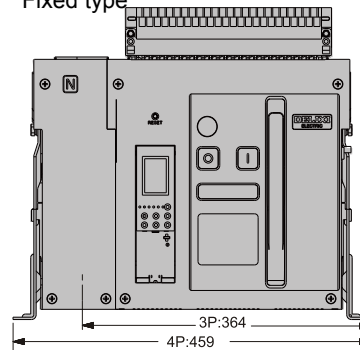
Volume

• Draw-out type



The cover is 5mm higher than the Delixi accessory door frame will be suitable

• Fixed type

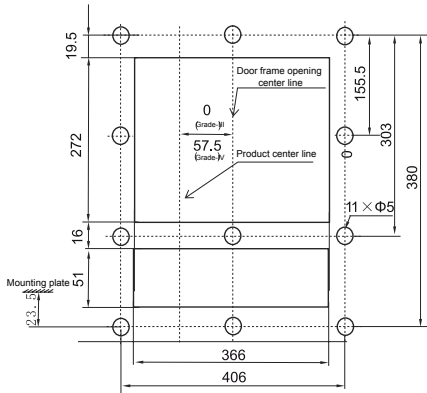


The cover is 5mm higher than the Delixi accessory door frame will be suitable

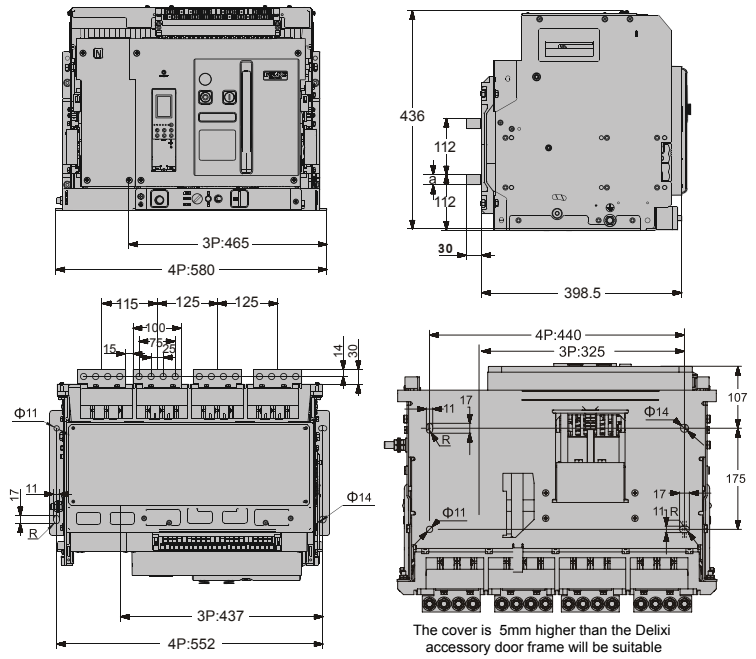
In(A)	a(mm)
630~800	10
1000~1600	15
2000	20

Dimensions of HDW3-3200 3P&4P

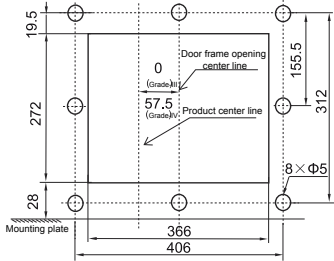
Door frame
- Draw-out type



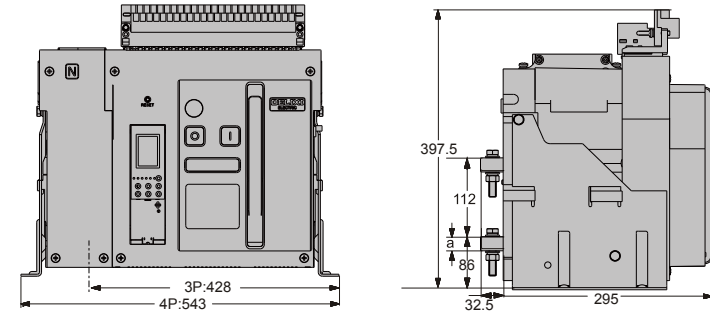
Volume
- Draw-out type



- Fixed type

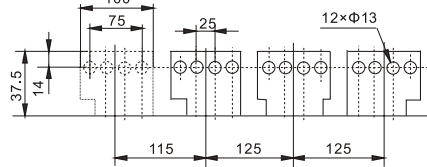


- Fixed type

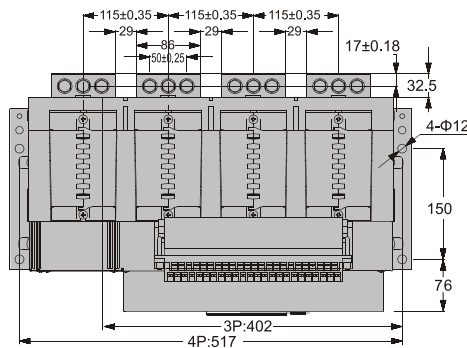
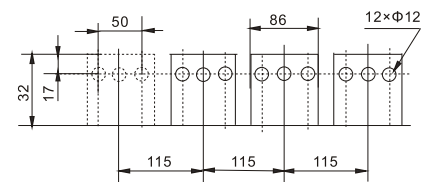


Busbar size

- Draw-out type



- Fixed type

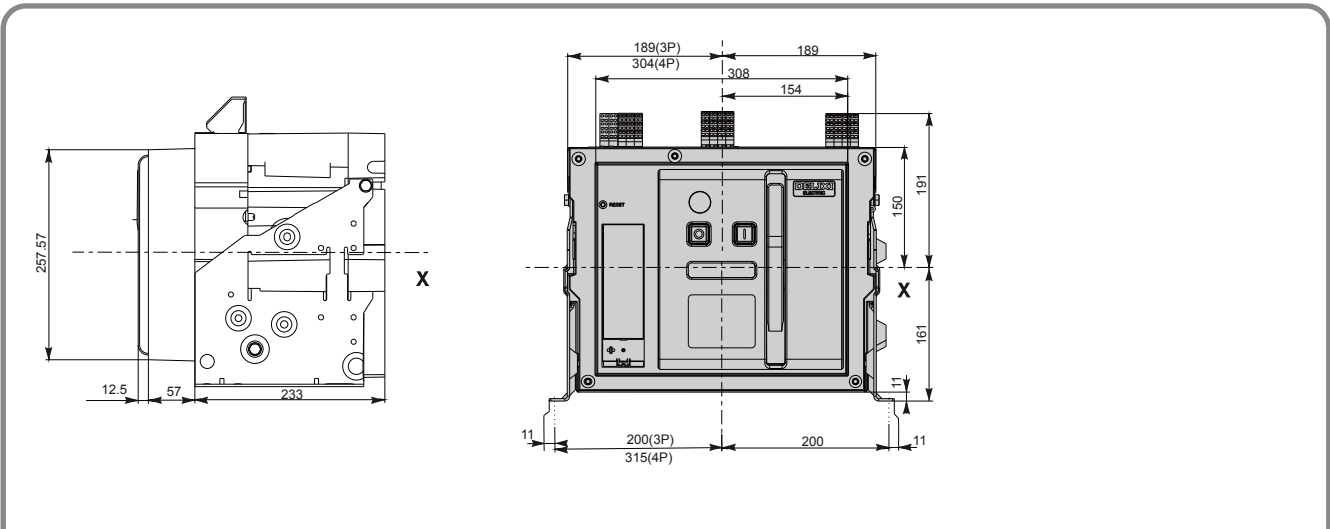


In(A)	a(mm)
2000~2500	20
3200	30

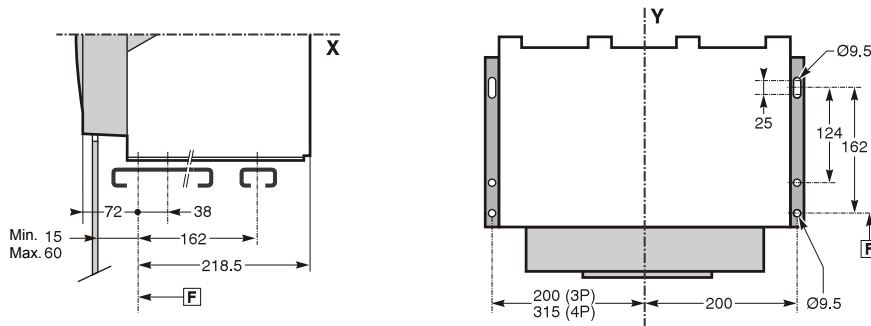
Air Circuit Breakers Installation Dimension



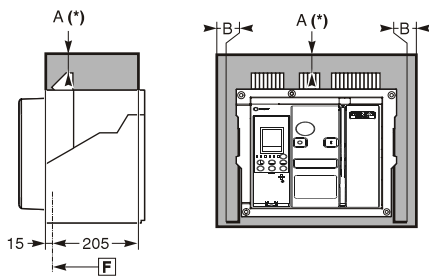
Dimensions of HDW3-4000 fixed type 3P&4P



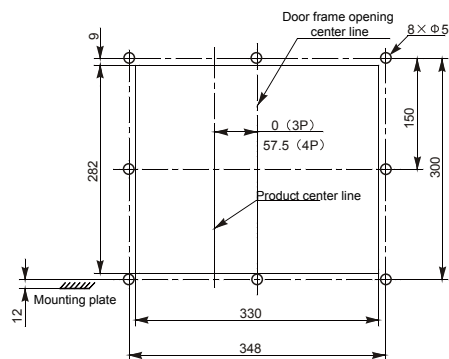
Horizontal Fixed (On a substrate or track)



Safety clearance



Door open dimension



	Insulated part	Metal part	Live part
A	0	0	100
B	0	0	60

F: Datum point

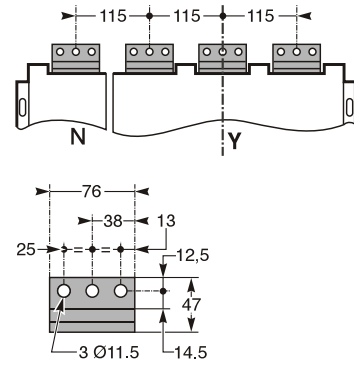
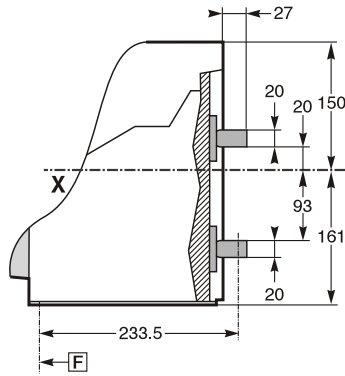
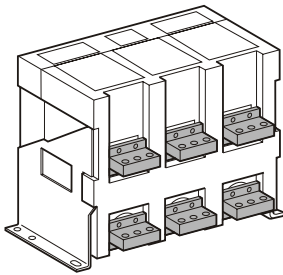
Note: The X and Y axes of the 3-pole breaker are symmetrical with the breaker nomenclature front face mask.

* The safe distance should consider the space needed to remove the arcing shield 110mm, the safe distance when removing the terminal block is 20mm

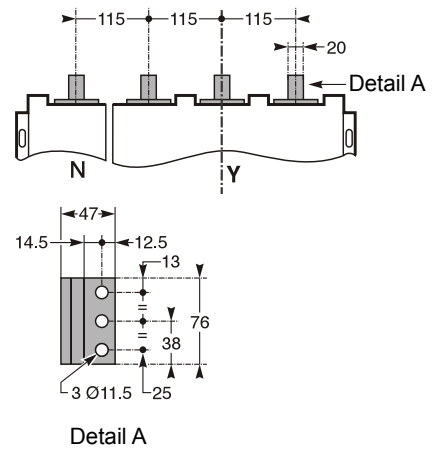
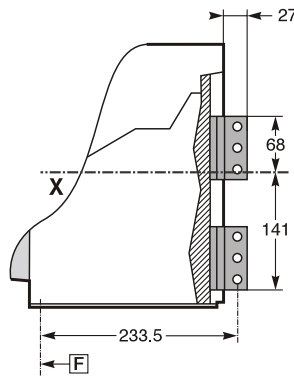
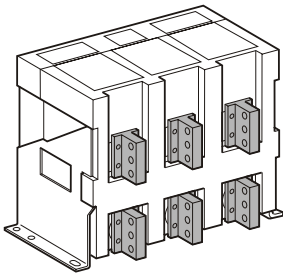
Air Circuit Breakers Installation Dimension

Connection HDW3-4000 fixed type 3P&4P 1600A~3200A

Horizontal rear connection



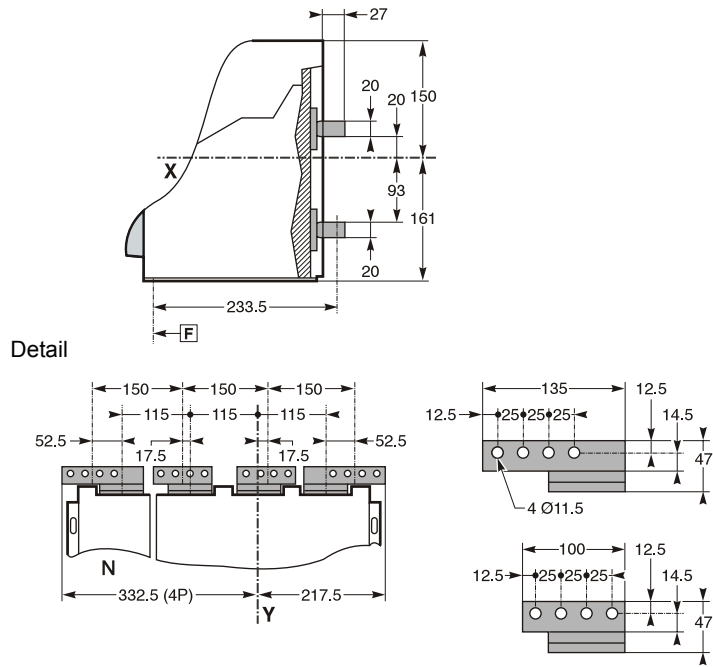
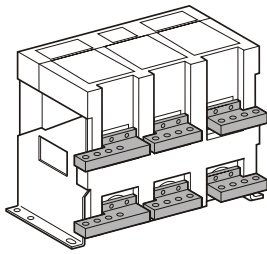
Vertical rear connection



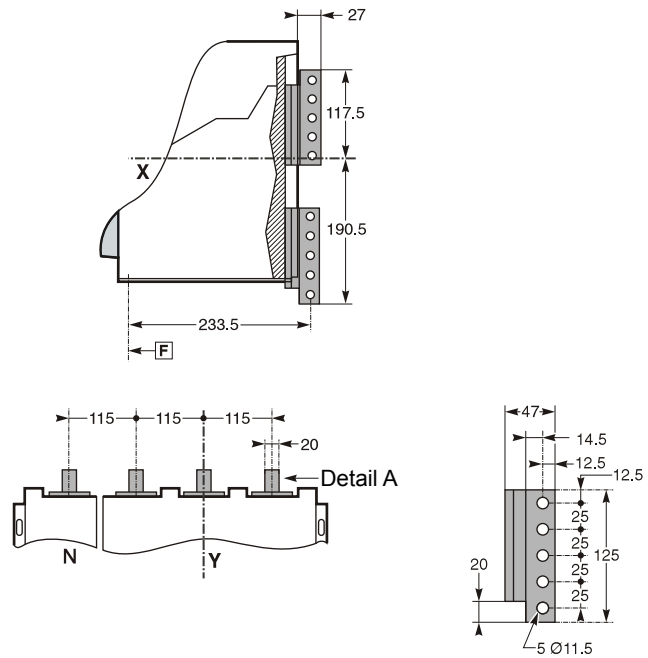
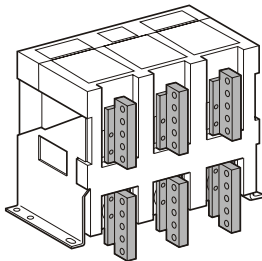
Air Circuit Breakers Installation Dimension

Connections HDW3-4000 fixed type 3P&4P 4000A

Horizontal rear connection



Vertical rear connection



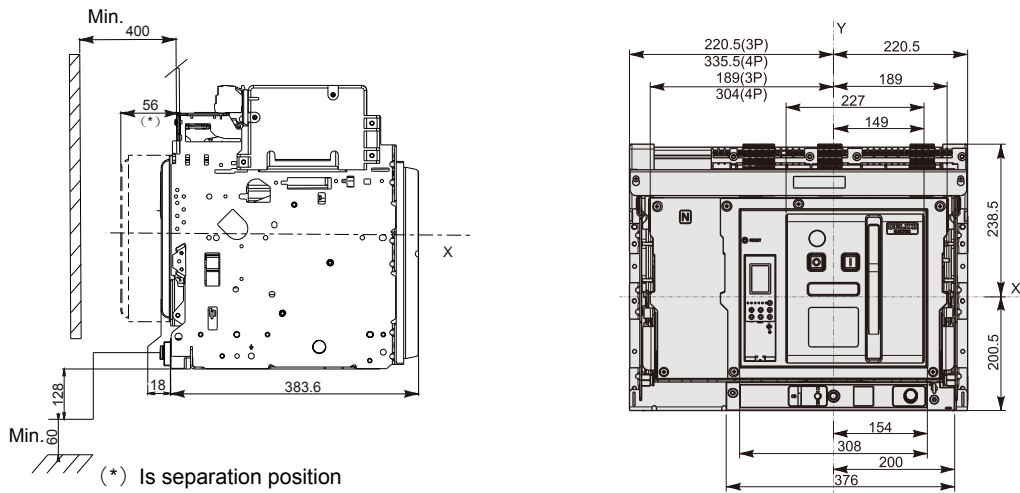
F : Datum point

LOW VOLTAGE DISTRIBUTION

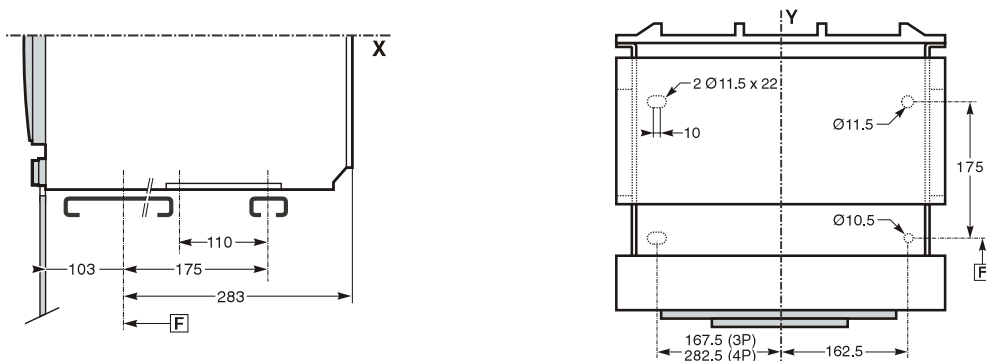
Air Circuit Breakers Installation Dimension



Dimensions of HDW3-4000 draw-out type 3P&4P

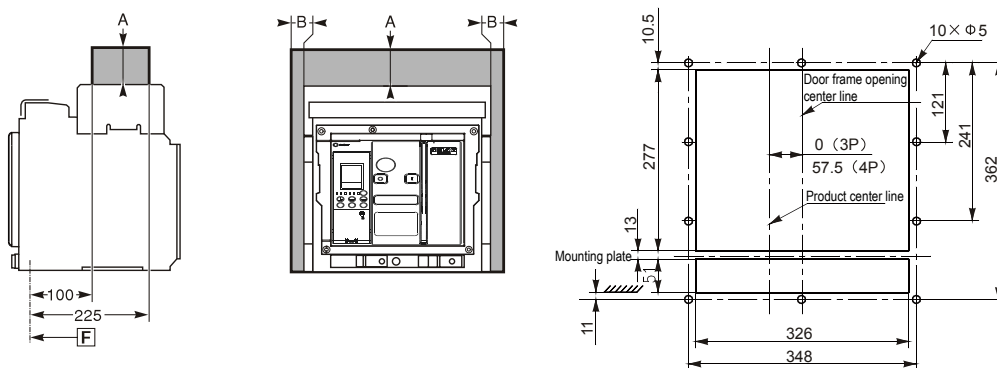


Horizontal Fixed (On a substrate or track)



Safety clearance

Door open dimension



	Insulated part	Metal part	Live part
A	0	0	0
B	0	0	60

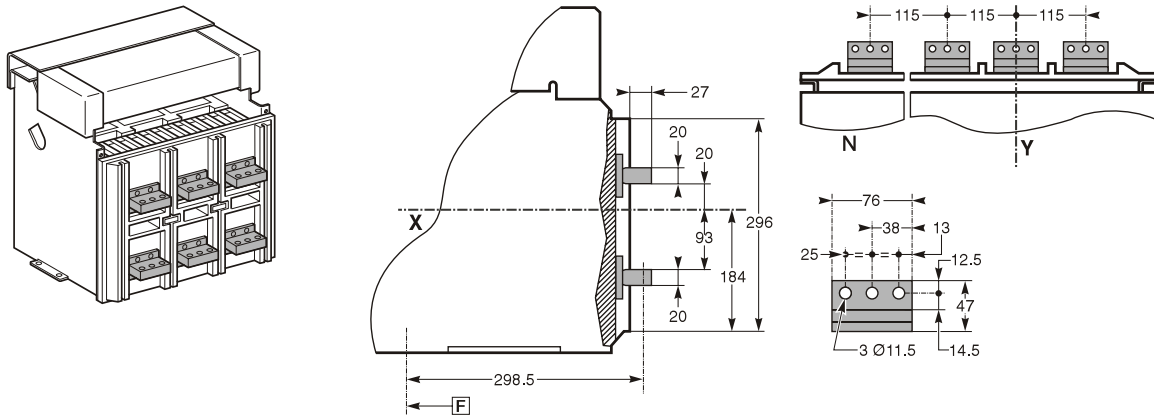
F: Datum point

* Note: The X and Y axes of the 3-pole breaker are symmetrical with the breaker nomenclature front face mask. The safe distance should consider the space needed to remove the arcing shield

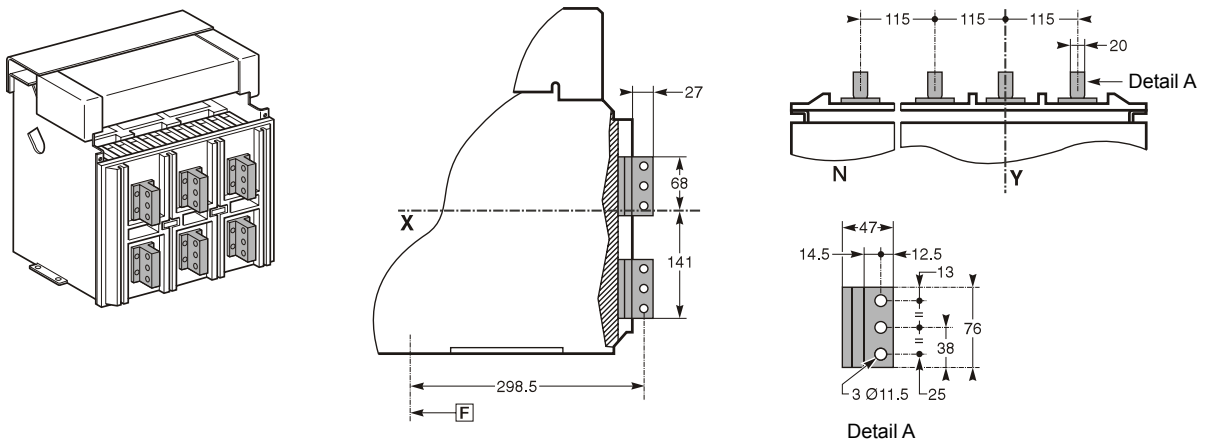
Air Circuit Breakers Installation Dimension

Connections HDW3-4000 draw-out type 3P&4P 1600A~3200A

Horizontal rear connection



Vertical rear connection

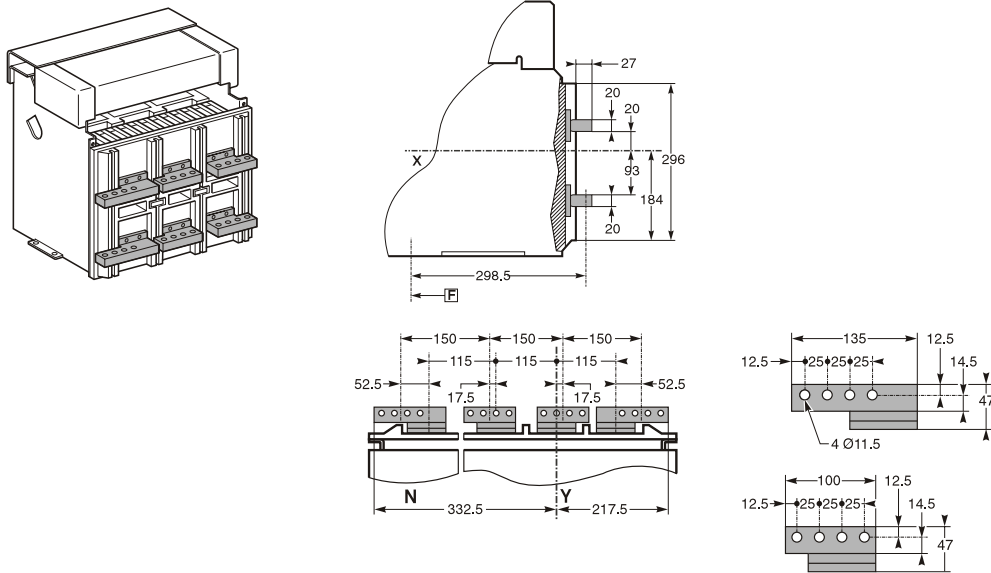


Air Circuit Breakers Installation Dimension

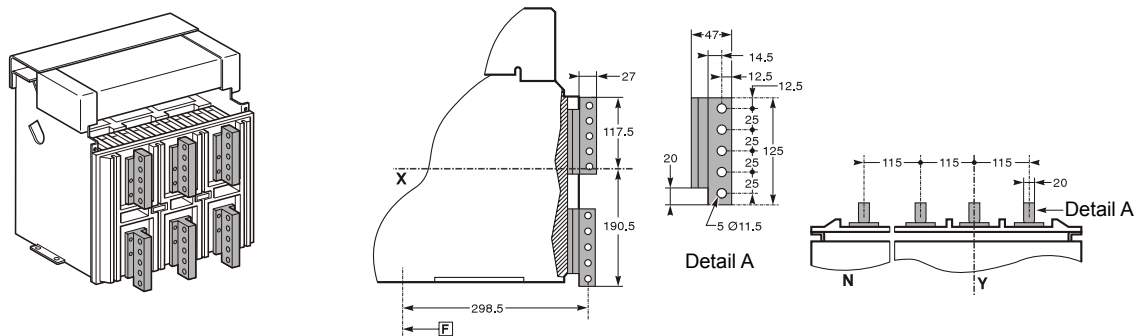


Connections HDW3-4000 draw-out type 3P&4P 4000A

Horizontal rear connection



Vertical rear connection



F: Datum point

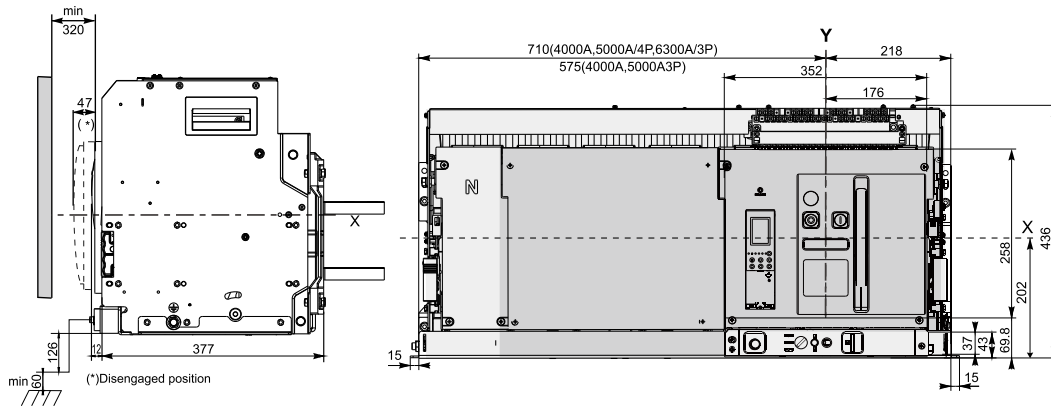
It is suggested to connect the circuit breaker with guide line

Rated current A	Specification of external copper platoon	Pole number	Sectional areamm ²
400	None	1	240
630	40×5	2	400
800	50×5	2	500
1000	60×5	2	600
1250	80×5	2	800
1600	100×5	2	1000
2000	100×5	3	1500
2500	100×5	4	2000
3200	120×10	3	3600
4000	100×10	5	5000

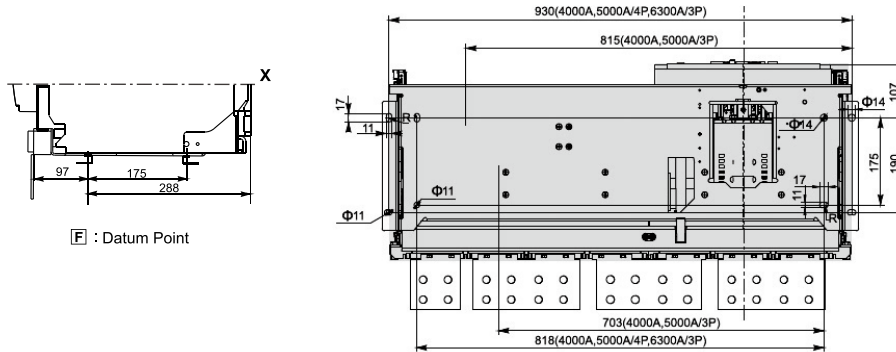
Detailed information please refer to the specification

Connections HDW3-6300M&S

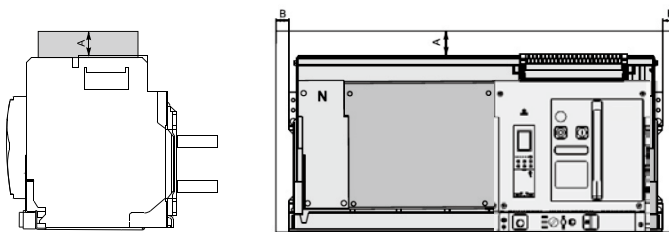
6300M&S Draw-out type 3P&4P Dimension **F** Datum Point



Horizontal installation *Cover is 5mm beyond door frame.

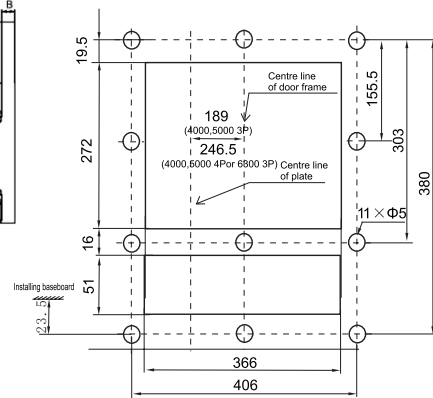


Safety clearance



Safety clearance (mm)	Draw-out type	
	A	B
Non-conductor	0	0
Metals	0	0
Energized conductor	100	60

Holes size on door



Air Circuit Breakers Installation Dimension

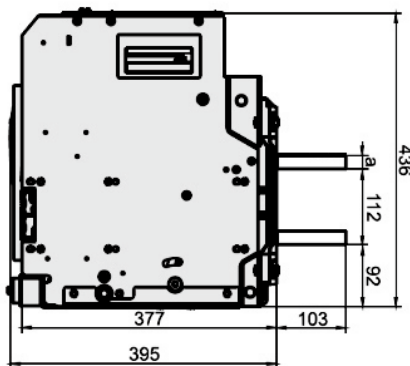
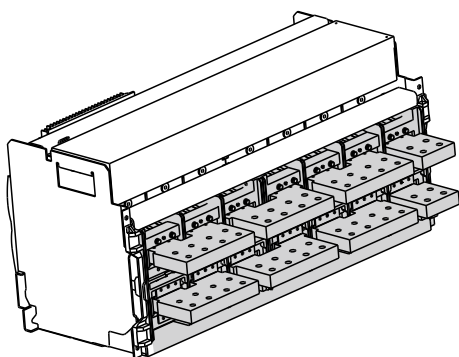


Connections HDW3-6300M&S

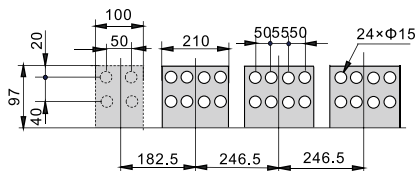
6300M&S Draw-out type connection **F** Datum Point

4000A-6300A

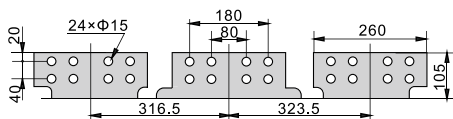
Horizontal connection



In=4000A/5000A



In=6300A

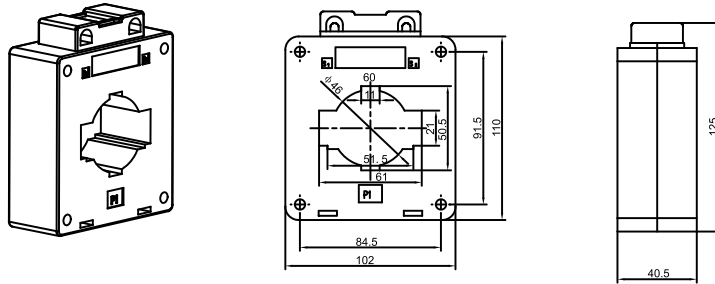


In (A)	a (mm)
4000	20
5000	30
6300	30

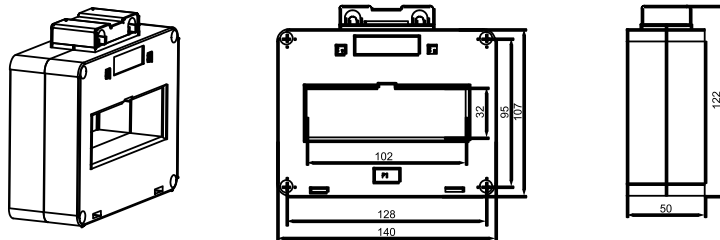
Dimensions of external transformer

N-phase extend current transformer

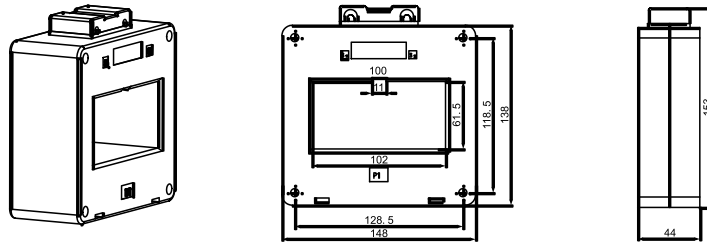
1) 1600M&S



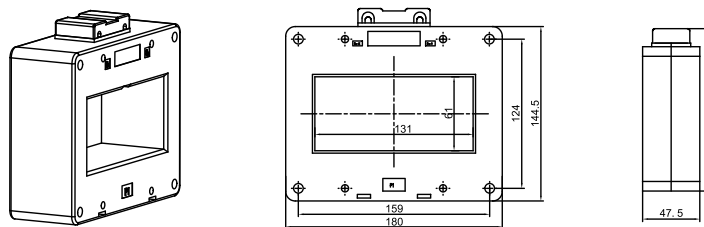
2) 2000M&S



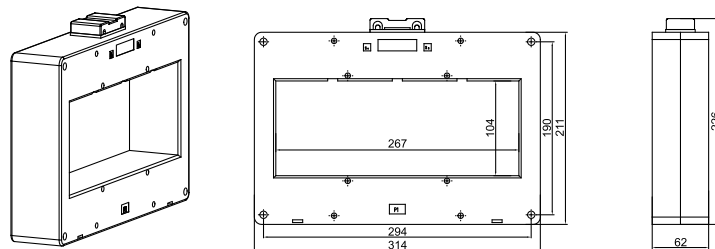
3) 3200M&S



4) 4000M&S

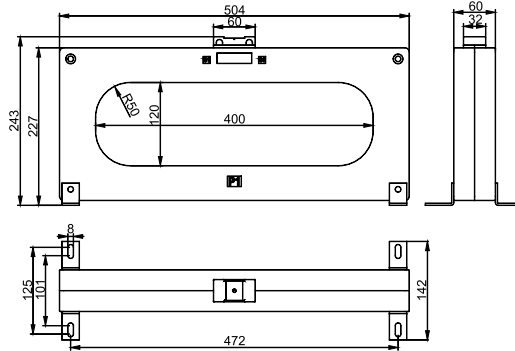
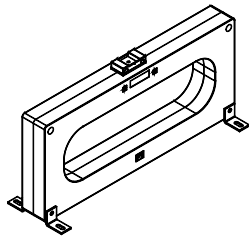


5) 6300M&S

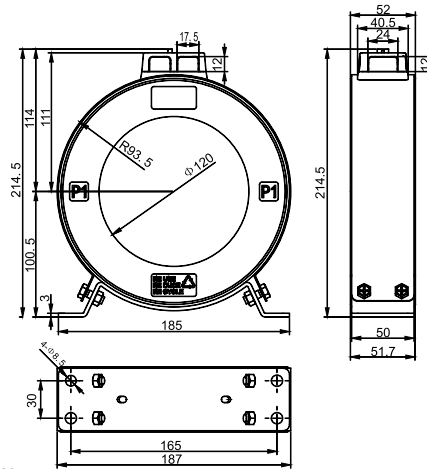
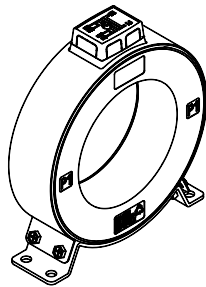


Dimensions of external transformer

Earth-leakage current transformer

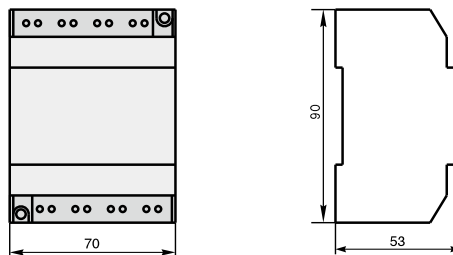
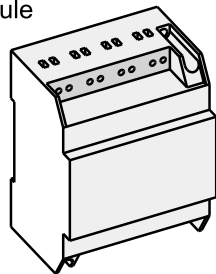


Ground return current transformer

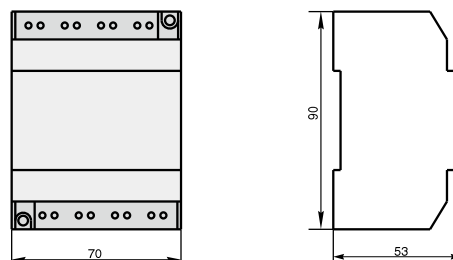
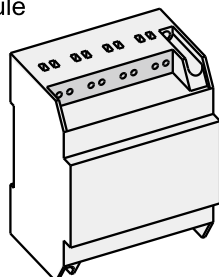


Remark: Dimension of 4000A, 5000A, 6000A is the same with earth-leakage current transformer

Power supply module

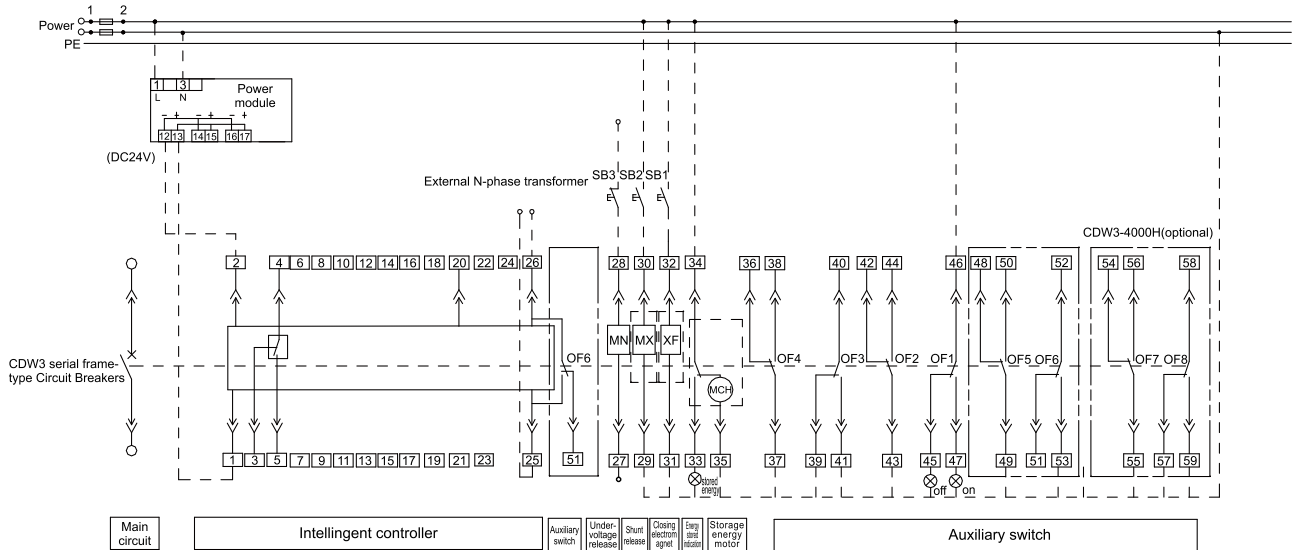


Signal convert module



iTR326、iTR326A Electrical schematic diagram

Wiring diagrams of iTR326, iTR326A intelligent controllers



Controller wiring annotations

UM: Voltage test signal input

21#(UN), 22#(UA), 23#(UB), 24#(UC) represent the input ends of N, A, B, C phase voltage respectively.

POW: External power input

1#(V1+), 2#(V2-): Auxiliary power input/output terminals, 1#(V1) is the positive terminal for DC

SWT: Fault trip contact output

3#(S2), 4#(S1), 5#(S3): Fault trip contact output (4#(S1) is the common terminal), contact capacity: AC400V, 5A

CT: External transformer, including external N-phase transformer or ZT100 or ZCT1(one out of three), where

25# - 26#: apply to external N-phase transformer input;

25# - 26#: apply to external ground transformer ZT100 input;

25# - 26#: apply to external leakage transformer ZCT1 input;

Note 1: MN under-voltage release 27#, 28# wired on the main circuit line

Note 2: Different powers can be applied respectively if the control power voltages for MN, MX, XF, MCH are different from each other, HDW3-1600 auxiliary switch offer 4a4b only; HDW3-2000&HDW3-3200 auxiliary switches can offer 4a4b and 6a6b; HDW3-4000 auxiliary switch can offer 4a4b, 6a6b and 8a8b, where 4a4b is a standard configuration, others need to be purchased separately (the dashed parts in the diagram are connected by the users);

Note 3: Terminal 35# not only can be connected directly to the power (pre-store energy automatically), but also can be connected with the NO button in series then connected to the power (hand control energy pre-storage)

Note 4: The controller should be connected to the power module, adopt iAPU334 power module when the power voltage is AC220V-AC400V; adopt iAPU332D when the power voltage is DC220/DC110V;

Note 5: The auxiliary switch is 4a4b when HDW3-2000 and HDW3-2000 are circuit 47;

Note 6: The auxiliary switch is 6a6b (5a5b) when HDW3-2000 and HDW3-3200 are circuit 51: 25#, 26#, 51# can not take the external transformer after forming a NO NC contact.

Elements:

- MN Under-voltage release
- MX Shunt release
- XF Closed electromagnet
- OF1-OF8 auxiliary switch
- SB1 closing button
- SB2 opening button
- SB3 emergent disconnect button

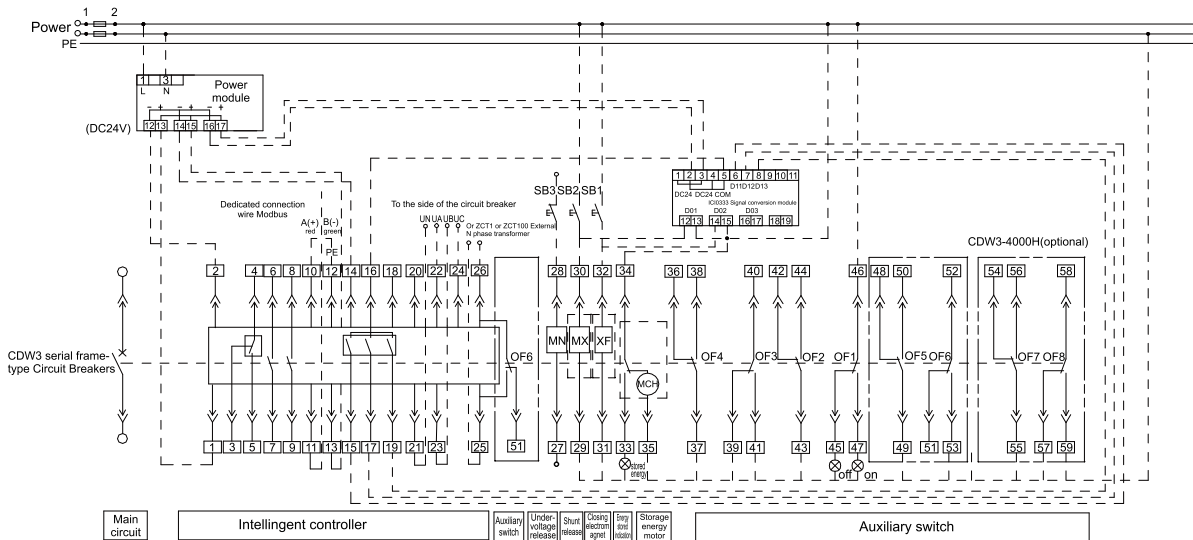
Equal No.
27=D2
28=D1
29=C2
30=C1
31=A2
32=A1
33=B3
34=B1
35=B2

Air Circuit Breakers Electrical Schematic Diagram



iTR326H Electrical schematic diagram

Wiring diagrams of iTR326H intelligent controllers



Controller wiring annotations:

- UM: Voltage test signal input
- 21#(UN), 22#(UA), 23#(UB), 24#(UC) represent the input ends of N, A, B, C phase voltage respectively.
- ZSI: Zone selective interlock
- 13#(Z+), 14#(Z-) are the zone selective interlock input DC24V
- 16#(Z11), 15#(Z1), 17#(Z2), 19#(Z3) are 3D0 output, adopt the optocoupler output, where 16# (Z11) is the common terminal
- POW: External power input
- 1#(V1+), (2# V2-): Auxiliary power input/output terminals, 1#(V1+) is the positive pole for DC.
- SWT: Fault trip contact output
- 3#(S2), 4#(S1), 5#(S3): Fault trip contact output (4#(S1) is the common terminal ,contact capacity: AC400V, 5A)
- COM: Communication output
- 10#, 11#: Communication outgoing lines of RS485A(485+),RS485B(485-) respectively, 12#: PE line, shield ground wire
- CT: External transformer, including an external N-phase transformer or ZT100 or ZCT1(one out of three), where
- 25# - 26#: Apply to external N-phase transformer input;
- 25# - 26#: Apply to external ground transformer ZT100 input;
- 25# - 26#: Apply to external leakage transformer ZCT1 input;

Elements:

- MN Under-voltage release
- XF Closed electromagnet
- OF1—OF8 Auxiliary switch
- ZT100 Ground transformer
- SB1 Closing button
- SB2 Opening button
- SB3 Emergent disconnect button
- MX Shunt release
- MCH Motor
- ZCT1 Leakage transformer

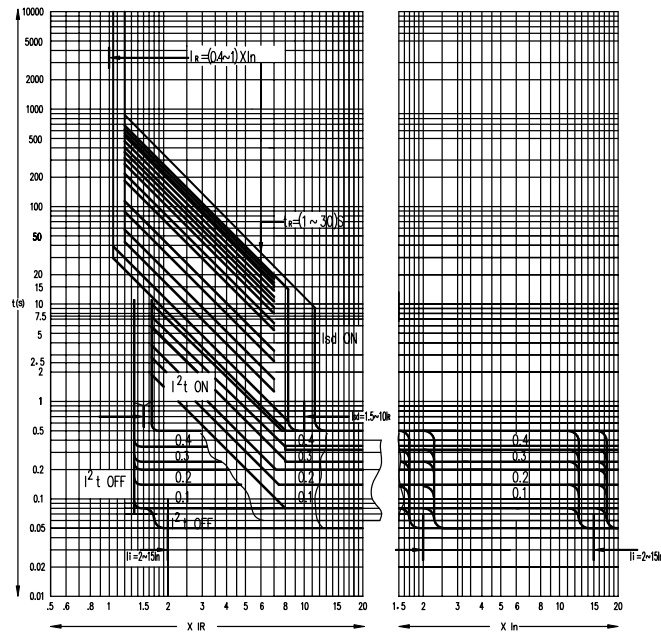
Equal No.
27=D2
28=D1
29=C2
30=C1
31=A2
32=A1
33=B3
34=B1
35=B2

- Note 1: MN under-voltage release 27#, 28#, wired on the main circuit line
- Note 2: Different powers can be applied respectively if the control power voltages for MN, MX, XF, MCH are different from each other, HDW3-1600 auxiliary switch offer 4a4b only; HDW3-2000 and HDW3-3200 auxiliary switches can offer 4a4b and 6a6b; HDW3-4000 auxiliary switch can offer 4a4b, 6a6b and 8a8b, where 4a4b is a standard configuration others need to be purchased separately (the dashed parts in the diagram are connected by the users);
- Note 3: Terminal 35# not only can be connected directly to the power (pre-store energy automatically), but also can be connected with the NO button in series then connected to the power (hand control energy pre-storing)
- Note 4: The controller should be connected to the power module, adopt iAPU334 power module when the power voltage is AC220V-AC400V; adopt iAPU332D when the power voltage is DC220/DC110V ;
- Note 5: The auxiliary switch is 4a4b when HDW3-2000 and HDW3-3200 are circuit 47; 25#, 26# are the external transformer input terminals, used for ground fault protection (3P+N)T;
- Note 6: The auxiliary switch is 6a6b (5a5b) when HDW3-2000 and HDW3-3200 are circuit 51; 25#, 26#, 51# can not take the external transformer after forming a NO NC contact.
- Note 7: When the remote control is working, the signal conversion modules are needed, signal conversion module contact capacity is AC240V, 10A
- Note 8: The communication protocol is Modbus, iCAU486 or iCAU485 is needed to be ordered when Profibus or Devicenet protocol is used, the module uses DC24V electricity supply, the input end is connected to the secondary circuit 10#(485+), terminal 11#(485-), the output end is connected to the corresponding protocol bus.

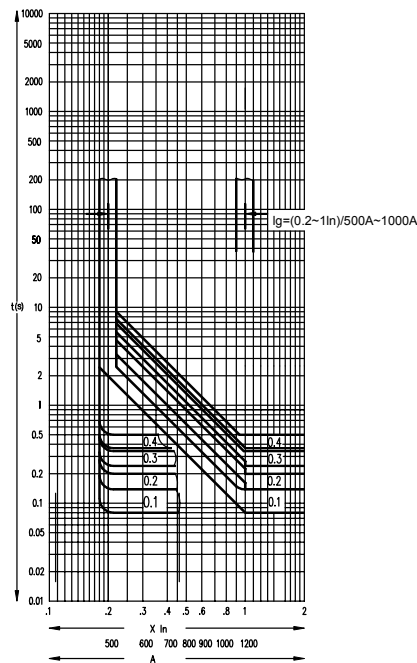
Air Circuit Breakers Electrical Tripping Curve

Tripping Curve

3 phases protection



Ground protection



Air Circuit Breakers Ground Fault Protection

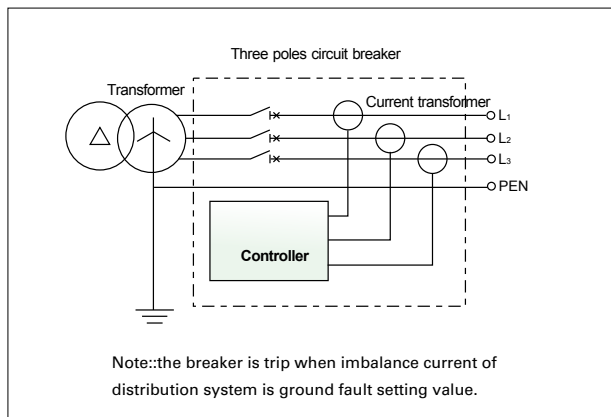


Ground Fault Protection

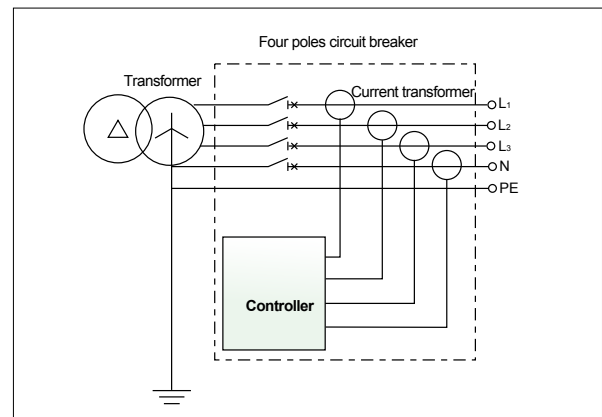
For definite earth-fault protection the setting current I_g can be adjusted $0.4-1 I_n$, can be setted "OFF", Delay time can be adjusted t_g $0.1-0.4$.

Protection ways Inverse timedelay protection and constant time delay protection is available.

Vectorial summation type



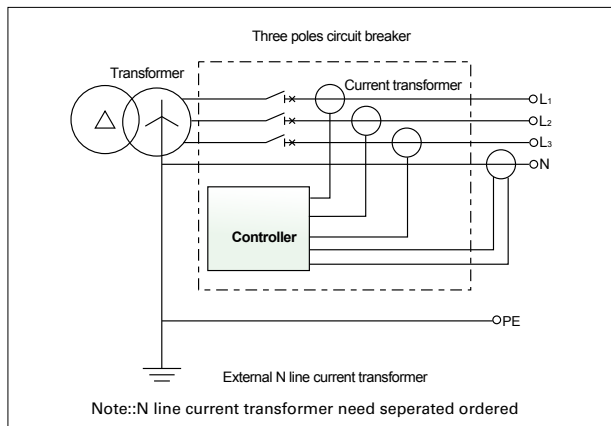
HDW3 with three poles are used in the power distribution system of TN-C, TN-C-S and TN-S without additional current transformer of neutral line N. The signal of earth-fault protection from the vectorial summation of three poles of current. Characteristic of definite protection.



HDW3 with four poles are used in the power distribution system of TN-S.

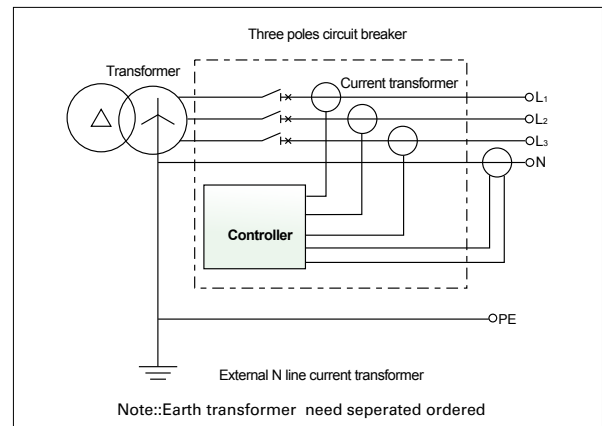
The signal of earth-fault protection from the vectorial summation of three poles of current and N phase current. Characteristic of definite protection.

Earth type of transformer center



HDW3 with three poles are used in the power distribution system of TN-S.

N line current transformer connected externally, which is installed 2 meters at maximum from the circuit breaker, takes the hole of earth-fault protection. The signal of earth-fault protection from the vectorial summation of three poles of current and N phase current.



TN-S distribution system selects transformer's center earth type protection.

Earth transformer with transformer's center takes the hole of sampling earth-fault current.

Earth-fault protection signal is from earth line of transformer.

HDW3 ATS Controller

Product Introduction

HDW3 automatic transfer controller is an intelligent ATSE controller with programmable functions, automatic measuring, LCD menu display, and digital communication. It can automatically realize voltage, frequency, phase etc. electrical parameters measurement and automatic control according to setting strategy which can reduce human operation error. It is an ideal product of ATSE.

HDW3 automatic transfer controller consists of microprocessor as core 3-phase voltage to make precise detection of abnormal voltage (overvoltage, under-voltage, missing phase, over-frequency, or underfrequency)

With compact structure, advanced circuit, and simple wiring; it can be widely applied to electrical devices, automatic control and debug system in power management, post and telecommunications, petroleum, coal, metallurgical, and railways.

ATSEC2

Two-source AC power input
Main power source and standby power source



ATSECM

Two-source AC power input
Two Main power source and tie bus interlock



ATSEC3

Three-source AC power input
Main power source and two standby power source



Main function of ATS controller

ATSEC2

Two-source AC power input

Main power source and standby power source

Functional Parameters

- Graphic LCD 128x64 pixel;
- Two-source AC power input: 3-phase 4-wire;
- Measured values, settings, and message texts are supported in English and Chinese
- 10~30VDC power supply.
- Detection function for over-voltage, under-voltage, phase loss, reverse phase sequence, over-frequency, under-frequency;
- 8-channel programmable digital input (grounding effective);
- 10-channel programmable digital output;
- Integrated RS-485 isolation interface, MODBUS protocol;
- Storage of last 200 events;
- Real time clock
- All parameters are field programmable, use password access to avoid misoperation by unprofessional persons;
- The fixed washer is IP65 degree of protection
- Module structure design, Retardant PC cover, pluggable terminal, embedded installation mode, compact structure and easy installation;

Main function of ATS controller

ATSECM

Two-source AC power input

Two Main power source and tie bus interlock

ATSEC3

Three-source AC power input

Main power source and two standby power source

Functional Parameters

- Graphic LCD 128x64 pixel, 5 inch TFT;
- Two-source AC power input: 3-phase 4-wire; (Three -source AC power input-ATSEC3)
- Measured values, settings, and message texts are supported in English and Chinese;
- 12~48VDC power supply;
- Detection function for over-voltage, under-voltage, phase loss, reverse phase sequence, over-frequency, under-frequency;
- 8-channel programmable digital input (grounding effective);
- 10-channel programmable digital output;
- Integrated RS-485 isolation interface, MODBUS protocol;
- Storage of last 200 events;
- Real time clock;
- All parameters are field programmable, use password access to avoid misoperation by unprofessional persons;
- The fixed washer is IP65 degree of protection;
- Module structure design, Retardant PC cover, pluggable terminal, embedded installation mode, compact structure and easy installation;

HDW3 ATS Controller



Parameter					
Parameter	Definition	Default	ATSE2C	ATSECM	ATSE3C
Basic Parameter					
operation temperature	-20°C~+70°C		■	■	■
storage temperature	-30°C~+85°C		■	■	■
Humidity	20%~90%		■	■	■
Altitude	≤2000m		■	■	■
Breaker Operation voltage(V)	AC 230/415V	AC 230V	■	■	■
ATS Operation voltage(V)	AC 230V/415V DC10-30V		■	■	■
IP degree	IP20		■	■	■
Display	LCD , English ,Chinese	English	■	■	■
Parameter Setting					
Power source voltage	AC 50-415V		■	■	■
Power source frequency	50 Hz/60 Hz	50 Hz	■	■	■
Power grid	3 Pole 4 wires / 3 Pole 3 wires	3P4W	■	■	■
ATSE2C/ATSECM power transfer type	M-M:Mains to Mains Supply M-G:Mains to Generator Supply G-M:Generator to Mains Supply	M-M	■	■	
ATSE3C power transfer type	M-M:Mains to Mains Supply to Mains Supply M-M:Mains to Mains Supply to Generator Supply	M-M			■
RETURNS					
RETURNS model	Self return/No return/Backup eachother	Self return	■	■	■
Power grid	Choose S1 or S2 for Priority Net	S1	■		
Transfer Parameter					
Loss phase/loss voltage	Main & standby power supply		■	■	■
Under voltage	70%-98%	85%	■	■	■
Over voltage	102% -130%	115%	■	■	■
Under frequency	OFF/80%-98%	OFF	■	■	■
Over frequency	OFF/101%-119%	OFF	■	■	■
Phase unbalance	Main & standby power supply		■	■	■
Fire signal	Fire signal :D/O swtich off all breaker		■	■	■
Manu/Auto	Manu model/Auto model		■	■	■
Dual switch off button	push dual switch off button,swtich off all breaker		■		
alarm for transfer failure	panel LED light +sound alarm		■	■	■
Communicate & event log					
Event log	Tranfer and alarm event		■	■	■
Communication	RS-485MODBUS		■	■	■
Dry contact output					
Main power's breaker switch on	10A 250VAC	☒	■	■	■
standby power's breaker switch on		☒	■	■	■
Main power status		☒	■	■	■
standby power status		☒	■	■	■
generator start		☒	■	■	■
Control cable	ATSE2C default with 2m ATSE3C ATSECM default with 4m	☒	■	■	■

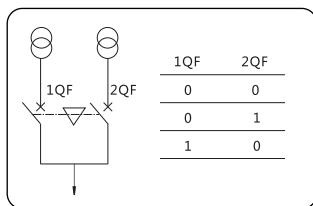
How to order complete set of ATS with ACB

The complete set must include 2 or 3 set ACB, cable interlock ,220VAC motor/shunt release /closing coil,ATS Controller
 Do not install key lock with ACB, it will damage the ACB when automatic transfer
 Do not install the undervoltage release with ACB, it will impact ATS automatic transfer
 Do not use ACB's MODBUS or remote signal to Switch ON/OFF breaker by MX/XF, it will impact the ATS automatic transfer

Cable Interlocking

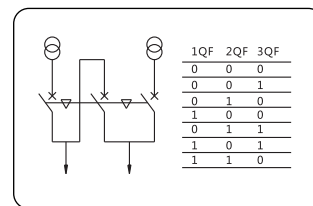
Two Breaker Interlock C2

Interlock type A in which one of the two breakers (B1 or B2) can be switched ON. Each breaker must be equipped with a factory mounted interlock type A. Two cables are needed.



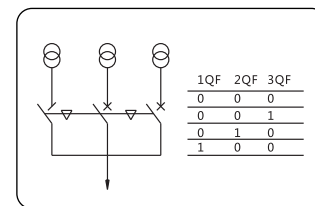
Three Breaker Interlock C3

Interlock type B in which one of the three breakers (B1, B2 or B3) can be switched ON. Each breaker must be equipped with a factory mounted interlock type B. Six cables are needed.



Three Breaker Interlock type CM

Interlock type A in which one of the two breakers (B1 or B2) can be switched ON. Each breaker must be equipped with a factory mounted interlock type A. Two cables are needed.

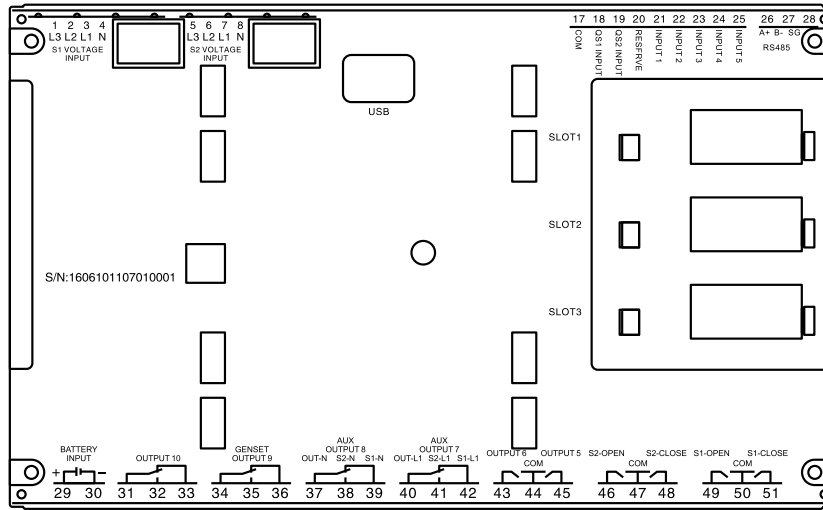


ATS controller + ACB + Mechanical interlock

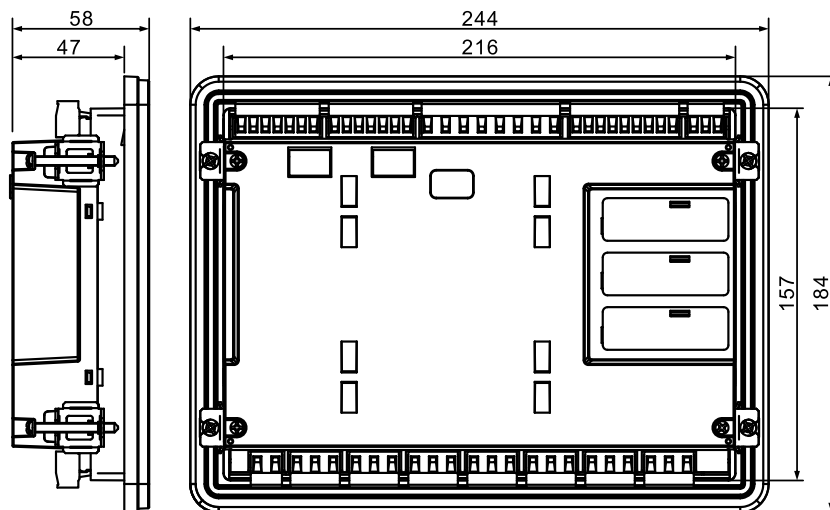
<p>Two Breaker Interlock type C2</p>	<p>Two Breaker Interlock type A</p> <p>+</p>		<p>→</p>	<p>ATSEC2</p>
<p>Three Breaker Interlock type C3</p>	<p>Three Breaker Interlock type B</p> <p>+</p>		<p>→</p>	<p>ATSEC3</p>
<p>Three Breaker Interlock type CM</p>	<p>Three Breaker Interlock type C</p> <p>+</p>		<p>→</p>	<p>ATSECM</p>

ATS controller-Wiring diagram -ATSEC2

Terminal diagram

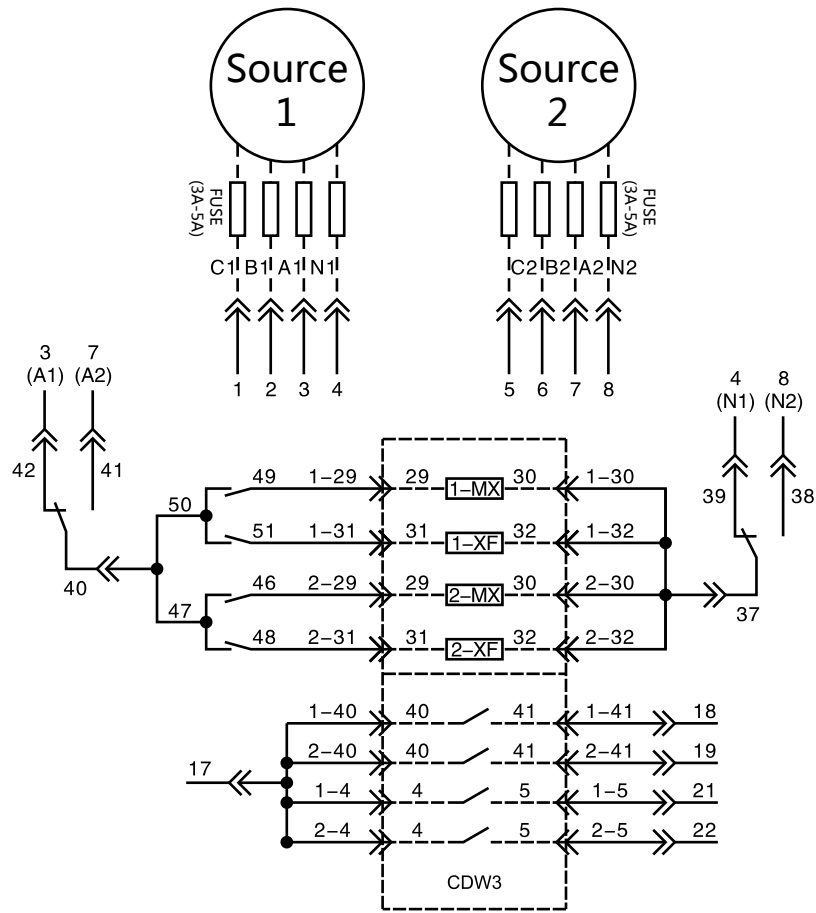


Installation Dimension



ATS controller-Wiring diagram -ATSEC2

Electrical Schematic Diagram



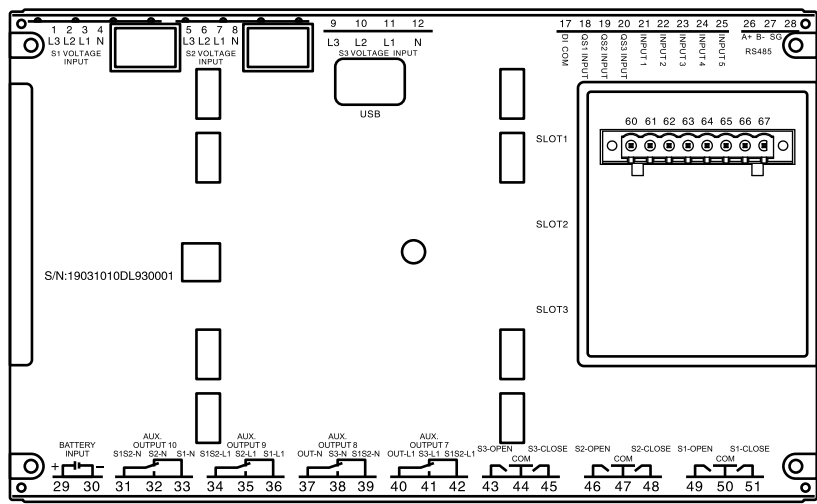
- | | | | |
|----|-------|-----------|--------------------------------------|
| 35 | Start | 1 - MX | Source 1 breaker - shunt release |
| 36 | Stop | 1 - XF | Source 1 breaker - closing coil |
| | | 2 - MX | Source 2 breaker - shunt release |
| | | 2 - XF | Source 2 breaker - closing coil |
| | | 1-40 1-41 | Source 1 breaker - Auxiliary contact |
| | | 2-40 2-41 | Source 2 breaker - Auxiliary contact |
| | | 1-4 1-5 | Source 1 breaker - Alarm contact |
| | | 2-4 2-5 | Source 2 breaker - Alarm contact |

Note

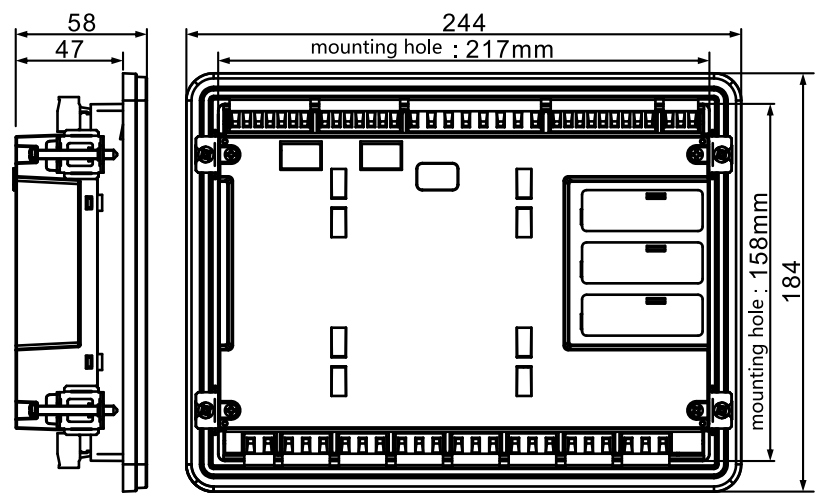
- 1: Default 2m cable
- 2: MX - shunt release 220VAC
XF - Closing coil 220VAC
OF3- Auxiliary contact
AL - Alarm contact
- 3: The ACB must install with cable interlock
- 4: out of dotted line is connect to ACB terminal by customer
- 5: ATS already have under & over voltage protection, do not install undervoltage release into ACB
- 6: Intelligent controller iTR326H, don't use MODBUS control ACB ON/OFF(MX+XF)

ATS controller-Wiring diagram –ATSEC3

Terminal diagram

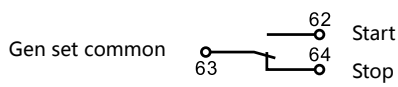
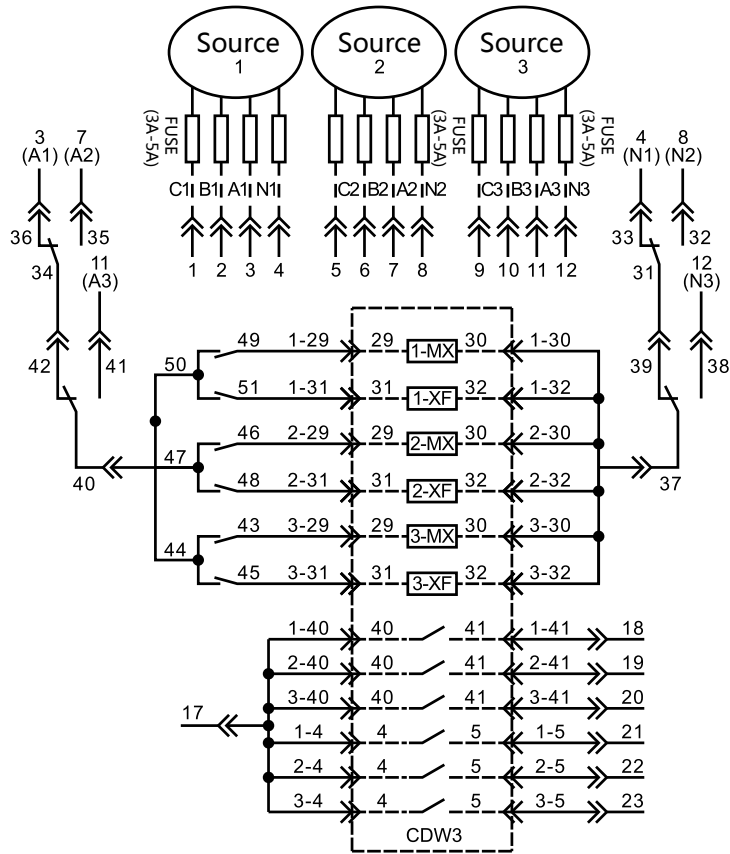


Installation Dimension



ATS controller-Wiring diagram –ATSEC3

Electrical Schematic Diagram



- 1 - MX Source 1 breaker - shunt release
- 1 - XF Source 1 breaker - closing coil
- 2 - MX Source 2 breaker - shunt release
- 2 - XF Source 2 breaker - closing coil
- 3 - MX Source 3 breaker - shunt release
- 3 - XF Source 3 breaker - closing coil

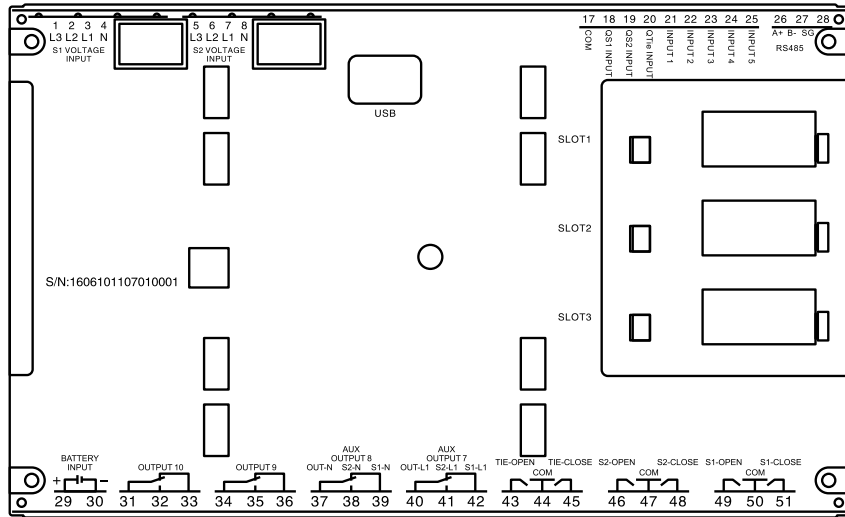
Note

- 1: Default 4m cable
- 2: MX - shunt release 220VAC
- XF - Closing coil 220VAC
- OF3- Auxiliary contact
- AL - Alarm contact
- 3: The ACB must install with cabel interlock
- 4: out of dotted line is connect to ACB terminal by customer
- 5: ATS already have under & over voltage protection, do not install undervoltage release into ACB
- 6: Intelligent controller iTR326H, don't use MODBUS control ACB ON/OFF(MX+XF)
- 7: Not suitable for 1600 frame size

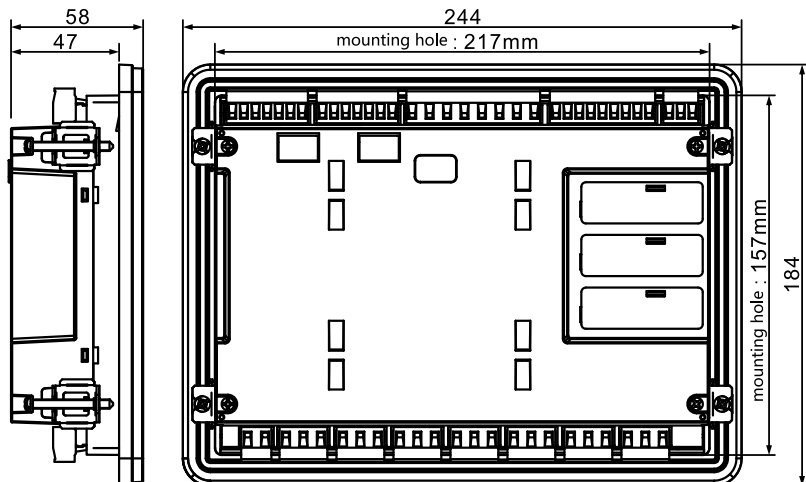
- 1-40 1-41 Source 1 breaker - Auxiliary contact
- 2-40 2-41 Source 2 breaker - Auxiliary contact
- 3-40 3-41 Source 3 breaker - Auxiliary contact
- 1-4 1-5 Source 1 breaker - Alarm contact
- 2-4 2-5 Source 2 breaker - Alarm contact
- 3-4 3-5 Source 3 breaker - Alarm contact

ATS controller-Wiring diagram –ATSECM

Terminal diagram

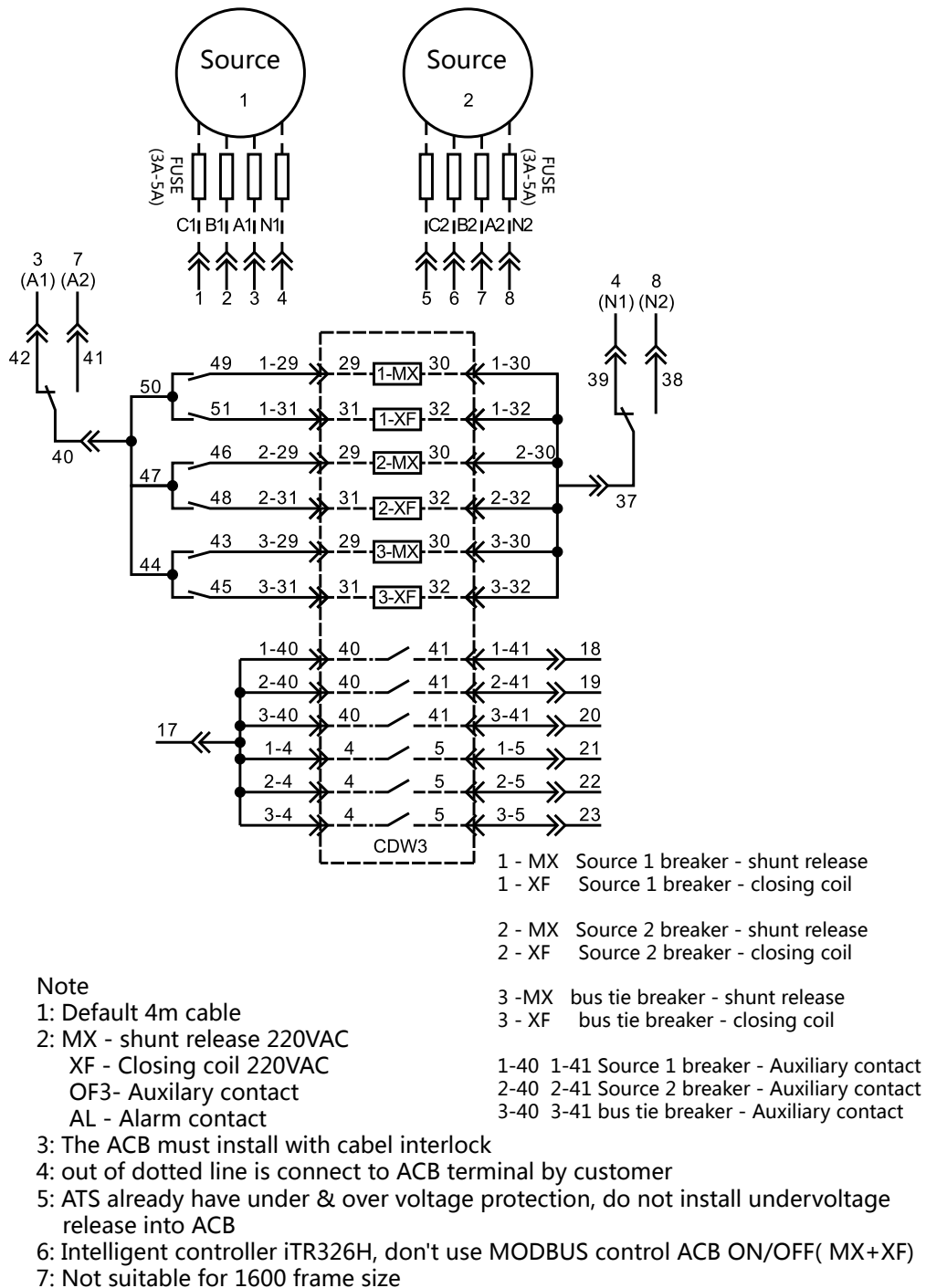


Installation Dimension



ATS controller-Wiring diagram –ATSECM

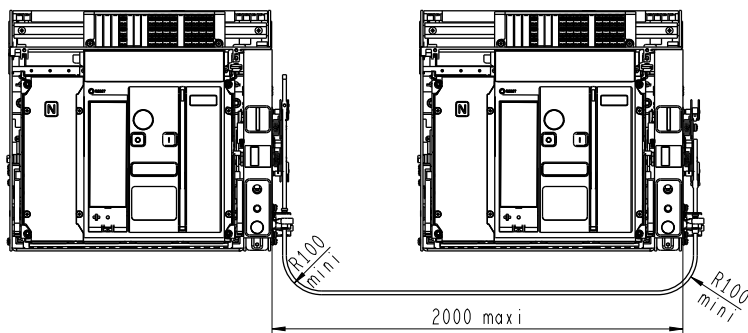
Electrical Schematic Diagram



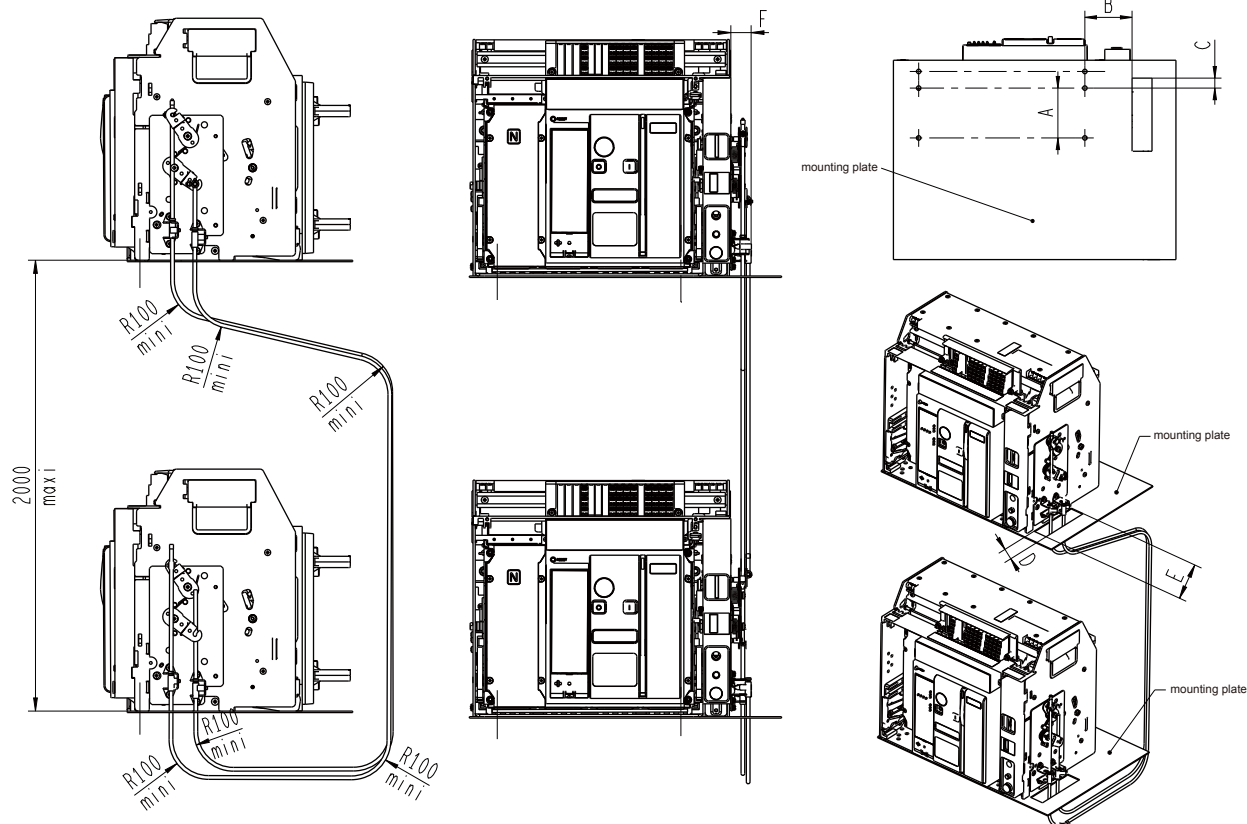
HDW3 ATS Controller



Cable interlock : horizontal



Cable interlock : Vertical



cut off dimension of mounting plate

mm

Frame	A		B		C	D		E	F	
	D/O	Fix	D/O	Fix		D/O & Fix	D/O & Fix		D/O	Fix
1600AF	75	75	70	13	25	30	120	28	42	
2000AF	175	150	70	13	60	30	180	28	52	
3200AF	175	150	70	13	60	30	180	28	52	
4000AF	175	124	70	13	60	30	180	40	40	
6300AF	175	--	70	--	60	30	180	28	52	

HDQ3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1

Range Presentation

HDQ3HB is Himel 3 series range of CB type Automatic Transfer Switch, automatic transferring the power supply between the normal power & standby power.

Standby power supply can be net power or generator. It can be integrated with HDM3 series MCCB to provide over current protection with integrated or split type controller available.


Features

- ◆ 5 frame sizes: 63, 100, 250, 400, 630AF
- ◆ Rated current In (A): 16 - 630A
- ◆ Rated voltage AC Ue (V): 400/415, Poles: 3 & 4
- ◆ Integrated or split intelligent controller
- ◆ HDM3 integrated with overload , short circuit protection

Online Content



HDQ3HB

 This offer fits GB14048.11 with AC-33iB / IEC60947-6-1AC-32B standard. For country product certificate, application requirements & more information, contact local Himel Sales.

Ordering Code

Product	Frame Size	Breaker Capacity	Rated current	Pole	Controller
HDQ3HB	63	S	10	3	Z
HDQ3HB	63: 63AF 100: 100AF	S: 25kA	10: 10A 100: 100A	3: 3P 4: 4P	Default: Split Z: integrated
	250: 250AF 400: 400AF 630: 630AF	F: 50kA	250: 250A 630: 630A		

Order Information

Current shell frame	Conventional thermal current	Breaking capacity	CDQ3HB	
			3 poles	4 Ordering code
			Ordering code	Ordering code
63AF	10	S	HDQ3HB63S103Z	HDQ3HB63S104Z

	63		HDQ3HB63S633Z	HDQ3HB63S634Z
100AF	16	S	HDQ3HB100S163Z	HDQ3HB100S164Z

	100		HDQ3HB100S1003Z	HDQ3HB100S1004Z
250AF	100	F	HDQ3HB250F1003Z	HDQ3HB250F1004Z

	225		HDQ3HB250F2253Z	HDQ3HB250F2254Z
	250		HDQ3HB250F2503Z	HDQ3HB250F2504Z
400AF	200	F	HDQ3HB400F2003Z	HDQ3HB400F2004Z

	400		HDQ3HB400F4003Z	HDQ3HB400F4004Z
630AF	400	F	HDQ3HB630F4003Z	HDQ3HB630F4004Z

	630		HDQ3HB630F6303Z	HDQ3HB630F6304Z

HDQ3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1

Technical Parameters					
Model & Spec	HDQ3HB-63	HDQ3HB-100	HDQ3HB-250	HDQ3HB-400	CDQ3HB-630
Executive circuit breaker	HDM3-63	HDM3-100	HDM3-250	HDM3-400	HDM3-630
Number of poles	3、4				
Available standard	GB14048.11 / IEC60947-6-1				
Electrical level	CB-level				
Use category	GB14048.11 AC-33iB / IEC60947-6-1 AC-32B				
Electrical performance	HDQ3HB-63	HDQ3HB-100	HDQ3HB-250	HDQ3HB-400	HDQ3HB-630
Rated insulation voltage U_i (V)	690	800			
Rated impulse withstand voltage U_{imp} (kV)	6	8			
Rated operating voltage U_e (V)	400				
Conventional thermal current I_e (A)	10/16/20/25/ 32/40/50/63	16/20/25/32/40 /50/63/80/100	100/125/140/160/ 180/200/225/250	200/225/250 /315/350/400	400/500/630
Rated working frequency (Hz)	50				
Breaking capacity level	S	S	F	F	F
Rated short circuit breaking capacity I_{cn} (kA)	25	25	50	50	50
Rated short circuit making capacity I_{cm} (kA)	52.5	52.5	105	105	105
Mechanical life (cycles)	10000	10000	5000	5000	5000
Electrical life (cycles)	1500		1000		
Conversion time	≤3s				
EMC level	Environment B				
Sampling mode	Normal and standby three-phase sampling				
Control function					
Power grid (P) – Power grid (P)	■				
Power grid (P) – Generator (G)	■				
Auto operation mode – Auto power-on and auto reset	■				
Auto operation mode – Auto power-on but not auto reset	■				
Auto operation mode – Mutual backup	■				
Electric operation vis button	■				
Manual operation vis handle	■				
Remote transfer	■				
Normal and standby power state output	■ ²⁾				
Normal and standby power-on state output	■				
Normal and standby trip state output	■				
Fire dual-divided	■ (Alarm lamps flash simultaneously)				
Generator startup	■				

HDQ3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1

Technical Parameters					
Controller	HDQ3HB-63		HDQ3HB-250	HDQ3HB-400	CDQ3HB-630
Overload protection			■		
Instantaneous protection			■		
Over-voltage protection			■ (Factory set: 264V)		
Under-voltage protection			■ (Factory set: 184V)		
No-voltage protection			■		
Lost phase protection			■		
Motor load phase sequence identification protection			■ ¹⁾		
Special lost phase protection for motor load			■ ¹⁾		
Switch fusion welding protection			■ (ERROR02)		
Switch movement protection			■ (ERROR02)		
Power failure alarm				■ (Power indicator at the failure side flashes)	
Trip failure alarm				■ (Trip indicator at the failure side flashes)	
Trip failure button electrically reclosed			■		
Setting functions					
Over-voltage valve value adjustable			■ 253V~276V		
Under-voltage valve value adjustable			■ 253V~276V		
Conversion delay T1 time adjustable			■ 0~99.9s (Factory setting: 3s)		
Return delay T2 time adjustable			■ 0~99.9s (Factory setting: 3s)		
Generator starting delay T3 time adjustable ⁴⁾			■ 0~99.9s (Factory setting: 15s)		
Generator stop delay T4 time adjustable			■ 0~99.9s (Factory setting: 15s)		
Dimensions (mm)	HDQ3HB-63	HDQ3HB-100	HDQ3HB-250	HDQ3HB-400	HDQ3HB-630
Breaking capacity level	S	S	F	F	F
Integral 3P dimensions (W x H x D)	375x220x121	415x220x148	465x220x148	610x330x185	610x402x185
Integral 4P dimensions (W x H x D)					(Expansion row)
Split 3P dimensions (W x H x D)	335x220x121	375x220x148	425x220x148	575x330x185	575x402x185
Split 4P dimensions (W x H x D)					(Expansion row)
Split controller dimensions (W x H x D)	85x166x92				
Split lead wire length	Standard length: 1.6m (customized wire length: 2m, 2.5m, 3m, 3.5m, 4m, 4.5m, 5m)				
Integral 3P installation hole sizes (W x H)	322x220	365x200	420x200	510x300	
Integral 4P installation hole sizes (W x H)					
Split 3P installation hole sizes (W x H)	282x200	325x200	380x200	478x300	
Split 4P installation hole sizes (W x H)					
Split controller installation hole sizes (W x H)	81x162				
Product phase spacing	25	30	35	48	
Phase spacing after expansion	-	-	-	-	68

- No this option
- Standard
- Optional

¹⁾ OFF by default, with ON set by the controller menu

²⁾ External power connected by customer

³⁾ Only 3P product is provided

⁴⁾ This delay function will be automatically off when the common terminal is completely turned off.

LOW VOLTAGE DISTRIBUTION

HDQ3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1

Product Features

Convenient

Installed without sampling wires

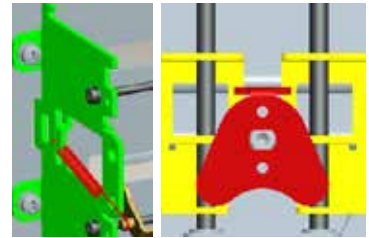
With sampling wires built in for convenient installation



Reliable

With patented mechanism, the mechanical life increases to 15,000 cycles

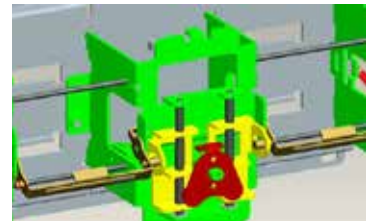
Dual-rail patented interlock mechanism and auxiliary ON-OFF mechanism are configured to provide reliable operation.



Safety

Compact size and multiple functions

With full steel frame structure and accurate locating features, an insulation cover and three-protection painting layers are provided outside the line board for guaranteeing multiple protections for safety.



Robust

Powerful function and more selection

A type standard configuration provides auto-switch and self-reset for economical operation
B type standard configuration provides auto-switch and self-reset, auto-switch and not-self-reset and fire dual-division functions and powerful function

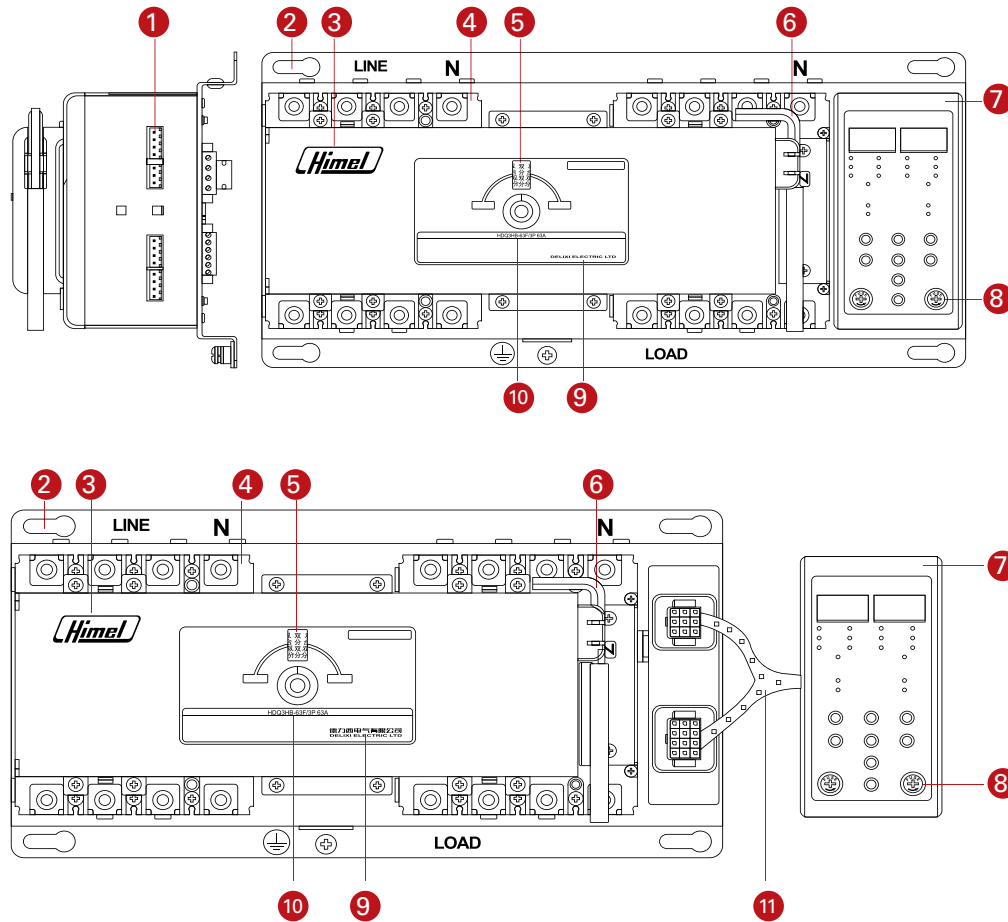


LOW VOLTAGE DISTRIBUTION

HDQ3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1

Product Diagram



Product Nameplate

HDQ3HB		Automatic transfer switching equipment
Rated voltage:400V	Rated short-circuit making capacity:	Standard: IEC60947-6-1
Rated current:	Rated short-circuit breaking capacity:	
rated frequency:50Hz	Rated impulse withstand voltage:6kA	
Class:CB class	Number of poles:	
Use category:AC-32B	Production date	

①	Wiring terminal	⑥	Operating handle	⑪	Split controller connecting cable
②	Mounting hole	⑦	Controller	⑫	Nameplate parameters
③	Company logo	⑧	Fuse tube		
④	Power terminal	⑨	Company name		
⑤	Transfer position indication window	⑩	Product mode		

HDO3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1

Installation of HDO3HB

Split controller

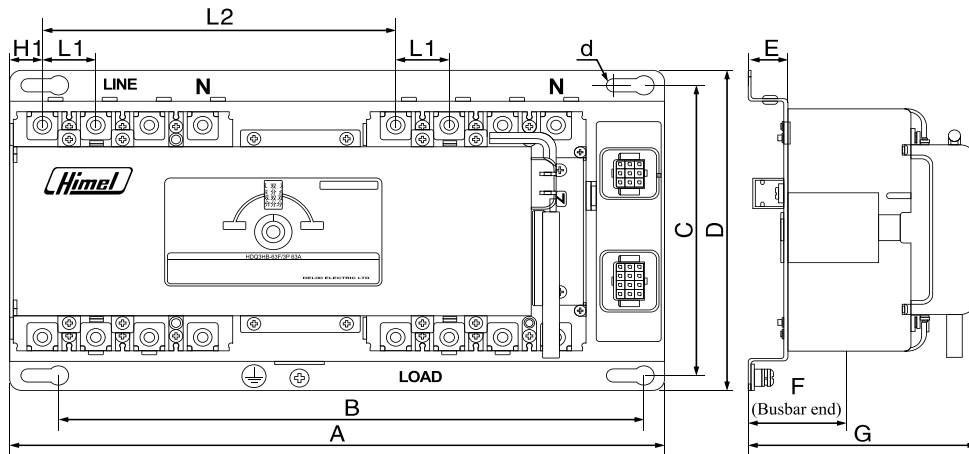


Figure1:Split HDO3HB-630~400/ 3P and 4P

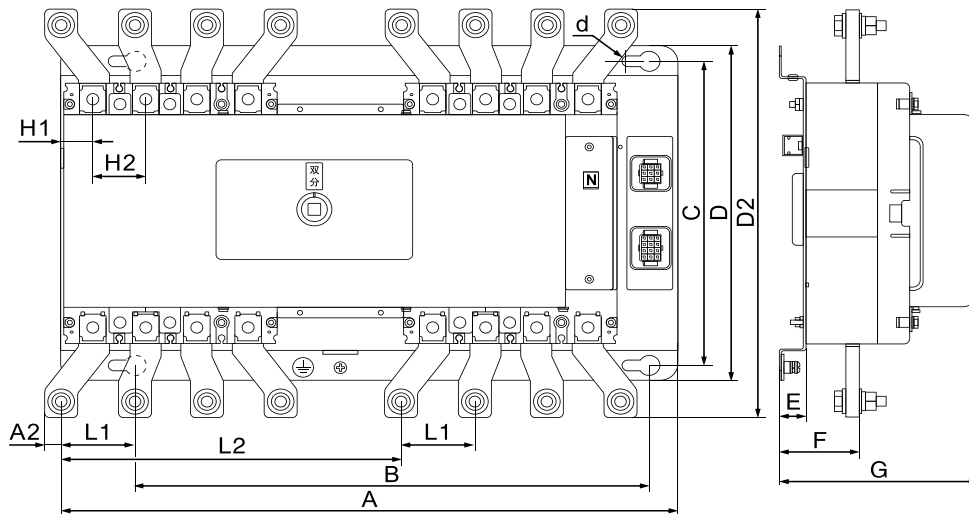


Figure2:Split HDO3HB-630/ 3P and 4P

Spec. / Size	A	A2	B	C	D	D2	E	F	G	L1	L2	H1	H2	d
CDQ3HB-63S	335	-	282	200	220	-	25	49	121	25	180	15.5	-	9
CDQ3HB-100S	335	-	282	200	220	-	25	49	121	25	180	15.5	-	9
CDQ3HB-250F	425	-	380	200	220	-	25	48	148	35	230	21.5	-	9
CDQ3HB-400F	575	-	478	300	330	-	25	62	185	48	316	30.5	-	10
CDQ3HB-630F	575	14.5	478	300	330	402	25	77	185	68	316	30.5	48	10

HDQ3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1

Installation of HDQ3HB

Integrated controller

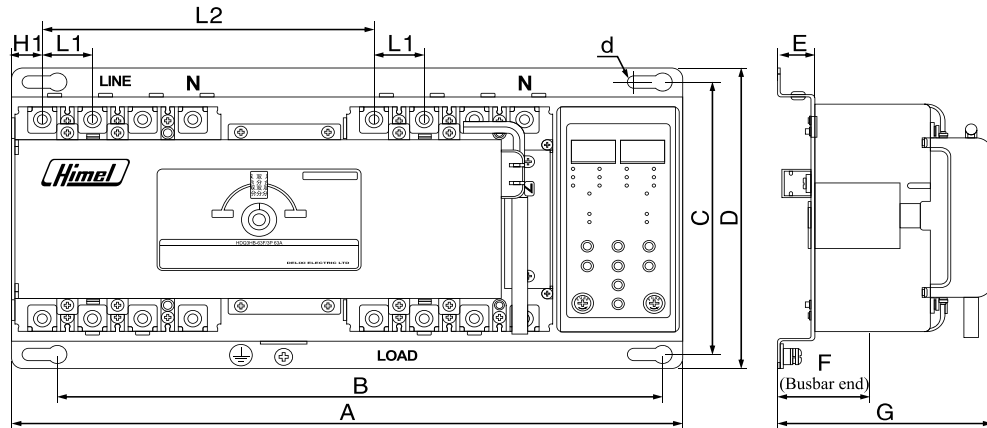


Figure3:Integrated HDQ3HB-630~400/ 3P and 4P

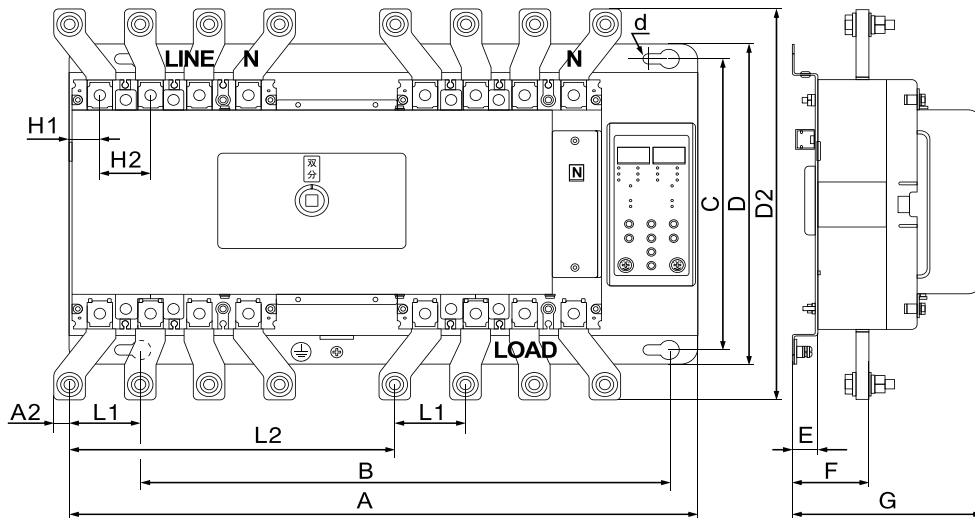


Figure4:Integrated HDQ3HB-630/ 3P and 4P

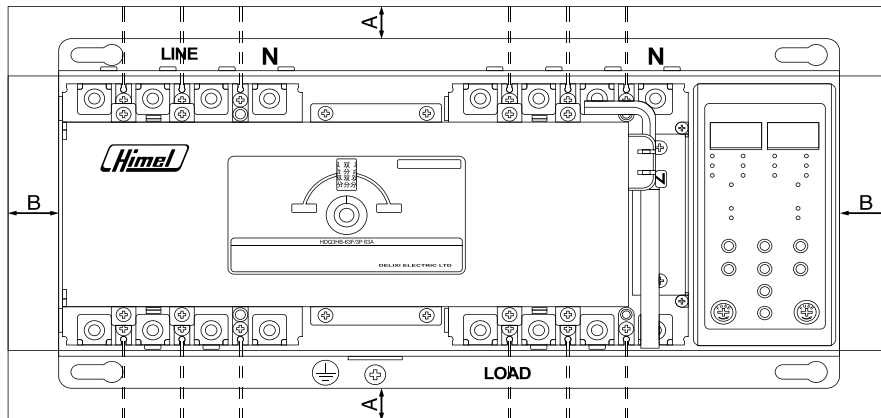
Spec. / Mode	A	A2	B	C	D	D2	E	F	G	L1	L2	H1	H2	d
CDQ3HB-63S	375	-	322	200	220	-	25	49	121	25	180	15.5	-	9
CDQ3HB-100S	375	-	322	200	220	-	25	49	121	25	180	15.5	-	9
CDQ3HB-250F	465	-	420	200	220	-	25	48	148	35	230	21.5	-	9
CDQ3HB-400F	610	-	510	300	330	-	25	62	185	48	316	30.5	-	10
CDQ3HB-630F	610	14.5	510	300	330	402	25	77	185	68	316	30.5	48	10

LOW VOLTAGE DISTRIBUTION

HDO3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1

Safety Clearance

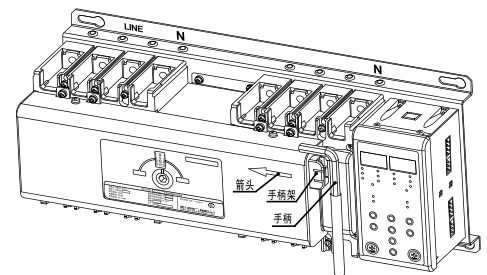


A: installation dimension to the upper and lower housings
B: installation dimension to the housing of the non-conductive part

	CDQ3HB-63S	CDQ3HB-100S	CDQ3HB-250F	CDQ3HB-400F	CDQ3HB-630F
A	25	25	45	85	85
B	40	40	40	80	80

Manual Operation Handle

When the automatic transfer switching equipment is installed and commissioned, insert the handle into the handle housing in the arrow direction shown in the figure.



Controller Cut Out Dimension for Front Door

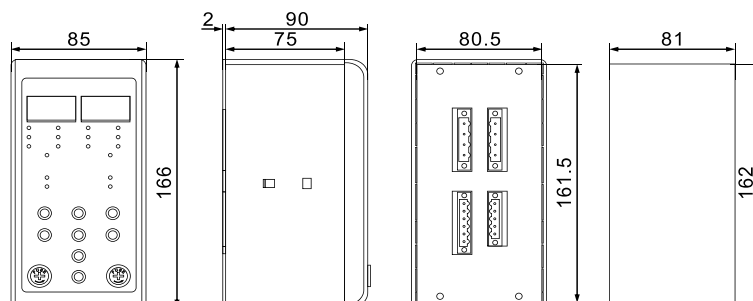


Figure6: Controller dimensions and cutout

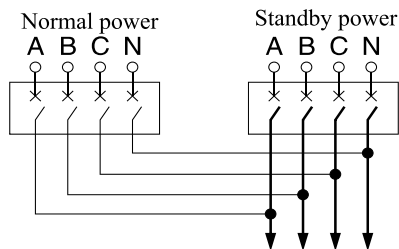
LOW VOLTAGE DISTRIBUTION

HDQ3HB Automatic Transfer Switch

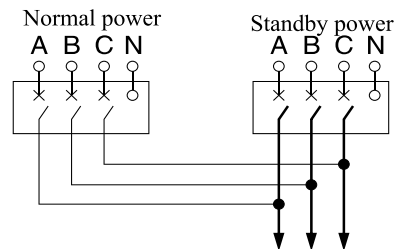
GB14048.11 / IEC60947-6-1

Products Connection

Main circuit diagram



4P wiring diagram



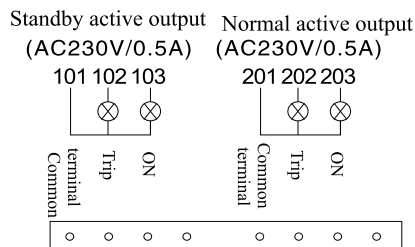
3P wiring diagram

ATS Status Indicator

103 standby power ON 102 standby MCCB trip

203 normal power ON 202 normal MCCB trip

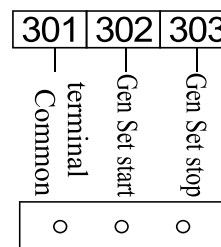
If need to be lighted the LED , Access the power from normal & standby main circuit



Gen Set control

302 Gen Set start

303 Gen Set stop



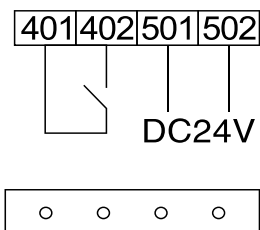
Remote Control

401 402 remote transfer to standby power

- Active with Auto model only
- 401 402 "On" ATS will transfer to standby power, whatever normal power is available or not.
- 401 402 "OFF" ATS will return to Auto control according to transfer setting.
- If standby power is abnormal , ATS will not to be transferred

501 502 dual switch off by fire control signal

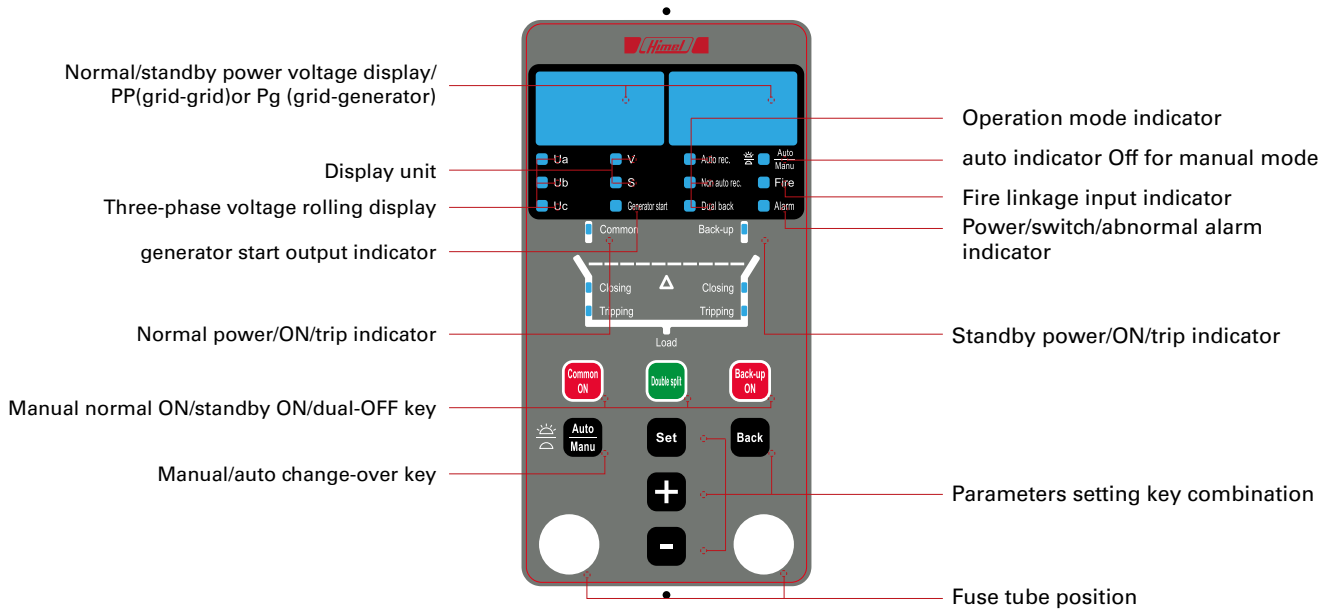
- Active by 24VDC input from fire control signal whatever Auto/Manu model (+ - polarity free)
- 24VDC "ON" , switch off both normal/standby power immediately.
- 24VDC "ON turn to OFF"; ATS will return to normal power at Auto model.



HDO3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1

Instruction for Controller Setting



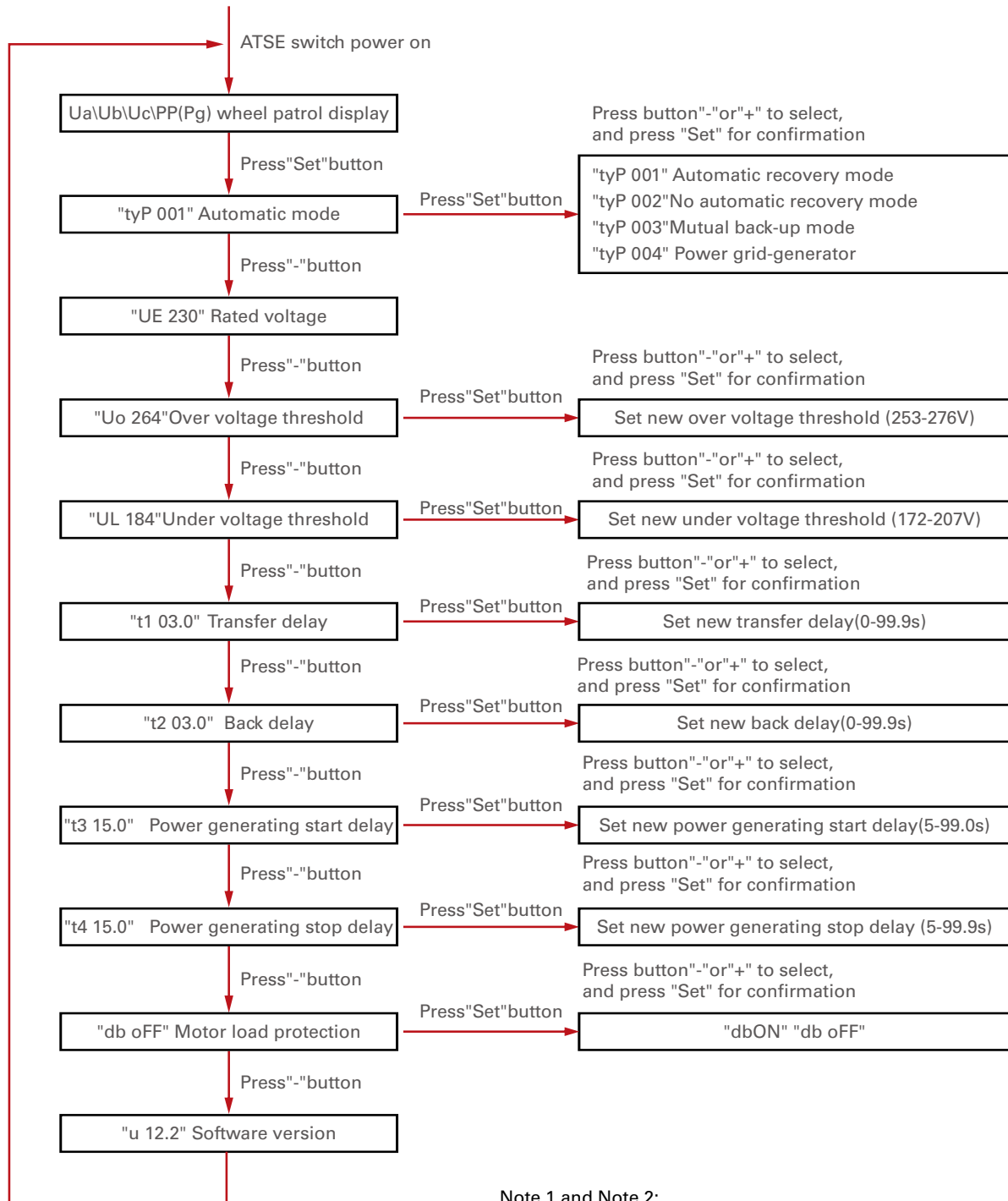
Indicator display description

Indicator	Function description	Indicator	Function description
Ua	ON: The displayed value is a phase-A voltage value of the power supply. OFF: No.	Auto-reset	ON: Auto-switch and auto-reset mode OFF: NO
Ub	ON: The displayed value is a phase-B voltage value of the power supply. OFF: No.		ON: Auto-switch and not-auto-reset mode OFF: NO
Uc	ON: The displayed value is a phase-C voltage value of the power supply. OFF: No.		ON: Mutual standby mode OFF: No
V	ON: Voltage unit OFF: No.		ON: Auto mode OFF: Manual mode
s	ON: Time unit OFF: No.	Fire control	Flash: Fire signal input OFF: No
Generator starts	ON: Output the generator starting signal OFF: No.	Alarm	Flash: System works abnormally (power supply or switch) OFF: No abnormal phenomenon
Normal	ON: Normal power works normally Flash: Normal power works abnormally OFF: loss voltage of normal power (no power)	Standby	ON: Standby power works normally Flash: Standby power works abnormally OFF: loss voltage of standby power (no power)
ON (normal)	ON: Normal switch ON OFF: Normal switch OFF	ON (standby)	ON: Standby switch ON OFF: Standby switch OFF
Trip (normal)	Flash : Normal switch trips OFF:	Trip (standby)	Flash : Standby switch trips OFF:

HDQ3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1

Flowchart for Controller parameters setting

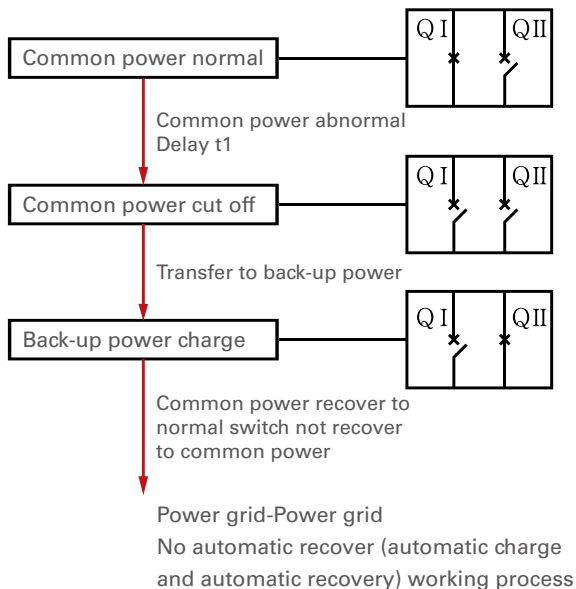
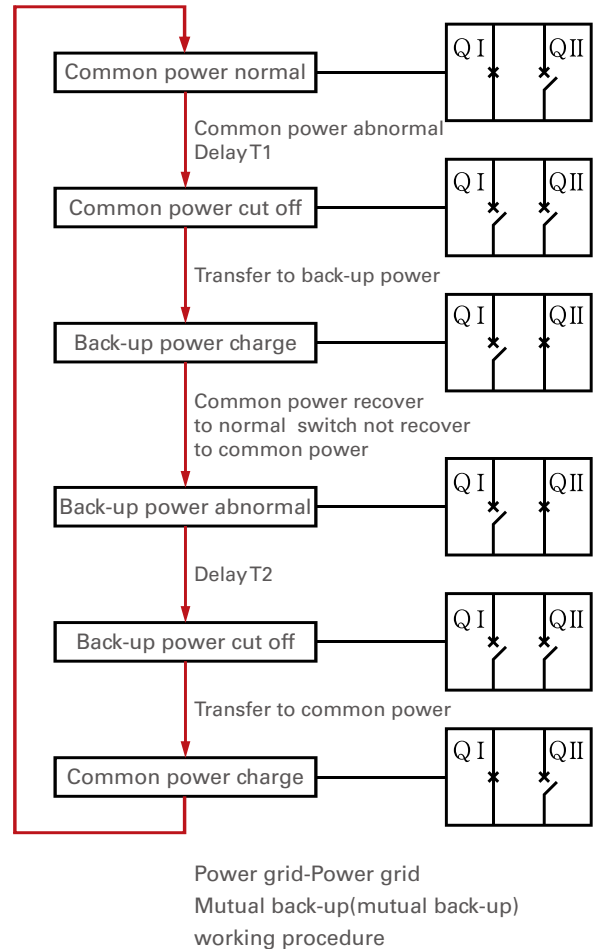
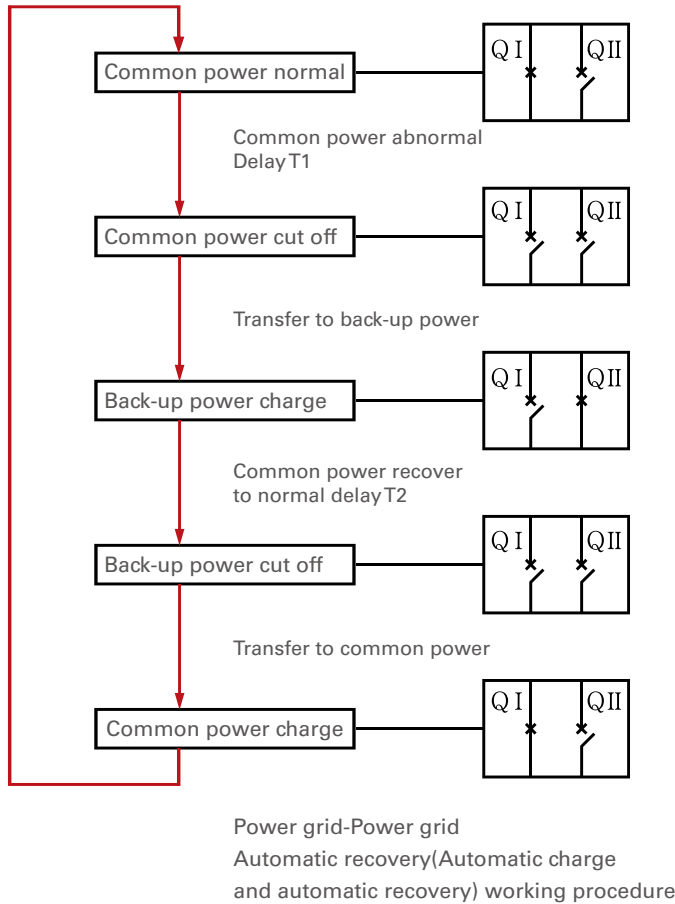


Note 1 and Note 2:
Inquiry and set are only available when controller is under power grid-generator mode.
Note 3:
Motor load protection function: incl. phase sequence identification and open-phase detection.

HDO3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1

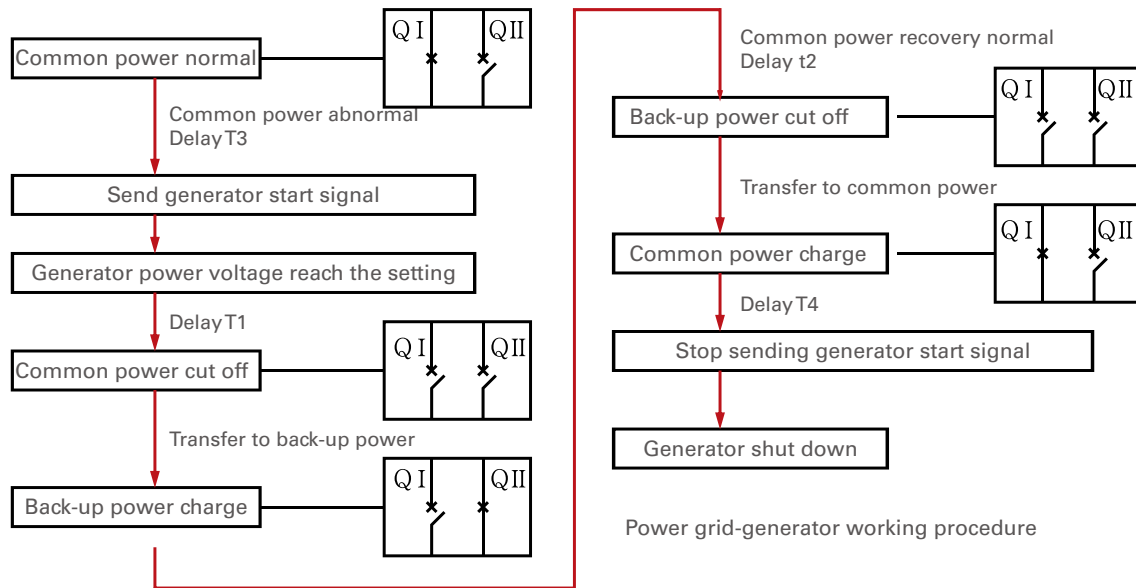
Flowchart for Auto switching action



- t1: Transfer delay, time from common power abnormal till QI cut off.
- t2: Recovery delay, time from common power recovering to normal till QII cut off
- t3: Generator start delay, time from common power abnormal till send generator starting signal.
- t4: Generator stop delay, time from recover to common power till stop sending generator starting signal
- QI: Breaker for common
- QII: Breaker for back-up

HDQ3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1



Maintenance and service

- ◆ Maintenance and service must be performed by the qualified professional.
- ◆ Do not maintain and repair the product, when it is in use.
- ◆ This product can work reliably at the rated voltage (85%~110%) U_e . To connect the product wires, the incoming terminal, the outgoing terminal, and N phase shall be distinguished strictly. Also, the neutral line shall not be shared.
- ◆ Do not use this product in the conditions out of the normal use condition range.
For example: no preventive measures shall be taken when there is continuous water vapor or condensation, flammable or corrosive powder, the expected short-circuit current is out of the range, the voltage is very high or low, the current exceeds the rated value, and the altitude is very high.
- ◆ To transfer manually, please use the special handle provided on this product.
- ◆ If the protective device is disconnected due to line or load failure, eliminate the failure and then power on the load.
- ◆ The product shall be checked generally during operation at regular interval (such as once in every three months).
- ◆ To check whether the product works normally, transfer the switch manually or automatically.

HDO3HB Automatic Transfer Switch

GB14048.11 / IEC60947-6-1

Fault analysis and troubleshooting

The common faults and their solutions are listed below. If error happens while using the product check the following table.

Fault	Cause	Solution
No display on the controller panel	The power supplied to the controller by main circuit is abnormal	Check whether the fuse tube on the controller panel is installed or burnt out. Then re-install or replace it, if necessary. Check the line connection between main circuit to the controller is loose and insert it firmly, if necessary.
The voltage is abnormal, but the auto transfer power switch does not work	The connection between the controller and the switch body failed.	Check whether the connecting plug from the controller to the switch is loose, and whether the connector fastening screw is installed firmly.
The voltage is normal, but the panel displays abnormally	The connection between the power line and the circuit breaker power supply failed	Ensure the connection between the power line and the circuit breaker power supply is in good state. Check whether there is a lack of voltage during construction.
The alarm lamp flashes; the automatic transfer switch is switched to another circuit of power supply	One circuit of power supply failed (over-voltage, under-voltage, lack of voltage, phase loss)	Check the failed power supply for troubleshooting.
The alarm lamp flashes and the automatic transfer switch does not work	Two circuits of power supply failed The product is in the standby power and auto-switch & not-auto-reset state	Check the failed power supply for troubleshooting. Set the product working mode by the user according to the actual demands (auto-switch & auto-reset, auto-switch & not-auto-reset, mutual standby)
Controller displays ERROR1	Phase sequence error	Voltage at the user incoming terminal is disconnected; check the phase sequence at the normal and standby circuit incoming terminal.
Controller displays ERROR2	Mechanism blocked Switch trips Switch handle cracked Switch contact fusion welding Switch action time is too long	Manual dual-division of product; take out the normal and standby fuses from the controller and re-install them. so the controller will restart automatically. If the ERROR2 is still there , please contact the manufacturer after-sales department.
Product display trip alarm	Lower load failure Auxiliary alarm inside the plastic housing damaged	Set the controller to the Manual state, operate the product manually to the normal dual division, or standby dual division. When the load failure is eliminated, set the controller to the user required state. For damaged auxiliary alarm, contact the manufacturer after-sales department.

LOW VOLTAGE DISTRIBUTION

HDGL Switch Disconnectors

Standard: IEC60947-3



Range Presentation

HDGL is Himel range of Switch Disconnectors used in power distribution system for isolation and switching.

Features

- ◆ For AC 50/60Hz systems
- ◆ Max. rated operating voltage: 690V
- ◆ Max. rated operating current: 3150A

Online Content



HDGL

Selection Code

Range name	Type	Frame current	Pole number	Shaft	Window	Rated current
HDGL	Z	160	3	J	K	100
HDGL	Default: Normal type Z: Overlap type ZC: Symmetric type	63: 63A 100: 100A 160: 160A 250: 250A 630: 630A 1600: 1600A 3150: 3150A	3: 3P 4: 4P	Default: no shaft J: External operation with extended shaft 300mm	Default: no window K: with observing window	16: 16A 25: 25A 32: 32A 40: 40A 63: 63A ... 2000: 2000A 2500: 2500A 3150: 3150A



Technical Parameters

Switch Disconnectors	HDGL							
Utilization Category	AC-22B							
Conventional free air thermal current (A)	16 25 32 40 63	80 100	100 125 160	200 250	315 400	500 630	800 1000 1250 1600	2000 2500 3150
Power frequency withstand voltage (V)	2000							
Rated insulation voltage (V)	800							
Rated impulse withstand voltage Uimp	12kV(2000m)							
Rated short-time withstand current (kA)	2		12		20 25		50	
Mechanical Endurance	8000				5000		3000 1000	
Electrical Endurance	1500		200				100	

Note:

- Default length of the extended shaft for external operation handle is 300mm, (500mm available on request).
- Window: no window for 16-100A, and 125A-3150A can be manufactured with window
- No auxiliary contact for 16-100A
- Maximum rated current for symmetric type double-throw switch is 1600A

LOW VOLTAGE DISTRIBUTION

HDGL Switch Disconnectors

Standard: IEC60947-3

Accessories Selection Code



HDGL1600OF11



HDGL3150OF11



HDGLZ(C)630OF11



HDGL100J300



HDGL630J300



HDGL3150J300



HDGL3150JB300



HDGLZ630J300

Standard Reference	Description
HDGL1600OF11	HDGL-100~1600A Auxiliary contact 1NO1NC
HDGL1600OF22	HDGL-100~1600A Auxiliary contact 2NO2NC
HDGL3150OF11	HDGL-2000~3150A Auxiliary contact 1NO1NC
HDGL3150OF22	HDGL-2000~3150A Auxiliary contact 2NO2NC
HDGLZ630OF11	HDGLZ-100~630A Auxiliary contact 1NO1NC
HDGLZ630OF22	HDGLZ-100~630A Auxiliary contact 2NO2NC
HDGLZ3150OF11	HDGLZ-800~3150A Auxiliary contact 1NO1NC
HDGLZ3150OF22	HDGLZ-800~3150A Auxiliary contact 2NO2NC
HDGLZC630OF11	HDGLZC-100~630A Auxiliary contact 1NO1NC
HDGLZC630OF22	HDGLZC-100~630A Auxiliary contact 2NO2NC
HDGLZC1600OF11	HDGLZC-800~1600A Auxiliary contact 1NO1NC
HDGLZC1600OF22	HDGLZC-800~1600A Auxiliary contact 2NO2NC
HDGL100J300	HDGL(Z)(C) 16~100A External operation handle with 300mm shaft
HDGL630J300	HDGL 100~630A External operation handle with 300mm shaft
HDGL3150J300	HDGL(Z)(C) 800~3150AF External operation handle with 300mm shaft
HDGL3150JB300	HDGL(Z)(C) 800~3150A External operation handle with 300mm shaft B type
HDGLZ630J300	HDGLZ(C) 100~630A External operation handle with 300mm shaft

LOW VOLTAGE DISTRIBUTION

HRT16 Fuse with Blade Contacts Fuse-link

Standard: IEC60269

Range Presentation

- HRT16: Knife-shape Fuses

Features

- ◆ For HRT16 series
 - 5 sizes of "gG" fuse link 000, 00, 1, 2, 3
 - High breaking capacity 120kA
 - Wide current range from 2A up to 630A
 - Rated voltage 500Va.c, 690Va.c, 250Vd.c, 440Vd.c
 - Situated for standard HRT16 fuse base

Online Content



HRT16

HRT16 Selection Code

Model	Fuse-link Type	Rated Operating current
HRT16	000S	100
HRT16: HRT16 Fuse link	000S: HRT16 -00C 00: HRT16 -00 1: HRT16 -1 2: HRT16 -2 3: HRT16 -3	2: 2A 4: 4A 6: 6A ... 450: 450A 500: 500A 630: 630A
HRT16: HRT16 Fuse Base	00: rated current is 160A 1: rated current is 250A 2: rated current is 400A 3: rated current is 630A	ZS: Resin Material



Accessory	Usage	Reference
Fuse puller	To Assemble and replace HRT16	HRT16C

Technical Parameters of Fuse link

Product Series	HRT16000S	HRT1600	HRT161	HRT162	HRT163
Other Business Model	NH000	NH00	NH1	NH2	NH3
Rated Current	2-100A	2-160A	80-250A	125-400A	315-630A
Rated operating voltage	AC500/690V/DC250	AC500/690V/DC250	AC500/690V/DC440	AC500/690V/DC440	AC500/690V/DC440
Rated breaking capacity	120/50/100kA	120/50/100kA	120/50/100kA	120/50/50kA	120/50/50kA
Rated Power dissipation Max.	12w	12w	32w	45w	60w
Breaking range and Utilization category	gG				

LOW VOLTAGE DISTRIBUTION

HRT16 Fuse with Blade Contacts Fuse-link

Standard: IEC60269

Fuse Link Order Information

Size	Rated Current In (A)	Suitable fuse base	Weight (g)	Reference
000	2	HRT16-00	123	HRT16000S2
	4			HRT16000S4
	6			HRT16000S6
	8			HRT16000S8
	10			HRT16000S10
	12			HRT16000S12
	16			HRT16000S16
	20			HRT16000S20
	25			HRT16000S25
	32			HRT16000S32
	40			HRT16000S40
	50			HRT16000S50
	62			HRT16000S63
	80			HRT16000S80
100	HRT16000S100			
00	2	HRT16-00	170	HRT16002
	4			HRT16004
	6			HRT16006
	8			HRT16008
	10			HRT160010
	12			HRT160012
	16			HRT160016
	20			HRT160020
	25			HRT160025
	32			HRT160032
	40			HRT160040
	50			HRT160050
	63			HRT160063
	80			HRT160080
	100			HRT1600100
	125			HRT1600125
160	HRT1600160			
1	80	HRT16-1	450	HRT16180
	100			HRT161100
	125			HRT161125
	160			HRT161160
	200			HRT161200
	250			HRT161250
2	125	HRT16-2	660	HRT162125
	160			HRT162160
	200			HRT162200
	250			HRT162250
	300			HRT162300
	315			HRT162315
	355			HRT162355
	400			HRT162400

LOW VOLTAGE DISTRIBUTION

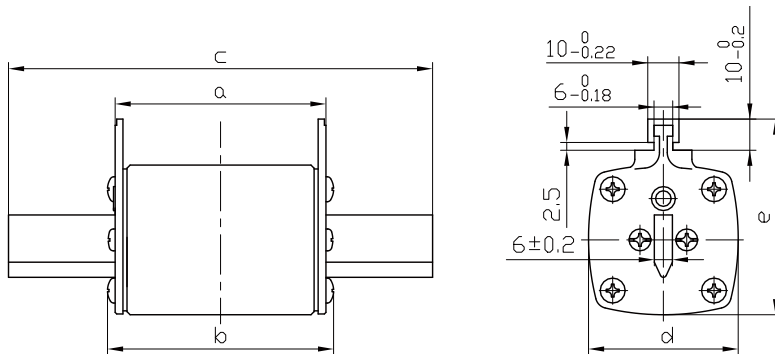
HRT16 Fuse with Blade Contacts Fuse-link

Standard: IEC60269

Fuse Base Order Information

Size	Rated Current In (A)	Suitable fuse base	Weight (g)	Reference
3	315	HRT16-3	850	HRT163315
	355			HRT163355
	400			HRT163400
	450			HRT163450
	500			HRT163500
	630			HRT163630

Fuse Link Overall Dimensions



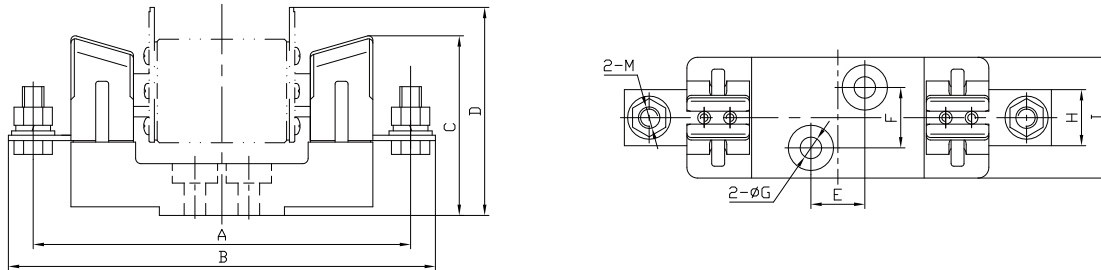
Dimension	HRT16-000S	HRT16-00	HRT16-1	HRT16-2	HRT16-3
a	49	49	67	67	67
b	54	54	72	72	72
c	78	78.5	136	150	150
d	21	29	48	59	67
e	53	57	62	73	85

LOW VOLTAGE DISTRIBUTION

HRT16 Fuse with Blade Contacts Fuse-link

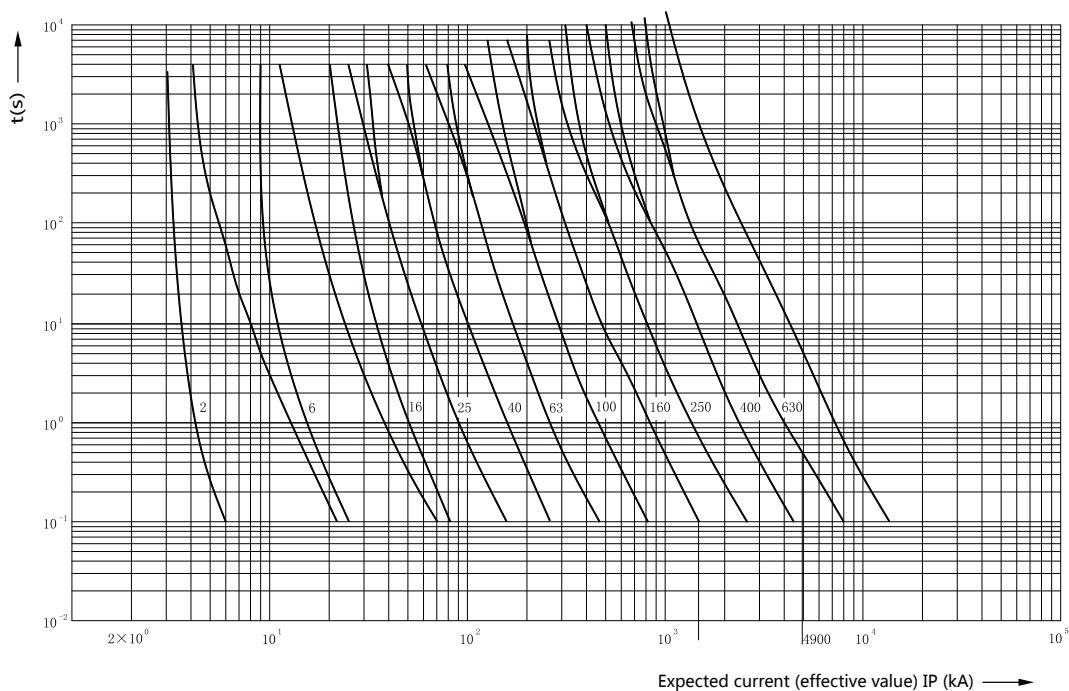
Standard: IEC60269

Fuse Base Overall Dimensions



Dimension	HRT16-00	HRT16-1	HRT16-2	HRT16-3
a	102	175	200	260
b	122	198	225	248
c	60	83	96	104
d	82	96	116	126
e	25	25	25	25
f	-	28	28	28
g	8	11	11	11
h	25	26	30	39
i	30	56	61	61
m	M8	M10	M10	M12

Time Current Characteristic Curve



LOW VOLTAGE DISTRIBUTION

HRT18 Fuse with Cylindrical Contacts Fuse-link

Standard: IEC60269

Range Presentation

- HRT18: Cylinder Cap-shape Fuses

Features

- ◆ For HRT18 series
 - The rating is between 2A to 63A, total 13 ratings
 - Two kinds of materials for fuse holders: Resin and Nylon
 - Indicator can be a option for customers

Online Content



HRT18

HRT16 Selection Code

Range name	Fuse-link Type	Rated operating current
HRT18	1038	2
HRT18 :HRT18 Fuse link	1038 : maximum rating is 32A 1451 : maximum rating is 63A	2 : 2A 4 : 4A ... 63 : 63A



Range name	Fuse-link Type	Pole number	Indicator	Material
HRT18	32Z	2	X	B
HRT18 :HRT18 Fuse Holder	32Z : 32A holder 63Z : 63A holder	Default : 1P 2 : 2P 3 : 3P	Default : Without indicator X : With indicator	Default : Nylon (only available for 32A holder) B : Resin



Technical Parameters of Fuse link

Product Series	HRT181038	HRT181451
Rated Current	2-32A	2-63A
Rated operating voltage	AC380/AC500	AC380/AC500
Rated breaking capacity	100kA	100kA
Rated Power dissipation max.	3w	5w
Breaking range and Utilization category	gG	

LOW VOLTAGE DISTRIBUTION

HRT18 Fuse with Cylindrical Contacts Fuse-link

Standard: IEC60269

Fuse Link Order Information

Cylindrical Fuse	Rated Current In(A)	Weight (g)	Reference
HRT18-32	2	8	HRT1810382
	4		HRT1810384
	6		HRT1810386
	8		HRT1810388
	10		HRT18103810
	12		HRT18103812
	16		HRT18103816
	20		HRT18103820
	25		HRT18103825
	32		HRT18103832
HRT18-32	2	20	HRT1814512
	4		HRT1814514
	6		HRT1814516
	8		HRT1814518
	10		HRT18145110
	12		HRT18145112
	16		HRT18145116
	20		HRT18145120
	25		HRT18145125
	32		HRT18145132
	40		HRT18145140
	50		HRT18145150
	63		HRT18145163

Fuse Holder Order Information

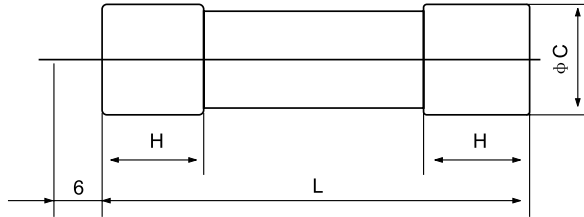
Fuse Holder	Pole	Rated Current In(A)	Note	Weight(g)	Reference
HRT18-32X	1P	32	Material: Resin	82	HRT1832ZXB
	2P		With indicator		HRT1832Z2XB
	3P				HRT1832Z3XB
HRT18-32	1P	32	Material: Resin	82	HRT1832ZB
	2P		Without indicator		HRT1832Z2B
	3P				HRT1832Z3B
HRT18-32X	1P	32	Material: Nylon	82	HRT1832ZX
	2P		With indicator		HRT1832Z2X
	3P				HRT1832Z3X
HRT18-32	1P	32	Material: Nylon	82	HRT1832Z
	2P		Without indicator		HRT1832Z2
	3P				HRT1832Z3
HRT18-63X	1P	63	Material: Resin	206	HRT1863ZXB
	2P		With indicator		HRT1863Z2XB
	3P				HRT1863Z3XB
HRT18-63	1P	63	Material: Resin	206	HRT1863ZB
	2P		Without indicator		HRT1863Z2B
	3P				HRT1863Z3B

LOW VOLTAGE DISTRIBUTION

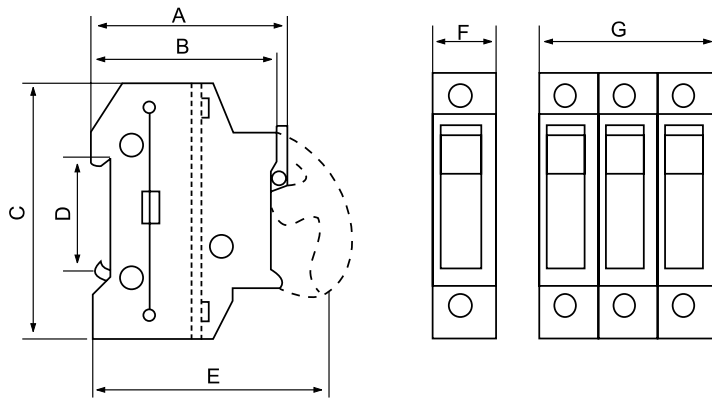
HRT18 Fuse with Cylindrical Contacts Fuse-link

Standard: IEC60269

Overall Dimensions



Type	Size	L	C	Hmax
HRT18-32	10x38	38±0.6	10.3±0.1	10.5
HRT18-63	14x51	51 ^{+0.6} _{-1.0}	14.3±0.1	13.8



Type	A	B	C	D	E	F	G
HRT18-32	63	60	79	35	80	18	54
HRT18-63	78	76	103	35	110	25	75



POWER FACTOR CORRECTION

Improve power quality with best-in-class reliability

Power Factor Correction products are crucial for all medium- and low-voltage power distribution systems to ensure power loss reduction, scalability of electrical infrastructure, and efficient monitoring so that additional transmission capacity is readily available.

Himel offers Low-Voltage Capacitors, Capacitor Switching Contactors, Reactive Power Compensation Controllers, and Three-phase Serial Reactors for diverse installation architecture, extending the life of machines and components, and ensuring significant savings on active energy.



Proven for superior application performance, safe power supply and load management in industrial installations



Wide variety of applications including buildings, chemical, pulp and paper, cement, plastics, printing and food industry



Rigorous testing done in the manufacturing plant for the highest international and regional standards



Enhanced cost saving with better power quality, reduced voltage drops, and transmission losses

POWER FACTOR CORRECTION



HDCAP3 Low-voltage Capacitor



HDCAP3

Rated Operating Voltage: AC 400V, 450V, 480V, 525V **223**
Rated Capacity: 1~30kvar
Connection Type: Three-phase
Rated Frequency: 50Hz/60Hz
Appearance: Cylinder
Inside Dipping Material: Polypropylene Metallized Film
Ambient Temperature: -25°C ~+50°C
Certificates: CE, TUV

HBSM Low-voltage Capacitor



HBSM

Rated Operating Voltage: AC 230V, 250V, 280V, 400V, 415V, 440V, 450V, 480V, 525V, 660V
Rated Capacity: 0.5~60kvar
Connection Type: Single-phase, three-phase, three-phase four-wire
Rated Frequency: 50Hz
Appearance: Box
Inside Dipping Material: Polypropylene Metallized Film
Ambient Temperature: -25°C ~+50°C **224**

HJKL Reactive Power Compensation Controllers



HJKL

Sampling voltage: AC 380V/220V±15% **223**
Sampling current: n/5A (I_s≤5A)
Output loops: 4, 6, 8, 10, 12 loops

HJKF Reactive Power Compensation Controller



HJKF

Rated operating voltage: AC400V (±15%) **234**
Rated current: ≤5A
Output Loops: 12 loops
Four running output modes: circulate switching, coding switching, cut-on first and then cut-off, optimization switching
Frequency: 50 / 60Hz

HKSG Three-phase Serial Reactor



HKSG

Rated Operating Voltage: AC0.48kV, AC0.525kV **237**
Detuning: 7% and 14%
Connection Type: Three-phase
Rated Frequency: 50Hz

HDC19s Capacitor Switching Contactor



HDC19s

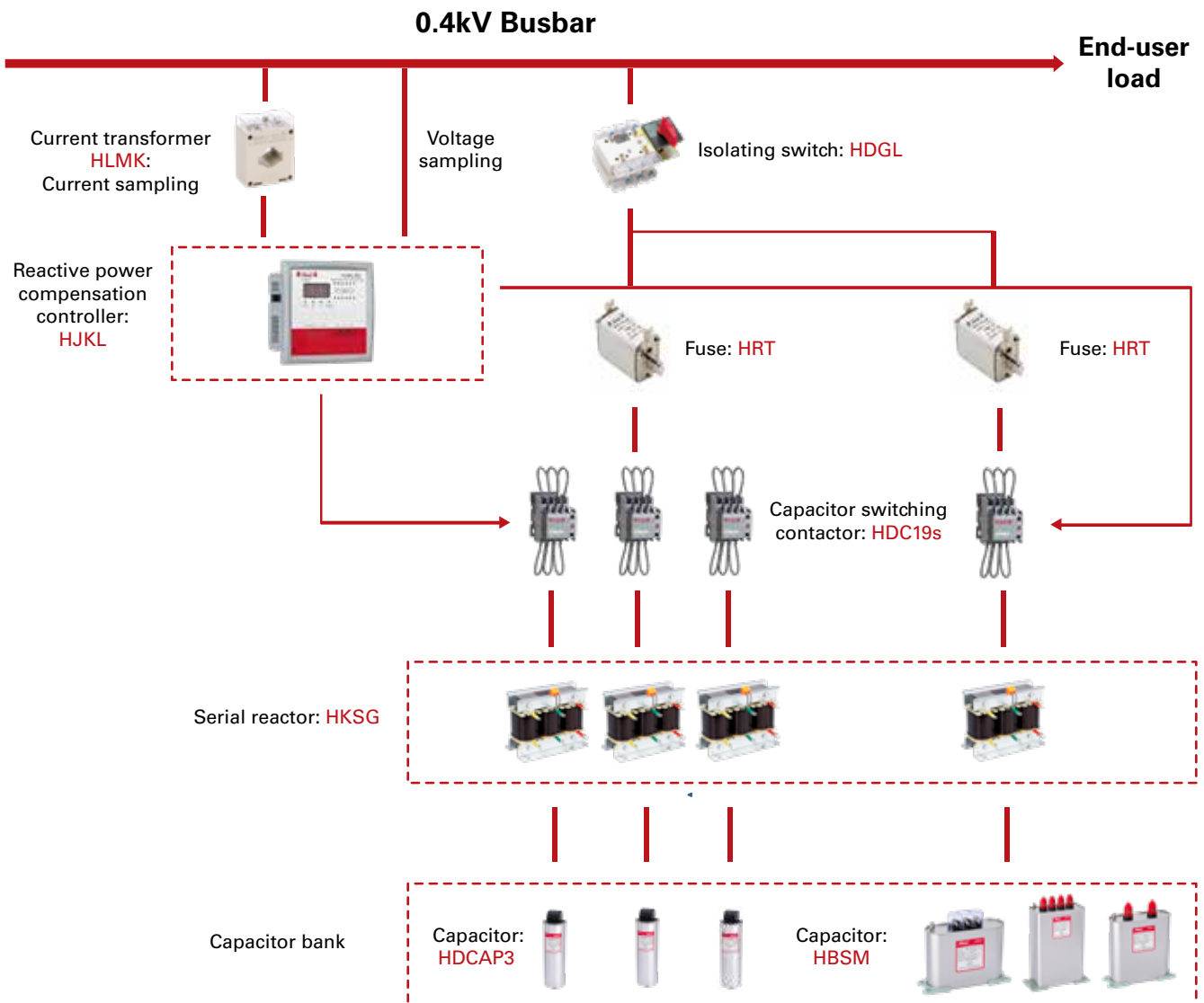
Rated Operating Voltage: 380/400V **241**
Frame Current: 25A, 32A, 43A, 63A, 95A, 115A
Poles: 3P
Rated Frequency: 50Hz, 50/60Hz
Coil Voltage: 24V, 36V, 48V, 110V, 127V, 220/230V, 240V, 380/400V, 415V, 440V
Certificate: CE

POWER FACTOR CORRECTION

Power Factor Correction Solution

Standard: IEC60947-4-1, IEC60947-5-1

Reactive Power Compensation Solution



System solution for reactive power compensation cabinet.

POWER FACTOR CORRECTION

HDCAP3 Low-voltage Capacitors

Standard: IEC60831



Range Presentation

Power Factor Correction capacitors with and without reactor form part of a comprehensive offer of products perfectly coordinated to meet low-voltage power distribution needs.

HDCAP3: Cylinder type

Features

- ◆ Low loss of medium and temperature with long serving time to save electricity bill.
- ◆ Metallized Polypropylene technology with built-in SELF HEALING properties.
- ◆ Full specifications:

• **HDCAP3**

Capacity: 1-30kvar

Voltage: 400V, 450V, 525V

Connection type: Three-phase

Online Content



HDCAP3

Selection Code

HDCAP3 series

Range name	Rated voltage	Rated compensation capacity	Compensation method
HDCAP3	400	5	3
HDCAP3: Cylinder type	0400: 400V 0450: 450V 0525: 525V	005: 5kvar 705: 7.5kvar 010: 10kvar 025: 25kvar 030: 30kvar	3: Three-phase compensation

Technical Parameters

Low-voltage Capacitor	HDCAP3
Rated Voltage(AC)	400V, 450V, 525V
Rated Capacity	1-30kvar
Capacity deviation (μ F)	0~+10% of the rated capacity
Loss angle tangent (tan)	At the rated power-frequency voltage, 20°C $\tan \delta \leq 0.2\%$
Connection Type	Three-phase
Rated Frequency	50Hz
Ambient Temperature	-25°C~+50°C
AC withstand voltage	Inter-electrode: 2.15Un/10s Between shell and phase: 3kV/10s
Allowable over-voltage (Un)	1.10 of rated voltage (not greater than 8h in 24h)
Allowable over-current (In)	1.43 of rated current
Altitude	≤ 2000 m
Relative humidity	$\leq 50\%$ at 40°C $\leq 90\%$ at 20°C
Appearance	Cylinder
Inside Dipping Material	Polypropylene metallized film
Self discharge characteristic	The residual voltage reduces to 50V or below from $\sqrt{2}U_n$ after 3 minutes in case of power failure
Standard	IEC60831

POWER FACTOR CORRECTION

HBSM Low-voltage Capacitors

Standard: IEC60831



Range Presentation

Power Factor Correction capacitors with and without reactor form part of a comprehensive offer of products perfectly coordinated to meet low-voltage power distribution needs.

HBSM: Box type

Features

- ◆ Low loss of medium and temperature with long serving time to save electricity bill.
- ◆ Metallized Polypropylene technology with built-in SELF HEALING properties.
- ◆ Full specifications:
 - **HBSM: Capacity:** 0.5~60kvar
 - Voltage:** 230V, 250V, 280V, 400V, 415V, 440V, 450V, 480V, 525V, 660V, 690V, 760V
 - Connection type:** Single-phase, three-phase, three-phase four-wire
 - Housing type:** D, M and Q

Online Content



HBSM

Single-Phase

Range Name	With or without reactor	Rated Voltage	Rated compensation capacity	Compensation method	Housing type
HBSM	0	02500	0150	1	D
HBSM: Box type	0: Without reactor	02500: 250V	0020: 2kvar 0030: 3kvar 0040: 4kvar 0050: 5kvar 0080: 8kvar 0100: 10kvar 0120: 12kvar 0150: 15kvar 0200: 20kvar	1: Single-phase compensation	D: D type M: M type

*For other voltages(230V, 280V, 400V, 415V, 450V, 480V, 525V), please consult local Himel office.

Three-phase

Range Name	With or without reactor	Rated Voltage	Rated compensation capacity	Compensation method	Housing type
HBSM	0	04500	0150	3	D
HBSM: Box type	0: Without reactor	04000: 400V 04150: 415V 04500: 450V 05250: 525V	0005: 0.5kvar ... 0200: 20kvar ... 0320: 32kvar 0300: 30kvar 0350: 35kvar 0400: 40kvar 0400: 40kvar 0450: 45kvar 0500: 50kvar 0600: 60kvar	3: Three-phase compensation	D: D type M: M type Q: Q type

*For other voltages(230V, 250V, 440V, 480V, 690V, 750V), please consult local Himel office.

POWER FACTOR CORRECTION

HBSM Low-voltage Capacitors

Standard: IEC60831

Three-phase four-wire

Range Name	With or without reactor	Rated Voltage	Rated compensation capacity	Compensation method	Housing type
HBSM	0	02503	0150	4	D
HBSM: Box type	0: Without reactor	02303: 230√3V 02503: 250√3V	0030: 3kvar ...	4: Three-phase four-wire compensation 3YN	D: D type
			0180: 18kvar		M: M type
			0200: 20kvar 0240: 24kvar		Q: Q type
			0250: 25kvar 0300: 30kvar 0400: 40kvar 0450: 45kvar		

*For other voltages(280√3V,400√3V),please consult local Himel office.

Technical Parameters		HBSM
Low-voltage Capacitor		
Rated Voltage(AC)	Single-phase	230V,250V,280V,400V,415V,450V,480V,525V
	Three-phase	230V,250V,400V,415V,440V,450V,480V,525V
	Three-phase four-wire	400V(230√3V),450V(250√3V),480V(280√3V),690V(400√3V)
Rated Capacity		0.5-60kvar
Capacity deviation (μ F)		0~+10% of the rated capacity
Loss angle tangent (tan)		At the rated power-frequency voltage, 20°C tan δ≤0.2%
Connection Type		Single-phase, three-phase, three-phase four-wire
Rated Frequency		50/60Hz
Ambient Temperature		-25°C ~+50°C
AC withstand voltage		Inter-electrode: 2.15Un/10s
		Between shell and phase: 3kV/10s
Allowable over-voltage (Un)		1.10 of rated voltage (not greater than 8h in 24h)
Allowable over-current (In)		1.43 of rated current
Altitude		≤2000m
Relative humidity		≤50% at 40°C ≤90% at 20°C
Appearance		Box
Inside Dipping Material		Polypropylene metallized film
Self discharge characteristic		The residual voltage reduces to 50V or below from √ 2Un after 3 minutes in case of power failure
Standard		IEC60831

POWER FACTOR CORRECTION

Selection Guide

Standard: IEC60831

HDCAP3 50/60Hz Selection Guide

Commercial Reference	Description	Ue (V)	50Hz			60Hz		
			kvar	Ie (A)	Contact	kvar	Ie (A)	Contact
HDCAP304000053	HDCAP3-400V-5kvar-3phase	400	5	7.2	HDC19s-25	6	8.7	HDC19s-25
HDCAP304007053	HDCAP3-400V-7.5kvar-3phase	400	7.5	10.8	HDC19s-25	9	13	HDC19s-25
HDCAP304000103	HDCAP3-400V-10kvar-3phase	400	10	14.4	HDC19s-25	12	17.3	HDC19s-32
HDCAP304000123	HDCAP3-400V-12kvar-3phase	400	12	17.3	HDC19s-32	14.4	20.8	HDC19s-32
HDCAP304000143	HDCAP3-400V-14kvar-3phase	400	14	20.2	HDC19s-32	16.8	24.2	HDC19s-43
HDCAP304000153	HDCAP3-400V-15kvar-3phase	400	15	21.7	HDC19s-43	18	26	HDC19s-43
HDCAP304000163	HDCAP3-400V-16kvar-3phase	400	16	23.1	HDC19s-43	19.2	27.7	HDC19s-43
HDCAP304000183	HDCAP3-400V-18kvar-3phase	400	18	26	HDC19s-43	21.6	31.2	HDC19s-63
HDCAP304000203	HDCAP3-400V-20kvar-3phase	400	20	28.9	HDC19s-63	24	34.6	HDC19s-63
HDCAP304000253	HDCAP3-400V-25kvar-3phase	400	25	36.1	HDC19s-63	30	43.3	HDC19s-95
HDCAP304000303	HDCAP3-400V-30kvar-3phase	400	30	43.3	HDC19s-95	36	52	HDC19s-95
HDCAP304500053	HDCAP3-450V-5kvar-3phase	450	5	6.4	HDC19s-25	6	7.7	HDC19s-25
HDCAP304507053	HDCAP3-450V-7.5kvar-3phase	450	7.5	9.6	HDC19s-25	9	11.5	HDC19s-25
HDCAP304500103	HDCAP3-450V-10kvar-3phase	450	10	12.8	HDC19s-25	12	15.4	HDC19s-25
HDCAP304500123	HDCAP3-450V-12kvar-3phase	450	12	15.4	HDC19s-25	14.4	18.5	HDC19s-32
HDCAP304500143	HDCAP3-450V-14kvar-3phase	450	14	18	HDC19s-32	16.8	21.6	HDC19s-43
HDCAP304500153	HDCAP3-450V-15kvar-3phase	450	15	19.2	HDC19s-32	18	23.1	HDC19s-43
HDCAP304500163	HDCAP3-450V-16kvar-3phase	450	16	20.5	HDC19s-32	19.2	24.6	HDC19s-43
HDCAP304500183	HDCAP3-450V-18kvar-3phase	450	18	23.1	HDC19s-43	21.6	27.7	HDC19s-43
HDCAP304500203	HDCAP3-450V-20kvar-3phase	450	20	25.7	HDC19s-43	24	30.8	HDC19s-63
HDCAP304500253	HDCAP3-450V-25kvar-3phase	450	25	32.1	HDC19s-63	30	38.5	HDC19s-63
HDCAP304500303	HDCAP3-450V-30kvar-3phase	450	30	38.5	HDC19s-63	36	46.2	HDC19s-95
HDCAP305250053	HDCAP3-525V-5kvar-3phase	525	5	5.5	HDC19s-25	6	6.6	HDC19s-25
HDCAP305257053	HDCAP3-525V-7.5kvar-3phase	525	7.5	8.2	HDC19s-25	9	9.9	HDC19s-25
HDCAP305250103	HDCAP3-525V-10kvar-3phase	525	10	11	HDC19s-25	12	13.2	HDC19s-25
HDCAP305250123	HDCAP3-525V-12kvar-3phase	525	12	13.2	HDC19s-25	14.4	15.8	HDC19s-25
HDCAP305250143	HDCAP3-525V-14kvar-3phase	525	14	15.4	HDC19s-25	16.8	18.5	HDC19s-32
HDCAP305250153	HDCAP3-525V-15kvar-3phase	525	15	16.5	HDC19s-25	18	19.8	HDC19s-32
HDCAP305250163	HDCAP3-525V-16kvar-3phase	525	16	17.6	HDC19s-32	19.2	21.1	HDC19s-32
HDCAP305250183	HDCAP3-525V-18kvar-3phase	525	18	19.8	HDC19s-32	21.6	23.8	HDC19s-43
HDCAP305250203	HDCAP3-525V-20kvar-3phase	525	20	22	HDC19s-43	24	26.4	HDC19s-43
HDCAP305250253	HDCAP3-525V-25kvar-3phase	525	25	27.5	HDC19s-43	30	33	HDC19s-63
HDCAP305250303	HDCAP3-525V-30kvar-3phase	525	30	33	HDC19s-63	36	39.6	HDC19s-63

POWER FACTOR CORRECTION

Selection Guide

Standard: IEC60831

HBSM 50/60Hz Selection Guide

Single-phase , 250V

Commercial Reference	Description Single-phase Δ 250V	50Hz			60Hz		
		kvar	le (A)	Contact	kvar	le (A)	Contact
HBSM00250000201D	HBSM-0-250V-2kvar-1phase-D	2	8	HDC19s-25	2.4	9.6	HDC19s-25
HBSM00250000251D	HBSM-0-250V-2.5kvar-1phase-D	2.5	10	HDC19s-25	3	12	HDC19s-25
HBSM00250000301D	HBSM-0-250V-3kvar-1phase-D	3	12	HDC19s-25	3.6	14.4	HDC19s-25
HBSM00250000401D	HBSM-0-250V-4kvar-1phase-D	4	16	HDC19s-25	4.8	19.2	HDC19s-32
HBSM00250000501D	HBSM-0-250V-5kvar-1phase-D	5	20	HDC19s-32	6	24	HDC19s-43
HBSM00250000801D	HBSM-0-250V-8kvar-1phase-D	8	32	HDC19s-43	9.6	38.4	HDC19s-63
HBSM00250001001D	HBSM-0-250V-10kvar-1phase-D	10	40	HDC19s-63	12	48	HDC19s-95
HBSM00250001201D	HBSM-0-250V-12kvar-1phase-D	12	48	HDC19s-95	14.4	57.6	HDC19s-95
HBSM00250001501D	HBSM-0-250V-15kvar-1phase-D	15	60	HDC19s-95	18	72	HDC19s-115
HBSM00250002001M	HBSM-0-250V-20kvar-1phase-M	20	80	HDC19s-150	24	96	HDC19s-150

Three-phase, 400V

Commercial Reference	Description Three-phase Δ 400V	50Hz			60Hz		
		kvar	le (A)	Contact	kvar	le (A)	Contact
HBSM00400000103D	HBSM-0-400V-1kvar-3phase-D	1	1.4	HDC19s-25	1.2	1.7	HDC19s-25
HBSM00400000203D	HBSM-0-400V-2kvar-3phase-D	2	2.9	HDC19s-25	2.4	3.5	HDC19s-25
HBSM00400000303D	HBSM-0-400V-3kvar-3phase-D	3	4.3	HDC19s-25	3.6	5.2	HDC19s-25
HBSM00400000403D	HBSM-0-400V-4kvar-3phase-D	4	5.8	HDC19s-25	4.8	7	HDC19s-25
HBSM00400000503D	HBSM-0-400V-5kvar-3phase-D	5	7.2	HDC19s-25	6	8.7	HDC19s-25
HBSM00400000753D	HBSM-0-400V-7.5kvar-3phase-D	7.5	10.8	HDC19s-25	9	13	HDC19s-25
HBSM00400000803D	HBSM-0-400V-8kvar-3phase-D	8	11.5	HDC19s-25	9.6	13.8	HDC19s-25
HBSM00400001003D	HBSM-0-400V-10kvar-3phase-D	10	14.4	HDC19s-25	12	17.3	HDC19s-32
HBSM00400001203D	HBSM-0-400V-12kvar-3phase-D	12	17.3	HDC19s-32	14.4	20.8	HDC19s-32
HBSM00400001403D	HBSM-0-400V-14kvar-3phase-D	14	20.2	HDC19s-32	16.8	24.2	HDC19s-43
HBSM00400001503D	HBSM-0-400V-15kvar-3phase-D	15	21.7	HDC19s-43	18	26	HDC19s-43
HBSM00400001603D	HBSM-0-400V-16kvar-3phase-D	16	23.1	HDC19s-43	19.2	27.7	HDC19s-43
HBSM00400001803D	HBSM-0-400V-18kvar-3phase-D	18	26	HDC19s-43	21.6	31.2	HDC19s-63
HBSM00400002003D	HBSM-0-400V-20kvar-3phase-D	20	28.9	HDC19s-63	24	34.6	HDC19s-63
HBSM00400002403D	HBSM-0-400V-24kvar-3phase-D	24	34.6	HDC19s-63	28.8	41.5	HDC19s-63
HBSM00400002503D	HBSM-0-400V-25kvar-3phase-D	25	36.1	HDC19s-63	30	43.3	HDC19s-95
HBSM00400002803D	HBSM-0-400V-28kvar-3phase-D	28	40.4	HDC19s-63	33.6	48.5	HDC19s-95
HBSM00400003003D	HBSM-0-400V-30kvar-3phase-D	30	43.3	HDC19s-95	36	52	HDC19s-95
HBSM00400003003M	HBSM-0-400V-30kvar-3phase-M	30	43.3	HDC19s-95	36	52	HDC19s-95
HBSM00400003503M	HBSM-0-400V-35kvar-3phase-M	35	50.5	HDC19s-95	42	60.6	HDC19s-95
HBSM00400004003M	HBSM-0-400V-40kvar-3phase-M	40	57.7	HDC19s-95	48	69.3	HDC19s-115
HBSM00400004503Q	HBSM-0-400V-45kvar-3phase-Q	45	65	HDC19s-115	54	78	HDC19s-150
HBSM00400005003Q	HBSM-0-400V-50kvar-3phase-Q	50	72.2	HDC19s-115	60	86.6	HDC19s-150
HBSM00400006003Q	HBSM-0-400V-60kvar-3phase-Q	60	86.6	HDC19s-150	72	103.9	HDC19s-170

POWER FACTOR CORRECTION

Selection Guide

Standard: IEC60831

Three-phase, 415V

Commercial Reference	Description Three-phase Δ 415V	50Hz			60Hz		
		kvar	le (A)	Contact	kvar	le (A)	Contact
HBSM00415000303D	HBSM-0-415V-3kvar-3phase-D	3	4.2	HDC19s-25	3.6	5	HDC19s-25
HBSM00415000503D	HBSM-0-415V-5kvar-3phase-D	5	7	HDC19s-25	6	8.4	HDC19s-25
HBSM00415000753D	HBSM-0-415V-7.5kvar-3phase-D	7.5	10.4	HDC19s-25	9	12.5	HDC19s-25
HBSM00415000803D	HBSM-0-415V-8kvar-3phase-D	8	11.1	HDC19s-25	9.6	13.3	HDC19s-25
HBSM00415001003D	HBSM-0-415V-10kvar-3phase-D	10	13.9	HDC19s-25	12	16.7	HDC19s-32
HBSM00415001203D	HBSM-0-415V-12kvar-3phase-D	12	16.7	HDC19s-32	14.4	20	HDC19s-32
HBSM00415001403D	HBSM-0-415V-14kvar-3phase-D	14	19.5	HDC19s-32	16.8	23.4	HDC19s-43
HBSM00415001503D	HBSM-0-415V-15kvar-3phase-D	15	20.9	HDC19s-32	18	25.1	HDC19s-43
HBSM00415001603D	HBSM-0-415V-16kvar-3phase-D	16	22.3	HDC19s-43	19.2	26.8	HDC19s-43
HBSM00415002003D	HBSM-0-415V-20kvar-3phase-D	20	27.8	HDC19s-43	24	33.4	HDC19s-63
HBSM00415002503D	HBSM-0-415V-25kvar-3phase-D	25	34.8	HDC19s-63	30	41.7	HDC19s-63
HBSM00415003003D	HBSM-0-415V-30kvar-3phase-D	30	41.7	HDC19s-63	36	50.1	HDC19s-95
HBSM00415003503M	HBSM-0-415V-35kvar-3phase-M	35	48.7	HDC19s-95	42	58.4	HDC19s-95
HBSM00415004003M	HBSM-0-415V-40kvar-3phase-M	40	55.6	HDC19s-95	48	66.8	HDC19s-115
HBSM00415004503Q	HBSM-0-415V-45kvar-3phase-Q	45	62.6	HDC19s-95	54	75.1	HDC19s-115
HBSM00415005003Q	HBSM-0-415V-50kvar-3phase-Q	50	69.6	HDC19s-115	60	83.5	HDC19s-150
HBSM00415006003Q	HBSM-0-415V-60kvar-3phase-Q	60	83.5	HDC19s-150	72	100.2	HDC19s-170

Three-phase, 450V

Commercial Reference	Description Three-phase Δ 450V	50Hz			60Hz		
		kvar	le (A)	Contact	kvar	le (A)	Contact
HBSM00450000103D	HBSM-0-450V-1kvar-3phase-D	1	1.3	HDC19s-25	1.2	1.6	HDC19s-25
HBSM00450000203D	HBSM-0-450V-2kvar-3phase-D	2	2.6	HDC19s-25	2.4	3.1	HDC19s-25
HBSM00450000303D	HBSM-0-450V-3kvar-3phase-D	3	3.8	HDC19s-25	3.6	4.6	HDC19s-25
HBSM00450000403D	HBSM-0-450V-4kvar-3phase-D	4	5.1	HDC19s-25	4.8	6.1	HDC19s-25
HBSM00450000503D	HBSM-0-450V-5kvar-3phase-D	5	6.4	HDC19s-25	6	7.7	HDC19s-25
HBSM00450000753D	HBSM-0-450V-7.5kvar-3phase-D	7.5	9.6	HDC19s-25	9	11.5	HDC19s-25
HBSM00450000803D	HBSM-0-450V-8kvar-3phase-D	8	10.3	HDC19s-25	9.6	12.4	HDC19s-25
HBSM00450001003D	HBSM-0-450V-10kvar-3phase-D	10	12.8	HDC19s-25	12	15.4	HDC19s-25
HBSM00450001203D	HBSM-0-450V-12kvar-3phase-D	12	15.4	HDC19s-25	14.4	18.5	HDC19s-32
HBSM00450001403D	HBSM-0-450V-14kvar-3phase-D	14	18	HDC19s-32	16.8	21.6	HDC19s-43
HBSM00450001503D	HBSM-0-450V-15kvar-3phase-D	15	19.2	HDC19s-32	18	23.1	HDC19s-43
HBSM00450001603D	HBSM-0-450V-16kvar-3phase-D	16	20.5	HDC19s-32	19.2	24.6	HDC19s-43
HBSM00450001803D	HBSM-0-450V-18kvar-3phase-D	18	23.1	HDC19s-43	21.6	27.7	HDC19s-43
HBSM00450002003D	HBSM-0-450V-20kvar-3phase-D	20	25.7	HDC19s-43	24	30.8	HDC19s-63
HBSM00450002203D	HBSM-0-450V-22kvar-3phase-D	22	28.2	HDC19s-43	26.4	33.8	HDC19s-63
HBSM00450002403D	HBSM-0-450V-24kvar-3phase-D	24	30.8	HDC19s-63	28.8	37	HDC19s-63
HBSM00450002503D	HBSM-0-450V-25kvar-3phase-D	25	32.1	HDC19s-63	30	38.5	HDC19s-63
HBSM00450002803D	HBSM-0-450V-28kvar-3phase-D	28	35.9	HDC19s-63	33.6	43.1	HDC19s-95
HBSM00450003003D	HBSM-0-450V-30kvar-3phase-D	30	38.5	HDC19s-63	36	46.2	HDC19s-95
HBSM00450003003M	HBSM-0-450V-30kvar-3phase-M	30	38.5	HDC19s-63	36	46.2	HDC19s-95
HBSM00450003203D	HBSM-0-450V-32kvar-3phase-D	32	41.1	HDC19s-63	38.4	49.3	HDC19s-95
HBSM00450003503M	HBSM-0-450V-35kvar-3phase-M	35	44.9	HDC19s-95	42	53.9	HDC19s-95
HBSM00450004003M	HBSM-0-450V-40kvar-3phase-M	40	51.3	HDC19s-95	48	61.6	HDC19s-95
HBSM00450004503Q	HBSM-0-450V-45kvar-3phase-Q	45	57.7	HDC19s-95	54	69.3	HDC19s-115
HBSM00450005003Q	HBSM-0-450V-50kvar-3phase-Q	50	64.2	HDC19s-115	60	77	HDC19s-150
HBSM00450006003Q	HBSM-0-450V-60kvar-3phase-Q	60	77	HDC19s-150	72	92.4	HDC19s-150

POWER FACTOR CORRECTION

Selection Guide

Standard: IEC60831

HBSM 50/60Hz Selection Guide

Three-phase, 525V

Commercial Reference	Description Three-phase Δ 525V	50Hz			60Hz		
		kvar	Ie (A)	Contact	kvar	Ie (A)	Contact
HBSM00525000303D	HBSM-0-525V-3kvar-3phase-D	3	3.3	HDC19s-25	3.6	4	HDC19s-25
HBSM00525000503D	HBSM-0-525V-5kvar-3phase-D	5	5.5	HDC19s-25	6	6.6	HDC19s-25
HBSM00525001003D	HBSM-0-525V-10kvar-3phase-D	10	11	HDC19s-25	12	13.2	HDC19s-25
HBSM00525001203D	HBSM-0-525V-12kvar-3phase-D	12	13.2	HDC19s-25	14.4	15.8	HDC19s-25
HBSM00525001503D	HBSM-0-525V-15kvar-3phase-D	15	16.5	HDC19s-25	18	19.8	HDC19s-32
HBSM00525001603D	HBSM-0-525V-16kvar-3phase-D	16	17.6	HDC19s-32	19.2	21.1	HDC19s-32
HBSM00525001803D	HBSM-0-525V-18kvar-3phase-D	18	19.8	HDC19s-32	21.6	23.8	HDC19s-43
HBSM00525002003D	HBSM-0-525V-20kvar-3phase-D	20	22	HDC19s-43	24	26.4	HDC19s-43
HBSM00525002503D	HBSM-0-525V-25kvar-3phase-D	25	27.5	HDC19s-43	30	33	HDC19s-63
HBSM00525003003M	HBSM-0-525V-30kvar-3phase-M	30	33	HDC19s-63	36	39.6	HDC19s-63
HBSM00525003503M	HBSM-0-525V-35kvar-3phase-M	35	38.5	HDC19s-63	42	46.2	HDC19s-95
HBSM00525004003M	HBSM-0-525V-40kvar-3phase-M	40	44	HDC19s-95	48	52.8	HDC19s-95
HBSM00525004003Q	HBSM-0-525V-40kvar-3phase-Q	40	44	HDC19s-95	48	52.8	HDC19s-95
HBSM00525005003Q	HBSM-0-525V-50kvar-3phase-Q	50	55	HDC19s-95	60	66	HDC19s-115
HBSM00525006003Q	HBSM-0-525V-60kvar-3phase-Q	60	66	HDC19s-115	72	79.2	HDC19s-150

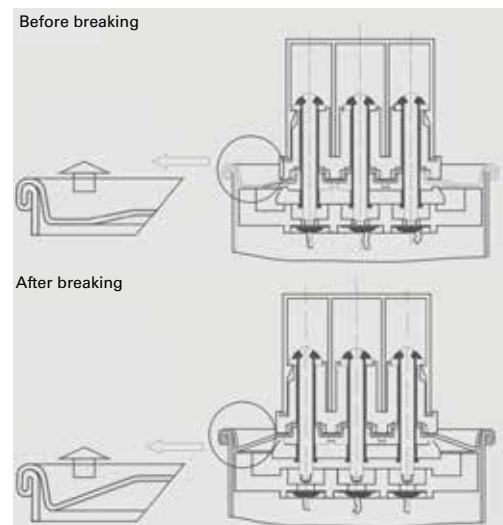
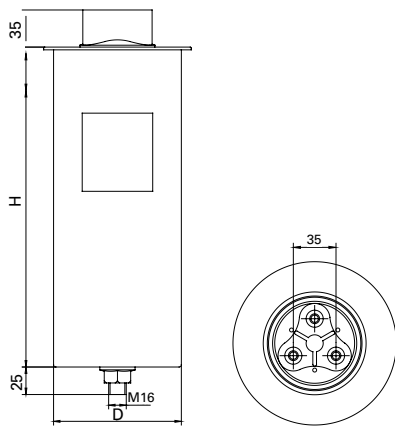
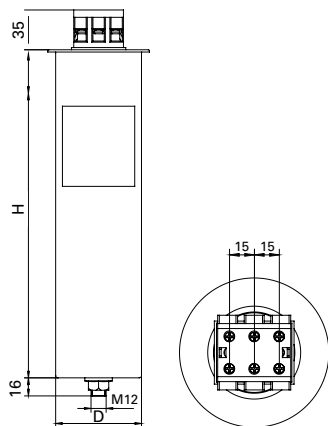
POWER FACTOR CORRECTION

Overall Dimension

Standard: IEC60831

HDCAP3 Overall Dimension

Model	Overall dimensions D*H(mm)	Mounting dimensions	Capacitance (μ F)
HDCAP3-0.4-5-3	76*245	M12x16	99.47
HDCAP3-0.4-7.5-3	76*245	M12x16	149.21
HDCAP3-0.4-10-3	76*245	M12x16	198.95
HDCAP3-0.4-12-3	76*245	M12x16	238.74
HDCAP3-0.4-14-3	86*245	M12x16	278.53
HDCAP3-0.4-15-3	86*245	M12x16	298.42
HDCAP3-0.4-16-3	86*245	M12x16	318.31
HDCAP3-0.4-18-3	86*290	M12x16	358.11
HDCAP3-0.4-20-3	86*290	M12x16	397.9
HDCAP3-0.4-25-3	116*290	M16x25	497.37
HDCAP3-0.4-30-3	116*290	M16x25	596.85
HDCAP3-0.45-5-3	76*245	M12x16	78.6
HDCAP3-0.45-7.5-3	76*245	M12x16	117.9
HDCAP3-0.45-10-3	76*245	M12x16	157.19
HDCAP3-0.45-12-3	76*245	M12x16	188.63
HDCAP3-0.45-14-3	86*245	M12x16	220.07
HDCAP3-0.45-15-3	86*245	M12x16	235.79
HDCAP3-0.45-16-3	86*245	M12x16	251.51
HDCAP3-0.45-18-3	86*290	M12x16	282.95
HDCAP3-0.45-20-3	86*290	M12x16	314.39
HDCAP3-0.45-25-3	116*290	M16x25	392.99
HDCAP3-0.45-30-3	116*290	M16x25	471.58
HDCAP3-0.525-5-3	76*245	M12x16	57.74
HDCAP3-0.525-7.5-3	76*245	M12x16	86.62
HDCAP3-0.525-10-3	76*245	M12x16	115.49
HDCAP3-0.525-12-3	76*245	M12x16	138.59
HDCAP3-0.525-14-3	86*245	M12x16	161.69
HDCAP3-0.525-15-3	86*245	M12x16	173.23
HDCAP3-0.525-16-3	86*245	M12x16	184.78
HDCAP3-0.525-18-3	86*290	M12x16	207.88
HDCAP3-0.525-20-3	86*290	M12x16	230.98
HDCAP3-0.525-25-3	116*290	M16x25	288.72
HDCAP3-0.525-30-3	116*290	M16x25	346.47



POWER FACTOR CORRECTION

Overall Dimension

Standard: IEC60831

HBSM Overall Dimension

• Single-phase dimension (250V)

Commercial Reference	Shell Code	Capacitance (μF)
HBSM00250000201D	D130	101.86
HBSM00250000251D	D130	127.33
HBSM00250000301D	D130	152.79
HBSM00250000401D	D130	203.72
HBSM00250000501D	D130	254.65

Commercial Reference	Shell Code	Capacitance (μF)
HBSM00250000801D	D210	407.44
HBSM00250001001D	D210	509.3
HBSM00250001201D	D210	611.15
HBSM00250001501D	D290	763.94
HBSM00250002001M	M265	1018.59

• Three-phase dimension (400V)

Commercial Reference	Shell Code	Capacitance (μF)
HBSM00400000103D	D130	19.89
HBSM00400000203D	D130	39.79
HBSM00400000303D	D130	59.68
HBSM00400000403D	D130	79.58
HBSM00400000503D	D130	99.47
HBSM00400000753D	D130	149.21
HBSM00400000803D	D130	159.15
HBSM00400001003D	D130	198.95
HBSM00400001203D	D185	238.73
HBSM00400001403D	D185	278.52
HBSM00400001503D	D185	298.42
HBSM00400001603D	D185	318.31

Commercial Reference	Shell Code	Capacitance (μF)
HBSM00400001803D	D210	358.1
HBSM00400002003D	D210	398
HBSM00400002403D	D245	477.46
HBSM00400002503D	D245	497.37
HBSM00400002803D	D290	557.04
HBSM00400003003D	D290	596.85
HBSM00400003003M	M210	596.85
HBSM00400003503M	M265	696.3
HBSM00400004003M	M265	795.77
HBSM00400004503Q	Q210	895.25
HBSM00400005003Q	Q210	994.75
HBSM00400006003Q	Q240	1193.7

• Three-phase dimension (415V)

Commercial Reference	Shell Code	Capacitance (μF)
HBSM00415000303D	D130	55.45
HBSM00415000503D	D130	92.41
HBSM00415000753D	D130	138.62
HBSM00415000803D	D130	147.86
HBSM00415001003D	D130	184.82
HBSM00415001203D	D185	221.79
HBSM00415001403D	D185	258.75
HBSM00415001503D	D185	277.23
HBSM00415001603D	D185	295.72

Commercial Reference	Shell Code	Capacitance (μF)
HBSM00415002003D	D210	369.64
HBSM00415002503D	D245	462.06
HBSM00415003003D	D290	554.47
HBSM00415003503M	M265	646.88
HBSM00415004003M	M265	739.29
HBSM00415004503Q	Q210	831.7
HBSM00415005003Q	Q210	924.11
HBSM00415006003Q	Q210	1108.94

• Three-phase dimension (450V)

Commercial Reference	Shell Code	Capacitance (μF)
HBSM00450000103D	D130	15.72
HBSM00450000203D	D130	31.44
HBSM00450000303D	D130	47.16
HBSM00450000403D	D130	62.88
HBSM00450000503D	D130	78.6
HBSM00450000753D	D130	117.89
HBSM00450000803D	D130	125.75
HBSM00450001003D	D130	157.19
HBSM00450001203D	D185	188.63
HBSM00450001403D	D185	220.07

Commercial Reference	Shell Code	Capacitance (μF)
HBSM00450002803D	D290	440.13
HBSM00450003003D	D290	471.58
HBSM00450003003M	M210	471.58
HBSM00450003203D	D290	503.01
HBSM00450003503M	M265	550.17
HBSM00450004003M	M265	628.78
HBSM00450004503Q	Q210	707.36
HBSM00450005003Q	Q210	785.95
HBSM00450006003Q	Q240	943.14

POWER FACTOR CORRECTION

Overall Dimension

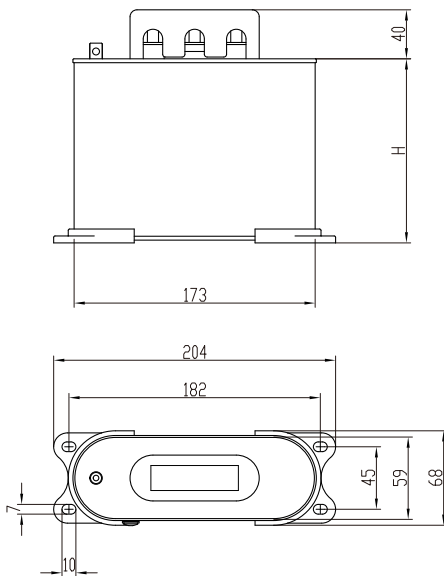
Standard: IEC60831

•Three-phase dimension (415V)

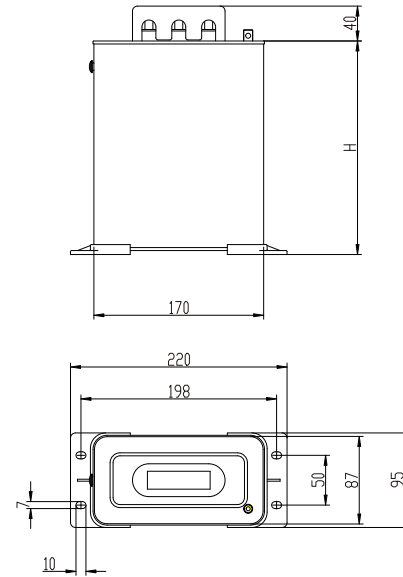
Commercial Reference	Shell Code	Capacitance (μF)
HBSM00415000303D	D130	55.45
HBSM00415000503D	D130	92.41
HBSM00415000753D	D130	138.62
HBSM00415000803D	D130	147.86
HBSM00415001003D	D130	184.82
HBSM00415001203D	D185	221.79
HBSM00415001403D	D185	258.75
HBSM00415001503D	D185	277.23
HBSM00415001603D	D185	295.72

Commercial Reference	Shell Code	Capacitance (μF)
HBSM00415002003D	D210	369.64
HBSM00415002503D	D245	462.06
HBSM00415003003D	D290	554.47
HBSM00415003503M	M265	646.88
HBSM00415004003M	M265	739.29
HBSM00415004503Q	Q210	831.7
HBSM00415005003Q	Q210	924.11
HBSM00415006003Q	Q210	1108.94

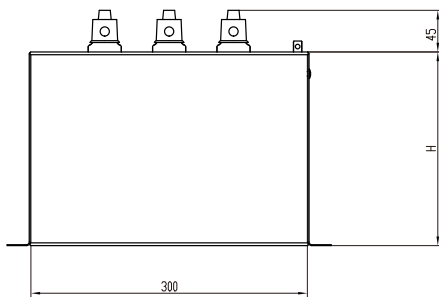
HBSM



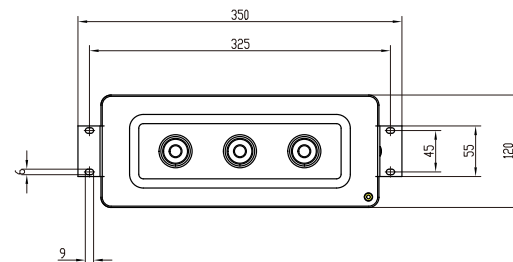
	D Type					Unit: mm
Housing code	D130	D185	D210	D245	D290	
Capacitor body height (H)	130	185	210	245	290	



	M Type		Unit: mm
Housing code	M210	M265	
Capacitor body height (H)	210	265	



	Q Type		Unit: mm
Housing code	Q210	Q240	
Capacitor body height (H)	210	240	



POWER FACTOR CORRECTION

HJKL Power Factor Correction Controllers

Standard: IEC60831



Range Presentation

HJKL is Himel range of reactive power compensation controllers, matching all kinds of capacitors in low-voltage system. It adopts MCU controlling to compute the phase difference between the fundamentals of current and voltage, enabling precise power factor measurement with quick response.

Features

- ◆ New control algorithm designed to reduce the number of switching operations and quickly attain the targeted power factor.
- ◆ Quick and simple mounting and wiring.
- ◆ Direct viewing of installation electrical information and capacitor condition.
- ◆ Direct reading and easy setup
- ◆ Alarm indication.

Online Content



HJKL

Selection Code

Range name	Sampling voltage	Output loops	Circuit type	Enclosure material
HJKL	2CM	4	DC	S
HJKL	2CM: 220V 5CQ: 380V	4: 4 loops 6: 6 loops 8: 8 loops 10: 10 loops 12: 12 loops	Default: AC circuit DC: DC 12V	S: Molded case

Technical Parameters

Power Factor Correction Controllers	HJKL	
Category	Parameter value	Default Value
Sampling voltage	380V(HJKL5C)/ 220V(HJKL2C)±15%	
Sampling current	n/5A (Is≤5A)	
Frequency	50-60(Hz)	
Sensitivity	50mA	
Input threshold	lag 0.80-lead-0.82 adjustable step 0.01	0.95
Cut-off threshold	lead-0.80-lag0.82 adjustable step 0.01	-0.99
Loop setting	1-12 adjustable step 1	
Time setting	1s~120s adjustable step 1s	30s
Overvoltage setting	400~450V(HJKL5C)adjustable step 5V	430V
	235~260V(HJKL2C)adjustable step 5V	245V
Undervoltage protection	300V(HJKL5C) / 170V(HJKL2C)	
Undercurrent setting	0mA~500mA adjustable step 50mA	200mA (0 is for close)
COS ϕ display	Lead & Lag (0.00~0.99) resolution 0.01	
Working methods	Continuous working, circular switching	
Output loops	4, 6, 8, 10, 12 loops	
Capacity of output	Each group 5A, 220V resistive / 3A, 380V resistive	
IP grade	IP30 for cover	

HJKF Power Factor Correction Controllers

Standard: IEC60051



Range Presentation

HJKF is Himel range of the reactive power compensation controller. It is a special controller used for three-phase low-voltage power grid which facilitates automatic generation of multiple alarm events, reminding users through nodes or sounds. Temperature adjustment function is involved in all models, which can save 1 pcs temperature-control regulator in capacitor cabinet. Harmonics detecting and protection functions are included as well. All parameters are protected by password to avoid any unexpected modifications.

Online Content



HJKF

Features

- ◆ Elegant LCD display with rich content
- ◆ Wiring identification by manual assistance is included for easy wiring
- ◆ Current dotted terminal identification is included for easy wiring switch
- ◆ Output code can be arbitrary coding, and it can be compatible with various capacity configurations
- ◆ Four running output modes: circulate switching, coding switching, cut-on first and then cut-off, optimization switching
- ◆ Temperature control node included is easy to adjust ambient temperature of the reactive power compensation cabinet
- ◆ Alarm node included is easy for users to temperature control, remote monitoring and fault protection
- ◆ Built-in buzzer alarm function, and alarm events can be optional which will be convenient for users on-site to find abnormal cases
- ◆ RS485 port is for communication type model which can be arbitrary wiring without differentiating A and B. It's easy for users to do wiring with master computers.

Selection Code

Range Name	Sampling Voltage	Output Loops	Function
HJKF5C	V	12	Z
HJKF5C	V: 400V	12: 12 loops	Default: without communication Z: Communication type

Technical Parameters	
Rated operating voltage	AC400V (±15%)
Frequency	50 / 60Hz
Rated current	≤5A
Sensitivity	≤50mA
Compensation method	Common three-phase compensation
Power loss	<5VA
Response time	1s~120s
Output capacity	220V/5A
Output loop number	12 loops
Hole size	113*113(mm)
Weight	<0.6kg

POWER FACTOR CORRECTION

Wiring Diagram

Standard: IEC60831



Wiring Diagram

HJKL5C

HJKL5C

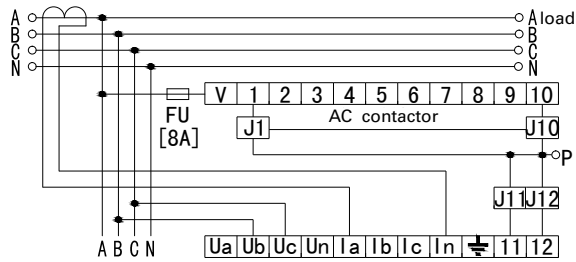
Ub, Uc: input of voltage signal

Ia, In: input of current signal

V: common terminal of control output

e.g. Contactor 380V: point P is connected to phase B or phase C;

e.g. Contactor 220V: point P is connected to phase N



HJKL5C-DC

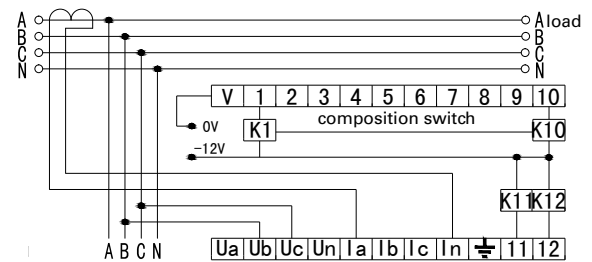
Ub, Uc: input of voltage signal

Ia, In: input of current signal

V, K(1-12): output of DC control signal

V: 0V

K(1-12): output -12V



HJKL2C

HJKL2C

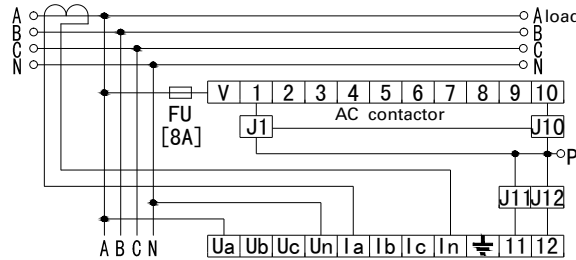
Ub, Uc: input of voltage signal

Ia, In: input of current signal

V: common terminal of control output

e.g. Contactor 380V: point P is connected to phase B or phase C;

e.g. Contactor 220V: point P is connected to phase N



HJKL2C-DC

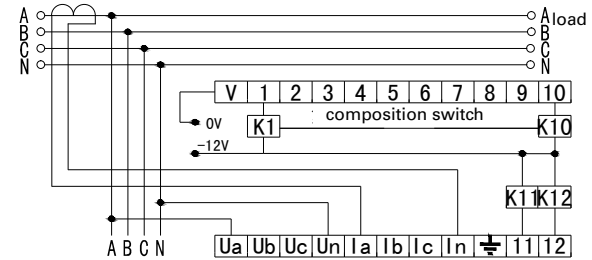
Ub, Uc: input of voltage signal

Ia, In: input of current signal

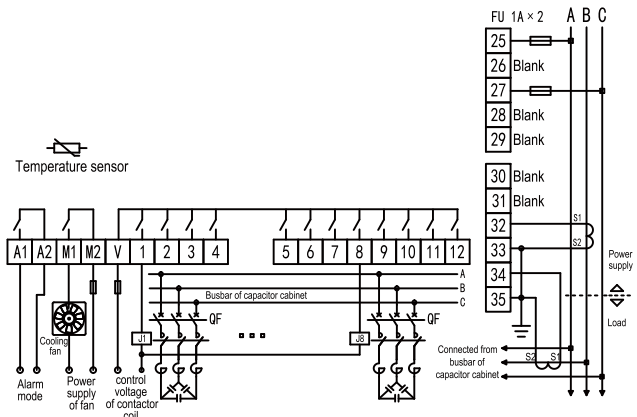
V, K(1-12): output of DC control signal

V: 0V

K(1-12): output -12V



HJKF5C



POWER FACTOR CORRECTION

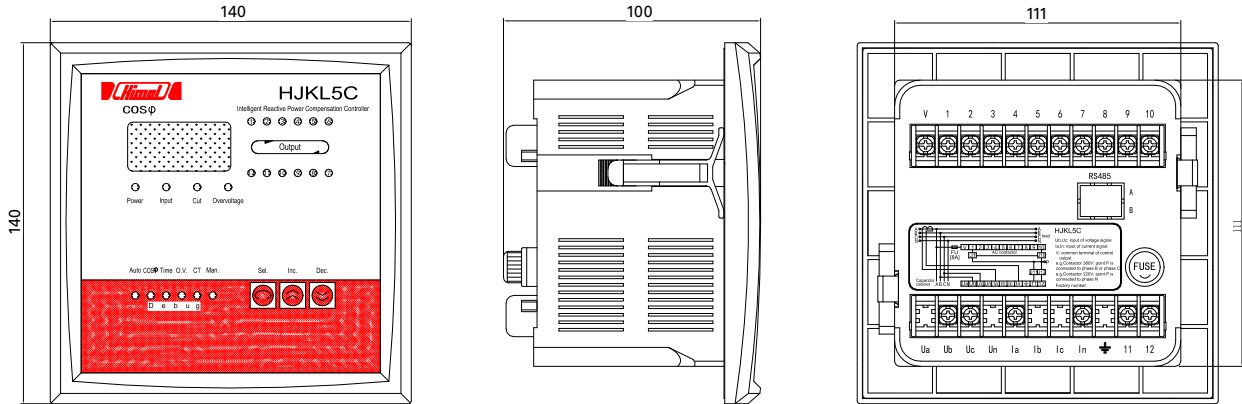
Dimensions

Standard: IEC60051

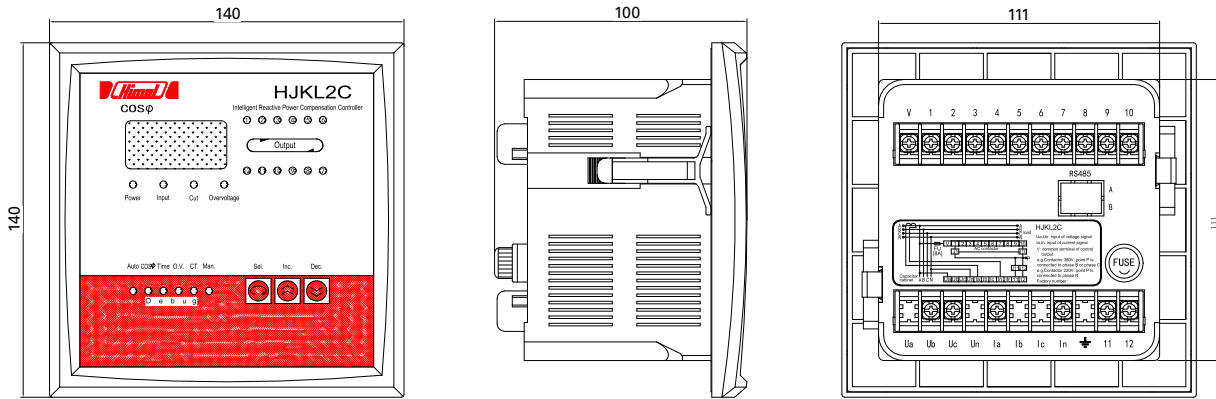


Dimensions

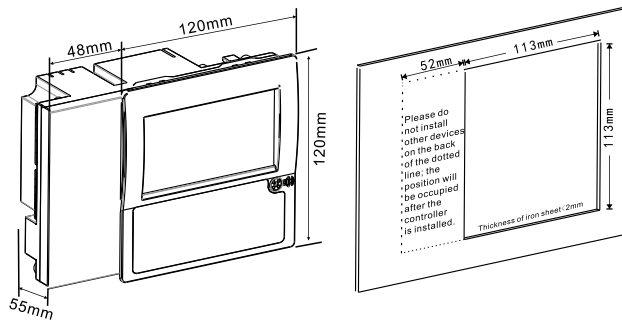
HJKL5C



HJKL2C



HJKF5C



POWER FACTOR CORRECTION

HKSG Detuned Reactors

Standard: IEC60289



Range Presentation

Capacitors get easily affected and damaged by harmonic current, inrush current, and due to over voltage in the reactive power compensation system. Therefore, to avoid parallel resonance and the issue about amplified harmonic current, reactors need to be added in series along with the capacitors. Reactors are applied to avoid excessive amplification of power grid harmonics and resonance resulting from the connection of capacitor banks to prolong the service time of capacitors.

Features

Reactors adopt three-phase three-column type structure:

- ◆ High-impact binder is applied (high-temperature tolerance) and no noise during the operation
- ◆ Coils are tightly wound with enameled flat wires to ensure that coils of reactors do not vibrate during the operation (foil winding is used when current is more than 100A).
- ◆ High efficiency and low loss

Online Content



HKSG

Selection Code

Model	Winding Material	Rated Capacity of the Reactor	Rated Voltage of the Capacitor	Reactance Ratio
HKSG	L	1P0	G048	H7
	Default: Copper windings L: Aluminum windings	P6: 0.6kvar P7: 0.7kvar 1P0: 1kvar ... 9P8: 9.8kvar	G048: 480V G052: 525V	H7: 7% H14: 14%"

Technical Parameters	
Basic Information	HKSG Series
Rated Operating Voltage(AC)	AC0.48kV, AC0.525kV (others can be customized)
Reactance Ratio	7% and 14% (others can be customized)
Phase	Three-phase
Rated Frequency	50Hz
Withstand voltage grade	3000V / min
Overload ability	≤1.35 times
Temperature rise limitation	Coil temperature rise≤85K Winding temperature rise≤95K
Reactor noise	< 50dB
Insulation class	> F
IP grade	IP00
Altitude	≤ 2000m
Ambient temperature	-25°C~+50°C
Standard	IEC 60289

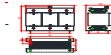
POWER FACTOR CORRECTION

HKSG Detuned Reactors

Standard: IEC60289

Dimension

No.	Product Parameter			Aluminum			Product outline	Copper			Product outline
	Reactor Model	Reactor capacity (kvar)	Capacitor capacity (kvar)	Dimension (mm)	Installation dimension (mm)	Hole dimension (mm)		Dimension (mm)	Installation dimension (mm)	Hole dimension (mm)	
				L*W*H	A*B	a*b		L*W*H	A*B	a*b	
1	HKSG-0.35/0.48-7%	0.35	5	160*115*170	130*75	17*φ7	D	160*115*170	130*75	17*φ7	D
2	HKSG-0.7/0.48-7%	0.7	10	160*120*170	130*82	17*φ7		200*110*195	170*72	17*φ7	
3	HKSG-0.84/0.48-7%	0.84	12	200*145*185	170*72	17*φ7	Y	200*115*195	170*77	17*φ7	Y
4	HKSG-1.05/0.48-7%	1.05	15	200*150*185	170*77	17*φ7		200*155*185	170*82	17*φ7	
5	HKSG-1.4/0.48-7%	1.4	20	200*165*185	170*87	17*φ7		200*165*185	170*92	17*φ7	
6	HKSG-1.75/0.48-7%	1.75	25	200*170*185	200*95	17*φ7		240*180*210	200*95	22*φ10	
7	HKSG-2.1/0.48-7%	2.1	30	240*180*210	200*95	22*φ10		240*185*230	200*100	22*φ10	
8	HKSG-2.45/0.48-7%	2.45	35	240*190*235	200*100	22*φ10		250*190*235	200*105	22*φ10	
9	HKSG-2.8/0.48-7%	2.8	40	240*190*235	200*100	22*φ10		250*195*235	200*110	22*φ10	
10	HKSG-3.15/0.48-7%	3.15	45	250*195*235	210*105	22*φ10		250*205*235	210*120	22*φ10	
11	HKSG-3.5/0.48-7%	3.5	50	250*200*235	210*110	22*φ10		250*205*255	210*120	22*φ10	
12	HKSG-4.2/0.48-7%	4.2	60	250*210*255	210*120	22*φ10		310*200*255	250*110	22*φ10	
13	HKSG-0.7/0.525-14%	0.7	5	200*110*190	170*72	17*φ7	D	200*110*190	170*72	17*φ7	D
14	HKSG-1.4/0.525-14%	1.4	10	200*125*190	170*87	17*φ7		200*125*190	170*87	17*φ7	
15	HKSG-1.68/0.525-14%	1.68	12	240*175*210	200*90	22*φ10	Y	240*170*210	200*90	22*φ10	Y
16	HKSG-2.1/0.525-14%	2.1	15	240*185*210	200*100	22*φ10		240*180*230	200*100	22*φ11	
17	HKSG-2.8/0.525-14%	2.8	20	240*185*230	200*100	22*φ10		240*190*230	200*110	22*φ10	
18	HKSG-3.5/0.525-14%	3.5	25	250*200*235	210*110	22*φ10		250*200*235	210*115	22*φ10	
19	HKSG-4.2/0.525-14%	4.2	30	250*200*255	210*110	22*φ10		250*205*255	210*120	22*φ10	
20	HKSG-4.9/0.525-14%	4.9	35	250*210*255	210*120	22*φ10		310*205*285	210*120	22*φ10	
21	HKSG-5.6/0.525-14%	5.6	40	310*200*285	250*110	22*φ10		310*205*285	250*120	22*φ10	
22	HKSG-6.39/0.525-14%	6.3	45	310*200*285	250*110	22*φ10		310*215*285	250*130	22*φ10	
23	HKSG-7.0/0.525-14%	7	50	310*215*285	250*120	22*φ10		310*225*285	250*140	22*φ10	
24	HKSG-8.4/0.525-14%	8.4	60	310*225*285	250*130	22*φ10		310*235*285	250*150	22*φ10	



Appearance D

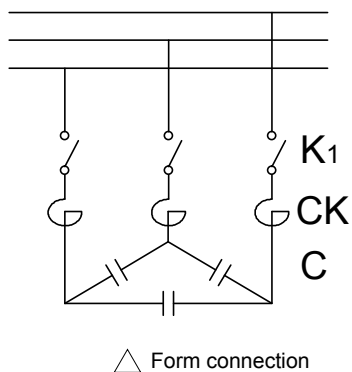
Appearance Y

POWER FACTOR CORRECTION

HKSG Detuned Reactors

Standard: IEC60289

Product Connection Method



Note:

the standard type of connection is \triangle type connection (as shown in the figure above).

Other connection methods have to make separate comments when ordering.

Operating Environment and Working Conditions

Ensure the following:

- ◆ No harmful gas, inflammable and explosive materials are around.
- ◆ Surrounding is well ventilated. For example: if it is installed in the cabinet, ventilation facilities should be added.
- ◆ There is no pollution, corrosive, and explosive medium in the atmosphere, which can seriously affects the insulation of reactors.
- ◆ No serious vibration and turbulence at the installation sites.
- ◆ The place is free from direct contact of rain and snow.

POWER FACTOR CORRECTION

HKSG Detuned Reactors

Standard: IEC60289

Guideline for Model Selection

With modern electronic technology and developed applications, the number of harmonics generating devices is gradually growing with high harmonic content. All other types of equipment, except the resistance heating devices and filament lamps, generate harmonics with different levels of harmonic content.

Harmonic Generating Devices:

The devices, which can generate harmonics include:

- ◆ Magnetic-core equipment (transformer, motor, reactor, electric welder, and inductive heating machine)
- ◆ Electric-control transmission equipment (variable frequency speed control, thyristor-type voltage regulation control, elevator or hoister)
- ◆ Electronic rectifier, inverter, electric arc furnace, furnace of calcium carbide, switching mode power supply, UPS, electronic office equipment (computers and printers),
- ◆ medical electronic equipment
- ◆ household appliances and many more.
- ◆ Converters, frequency conversion equipment, rolling mills, electric arc furnaces, and electric locomotive and saturated transformers with high ratings are the main sources of harmonics.

Sources Generating 3rd Harmonics:

The main sources for generating 3rd harmonics include:

- ◆ Electric arc furnace
- ◆ Electric locomotive
- ◆ Distribution system of shopping mall, business building, and residential building

Sources Generating 5th Harmonics:

The main sources for generating 5th harmonics include:

- ◆ Electric locomotive
- ◆ Distribution system of shopping mall, business building, and residential building
- ◆ Converter and frequency conversion equipment with high ratings

Sources Generating 7th Harmonics:

The main sources for generating 7th harmonics are converters and frequency conversion equipment with high ratings.

Where does our Reactor Fit :

Our reactors are mainly used to filter 3rd and 5th harmonics. Normally, reactance ratio is selected from the below list:

- ◆ 3rd harmonics is the main content: 14%
- ◆ 5th harmonics is the main content: 7%

Note: If a customer has requirements for other reactance ratio, it can be customized.

Please contact local Himel Sales for more information.

POWER FACTOR CORRECTION

HDC19s Capacitor Switching Contactors

Standard: IEC60947-4-1, IEC60947-5-1



Range Presentation

HDC19s is Himel range of contactors dedicated for switching of capacitors. It is developed based on 3 series contactor with technology to reduce capacitor closing current impact on contactor contacts.

Features

- ◆ Current range covers from 25A to 170A
- ◆ Various auxiliary contact types can be selected for different applications
- ◆ Manufactured on automated production line for better reliability.

Online Content



HDC19s

Selection Code

Range name	Frame current	Auxiliary contact	Coil voltage	Frequency
HDC19s	25	11	M	5
HDC19s: Capacitor Switching Contactor	25: 25A 32: 32A 43: 43A 63: 63A 95: 95A 115: 115A *150: 150A *170: 170A	HDC19s-25~43A: 11: 1NO+1NC 20: 2NO+0NC 02: 0NO+2NC HDC19s-63~115A: 12: 1NO+2NC 21: 2NO+1NC HDC19s-150~170A: 32: 3NO+2NC	F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V	5: 50Hz 7: 50/60Hz

Note: "*" products are not yet on the market, please consult local Himel office if necessary.

Technical Parameters										
Capacitor Switching Contactors			HDC19s-25	HDC19s-32	HDC19s-43	HDC19s-63	HDC19s-95	HDC19s-115	HDC19s-150	HDC19s-170
Standard			IEC60947-4-1, IEC60947-5-1							
Certificate			CE							
Main circuit										
Rated operating voltage (Ue)		V	380/400							
Rated insulation voltage (Ui)		V	690							
Rated current of controlled capacitor	AC-6b 380V	A	17	23	29	43	63	87	115	130
Rated capacity of controlled capacitor (Qn: kvar)	Rated operating voltage of capacitor	AC-6b 220V	6	10	15	18	30	35	46	52
	AC-6b 380V		12	20	25	30	50	60	80	90
Rated conventional thermal current		A	25	32	43	63	95	125	200	200
Controlling capability of inrush current		A	≤35I _n			≤55I _n			≤60I _n	
Mechanical endurance		10000 times	100							
Electrical endurance	AC-6b 380V	10000 times	15				12			
Operating frequency	AC-6b 380V	Times/h	300				120			
Coil										
Coil voltage (Us)		V	24,36,48,110,127,220/230,240,380/400,415,440							
Coil frequency		Hz	AC 50Hz & 50/60Hz							
Operating voltage		V	85%-110%Us							
Drop-out voltage		V	20%-75%Us							
Auxiliary Contact										
Auxiliary contact combination			11,20,02			12,21			32	
Rated conventional thermal current (I _{th})		A	10							

Note: Parameters above are considered under three-phase system; for single-phase capacitor, please reach out to local sales.

POWER FACTOR CORRECTION

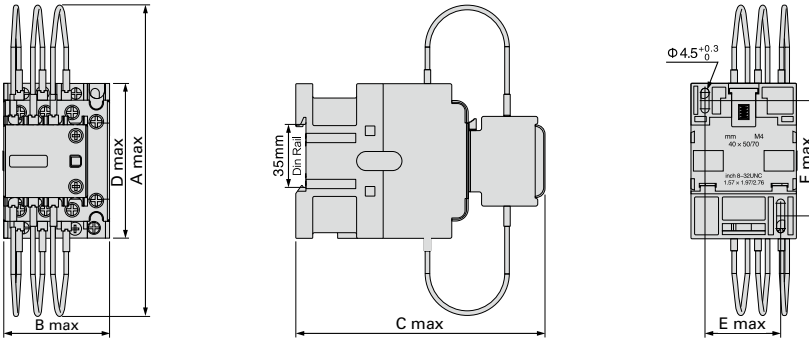
HDC19s Capacitor Switching Contactors

Standard: IEC60947-4-1, IEC60947-5-1

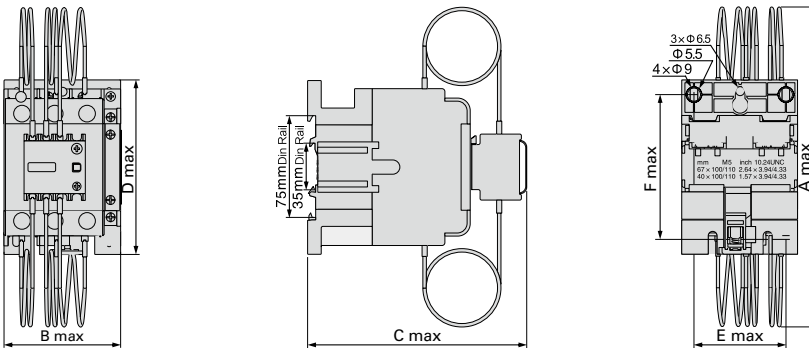


Dimension

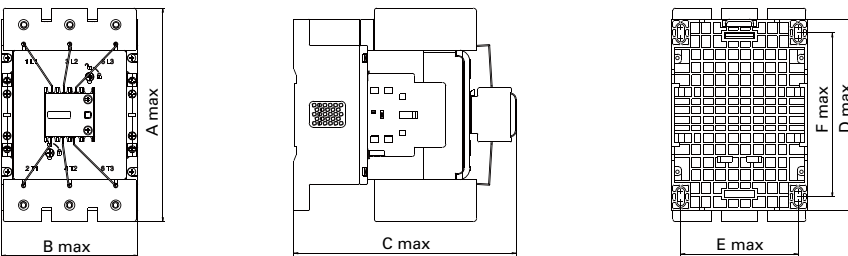
HDC19s-25,32,43



HDC19s-63,95,115



HDC19s-150,170



Overall and Installation Dimensions

Model	104.5Overall size				Installation dimension	
	A max	B max	C max	D max	E max	F max
HDC19s-25	176	45.5	122	74.5	35	50/60
HDC19s-32	180	56.5	132	83	40	50/60
HDC19s-43	180	56.5	132	83	40	50/60
HDC19s-63	190	74.5	154	127.5	59	100/110
HDC19s-95	190	85.5	160	127.5	67	100/110
HDC19s-115	190	85.5	160	127.5	67	100/110
HDC19s-150	188.5	120.5	196	170	104.5	136.5/151.5
HDC19s-170	188.5	120.5	196	170	104.5	136.5/151.5

POWER FACTOR CORRECTION

HDC19s Capacitor Switching Contactors

Standard: IEC60947-4-1, IEC60947-5-1

CE

Working Conditions

Ambient temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, and the daily average temperature: $\leq 35^{\circ}\text{C}$

Altitude: ≤ 2000 m

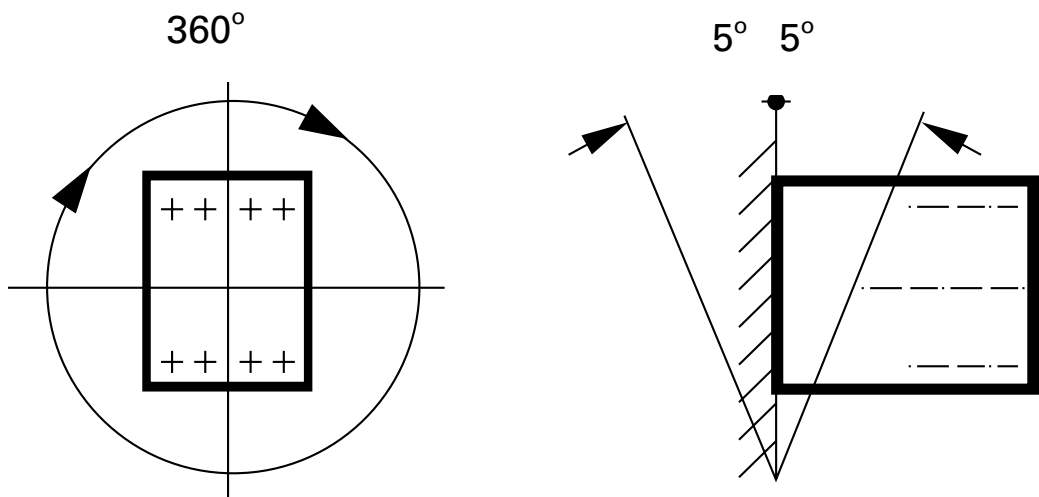
The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is $+40^{\circ}\text{C}$. It is allowed to have a relative higher humidity under lower temperature, e.g. up to 90% at $+20^{\circ}\text{C}$. For occasional dew due to the temperature change, preventive measures shall be taken.

Pollution Level: 3

Installation Conditions

Installation Type: III

Installation position: should be installed in the absence of a significant shock and vibration point





MOTOR MANAGEMENT

Products of today, ready for tomorrow

Efficient motor management is central to any plant's management strategy. For realizing long-term maintenance saving, developing contingency for motor failures, and to prolong motor life for running cost-efficient operations, a right motor control set up is required.

Himel offers complete spectrum of motor control products for reliable motor management systems that optimize performance of operations and processes, all the while ensuring operator safety. Our motor protection products have been proven for success in panel building and industrial applications.



Motor failure is often devastating to equipment. To keep personnel safe in an industrial application environment, Himel products offer easy start, speed control, and operations



Our Motor Management products are proven for superior performance in industries, conveyors, ventilators, food processing applications and more



Motor uptime is critical for high plant productivity, central to manufacturing and industrial performance. Himel's high-quality motor management products let you be in control of your plant



Himel Motor Management products allow you to get more from your motor investment with increased efficiencies and optimized cost of ownership

MOTOR MANAGEMENT



HDC3 AC Contactors



HDC3

Rated current: 6-95A
Pole: 3P
* 120~630A

248

HJX2-F 4P AC Contactors



HJX2-F 4P

Rated current: 115-800A
Pole: 4P

260

HDR3s Thermal Overload Relays



HDR3s

Frame rated current: 25, 38, 93A
Setting current: 0.1-93A
* 120~630A

256

HDC17K Miniature AC Contactors



HDC17K

Rated current: 6-12A
Pole: 3P/4P

262

HJX2 4P AC Contactors



HJX2 4P

Rated current: 9-95A
Pole: 4P

258

HDZ3 Contactor Relays



HDZ3

Pole: 3P

264

MOTOR MANAGEMENT

HDP6 Motor Circuit Breakers



HDP6

Frame rated current: 32/80A 266
Setting Current : 0.1-0.16A, ..., 24-32A, 40-80A

EXPERT Standard Variable Speed Drives



EXPERT Standard

Advanced General-Purpose Applications 281

HDS3 Magnetic Starters



HDS3

Frame current: 38A, 95A 268
Rated current: 09-95A
Protection level: IP54

SOLAR Variable Speed Drives



SOLAR

285

BASIC & EXPERT Soft Starters



BASIC



EXPERT

271

SMART Pump Solar Variable Speed Drives



SMART Pump

Pumps, fans and chillers 296

BASIC Series Variable Speed Drives



BASIC

Small and simple general-purpose applications 280

MOTOR MANAGEMENT

HDC3 AC Contactors

Standard: IEC60947-4



Range Presentation

HDC3 is Himel 3 series range of contactors designed for Motor Control AC3 applications up to 630A .

HDC3 contactors are applicable to AC power systems 50Hz or 60Hz with rated operating voltage up to 690V.

HDC3 contactors can be combined with HDR3s thermal overload relays to form magnetic motor starters up to 630A.

Features

- ◆ 5 frame sizes: 25, 38, 95, 225, 630A
- ◆ Wide range of operating voltage from 70%~120% Us
- ◆ Full range of accessories for any type of application
- ◆ Can be combined with HDR3s thermal overload relay

Online Content



HDC3

Selection Code

Range name	Current specification	Reversible	Auxiliary contact	Coil voltage	Coil frequency
HDC3	06	N	11	M	5
06-95A	06: 06A 09: 09A 12: 12A 18: 18A 25: 25A 32: 32A 38: 38A 40: 40A 50: 50A 65: 65A 80: 80A 95: 95A	N: reversible AC Contact with mechanical interlock Default: AC Contact	06A: 01: 1NC 10: 1NO 09-95A: 11: 1NO+1NC	B: 24V C: 36V E: 48V F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V	5: 50Hz 7: 50/60Hz
120-630A	120: 120A 160: 160A 185: 185A 225: 225A 265: 265A 330: 330A 400: 400A 500: 500A 630: 630A	Default: AC Contact	Default: 22: 2NO+2NC	F: 110V S: 127V M: 220V Q: 380V EHE7: 48-130V KUE7: 100-250V URE7: 250-500V EHE7: 48-130V KUE7: 100-250V URE7: 250-500V	Default: 5: 50Hz 7: 50/60Hz

Note: 265-630A only wide coil voltage ratings available (EHE7 , KUE7 , URE7)

HDC3 AC Contactors

Standard: IEC60947-4



AC Contactors HDC3 Series



FEATURES

- Wide range of operating voltage
- Complete set of accessories
- 5 frame sizes
- Can be combined with HDR3s (thermal overload relay)

APPLICATIONS

- Machine tool
- Hoisting machinery
- Textile machinery
- Building material machines
- Welding machine

HDC3 AC Contactors

Standard: IEC60947-4



Technical Parameter															
AC Contactors			HDC3												
Contactor model			06	09	12	18	25	32	38	40	50	65	80	95	
Main circuit characteristics															
Conventional thermal current(I _{th}), AC-1	380/400V	A	16	25	25	32	40	50	50	60	80	80	125	125	
		A	6	9	12	18	25	32	38	40	50	65	80	95	
Rated operating current (I _e), AC-3	220/230V	kW	1.1	2.2	3	4	5.5	7.5	11	11	15	18.5	22	25	
	380/400V	kW	2.2	4	5.5	7.5	11	15	18.5	18.5	22	30	37	45	
	660/690V	kW	3	5.5	7.5	10	15	18.5	18.5	30	33	37	45	45	
Rated operating power(P _e), AC-3															
Mechanical endurance		10k times	1200				1000			900			650		
Electrical endurance		10k times	110						90				65		
Operation frequency			AC-3 Times/hour	1200						600					
Number of poles			3P												
Rated insulation voltage(U _i)		V	690												
Maximum rated operating voltage(U _e)		V	660/690												
Certificate			CB, CE, SEMKO												
Coil															
Rated control circuit voltage(Us)	50Hz	V	24, 36, 48, 110, 127, 220/230, 240, 380/400, 415, 440												
	50/60Hz	V	24,36, 48, 110, 127, 220/230, 240, 380/400, 415, 440												
Allowable control circuit voltage(Us)	Operation	V	AC:70%~120% (vertical installation)												
	Drop-out	V	AC: 20%-75%												
Coil power	Actuation	VA	50	60		70			200			200			
	Holding	VA	6-9.5	6-9.5		6-9.5			15-20			15-20			
Main circuit terminal wiring capability															
Soft wire	1 wire	mm ²	1...4				1.5...6			2.5..25			4...50		
	2 wire	mm ²	1...4				1.5...6			2.5..16			4...25		
Hard wire	1 wire	mm ²	1...4				1.5...6		1.5...10		2.5..25			4...50	
	2 wire	mm ²	1...4				1.5...6		1.5...6		2.5..10			4...25	
Auxiliary contact															
Conventional thermal current(I _{th})		A	10												
Rated operating voltage	AC	V	380												
	DC	V	220												
Rated control capacity	AC-15	VA	380												
	DC-13	W	33												

MOTOR MANAGEMENT

HDC3 AC Contactors

Standard: IEC60947-4










Main technical parameter											
AC Contactor			HDC3								
Contactor model			120	160	185	225	265	330	400	500	630
Main Circuit Characteristic											
Conversional thermal current(I _{th}), AC-1	380/400V	A	200	200	275	275	315	380	450	630	700
		A	120	160	185	225	265	330	400	500	630
Rated operating current (I _e), AC-3	220/230V	kW	37	45	55	63	75	90	132	160	200
	380/400V	kW	55	75	90	110	132	160	220	250	355
	660/690V	kW	80	100	110	110	165	220	300	350	450
Mechanical Durabilities		10k times	600								
Electrical Durabilities		AC-3	10k times	120			80			60	
Operation Frequency			Times/hour	1200			600				
Number of Poles			3P								
Rated Insulation Voltage(U _i)		V	1000								
Maximum Rated Operating Voltage(U _e)		V	690								
Certificate			CB, CE, SEMKO								
Coil											
Rated Control Circuit Voltage(Us)	50Hz	V	110V,127V,220V,380V				-				
	50/60Hz	V	48-130V, 100-250V, 250-500V (AC-DC)								
Allowable Control Circuit Voltage(Us)	Operation	V	AC:85%-110% (vertical installation); AC-DC: 85%-110%								
	Drop-out	V	AC: 20%-75%; AC-DC: 10%-70%								
Coil Power	Actuation	VA	500			600			800		
	Holding	VA	78			18.5			18.5		
Main Circuit terminal Wiring Capability											
Soft Wire	1 wire	mm ²	10~240								
	2 wire	mm ²	10~75								
Hard Wire	1 wire	mm ²	10-150				50-240				
	2 wire	mm ²	10-75				50-240				
Auxiliary Contact											
Conventional Thermal Current(I _{th})		A	10								
Rated Operating Voltage	AC	V	380								
	DC	V	220								
Rated Control Capacity	AC-15	VA	380								
	DC-13	W	33								

HDC3 AC Contactors

Standard: IEC60947-4








Technical Parameter													
AC Contactors	HDC3												
Contactor model		06	09	12	18	25	32	38	40	50	65	80	95
Thermal relay													
HDR3s thermal relay 6-95 A		HDR3s-25 P16 : 0.1-0.16A P25 : 0.16-0.25A 25 : 17-25A				HDR3s-38 32 : 23-32A 38 : 30-40A				HDR3s-95 40 : 30-40A 50 : 37-50A 93 : 80-93A			
Independent installation base		HJRS1D25J				HJRS1D38J				HJRS1D93J			
Accessories													
Top auxiliary contact		2 Poles : HF4-11, HF4-20, HF4-02 4 Poles : HF4-22, HF4-31, HF4-13, HF4-40, HF4-40											
Side auxiliary contact		2 Poles : HFC6-11, HFC6-20, HFC6-02											
Air delayed head		Making time delay : HFT6-20, HFT6-22, HFT6-24 Breaking time delay : HFT6-30, HFT6-32, HFT6-34											
Mechanical interlock		HDC3 09-32 horizontal installation : HRF6-32 HDC3 40-95 horizontal installation : HRF6-95											
Spare coil		HX3 + Contact AF + Ue + Hz EXP : HX395M7, HDC3 Coil 80-95A 220/230V 50/60Hz											

MOTOR MANAGEMENT

HDC3 AC Contactors

Standard: IEC60947-4



Technical Parameter											
AC Contactors	HDC3										
Contactor model HDC3		120	160	185	225	265	330	400	500	630	
Thermal relay											
HDR3s thermal relay 120-630 A				HDR3s-185 95 : 75-95A 135 : 105-135A 185 : 150-185A				HDR3s-630 200F : 145-200A 250F : 180-250A 630F : 460-630A			
Accessories											
Top auxiliary contact				2 Poles : HF4-11, HF4-20 , HF4-02 4 Poles : HF4-22, HF4-31 , HF4-13 , HF4-40 , HF4-40							
Side auxiliary contact				2 Poles : HFC4-11							
Air delayed head				Making time delay : HFT6-20 , HFT6-22 , HFT6-24 Breaking time delay : HFT6-30 , HFT6-32 , HFT6-34							
Mechanical interlock	Please connect with local Himel Sales to check availability										
Spare coil				EXP : HX3225M, HDC3 Coil 120-225A 220VAC 50Hz HX3225KUE7, HDC3 Coil 120-225A 100-250VAC/DC 50/60Hz							

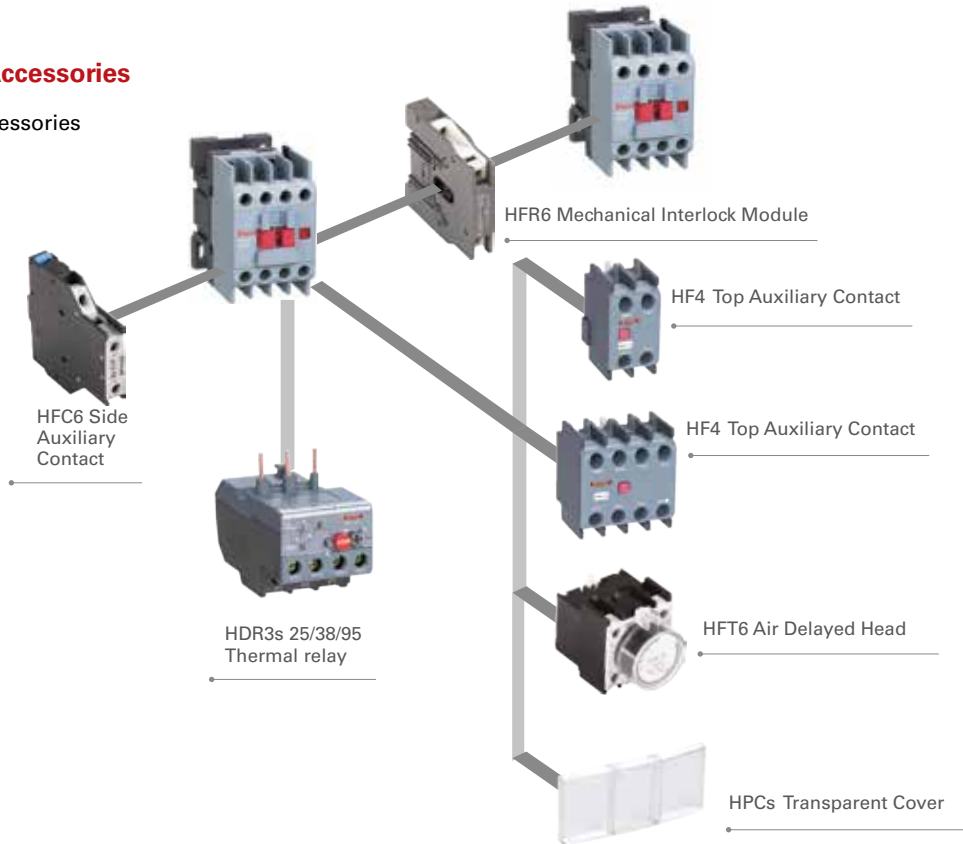
HDC3 AC Contactors

Standard: IEC60947-4

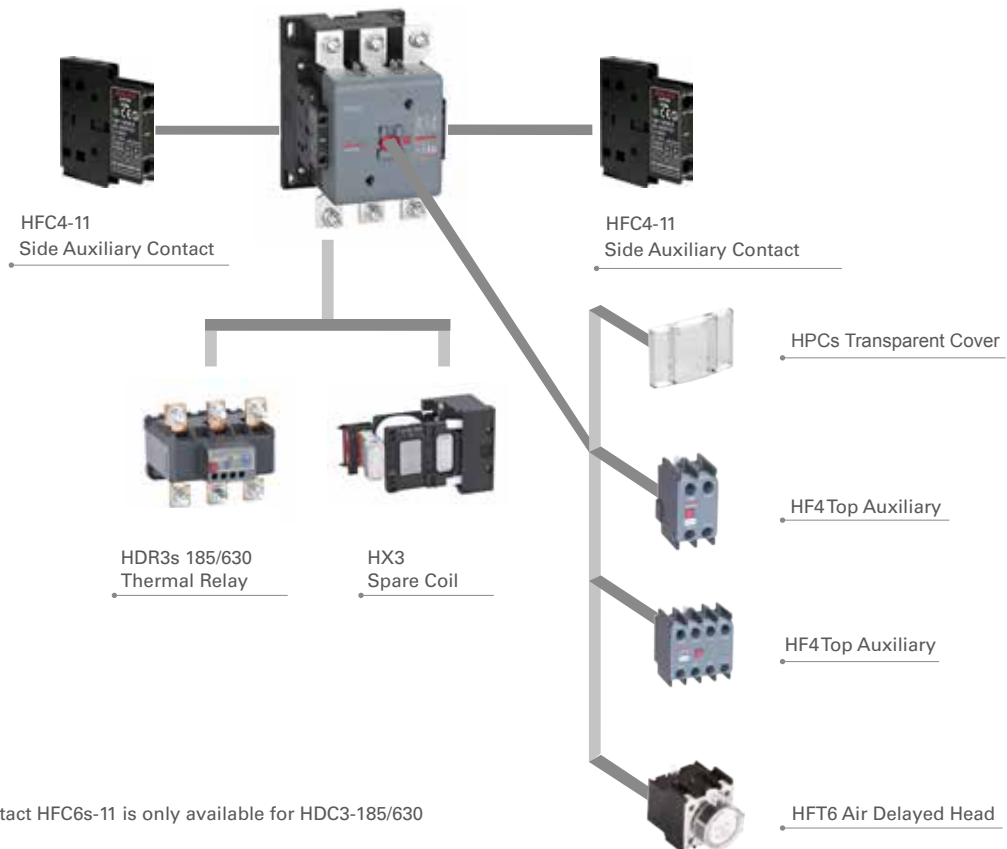


Overview of Accessories

HDC3 09-95A Accessories



HDC3 120-630A Accessories



Note: Side Auxiliary Contact HFC6s-11 is only available for HDC3-185/630

MOTOR MANAGEMENT

HDC3 AC Contactors

Standard: IEC60947-4



HDC3 6-95A & 120-630A Contactor Accessories

Transparent cover

Contactor Type	Reference
HDC3-6~38A/HDZ3	HPCs38
HDC3-40~65A	HPCs65
HDC3-80~630A	HPCs95

Auxiliary contact

Installation position	Pole	Auxiliary Contact NO	Auxiliary Contact NC	Contact point layout	Reference	
Top	2	0	2		HF4 02	
		1	1		HF4 11	
		2	0		HF4 20	
	4	0	4		HF4 04	
		1	3		HF4 13	
		2	2		HF4 22	
		3	1		HF4 31	
	Side	2	0	2		HFC6 02
			1	1		HFC6 11
			2	0		HFC6 20



Air Delayed Head

Installation Position	Delay type	Wiring diagram	Delay range	Reference
Top	Making time-delay		0.1-3s	HFT6 20
			0.1-30s	HFT6 22
			10-180s	HFT6 24
	Breaking time-delay		0.1-3s	HFT6 30
			0.1-30s	HFT6 32
			10-180s	HFT6 34



MOTOR MANAGEMENT

HDR3s Thermal Overload Relays

Standard: IEC60947-4



Range Presentation

HDR3s is Himel 3 series range of thermal overload relays designed to provide protection against overload, phase loss and current imbalance.

HDR3s thermal overload relays can be combined with HDC3 contactors into motor starter.

Features

- ◆ Frame Rating Current: 25, 38, 93, 185, 630A
- ◆ Setting Current: 0.1-630 A

Online Content



HDR3s

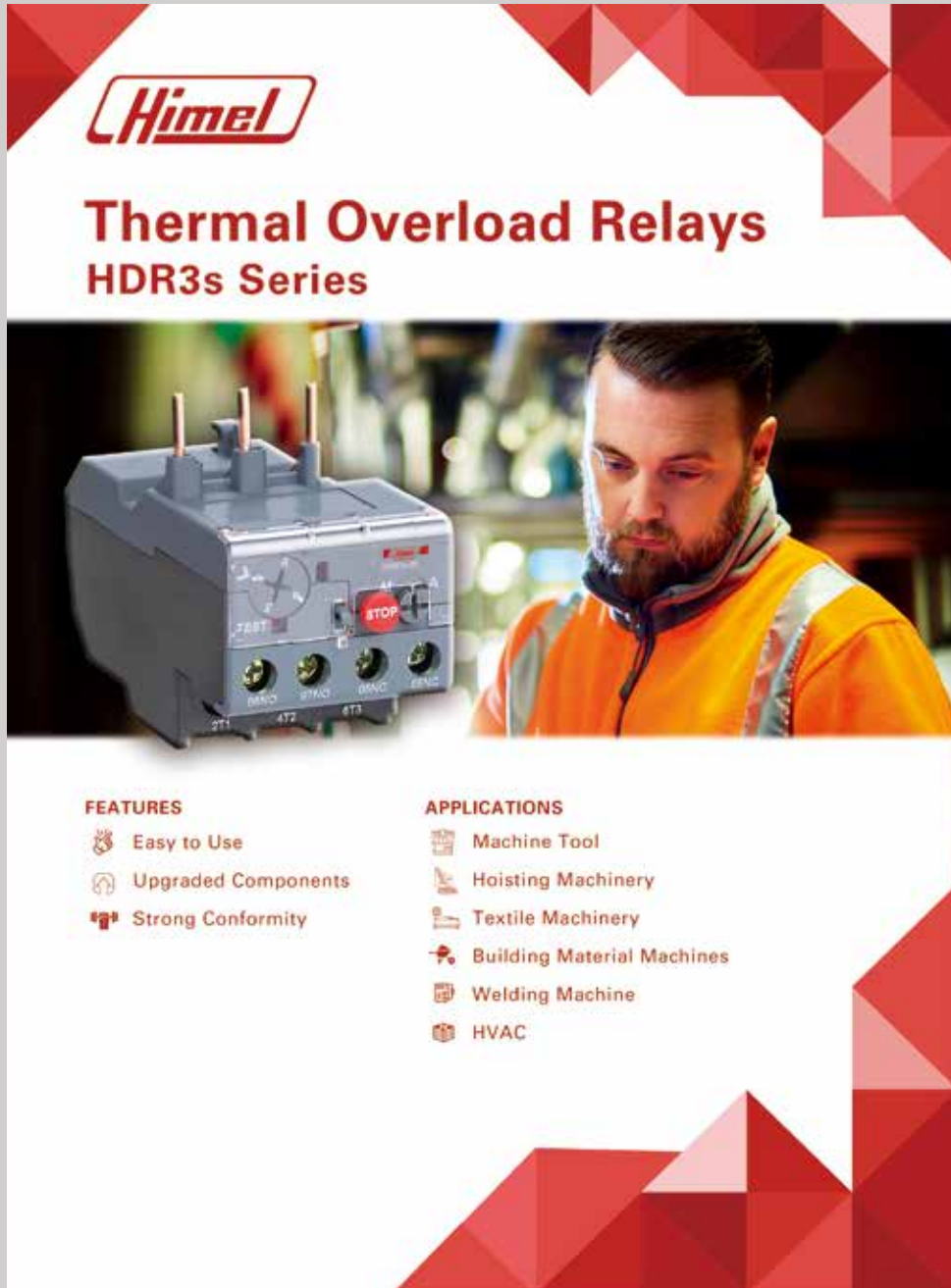
Selection Code

Range name	Frame size	Setting currents
HDR3s	25	P16
HDR3s	25: 25A	P16: 0.1- 0.16A 25: 17 - 25A
	38: 38A	32: 25 - 32A 40: 32 - 38A
	93: 93A	10: 7.0- 10A 93: 80 - 93A
	185: 185A	65: 48-65A 185: 150-185A
	630: 630A	200: 145-200A 630: 460-630A

Technical Parameters				
Thermal overload relay	HDR3s			
Main technical parameters				
Temperature compensation	-5°C~+40°C			
HDR3s Thermal Relay	25	38	93	185
Trip level	10A		10	10A
Rated insulation voltage(Ui) V	660V		690V	
Base	HJRS1D25J	HJRS1D36J	HJRS1D93J	-
Certificate	CB, CE, SEMKO			
Product features				
Overload protection	Yes			
Phase-failure protection	Yes			
Manual reset	Yes			
Automatic reset	Yes			
Stop button	Yes			
Test button	Yes			
Trip indication	Yes			
Tolerance on slope in any direction	±5°			
Auxiliary circuit 1NO+1NC				
Utilization category	AC-15			DC-13
Rated frequency Hz	50/60		50/60	
Rated insulation voltage (Ui) V	500		500	
Rated operating voltage (Ue) V	230		400	
Rated operating current Ie A	1.57		0.90	
Conventional thermal current Ith A	5		5	
Wiring	1mm ²			


HDR3s Thermal Overload Relays

Standard: IEC60947-4



Himmel

Thermal Overload Relays HDR3s Series



FEATURES

- Easy to Use
- Upgraded Components
- Strong Conformity

APPLICATIONS

- Machine Tool
- Hoisting Machinery
- Textile Machinery
- Building Material Machines
- Welding Machine
- HVAC

MOTOR MANAGEMENT

HJX2 4P AC Contactors

Standard: IEC60947-4



Range Presentation

HJX2 & HJX2F 4P AC Contactor is Himel HJX series range of contactors designed for Motor Control AC3 applications up to 800A 690V.

HJX2 & HJX2F contactors are applicable to AC power systems 50Hz or 60Hz with rated operating voltage up to 690V.

HJX2 & HJX2F contactors can be combined with HDR3s thermal overload relays to provide overload protection.

Features

- ◆ Current specifications: 9-800A
- ◆ Pole: 4-pole
- ◆ Coil voltage: 24-440V
- ◆ Coil frequency: 50/60Hz

Online Content



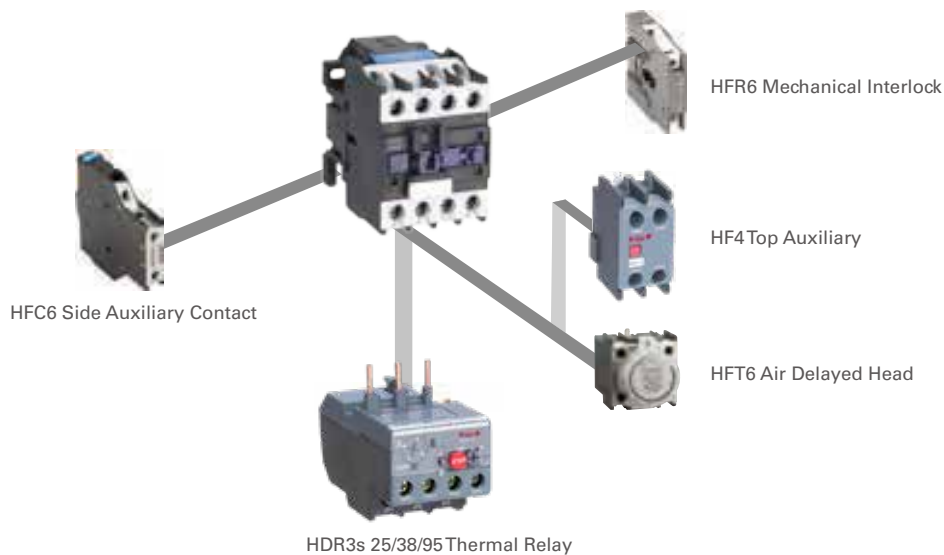
HJX2

Selection Code

Range name	Current specification	Main contact	Coil voltage	Coil frequency
HJX2	09	4	M	7
HJX2	09: 09A 95: 95A	04: 4NO+0NC 08: 2NO+2NC	B: 24V C: 36V E: 48V F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V	7: 50/60Hz

Overview of Accessories

HJX2 4P AC Contactor 09-95A



MOTOR MANAGEMENT

HJX2 4P AC Contactors

Standard: IEC60947-4



Technical Parameters									
AC Contactors		HJX2-09	HJX2-12	HJX2-25	HJX2-40	HJX2-50	HJX2-65	HJX2-80	HJX2-95
Main circuit characteristics									
Maximum rated operating voltage (Ue)		690V							
Rated insulation voltage (Ui)		690V							
Rated impulse withstand voltage (Uimp)		8kV							
Conventional thermal current A		25	25	40	60	80	80	125	125
Rated Operating Current	380/400V AC-3 A	9	12	25	40	50	65	80	95
	660/690V AC-3 A	6.6	8.9	18	34	39	42	49	49
	380/400V AC-4 A	3.3	5	8.5	18.5	24	28	37	44
	660/690V AC-4 A	1.5	2	4.4	9	12	14	17.3	21.3
Rated power of controlled 3-phase cage motor	380/400V AC-3 KW	4	5.5	11	18.5	22	30	37	45
	660/690V AC-3 KW	5.5	7.5	15	30	33	37	45	45
	380/400V AC-4 KW	1.2	2.2	4	7.5	11	15	18.5	22
	660/690V AC-4 KW	1.1	1.5	4	7.5	11	11	15	18.5
Electric durabilities	AC-3 ×10 ⁴ operations	100	100	100	80	80	80	60	60
	AC-4 ×10 ⁴ operations	20	20	20	15	15	15	10	10
Mechanical durabilities ×10 ⁴ operations		1000	1000	1000	800	800	800	600	600
Operating frequency	AC-3 cycles/h	1200	1200	1200	600	600	600	600	600
	AC-4 cycles/h	300	300	300	300	300	300	300	300
Matched fuse		HRT16-25	HRT16-25	HRT16-50	HRT16-63	HRT16-80	HRT16-80	HRT16-125	HRT16-125
Cable connection cross section mm ²		1.5	1.5	4	10	16	16	25	35
Certificate		SEMKO							
Coil									
Coil voltage(Us)		V AC 24V, 36V, 110V, 220V, 380V							
Operating voltage		V 85%...110% Us							
Drop-out voltage		V 20%...75% Us							
Coil power	Actuation VA	70	70	110	200	200	200	200	200
	Holding VA	9	9	11	24	24	24	24	24
	Heat dissipation W	2.7	2.7	4	10	10	10	10	10
Terminal wiring ability									
Flexible wire without terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 16	2.5 - 16	2.5 - 16	4 - 25	4 - 25
Flexible wire with terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 2.5	1 - 2.5	1 - 4	2.5 - 10	2.5 - 10	2.5 - 10	4 - 16	4 - 16
Fixed wire without terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 16	2.5 - 16	2.5 - 16	4 - 25	4 - 25
Auxiliary contact									
Rated thermal Current (Ith)		A 10							
Rated operating Voltage (Ue)	AC	V 400							
	DC	V 220							
Rated control capacity	AC-15	VA 360							
	DC-13	VA 33							

MOTOR MANAGEMENT

HJX2-F 4P AC Contactors

Standard: IEC60947-4



Range Presentation

HJX2 & HJX2F 4P AC contactor is Himel range of contactors designed for Motor Control AC3 applications up to 800A 690V.

HJX2 & HJX2F contactors are applicable to AC power systems 50Hz or 60Hz with rated operating voltage up to 690V.

HJX2 & HJX2F contactors can be combined with HDR3s thermal overload relays to provide overload protection.

Features

- ◆ Current Specifications: 115-800A
- ◆ Pole: 4 poles
- ◆ Coil Voltage: 110-440V
- ◆ Coil Frequency: 50/60Hz

Online Content



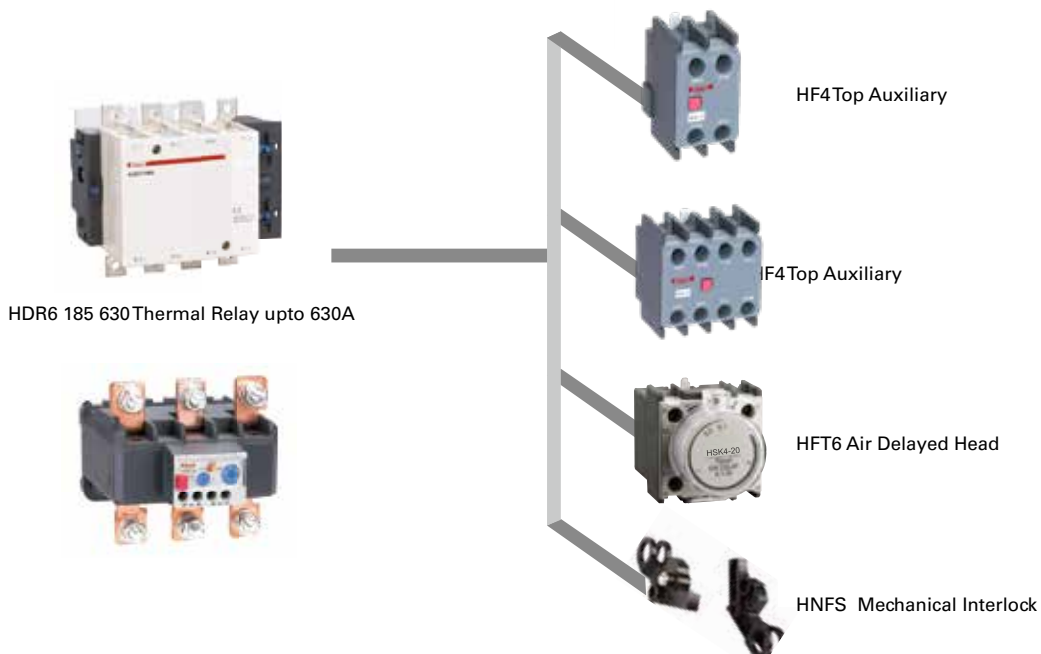
HJX2-F

Selection Code

Range name	Current specification	Main contact	Coil voltage	Coil frequency
HJX2F	115	4	M	7
HJX2F	115: 115A 150: 150A 800: 800A	4: 4NO+0NC	F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V	7: 50/60Hz

Overview of Accessories

HJX2F 4P AC Contactor 115-800A



MOTOR MANAGEMENT

HJX2-F 4P AC Contactors

Standard: IEC60947-4



Motor Control & Protection

Technical Parameters									
AC Contactors		HJX2-09	HJX2-12	HJX2-25	HJX2-40	HJX2-50	HJX2-65	HJX2-80	HJX2-95
Main circuit characteristics									
Maximum rated operating voltage (Ue)		690V							
Rated insulation voltage (Ui)		690V							
Rated impulse withstand voltage (Uimp)		8kV							
Conventional thermal current A		25	25	40	60	80	80	125	125
Rated Operating Current	380/400V AC-3 A	9	12	25	40	50	65	80	95
	660/690V AC-3 A	6.6	8.9	18	34	39	42	49	49
	380/400V AC-4 A	3.3	5	8.5	18.5	24	28	37	44
	660/690V AC-4 A	1.5	2	4.4	9	12	14	17.3	21.3
Rated power of controlled 3-phase cage motor	380/400V AC-3 KW	4	5.5	11	18.5	22	30	37	45
	660/690V AC-3 KW	5.5	7.5	15	30	33	37	45	45
	380/400V AC-4 KW	1.2	2.2	4	7.5	11	15	18.5	22
	660/690V AC-4 KW	1.1	1.5	4	7.5	11	11	15	18.5
Electric durabilities	AC-3 ×10 ⁴ operations	100	100	100	80	80	80	60	60
	AC-4 ×10 ⁴ operations	20	20	20	15	15	15	10	10
Mechanical durabilities ×10 ⁴ operations		1000	1000	1000	800	800	800	600	600
Operating frequency	AC-3 cycles/h	1200	1200	1200	600	600	600	600	600
	AC-4 cycles/h	300	300	300	300	300	300	300	300
Matched fuse		HRT16-25	HRT16-25	HRT16-50	HRT16-63	HRT16-80	HRT16-80	HRT16-125	HRT16-125
Cable connection cross section mm ²		1.5	1.5	4	10	16	16	25	35
Certificate		SEMKO							
Coil									
Coil voltage(Us)		V AC 24V, 36V, 110V, 220V, 380V							
Operating voltage		V 85%...110% Us							
Drop-out voltage		V 20%...75% Us							
Coil power	Actuation VA	70	70	110	200	200	200	200	200
	Holding VA	9	9	11	24	24	24	24	24
	Heat dissipation W	2.7	2.7	4	10	10	10	10	10
Terminal wiring ability									
Flexible wire without terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 16	2.5 - 16	2.5 - 16	4 - 25	4 - 25
Flexible wire with terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 2.5	1 - 2.5	1 - 4	2.5 - 10	2.5 - 10	2.5 - 10	4 - 16	4 - 16
Fixed wire without terminal block	1pc(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 25	2.5 - 25	2.5 - 25	4 - 50	4 - 50
	2pcs(Section of connecting conduction mm ²)	1 - 4	1 - 4	1.5 - 6	2.5 - 16	2.5 - 16	2.5 - 16	4 - 25	4 - 25
Auxiliary contact									
Rated thermal Current (Ith)		A 10							
Rated operating Voltage (Ue)	AC	V 400							
	DC	V 220							
Rated control capacity	AC-15	VA 360							
	DC-13	VA 33							

MOTOR MANAGEMENT

HDC17K Miniature AC Contactors

Standard: IEC60947-4



Range Presentation

HDC17K is Himel Miniature AC Contactor for remote make and break of circuits. It facilitates seamless functioning of applications requiring frequent start and stop of small power motors.

Features

- ◆ Current: 6-12A
- ◆ Pole: 3/4-pole
- ◆ Coil voltage: 24-400V
- ◆ Coil frequency: 50/60Hz

Online Content



HDC17K

Selection Code

Range name	Current specification	Main contact	Auxiliary contact	Coil voltage	Coil frequency
HDC17K	06	30	10	M	5
HDC17K	06: 06A 09: 09A 12: 12A	30: 3NO 40: 4NO 22: 2NO+2NC	10: 1NO 01: 1NC	B: 24V C: 36V F: 110V S: 127V M: 220/230V Q: 380/400V	7: 50/60Hz

Order Information

Motor P(kW) 380V	Rated current(A)	Main contact		Auxiliary contact		Reference
		NO	NC	NO	NC	
2.2	6	3	0	1	0	HDC17K63010*
		3	0	0	1	HDC17K63001*
		4	0	0	0	HDC17K64000*
		2	2	0	0	HDC17K62200*
4	9	3	0	1	0	HDC17K93010*
		3	0	0	1	HDC17K93001*
		4	0	0	0	HDC17K94000*
		2	2	0	0	HDC17K92200*
4	12	3	0	1	0	HDC17K123010*
		3	0	0	1	HDC17K123001*
		4	0	0	0	HDC17K124000*

HDC17K Miniature AC Contactors

Standard: IEC60947-4



Technical Parameters					
Miniature AC Contactors			HDC17-K06	HDC17-K09	HDC17-K12
Main circuit characteristics					
Rated operating current	380V/400V, AC-3	A	6	9	12
	380V/400V, AC-4	A	2.6	3.5	5
	660V/690V, AC-3	A	3.5	5	6
	660V/690V, AC-4	A	1.2	1.5	2
Rated operating voltage		V	220/230, 380/400, 660/690		
Rated insulation voltage		V	690		
Rated conventional thermal current		A	16	20	20
Pole			3, 4		
Power of controlled 3-phase cage motor	220V/230V, AC-3	kW	1.5	2.2	3
	380V/400V, AC-3	kW	2.2	4	5.5
	660V/690V, AC-3	kW	3	4	4
Electric endurance	AC-3	×10 ⁴ operations	100		
Operating rate			cycles/h	1200	
Electric endurance	AC-4	×10 ⁴ operations	20		
Operating rate			cycles/h	600	
Mechanical endurance			×10 ⁴ cycles	1000	
Matched Fuse			HRT16-16	HRT16-20	
Cable connection	Inflexible cable	number of piece	2		
	Cross Section of Cable	mm ²	4		
Certificate			CB, CE		
Coil					
Coil voltage(Us)		V	AC 24V,36V,110V,127V,220/230V,380/400V		
Operating voltage		V	85%~110% Us		
Drop-out voltage		V	20%~75% Us		
Inrush		VA	30		
Auxiliary contact					
Rated conventional thermal current		V	690		
Rated insulation voltage		A	10		
Rated operating current		A	0.95		
Control capacity	380V, AC-15	A	0.15		
	220V, DC-13	VA	360		
	AC-15	W	33		
	DC-13				

MOTOR MANAGEMENT

HDZ3 Contactor Relays

Standard: IEC60947-4



Range Presentation

HDZ3 is Himel 3 series range of contactor relays designed for industrial control applications.

HDZ3 contactor relays are suitable for both AC and DC 50/60Hz control circuits.

Features

- ◆ For both DC and AC 50/60Hz control circuits
- ◆ 3 poles, similar design as HDC3 contactor
- ◆ 4 contacts with different NO+NC combinations
- ◆ Wide range of coil voltages 24V-440V

Online Content

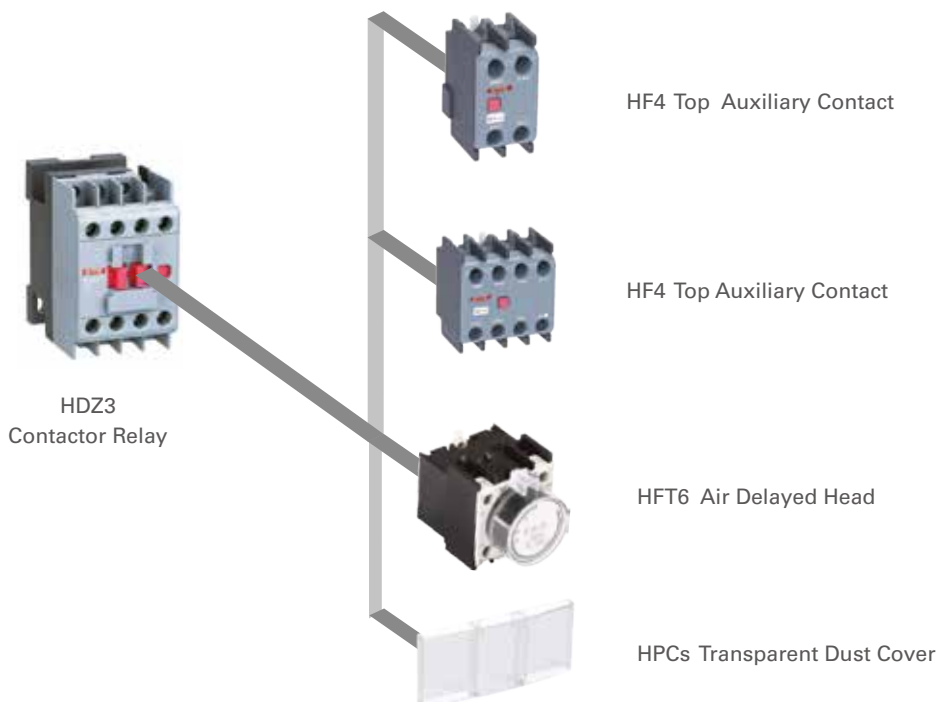


HDZ3

Selection Code

Range name	Main contact	Coil voltage	Coil frequency
HDZ3	22	M	5
HDZ3	22: 2NO+2NC 31: 3NO+1NC 40: 4NO+0NC 13: 1NO+3NC 04: 0NO+4NC	B: 24V C: 36V E: 48V F: 110V S: 127V M: 220/230V U: 240V Q: 380/400V L: 415V X: 440V	5: 50Hz 7: 50/60Hz

Overview of Accessories



HDZ3 Contactor Relays

Standard: IEC60947-4



Technical Parameters		
Contactor Relays		HDZ3
Rated insulation voltage (Ui)	V	690
Conventional thermal current (Ith)	A	10
Rated operating current (Ie)	A	AC-15 380V: 0.95
		DC-13 220V: 0.15
Contact combination		2NO+2NC, 3NO+1NC, 4NO+0NC, 1NO+3NC, 0NO+4NC
Electrical endurance	10,000 times	110
Mechanical endurance	10,000 times	1100
Operating frequency	times/Hour	1200
Rated control circuit voltage(Us)	50Hz	24, 36, 48, 110, 127, 220/230, 240, 380/400, 415, 440
	50/60Hz	24, 36, 48, 110, 127, 220/230, 240, 380/400, 415, 440
Operating voltage range	V	AC 85%...110% Us
Drop-out voltage range	V	AC 20%...75% Us
Certificate		CE, CB, SEMKO

MOTOR MANAGEMENT

HDP6 Motor Circuit Breakers

Standard: IEC60947-4



Range Presentation

HDP6 Motor Circuit Breaker range optimizes and secures your installation from HVAC to small genset applications. Proven for the best performance of packaging or pumping businesses, they facilitate superior protection from overload, phase-loss, and short circuit.

Features

- ◆ Frame Current: 32A, 80A
- ◆ Setting Current: 0.1-32A, 25-80A

Online Content



HDP6

Selection Code

Range name	Frame size	Setting currents
HDP6	32	P16
HDP6	32: 32A	P16: 0.1-0.16A 32: 24-32A
HDP17Z	80: 80A	40: 25-40A 63: 40-63A 80: 56-80A

Order Information

Thermal release Setting current	Magnetic release Current Id	400/415V, 50/60Hz, AC-3 Rated operating power	Recommended Contactor	Reference
0.1-0.16A	1.5A	-	HDC3-0911	HDP632P16
0.16-0.25A	2.4A	0.06kW	HDC3-0911	HDP632P25
0.25-0.4A	5A	0.09kW	HDC3-0911	HDP632P4
0.4-0.63A	8A	0.12kW	HDC3-0911	HDP632P63
0.63-1A	13A	0.25kW	HDC3-0911	HDP6321
1-1.6A	22.5A	0.37kW	HDC3-0911	HDP6321P6
1.6-2.5A	33.5A	0.75kW	HDC3-0911	HDP6322P5
2.5-4A	51A	1.5kW	HDC3-0911	HDP6324
4-6.3A	78A	2.2kW	HDC3-0911	HDP6326P3
6-10A	138A	4kW	HDC3-0911	HDP63210
9-14A	170A	5.5kW	HDC3-1211	HDP63214
13-18A	223A	7.5kW	HDC3-1811	HDP63218
17-23A	327A	9kW	HDC3-2511	HDP63223
20-25A	327A	11kW	HDC3-2511	HDP63225
24-32A	416A	15kW	HDC3-3211	HDP63232
25-40A	480A	16kW	HDC3-4011	HDP17K8040
40-63A	756A	20kW	HDC3-6511	HDP17K8065
56-80A	960A	25kW	HDC3-8011	HDP17K8080

MOTOR MANAGEMENT

HDP6 Motor Circuit Breakers

Standard: IEC60947-4

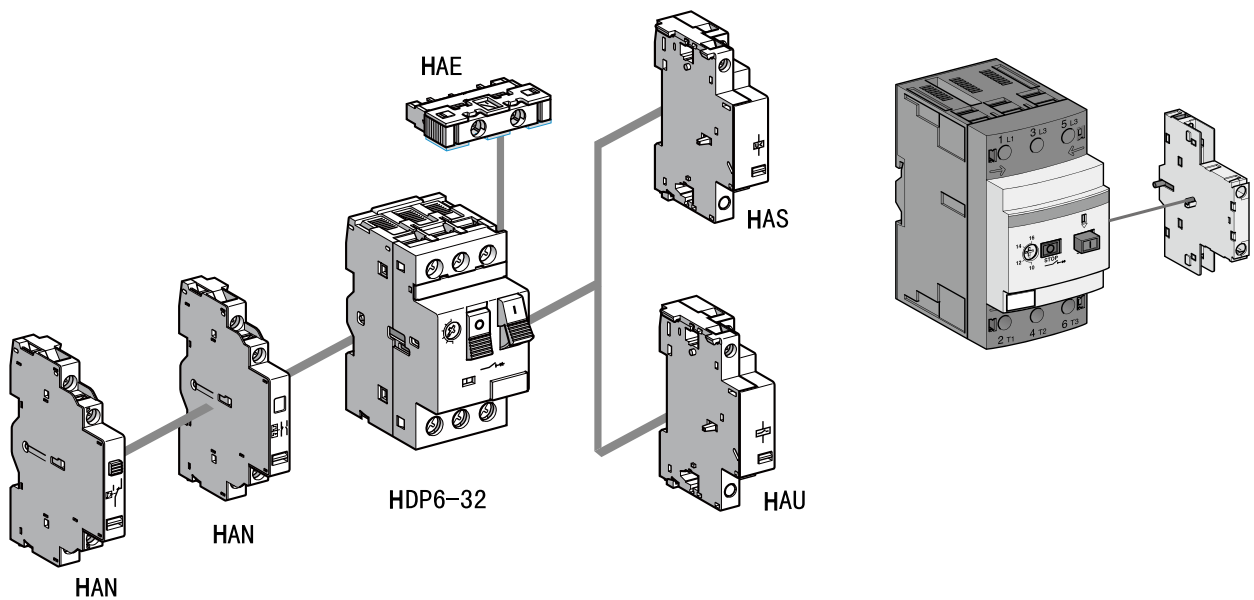


Technical Parameters		
Motor Circuit Breakers	HDP6-32	HDP17Z-80
Operation mode	Button operated	
Frame current	32A	80A
Rated impulse withstand voltage	6000V	
Maximum rated operating voltage	690V	
Rated insulation voltage	400/690V	
Rated operating frequency	50/60Hz	
Trip class	10A	
Fastening torque	1.7N • m	4 N • m
Mechanical durabilities	100,000	
Electrical durabilities AC-3 400V	100000	
Overload protection category	Thermal Overload Protection Open-phase Protection	
Short circuit protection	Yes	
Isolation function	Yes	
Temperature compensation function	Yes	
Accessories	Side Auxiliary Contact Top Auxiliary Contact Shunt release	Side Auxiliary Contact
Certificate	CE, SEMKO	

Overview of Accessories

HDP6-32

HDP17Z-80



MOTOR MANAGEMENT

HDS3 Magnetic Starters

Standard: IEC60947-4



Range Presentation

HDS3 is Himel 3 series range of Magnetic Starter mainly used for AC 50/60Hz control system and maximum rated working voltage up to 660V. Direct start and stop of three-phase squirrel cage induction motor with maximum rated working current up to 95A under AC-3 using type, and overload protection is provided for the motor.

Features

- ◆ Frame size 38 with plastic housing
- ◆ Frame size 18/38/95 with metal housing
- ◆ IP54 Protection level
- ◆ With HDC3 series contactor and HDR3s series thermal relay

Online Content



HDS3

Selection Code

Range name	Frame size	Operation type	Rated current	Coil voltage	Coil frequency	Thermal relay	Housing
HDS3	38	B	09	M	7	P16	
HDS3	18: 18A 38: 38A 95: 95A	B: with push button	09: 9A 12: 12A 18: 18A 25: 25A 32: 32A 38: 38A 40: 40A 50: 50A 65: 65A 80: 80A 95: 95A	C: 36V F: 110V S: 127V M: 220/230V Q: 380/400V L: 415V X: 440V	7: 50/60Hz	P16: 0.1-0.16A 1P6: 1.0-1.6 A 93: 80-93A	Default: Plastic M: Metal Default: M: Metal

Note: Please refer to P(89) for detailed order information.

Technical Parameters

Magnetic Starters	HDS3-18 Metal		HDS3-38 Metal				HDS3-95 Metal					
	HDS3-38 Plastic											
Rated operating current (Ie) AC-3	9A	12A	18A	25A	32A	38A	40A	50A	65A	80A	95A	
Maximum motor power kW (AC-3,380V)	4	5.5	7.5	11	15	18.5	18.5	22	30	37	45	
Horse power hp (AC-3,380V)	5.4	7.4	10.1	20.1	24.8	40.2	40.2	44.2	49.6	60.4	60.4	
Mechanical endurance	10 thousand times		1200		1000		900		650			
Electrical endurance AC-3	10 thousand times		110				90		65			
Operation frequency AC-3	time/h		1200				600					
Rated insulataion voltage (Ui)							690V					
Rated operating voltage (Ue)							240V, 380V/400V, 440V, 660V					
Rated control circuit voltage (Uc)							36V, 110V, 127V, 220/230, 380/400, 415V, 440V					
Coil frequency							50/60Hz					
Operation type							With Pushbutton					
IP grade							IP54					
Certificate							CE, SEMKO					
Standard							IEC 60947-4-1					
Environmental requirement	Altitude							2000m				
	Ambient temperature							-5°C ~ +40°C				
	Storage temperature							-25°C ~ +70°C				
	Installation position							The inclination to the vertical plane does not exceed ±5°				
	Rated withstand voltage							6kV				
	Humidity requirement							The atmospheric relative humidity does not exceed 50% when the highest ambient temperature is +40°C. It is allowed to have a higher humidity under lower temperature, e.g. up to 90% at +25°C and the dew on the product due to the temperature change should be taken into consideration.				
	Installation condition							a. In a medium with no explosion danger, and minimal metal corrosion possibility or damage due to insulated gas and conductive dust b. Snow-proof equipment and lack of water vapour c. Without significant shock and vibration				

HDS3 Magnetic Starters

Standard: IEC60947-4



The advertisement features a white background with red geometric patterns in the corners. At the top left is the 'Himmel' logo in a red-bordered box. Below it, the text 'Magnetic Starters' is written in a large, bold, red font, followed by 'HDS3 Series' in a smaller red font. A central photograph shows a man in a white t-shirt and dark overalls, wearing safety glasses and holding a white hard hat and a mobile phone. To his left is a grey magnetic starter unit with a green 'I' button and a red 'O' button, and the label 'HDS3-38' is visible on its front. Below the photo, there are two columns of text: 'FEATURES' and 'APPLICATIONS', each with a list of items and small icons.

Magnetic Starters

HDS3 Series

FEATURES

- 3 3 frame sizes
- Available in plastic or metal housing
- IP54 protection level

APPLICATIONS

- Machine tool
- Hoisting machinery
- Textile machinery
- Building material machines
- Welding machine
- HVAC

HDS3 Magnetic Starters

Standard: IEC60947-4



Order Information

Motor power pe (KW, AC-3, 380V)	Rated current (A)	Frame size		Setting current (A)		AC Contactor type	Thermal overload relay type	Order reference with pushbutton					
		HDS3		Range	Code	HDC3	HDR3s						
0.37	9	HDS3-18 Metallic		0.1~0.16	P16	HDC3-9A	HDR3s-25	HDS318B09*7P16M /HDS338B09*7P16					
				0.16~0.25	P25			HDS318B09*7P25M /HDS338B09*7P25					
				0.25~0.4	P4			HDS318B09*7P4M /HDS338B09*7P4					
				0.4~0.63	P63			HDS318B09*7P63M /HDS338B09*7P63					
				0.63~1	01			HDS318B09*701M /HDS338B09*701					
				1~1.6	1P6			HDS318B09*71P6M /HDS338B09*71P6					
				1.6~2.5	2P5			HDS318B09*72P5M /HDS338B09*72P5					
1.5	12	HDS3-38 Plastic		2.5~4	04	HDC3-12A	HDR3s-38	HDS318B09*704M /HDS338B09*704					
2.2				4~6	06			HDS318B09*706M /HDS338B09*706					
3				5.5~8	08			HDS318B09*708M /HDS338B09*708					
4				7~10	10			HDS318B12*710M /HDS338B12*710					
5.5				9~13	13			HDS318B18*713M /HDS338B18*713					
7.5				25	HDS3-38 Metallic				12~18	18	HDC3-25A	HDR3s-93	HDS338B25*718M /HDS338B25*718
11									17~25	25			HDS338B25*725M /HDS338B25*725
15	32			23~32	32	HDC3-32A	HDR3s-38	HDS338B32*732M /HDS338B32*732					
18.5	38			30~40	38			HDC3-38A	HDS338B38*740M /HDS338B38*740				
18.5	40	HDS3-95 Metallic		30~40	40	HDC3-40A	HDR3s-93	HDS395B40*740					
22	50			37~50	50			HDC3-50A	HDS395B50*750				
30	65			48~65	65			HDC3-65A	HDS395B65*765				
37	80			63~80	80			HDC3-80A	HDS395B80*780				
45	93A			80~93	93			HDC3-95A	HDS395B95*793				

Himel Soft Starters

Himel Basic (HASBS) is a full-digital intelligent soft-starter for asynchronous motors to effectively control the starting current for asynchronous motors. It is a desired alternative to reduced-voltage motor starters like star-delta, resistance/reactance or auto transformer methods.



Online Content



HASBS

Himel Expert (HASXS) is an advanced soft-starter with a built-in bypass contactor that can control the starting inrush current of asynchronous motors. The integrated contactor reduces the total number of external components (wiring and contactor etc.)



Online Content



HASXS

Capacity Range (Motor capacity in kW)																			
11	15	19	22	30	37	45	55	75	90	110	132	160	200	250	320	400	450	500	600
										HAS-XS-4T									
										HAS-BS-4T									

Multiple start methods

- Current limit soft start
- Ramp voltage soft start
- Ramp voltage + current limit soft start

High robustness

- High anti-interference capability
- Compact design

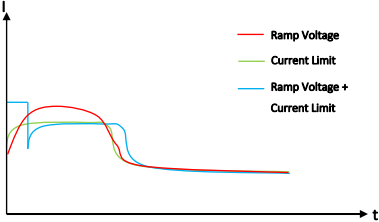

Motor protections

- Overcurrent, overload protection
- Phase-loss protection
- Over-heating protection
- 3-phase imbalance

Easy to use

- 24 hour monitoring
- Quick diagnosis

Highlights

Features	Your benefits	
Multiple start methods		
 <p>The graph plots current (I) on the vertical axis against time (t) on the horizontal axis. Three curves are shown: a red curve for 'Ramp Voltage' which rises to a peak and then decays; a green curve for 'Current Limit' which rises to a peak and then drops sharply; and a blue curve for 'Ramp Voltage + Current Limit' which rises to a peak, stays there for a short duration, and then decays.</p>	<ul style="list-style-type: none"> ◆ Current limit soft start ◆ Ramp voltage soft start ◆ Ramp voltage + current limit soft start 	<ul style="list-style-type: none"> ◆ Provides multiple starting methods to meet different application needs
High Robustness		
 <p>The illustration shows a black power supply unit with a lightning bolt symbol and a sine wave, representing its ability to handle high-frequency noise and electromagnetic interference.</p>	<ul style="list-style-type: none"> ◆ High anti-interference capability ◆ Compact design ◆ 3 sets of thyristors to control start/stop voltage 	<ul style="list-style-type: none"> ◆ Better electromagnetic immunity against signal noises ◆ Supports longer connection cables. ◆ Unique compact design with double-layer shell consisting of plastic upper layer and metal lower layer makes it durable and nice looking ◆ 3 sets of thyristors provides better performance, safety and reliability
Motor protections		
 <p>A shield icon with a black and white checkered pattern, symbolizing protection and safety.</p>	<ul style="list-style-type: none"> ◆ Overcurrent, overload protection ◆ Phase-loss protection ◆ Over-heating protection ◆ 3-phase imbalance 	<ul style="list-style-type: none"> ◆ Protect your motor against different abnormalities
Easy to use		
 <p>An icon showing a hand pointing at a magnifying glass over a gear, symbolizing ease of use, diagnosis, and monitoring.</p>	<ul style="list-style-type: none"> ◆ Easy tuning ◆ 24-hour monitoring ◆ Quick diagnosis 	<ul style="list-style-type: none"> ◆ 8 segment LED display to monitor different parameters and troubleshooting. ◆ Easy to maintain

Himel Soft Starters

Range		HASBS	HASXS
Applications		Controlled acceleration/deceleration of simple and complex machines	
Design			
Power Range	Three Phase 380...440V	11...600kW	
Drive	Control Type	Current limit, voltage ramp, voltage ramp + current limit	
Functions	Bypass	Need to install externally	Integrated
	Operation control mode	Keypad/external terminals/RS485 Modbus communication	
	Start mode	Current limit/voltage limit/current + voltage limit	
	Adjustable Acceleration/Deceleration time	√	√
	Start delay	√	√
	Emergency stop	√	√
	Current Limit function	√	√
	Initial voltage setting	√	√
	No/Light load detection	Protects against accidents such as belt tripping	
	Auto-restart	√	√
	Fault signal	Relay output - AC 250V 5A, DC 30V 5A	
	Multifunction relay output	Start delay, start, running, stop, complete stop, restart	
	Analog output	0~20mA / 4~20mA, optional	
	Protections	Overcurrent, overload, overheat, phase imbalance, phase-loss, light load, external fault	
	Alarms	Emergency shutdown, light load and restart	
Keypad		Pluggable	
Working Conditions	Rated insulation voltage	660V	
	Rated impulse withstand voltage	4kV	
IP rating	IP20	11 to 55kW	-
	IP00	75 to 600kW	11 to 600kW
Environment	Operation frequency	≤ 12 times/h	
	Ambient temperature	-10°C~ 40°C(Derating above 40°C)	
	Storage temperature	-20 °C ~ 65 °C	
	Ambient humidity	Max. 90 % RH (no condensation)	
	Altitude	< 1,000 m (Deration above 1,000 m)	
	Vibration	< 5.9m/s ² (=0.6g)	
Type	No corrosive/inflammable gas, oil mist, dust or others		
Cooling Method	Natural air cooling	11 to 600kW	11 to 75kW
	Forced air cooling	-	93 to 600kW

BASIC Series (HASBS)

Presentation

Himel BASIC soft-starter(HASBS) is an intelligent soft-starter featuring latest electronic, micro-processing and control technology. It offers effective control for the starting current of asynchronous motors via voltage control. It is an ideal alternative to the reduced voltage starters like star-delta, resistance/reactance or auto-transformer methods.

It can cover motors from 11kW to 600kW.

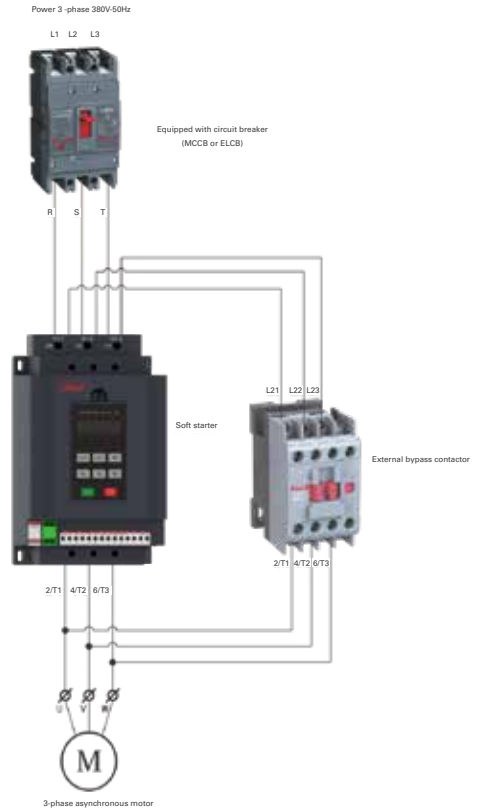
Applications

With its unique, compact design it can be used in harsh environments with the focus on human and other equipment safety. It can be used in typical building or industrial applications:

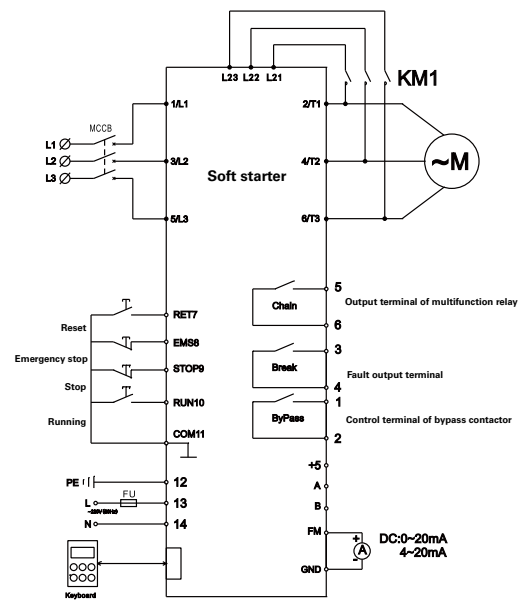
- Pumps
- Fans
- Compressors
- Conveyers
- Complex and advanced machines

Features

- HASBS has 3 starting modes: current-limit, voltage ramp and current limit + voltage ramp.
- Built-in protections include overcurrent, phase loss, short circuit and overheat.
- Multiple control ways like keypad, I/O terminals and Modbus communication.
- Multifunctional output relays provide different signals based on application requirements.



Connection diagram



Wiring diagram

EXPERT Series (HASXS)

Presentation

Himel Expert Soft-starter(HASXS) is an advance soft-starter to control the starting and stopping of asynchronous motors via voltage control. It can cover motors from 11kW to 600kW. HASXS comes with a built-in bypass contactor hence reducing the total number of external components required by the system.

The starting inrush current to the motor is controlled by managing the voltage to the motor. Silicon-controlled rectifiers (SCRs) are used to control the voltage. These SCRs are bypassed at the end of starting phase using built-in contactor.

Integrated keypad allows user to program the soft-starter and monitor different parameters according to the customer requirements.

Applications

Himel Expert soft-starter (HASXS) is designed for rugged applications with the focus on safety and reduced commissioning times. It can be used in typical building or industrial applications:

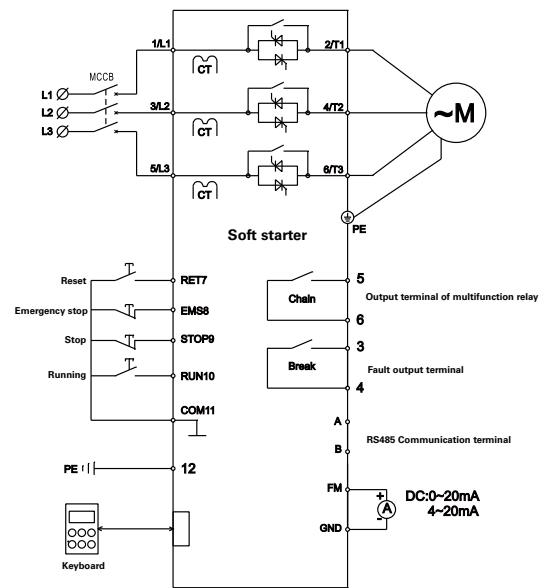
- Pumps
- Fans
- Compressors
- Conveyers
- Complex and advanced machines

Features

- Integrated bypass contactor.
- HASXS has 3 starting modes: current-limit, voltage ramp and current limit + voltage ramp.
- High performance microprocessor makes it highly reliable.
- Opto-electronic isolation provides high anti-interference performance.
- New optimized and compact design
- Built-in protections include overcurrent, phase loss, short circuit and overheat.
- User can monitor different system parameters hence making it easy to maintain



Connection diagram



Wiring diagram

Reference rules

Range name	Series Name	Input	Adaptation	Type
HAS	BS	4T	0015	G
HA: Himel Automation V: VSD S: Soft Starter M: Motion H: HMI P: PLC	BS: Basic XS: Expert	4: 380V – 440V T: Three-phase	0110: 11kW 0185: 18.5kW 1100: 110kW	P: Normal-Duty G: Heavy Duty

References and Dimensions

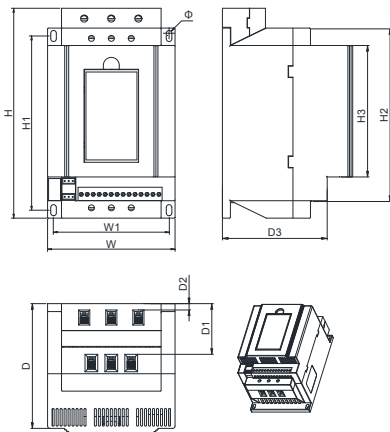
Range	Input Voltage	Himel reference	Motor Power (kW)	Motor Power (HP)	Rated Output Current (A)	Dimensions(mm)			Mounting Dimensions (mm)					Mounting Hole Diameter (mm)	CAD Diagram
						W	H	D	W1	H1	D1	D2	D3		
HASBS	380-440V Three Phase	HASBS4T0110G	11	15	25	160	265	164	145	220	67	10	111	8	(a)
		HASBS4T0150G	15	20	32	160	265	164	145	220	67	10	111	8	
		HASBS4T0185G	18.5	25	37	160	265	164	145	220	67	10	111	8	
		HASBS4T0220G	22	30	45	160	265	164	145	220	67	10	111	8	
		HASBS4T0300G	30	41	60	160	265	164	145	220	67	10	111	8	
		HASBS4T0370G	37	50	75	160	265	164	145	220	67	10	111	8	
		HASBS4T0450G	45	61	90	160	265	164	145	220	67	10	111	8	
		HASBS4T0550G	55	75	110	160	265	164	145	220	67	10	111	8	
		HASBS4T0750G	75	102	152	280	534	255	230	430	98	44	180	10	(b)
		HASBS4T0900G	93	127	176	280	534	255	230	430	98	44	180	10	
		HASBS4T1100G	110	150	210	280	534	255	230	430	98	44	180	10	
		HASBS4T1320G	132	180	253	280	534	255	230	430	98	44	180	10	
		HASBS4T1600G	160	218	300	280	534	255	230	430	98	44	180	10	
		HASBS4T2000G	200	272	380	310	594	255	265	475	98	44	180	10	
		HASBS4T2500G	250	340	480	310	594	255	265	475	98	44	180	10	
		HASBS4T3200G	320	435	600	310	594	255	265	475	98	44	180	10	
		HASBS4T4000G	400	544	750	416	740	275	375	555	106	44	200	10	
		HASBS4T4500G	450	612	892	416	740	275	375	555	106	44	200	10	
HASBS4T5000G	500	680	930	416	740	275	375	555	106	44	200	10			
HASBS4T6000G	600	816	1100	416	740	275	375	555	106	44	200	10			

References and Dimensions

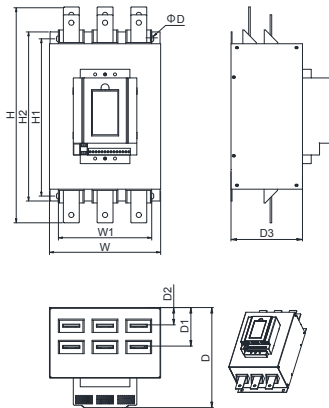
Range	Input Voltage	Himel reference	Motor Power (kW)	Motor Power (HP)	Rated Output Current (A)	Dimensions(mm)			Mounting Dimensions (mm)					Mounting Hole Diameter (mm)	CAD Diagram
						W	H	D	W1	H1	D1	D2	D3		
HASXS	380-440V Three Phase	HASXS4T0110G	11	15	25	150	264	170	128	262	242	96	96	7	(c)
		HASXS4T0150G	15	20	32	150	264	170	128	262	242	96	96	7	
		HASXS4T0185G	18.5	25	37	150	264	170	128	262	242	96	96	7	
		HASXS4T0220G	22	30	45	150	264	170	128	262	242	96	96	7	
		HASXS4T0300G	30	41	60	150	264	170	128	262	242	96	96	7	
		HASXS4T0370G	37	50	75	150	264	170	128	262	242	96	96	7	
		HASXS4T0450G	45	61	90	150	264	170	128	262	242	96	96	7	
		HASXS4T0550G	55	75	110	200	384	226	165	345	360	137.5	137.5	7	
		HASXS4T0750G	75	102	152	200	384	226	165	345	360	137.5	137.5	7	(d)
		HASXS4T0900G	93	127	176	255	579	230	180	520	545	160	151	9	
		HASXS4T1100G	110	150	210	255	579	230	180	520	545	160	151	9	
		HASXS4T1320G	132	180	253	255	579	230	180	520	545	160	151	9	
		HASXS4T1600G	160	218	300	255	579	230	180	520	545	160	151	9	
		HASXS4T2000G	200	272	380	300	684	235	235	620	650	159	154	9	
		HASXS4T2500G	250	340	480	300	684	235	235	620	650	159	154	9	
		HASXS4T3200G	320	435	600	300	684	235	235	620	650	159	154	9	
HASXS4T4000G	400	544	750	520	810	240	400	715	740	166	163	9	(e)		
HASXS4T4500G	450	612	892	520	810	240	400	715	740	166	163	9			
HASXS4T5000G	500	680	930	520	810	240	400	715	740	166	163	9			
HASXS4T6000G	600	816	1100	520	810	240	400	715	740	166	163	9			

CAD Diagrams

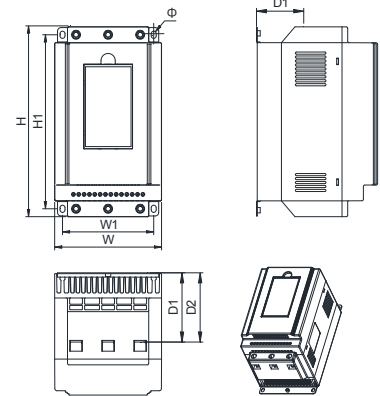
(a)



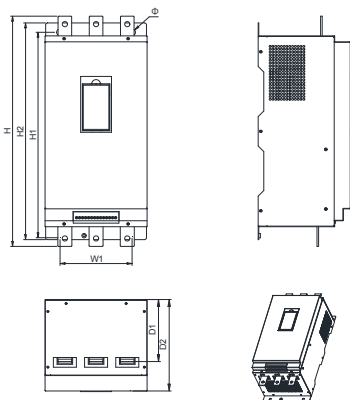
(b)



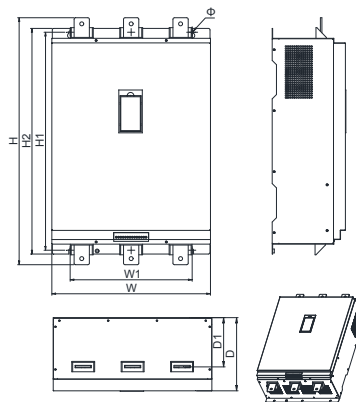
(c)



(d)



(e)



Selection Reference

Machine Type	Load Type	Start Mode			Value Setting		StartTime
		Voltage	Current	Heavy Load	Voltage (%)	Current (%)	
Centrifugal pump	Standard load(ND)		√	√		250	5
Fan	Standard load(ND)		√			250	5
Compressor (pistol)	Standard load(ND)		√			300	10
Compressor (centrifugal)	Standard load(ND)	√			30		20
Conveyor	Standard load(ND)		√	√		250	10
Mixer	Standard load(ND)		√	√		350	5
Ball mill	Heavy load(HD)		√		70	400	50
Crusher	Heavy load(HD)	√			60		45

Himel

Variable Speed Drives (VSD)

Himel VSDs are designed and manufactured for applications requiring high-efficiency components and future configurability. Suitable for industrial, HVAC, water/wastewater treatment, machinery OEM and other applications- they exceedingly meet performance requirements while saving space.

High Performance

Improved Energy Savings

Multitude of Functions

Easy to Use

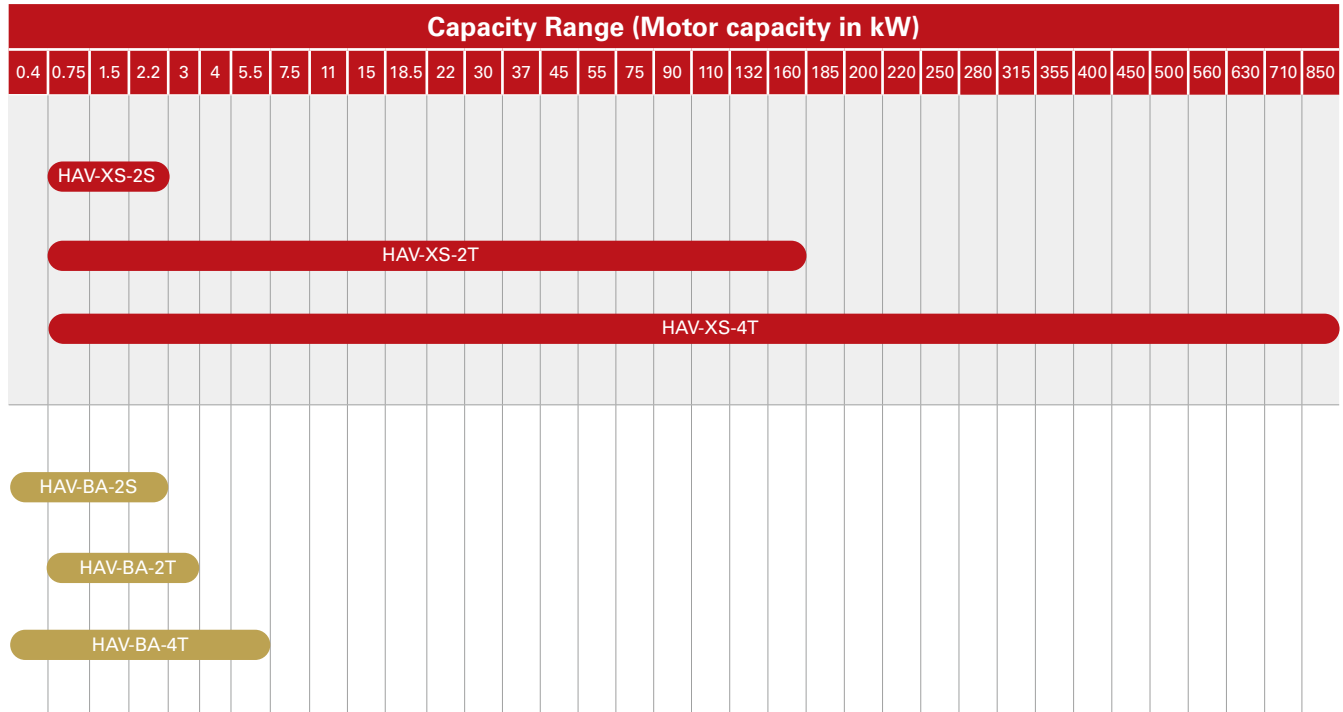
Longer Lifetime



General Purpose Variable Speed Drives



Range Selection



* 2S = 200-240V Single Phase, 2T = 200-240V Three Phase, 4T = 380-440V Three Phase

BASIC Range

Range Presentation

Himel BASIC range Variable Speed Drives (VSDs) are for single phase/three phase asynchronous motors from 0.4 kW to 5.5 kW. Designed for your small machines and simple general purpose applications like pumps, fans, carving machines etc. Himel BASIC VSDs are designed to focus on essential needs in terms of hardware and software. It is a high performance economical range.

Features

- ◆ Economical range
- ◆ Easy to use
- ◆ Robust design
- ◆ Embedded protection and communication functions
- ◆ Built in PLC

Online Content



Basic

Selection Code



Series name	Input	Power range	Drive type
HAVBA	4T	0007	G
HAVBA: BASIC	2: 200-220V 4: 380V – 440V S: Single-phase T: Three-phase	0004: 0.4kW 0007: 0.75kW 0015: 1.5kW 0022: 2.2kW 0037: 3.7kW 0040: 4.0kW 0055: 5.5kW	G: Heavy Duty

General Purpose Variable Speed Drives



EXPERT Standard

Range Presentation

Himel EXPERT Standard range Variable Speed Drives are for single/three phase asynchronous motors from 0.75kW to 850kW. EXPERT Standard is designed for advanced machines and advanced general purpose applications like material handling, wood machines, process machines, textile machines and packaging etc.

Features

- ◆ Advanced functions and performances
- ◆ Embedded EMC filter
- ◆ Built-in braking unit
- ◆ Embedded protection and communication functions
- ◆ Different communication protocols options

Online Content



EXPERT Standard

Selection Code



Range name	Input	Power range	Drive type	Range	Drive type
HAVXS	4T	0007	G	0015	P(W)
HAVXS: EXPERT Standard	2: 200-240V 4: 380V – 440V S: Single-phase T: Three-phase	0007: 0.75kW 0015: 1.5kW 0022: 2.2kW 7100: 710kW 8500: 850kW	G: Heavy Duty	0055: 5.5kW 0075: 7.5kW 0110: 11kW 7100: 710kW 8500: 850kW	P: Normal Duty W: Wall Mounted



Target Application		Small & Simple General Purpose Applications	P&F & Advanced General Purpose Applications
Range Name		BASIC	EXPERT XS
Capacity range	Single phase 200V Class	200V(-15%)-220V(+10%) 0.4~2.2kW	200V(-15%)-220V(+10%) 0.75~2.2kW
	Three phase 200V Class	—	200V(-15%)-240V(+10%) 0.75~160kW
	Three phase 400V Class	380V(-15%)-440V(+10%) 0.4~5.5kW	0.75~450kW [380V(-15%)~440V(+10%)] 500kW ~ 850kW (380V -15% +10%)
Frequency	Input frequency	50/60Hz	
	Output frequency	0-599Hz	0 - 550Hz
Overload capacity	Normal Duty	—	120% for 1min, 150% for 1s, 180% instant protection
	Heavy Duty	150% for 1min, 180% for 1s, 200% instant protection	150% for 1min, 180% for 3s, 200% instant protection
Control method	V/f	√	√
	Sensor less vector control		√
	Eco-mode control	√	√
Start torque	0.5Hz, 150%		
Inbuilt PID	√	√	
Keypad	Fixed	Pluggable	
Display	Single row LED	Double row LED	
Multispeed control	Up to 16 stages in one cycle		

General Purpose Variable Speed Drives



Target Application		Small & Simple General Purpose Applications	P&F & Advanced General Purpose Applications
Range Name		BASIC	EXPERT XS
I/O	DI1-DI4	NPN/PNP, Input: 9-30VDC	
	DI5	NPN/PNP, Input: 15-30VDC, Pulse input: max. 50kHz	
	DO1	9-30VDC, max. 50mA	
	DO2	9-30VDC, max. 50mA Pulse output max. 50kHz	
	AI1	V: 0-10V I: 0-20mA Resolution: 1/1000	V: 0-10V I: 0-20mA Resolution: 1/1000
	AI2	V: 0-10V Resolution: 1/1000	
	AO1	V:0-10V	
	AO2	V:0-10V I: 0-20mA	
RO(Ta, Tb, Tc)	NO: 24VDC 3A / 250VAC 5A NC: 24VDC 3A / 250VAC 3A		
Inbuilt communication (Max. speed)		RS485, Modbus RTU (38.4kbps)	
Options	Extension I/O	—	DI/DO/AI/AO/RO/PT100/PT1000
	Extension keypad	Support, cable length:2m, 5m	
Installation Way		Wall mounted, cabinet, din-rail	Wall mounted, cabinet, flange installation
Dust Shields		—	Optional
EMC Filter C3		—	External card available (≥ 30kW)
Braking unit		Built-in	Built-in (≤ 22W)
Environment	Operation temperature	-10-40°C no capacity reduction, 40°C-50°C capacity reduction	
	Humidity	≤90%RH	
	Altitude	≤1000m, no capacity reduction	
	IP level	IP20	
Standards		EN 61800-3: 2004 +A1: 2012 +A1: 2012, EN 55011: 2016+A1: 2017, EN 61000-6-2: 2005, EN 61000-3-2: 2014, EN 61000-3-3: 2013, EN 61000-4-2: 2009, EN 61000-4-3: 2006+A1: 2008+A2: 2010, EN 61000-4-4: 2012, EN 61000-4-5: 2014, EN 61000-4-6: 2014, EN 61000-4-8: 2010, EN 61000-4-11: 2004	
Certificates		CE	CE
Features	Velocity ratio	1:100	
	Frequency precision	Digital setting: Max frequency X ±0.01% Analog setting: Max frequency X ±0.2%	
	Frequency resolution	Digital setting :Max frequency X ±0.01% Analog setting: Max frequency X ±0.1%	
	Torque rise	Integrated auto-torque rising function Manual- setting: 0.1%~30.0%	
	V/F control curve	Linear, Square, V ^{1.7} /F, V ^{1.2} /F	
	Acceleration/Deceleration Time	4 types of ACC/DEC time selection; optional time unit selection (Min/s); setting range: 0~60hours;	
	DC braking	Start frequency: 0.00~60.00Hz; braking time: 0.0~30.0s; braking current: 0.0~100%	
	Automatic voltage regulation(AVR)	√	
	Auto current limitation	√	
	Auto PWM adjustment	√	
Protection	Prevent mis operation	—	√
	Protection function	Over-current, over-voltage, under-voltage, over-heat, over-load, short circuit.	
	Cooling	Air- cooling	
Warranty		24 months	

General Purpose Variable Speed Drives







Accessories Selection

Category	Type	Range	Commercial Reference	Short Description	Applicable Product		Pictures
					Applicable Commercial Reference	Specifications	
ADD-ON	EMC filter card	Expert XS	HAV-XS-4T0370G-FL	Simple EMC filter	HAV-XS-4T0300G-0370P ~ HAV-XS-4T0370G-0450P	4T*: 30 - 37kW	
			HAV-XS-4T0550G-FL		HAV-XS-4T0450G-0550P ~ HAV-XS-4T0550G-0750P	4T*: 45 - 55kW	
HAV-XS-4T1850G-FL			HAV-XS-4T0750G-0900P ~ HAV-XS-4T1850G-2000P		4T*: 75 - 185kW		
	IO extension card	Expert XS	HAV-XS-IO-3DI-R	IO extension card with 3 Di and 1 relay	HAV-XS-4T0007G ~ HAV-XS-4T2800G-3150P	4T*:0.4kW - 280kW	
Dust Preventive Accessories	Dust cover	EXPERT XS	HAV-XS-FCB	Dust prevention cover	HAV-XS-2S0007 ~ HAV-XS-2S0022G HAV-XS-2T0007G ~ HAV-XS-2T0220G-0300P HAV-XS-4T0007G ~ HAV-XS-4T0220G-0300P	2S*: 0.75 - 2.2kW 2T*: 0.75 - 22kW 4T*: 0.75 - 22kW	
		BASIC BA	HAV-BA-4T0040		HAV-BA-2S0022G HAV-BA-4T0040G HAV-BA-4T0055G	2S*: 2.2kW 4T*: 4kW, 5.5kW	
	Dust Guaze	Expert XS	HAV-XS-4T0075-FSB	Dust guaze for Expert Series	HAV-XS-4T0055G-0075P HAV-XS-4T0075G-0110P	4T*: 5.5kW , 7.5kW	
			HAV-XS-4T0150-FSB		HAV-XS-4T0110G-0150P HAV-XS-4T0150G-0180P	4T*: 11kW, 15kW	
HAV-XS-4T0220-FSB			HAV-XS-4T0185G-0220P HAV-XS-4T0220G-0300P		4T*: 18.5kW, 22kW		
Dust Sticker	BASIC BA	HAV-BA-4T0022	Dust sticker for BASIC Series	HAV-BA-2S0004G ~ HAV-BA-2S0022G HAV-BA-4T0004G ~ HAV-BA-4T0055G	2S*:0.4 - 2.2kW 4T*:0.4 - 5.5kW		

General Purpose Variable Speed Drives



Accessories Selection

Category	Type	Range	Commercial Reference	Short Description	Applicable Product		Pictures
					Applicable Commercial Reference	Specifications	
Installation Accessories	Flange-mounting	Expert XS	HAV-XS-4T0040-QRZJ	Embedded installation accessories	HAV-XS-4T0007G ~ HAV-XS-4T0040G-0055P HAV-XS-2T0007G ~ HAV-XS-2T1600G	4T*: 0.75 - 4kW 2S*: 0.75 - 2.2kW	
			HAV-XS-4T0075-QRZJ		HAV-XS-4T0055G-0075P ~ HAV-XS-4T0075G-0110P	4T*: 5.5 - 75kW	
			HAV-XS-4T0150-QRZJ		HAV-XS-4T0110G-0150P ~ HAV-XS-4T0150G-0185P	4T*: 11 - 15kW	
			HAV-XS-4T0220-QRZJ		HAV-XS-4T0185G-0220P ~ HAV-XS-4T0220G-0300P	4T*: 18.5 - 22kW	
			HAV-XS-4T0370-QRZJ		HAV-XS-4T0300G-0370P ~ HAV-XS-4T0370G-0450P	4T*: 30 - 37kW	
			HAV-XS-4T0750-QRZJ		HAV-XS-4T0450G-0550P ~ HAV-XS-4T0750G-0900P	4T*: 45 - 75kW	
			HAV-XS-4T1320-QRZJ		HAV-XS-4T0900G-1100P ~ HAV-XS-4T1320G-1600P	4T*: 90 - 132kW	
			HAV-XS-4T1600-QRZJ		HAV-XS-4T1600G-1850P ~ HAV-XS-4T8500G	4T*: 160 ~ 850kW	
	Wall-mounting	Expert XS	HAV-XS-4T2200-BGZJ	Accessory for wall mounting installation	HAV-XS-4T2000G-2200P ~ HAV-XS-4T2200G-2500P	4T*: 200 - 220kW	
			HAV-XS-4T2800-BGZJ		HAV-XS-4T2500G-2800P ~ HAV-XS-4T8500G	4T*: 250 ~ 850kW	
	Floor-standing	Expert XS	HAV-XS-4T0370-DZ	Accessory for floor-standing installation	HAV-XS-4T0300G-0370P ~ HAV-XS-4T0370G-0450P	4T*: 30 - 37kW	
			HAV-XS-4T0750-DZ		HAV-XS-4T0450G-0550P ~ HAV-XS-4T0750G-0900P	4T*: 45 - 75kW	
HAV-XS-4T1100-DZ			HAV-XS-4T0900G-1100P ~ HAV-XS-4T1320G-1600P		4T*: 90 - 132kW		
HAV-XS-4T1600-DZ			HAV-XS-4T1600G-1850P ~ HAV-XS-4T8500G		4T*: 160 ~ 850kW		
Keypad & Accessories	Keypad bracket	Expert XS	HAV-XS-JPT	Keypad holder for external keypad	HAV-XS-2S0007G ~ HAV-XS-2S0022G HAV-XS-2T0007G ~ HAV-XS-2T1600G HAV-XS-4T0007G ~ HAV-XS-4T8500G	2S*: 0.75 - 2.2kW 2T*: 4 - 7.5kW 4T*: 0.75kW - 850kW	
	External Keypad	BASIC BA	HAV-BA-LKD	External Keypad for BASIC	HAV-BA-2S0004G ~ HAV-BA-2S0022G HAV-BA-4T0004G ~ HAV-BA-4T0055G	2S*: 0.4 - 2.2kW 4T*: 0.4 - 5.5kW	
		EXPERT XS	HAV-XS-LKD	External Keypad for EXPERT XS	HAV-XS-2S0007G ~ HAV-XS-2S0022G HAV-XS-2T0007G ~ HAV-XS-2T1600G HAV-XS-4T0007G ~ HAV-XS-4T8500G	2S*: 0.75 - 22 kW 2T*: 4 - 7.5kW 4T*: 0.75 ~ 850kW	
	Keypad cable	BASIC	HAV-XS-CAB2	Length 2m	Length 2m	HAV-BA-2S0004G ~ HAV-BA-2S0022G HAV-BA-4T0004G ~ HAV-BA-4T0055G	2S*: 0.4 - 2.2 kW 2T*: 0.75 - 160kW 4T*: 0.4 - 850kW
Expert XS		HAV-XS-CAB5	Length 5m	HAV-XS-2S0007G ~ HAV-XS-2S0022G HAV-XS-2T0007G ~ HAV-XS-2T1600G HAV-XS-4T0007G ~ HAV-XS-4T8500G			

* 2S = 200-240V Single Phase, 2T = 200-240V Three Phase, 4T = 380-440V Three Phase

Solar series VSD

Himel Solar VSD is an innovative solution that uses solar power as a reliable energy source for pumping water. It allows to harness maximum solar energy to run the pump for maximum duration in a day by controlling the speed of the motor based on the power available from the solar panel.

Series	Voltage Class	Motor Capacity Table																									
		0.4	0.75	1.5	2.2	4	5.5	7.5	11	15	19	22	30	37	45	55	75	90	110	132	160	185	200	220	250	280	315
Solar	Single-phase 220V±15%	■																									
	Three-phase 380V±15%	■																									
Solar -SM	Single-phase 220V±15% To drive single phase motor	■																									

- 2S = 220V±15% Single Phase; 4T = 380V±15% Three Phase;
- SM= Drive Single Phase Motor

Build-in MPPT

Maximum power point tracking ensures that you get the most power output possible from your solar panel and maximizes the performance of your pump throughout the day.

Dual supply (AC & DC) capability

The VSD is customized to operate in dual supply mode, so the grid connected supply is used in the absence of energy from PV cells.

Automatic start-run-stop through out the day

With water level detection in the tank and pump overload and under-load protection.

Easy to use

- Compact design
- Easy to install with Din rail
- Can run with default setting, no parameter set need
- One-key recovery function

Special program function

- Energy meter
- Flow calculation
- Support single phase motor water pump

Pump-specific protection

- Dry run detection.
- Voltage limit
- Overvoltage , overcurrent, overload protection
- Phase-loss protection
- Short-circuit protection

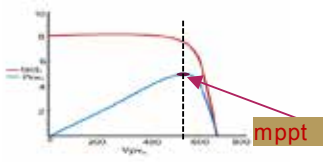

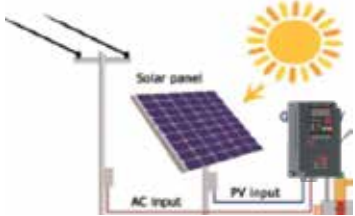
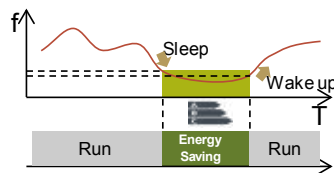
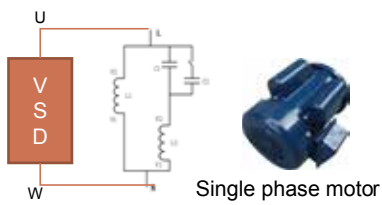



Online Content

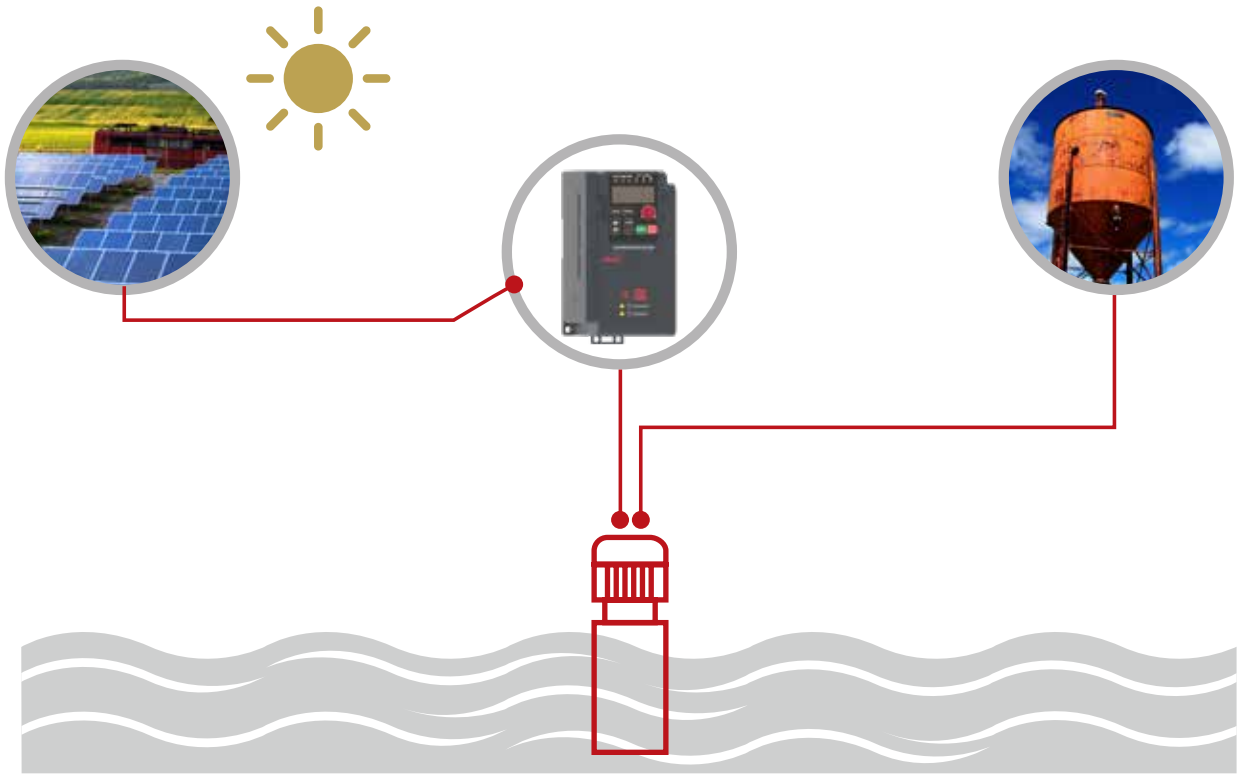


SOLAR Series

General Highlights

Features	Your benefits
Build-in MPPT	
	<ul style="list-style-type: none"> ◆ Maximum power point tracking ensures that you get the most power output possible from your solar panel ◆ maximizes the performance of your pump throughout the day
Easy to use	
	<ul style="list-style-type: none"> ◆ Compact design ◆ Easy to install with Din rail ◆ Can run with default setting ◆ One-key recovery function ◆ Makes it possible to use in smaller cabinets ◆ No need to set additional parameters anymore ◆ Easy to operate and maintain
Dual supply (AC & DC) capability	
	<ul style="list-style-type: none"> ◆ The VSD is customized to operate in dual supply mode ◆ The grid connected supply is used in the absence of energy from PV cells
Automatic start-run-stop	
	<ul style="list-style-type: none"> ◆ Automatic start and stop according to the power of solar cell ◆ With water level detection in the tank and pump overload and under-load protection ◆ No need to operate ◆ Save more time and maintain cost
Special program function	
	<ul style="list-style-type: none"> ◆ AVR function ◆ Energy meter ◆ Flow calculation ◆ Support single phase motor water pump ◆ Automatic adaptation in case of unstable power supply ◆ Visible energy savings and flow ◆ Easy system upgrade
Pump-specific protection	
	<ul style="list-style-type: none"> ◆ Dry run detection ◆ Voltage limit ◆ Overvoltage, overcurrent, overload protection ◆ Phase-loss protection ◆ Short-circuit protection ◆ Automatic adaptation in case of unstable power supply ◆ Long lifecycle running in high humidity and high dust occasions ◆ Easy to maintain

Target Application



Target Application



Successful Applications



Swimming Pool



Livestock



Fountain



Fish Farming





Irrigation





Domestic Water Supply

Specification

Range Name		Solar VSD	
Range type		*2S/2S*SM	*4T*
Design			
Capacity range	AC input voltage(V)	220(±15%)(1PH)	380(±15%)(3PH)
	Power rating	0.4~4kW	0.75~160kW
	Mix. DC voltage(V)	440	800
	Start voltage(V)	200	300
	Min. DC voltage(V)	150	250
	DC input range(V)	200~400	300~750
	MPPT working voltage(V)	330	550
Frequency	Input frequency	50/60Hz	50/60Hz
	Output frequency	0-400Hz	0-400Hz
Overload capacity	Capacity	150% for 1min, 190% for 3s, 200% for 1s	150% for 1min, 190% for 3s, 200% for 1s
Control method	V/f	√	√
	Sensorless vector control	√	√
	Eco mode control	-	-
Start torque		0.5Hz, 150%	
Built-in PID		√	√
Keypad		Removable Keyboard	Removable Keyboard
Display		LED	
Multispeed Sequence		-	
I/O	DI1-DI4	NPN/PNP;Input: 9-30VDC	
	DO1	9-30VDC, max.50mA	
	AI1	V: 0-10V	
		I:0-20mA	
	AO1	V: 0-10V	
		I:0-20mA	
RO(Ta, Tb, Tc)	NO: AC 250V below 3A/DC30V below 3A		
	NC: AC 250V below 3A/DC30V below 3A		
Built-in communication (Max. speed)		0.4~15kW: extension card; ≥18.5kW: Build in	
Option	Communication	RS485,Modbus RTU (38.4kbps)	
	Extension operation panel	Support, cable length:2m, 5m	
Functionality		MPPT function	
		Support AC/DC supply	
		Auto start-run-stop	
		Energy/ flow calculator	
		Low Light protection	
		Eco-mode/PID with sleep mode/Special pump protection	
Installation Way		Wall mounted,Din-rail	
Environment and certificate	Operation temperature	The ambient temperature of inverter is -10°C~50°C while air temperature change should be less than 0.5°C per minute.The inverter will be derated once ambient temperature exceeds 40°C. It is not recommended to use the inverter if ambient temperature is above 50°C	
	Humidity	≤95%RH	
	Altitude	≤1000m, no capacity reduction	
	IP level	IP20	
	Global certificates	CE	

Specification

Range Name		Solar VSD	
Range type		*2S/2S*SM	*4T*
Design			
Features	Velocity ratio	1:200	
	Velocity precision at steady state	≤±0.2%	
	Frequency precision	±0.01Hz	
	Frequency resolution	±0.01%	
	Torque rise	Integrated auto-torque raising function; with manual- setting: 0.1%~10.0%	
	V/F control curve definition	1: Straight line V/F curve; applying to the constant torque load 2: Multi-dots V/F curve 3: Torque-stepdown characteristic curve (1.3 order) 4: Torque-stepdown characteristic curve (1.7 order) 5: Torque-stepdown characteristic curve (2.0 order) 6: Customized V/F(V/F separation)	
	Acceleration/Deceleration Time	four groups of ACC/DEC time which can be selected by F28	
	DC braking	Start frequency: 0.00~Max. output frequency; braking time: 0.0~50.0S braking current: 0.0~100%	
	Automatic voltage regulation(AVR)	The output voltage of the inverter is automatically adjusted to eliminate the influence of bus voltage fluctuations on the output voltage of the inverter	
	Auto current limitation	Limit current automatically to avoid tripping from frequent over current.	
	Auto PMW adjustment	Can adjust the PWM frequency automatically according to the load characteristic	
Protection	Special pump protection	Voltage limit, dry run,pump load monitor,Motor overload	
	VSD protection function	Over-current, over-voltage, under-voltage, over-heat, over-load, short circuit,phase loss	
	Cooling	Air- cooling, Forced air cooling	

Reference Selection

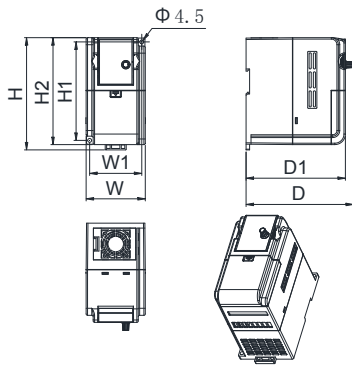
Range Name	Series Name	Input	Adaptation	Inverter
HAV	SO	2S	0015	G-SM
	↓	↓	↓	↓
HA: Himel Automation		2: 220V±15% 4: 380V±15%	Adaptation 0004: 0.4kW 0007: 0.75kW 0015: 1.5kW 0022: 2.2kW 0040: 4kW	Torque Type G: Heavy-duty SM: single phase motor
V: VSD M: Motion H: HMI P: PLC	SO: Solar	S: Single-phase T: Three-phase		

Selection

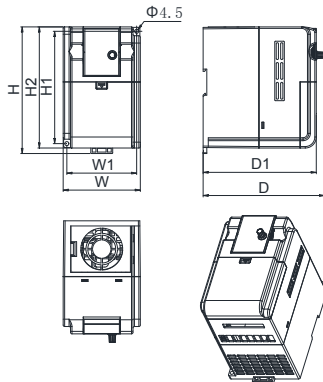
Range	Input Voltage	HIMEL-reference	Rated Capacity	Rated input current	Heavy duty(constant torque) G-type			Dimensions (mm)			Mounting Dimensions (mm)			CAD
					Motor Power (kW)	Motor Power (HP)	Continuous Output Current (A)	W	H	D	W1	H1	D1	
Solar	AC:220V(±15%) Single Phase DC:150V-440V	HAVSO2S0004GSM	1.5	9.5	0.4	0.5	5	84	152	148.4	74	140	141	(a)
		HAVSO2S0007GSM	2.7	15.7	0.75	1.0	7	105	165	161.4	95	153	154	(b)
		HAVSO2S0015GSM	3.8	27	1.5	2.0	10	105	165	161.4	95	153	154	(b)
		HAVSO2S0022GSM	5.3	29.4	2.2	3.0	14	145	230	177.4	133	218	170	(c)
		HAVSO2S0040GSM	6.5	32.8	4	5.0	17	145	230	177.4	133	218	170	(c)
		HAVSO2S0004G	0.8	6.5	0.4	0.5	3	84	152	148.4	74	140	141	(a)
		HAVSO2S0007G	1.5	9.5	0.75	1.0	5	84	152	148.4	74	140	141	(a)
		HAVSO2S0015G	2.7	15.7	1.5	2.0	7	105	165	161.4	95	153	154	(b)
		HAVSO2S0022G	3.8	27	2.2	3.0	10	105	165	161.4	95	153	154	(b)
		HAVSO2S0040G	6.5	32.8	4	5.0	17	145	230	177.4	133	218	170	(c)
	AC:380V(±15%) Three Phase DC:250V-800V	HAVSO4T0007G	1.5	3.4	0.75	1.0	3	84	152	148.4	74	140	141	(a)
		HAVSO4T0015G	3	5	1.5	2.0	4.5	84	152	148.4	74	140	141	(a)
		HAVSO4T0022G	4	6.8	2.2	3.0	6	105	165	161.4	95	153	154	(b)
		HAVSO4T0040G	5.9	10.5	4	5.0	9.5	105	165	161.4	95	153	154	(b)
		HAVSO4T0055G	8.5	15.5	5.5	7.5	13	145	230	177.4	133	218	170	(c)
		HAVSO4T0075G	11	20.5	7.5	10.0	17	145	230	177.4	133	218	170	(c)
		HAVSO4T0110G	17	26	11	15.0	25	180	285	167.4	168	273	160	(d)
		HAVSO4T0150G	21	35	15	20.0	32	180	285	167.4	168	273	160	(d)
		HAVSO4T0185G	24	38.5	18.5	25.0	37	260	340	223	245	325	210.5	(e)
		HAVSO4T0220G	30	46.5	22	30.0	45	260	340	223	245	325	210.5	(e)
		HAVSO4T0300G	40	62	30	40.0	60	250	430	-	160	415	220	(f)
		HAVSO4T0370G	50	76	37	50.0	75	250	430	-	160	415	220	(f)
		HAVSO4T0450G	60	92	45	60.0	90	300	530	-	240	515	270	(g)
		HAVSO4T0550G	72	113	55	75.0	110	300	530	-	240	515	270	(g)
		HAVSO4T0750G	100	157	75	100.0	152	340	580	-	260	565	313	(h)
		HAVSO4T0900G	116	180	90	120.0	176	340	580	-	260	565	313	(h)
		HAVSO4T1100G	138	214	110	150.0	210	340	580	-	260	565	313	(h)
		HAVSO4T1320G	165	256	132	180.0	253	400	940	367	300/365	910	336	(i)
		HAVSO4T1600G	197	305	160	200.0	300	400	940	367	300/365	910	336	(i)

CAD Diagrams

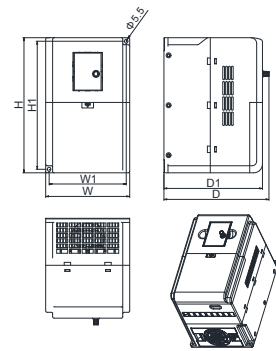
(a)



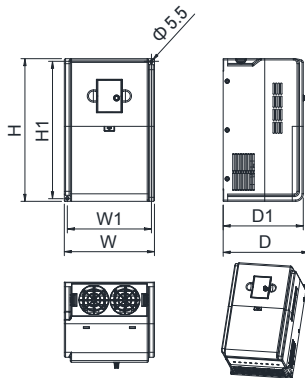
(b)



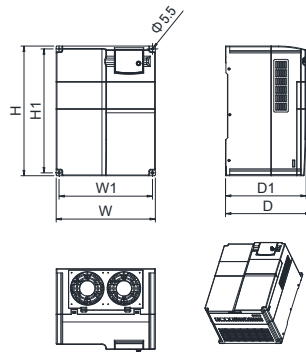
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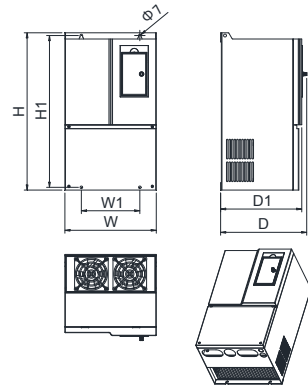
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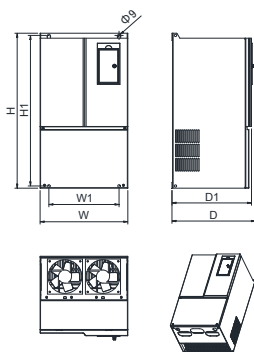
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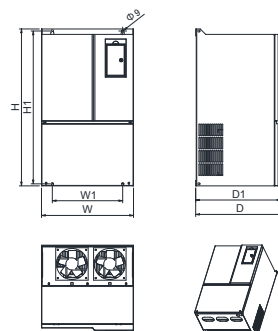
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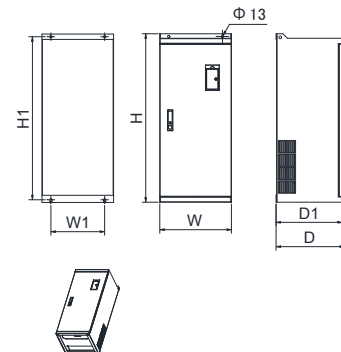
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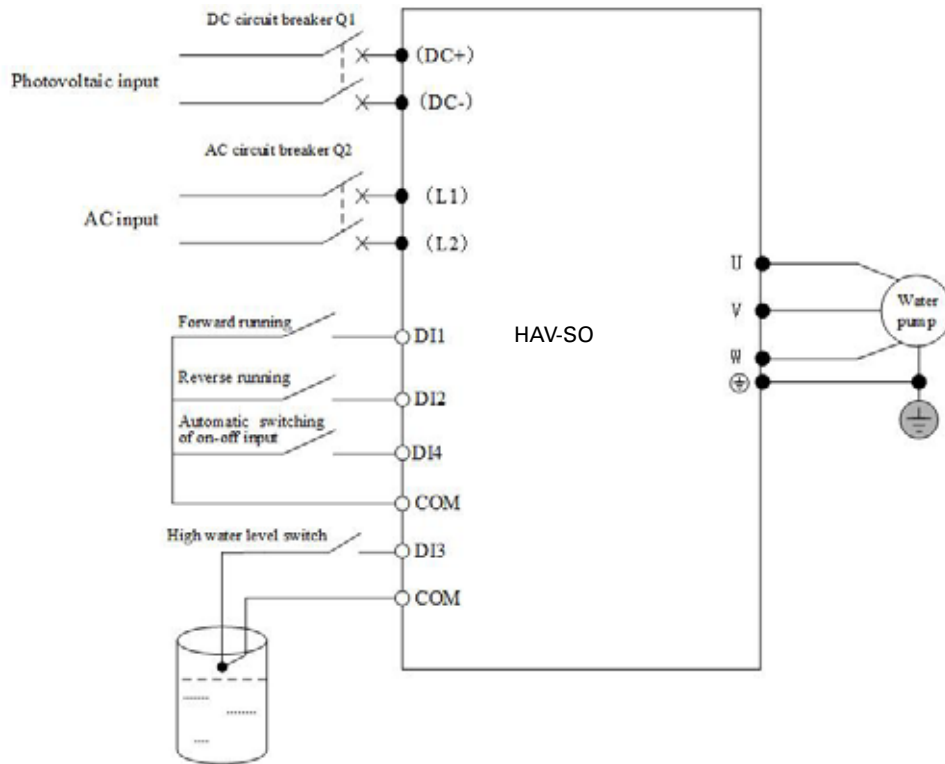
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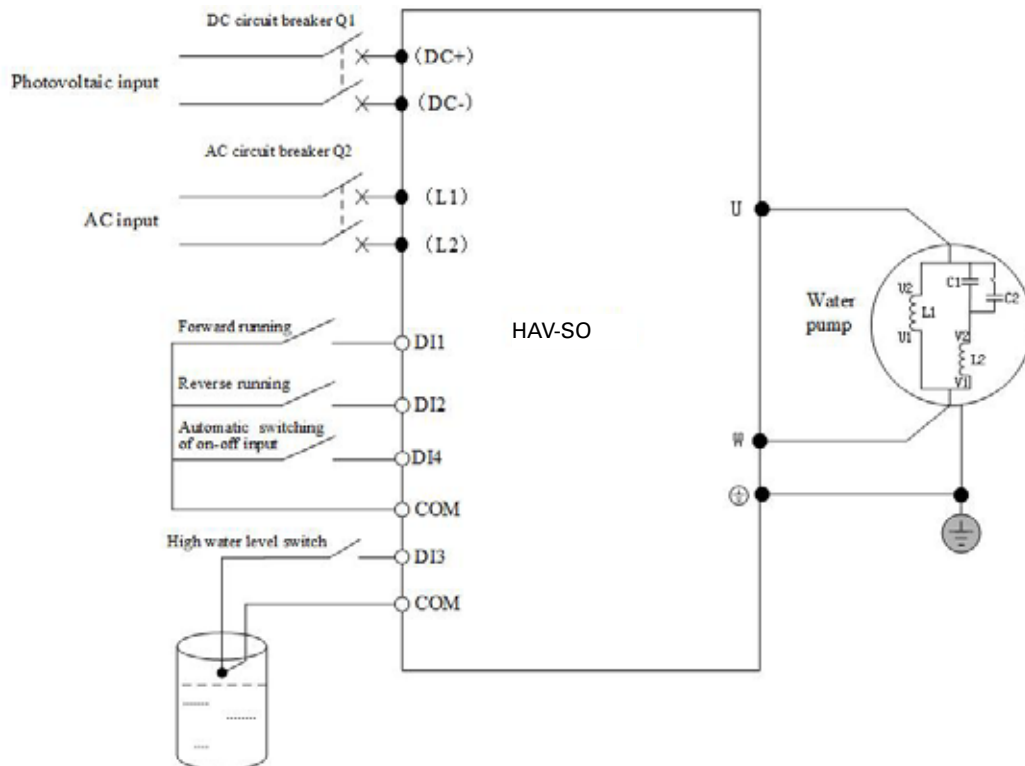
(i)



Wiring Diagrams






Three phase motor



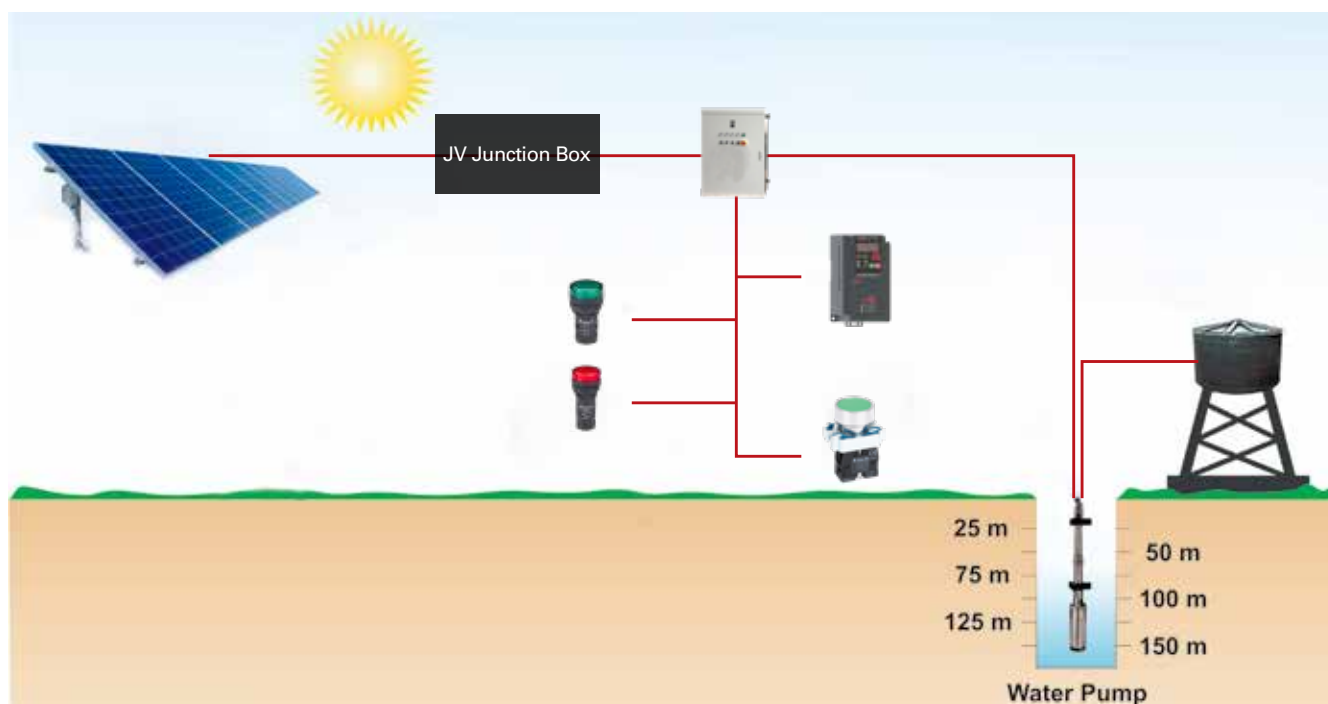
Singler phase motor

Accessories

Type	Commercial Reference	Short Description	Applicable Product		Pictures
			Applicable Commercial Reference	Specifications	
Keypad cable	HAV-SO-CAB	Keyboard extension cable, Length: 2m, 5m	HAVSO Series(0.4~160kW)	2S:0.4-4.0kW 4T:0.7-160kW	
RS485 Communication Extension card	HAV-SO-485	Support MODBUS-RTU protocol	HAV-SO Series(0.4~15kW)	2S:0.4-4.0kW 4T:0.7-15kW	
Power frequency & PV switching solution	HAV-SO-AS055-2	Size: W×H×D:240×90×125 W1×H1×D:229×65×1254×Ø6	HAV-SO Series	2S:0.4-4.0kW	
	HAV-SO-AS055-4	Size: W×H×D:240×90×125 W1×H1×D:229×65×1254×Ø6	HAV-SO Series	4T:0.7-15kW	
	HAV-SO-AS110-4	Size: W×H×D:240×90×125 W1×H1×D:229×65×1254×Ø6	HAV-SO Series	4T:18.5-37kW	

* 2S = 220V±15% Single Phase, 2T = 220V±15% Three Phase, 4T = 380V±15% Three Phase

Solar Pump Solution



Solar Array Selection

Range	Input Voltage	Commercial Reference	Solar panel selection			
			37±1V		45±1V	
			Cell panel power±5Wp	Panel per array*arraies	Panel power±5Wp	Panel per array*arraies
Solar	AC:220V(±15%) Single Phase DC:150V-440V	HAVSO2S0004GSM	250	11*1	300	9*1
		HAVSO2S0007GSM	250	11*1	300	9*1
		HAVSO2S0015GSM	250	11*1	300	9*1
		HAVSO2S0022GSM	250	11*1	300	9*1
		HAVSO2S0040GSM	250	11*2	300	9*2
		HAVSO2S0004G	250	11*1	300	9*1
		HAVSO2S0007G	250	11*1	300	9*1
		HAVSO2S0015G	250	11*1	300	9*1
		HAVSO2S0022G	250	11*1	300	9*1
		HAVSO2S0040G	250	11*2	300	9*2
	AC:380V(±15%) Three Phase DC:250V-800V	HAVSO4T0007G	250	18*1	300	15*1
		HAVSO4T0015G	250	18*1	300	15*1
		HAVSO4T0022G	250	18*1	300	15*1
		HAVSO4T0040G	250	18*2	300	15*2
		HAVSO4T0055G	250	18*2	300	15*2
		HAVSO4T0075G	250	18*2	300	15*2
		HAVSO4T0110G	250	18*3	300	15*3
		HAVSO4T0150G	250	18*4	300	15*4
		HAVSO4T0185G	250	18*5	300	15*5
		HAVSO4T0220G	250	18*6	300	15*6
		HAVSO4T0300G	250	18*8	300	15*8
		HAVSO4T0370G	250	18*10	300	15*10
		HAVSO4T0450G	250	18*12	300	15*12
		HAVSO4T0550G	250	18*15	300	15*15
		HAVSO4T0750G	250	18*20	300	15*20
		HAVSO4T0900G	250	18*25	300	15*25
		HAVSO4T1100G	250	18*30	300	15*30
		HAVSO4T1320G	250	18*36	300	15*36
		HAVSO4T1600G	250	18*43	300	15*43

Electric Device Selection

Range	Input Voltage	Commercial Reference	AC Circuit Breaker	DC Circuit Breaker	AC contactor	SPD	Fuse
Solar	AC:220V(±15%) Single Phase DC:150V-440V	HAVSO2S0004GSM	16	16A/1000VDC	16	Type 1000VDC	30A Fast fuse
		HAVSO2S0007GSM	16		16		
		HAVSO2S0015GSM	25		25		
		HAVSO2S0022GSM	40	25A/1000VDC	40		
		HAVSO2S0040GSM	50	63A/1000VDC	50		
		HAVSO2S0004G	16	16A/1000VDC	16		
		HAVSO2S0007G	16		16		
		HAVSO2S0015G	25		25		
		HAVSO2S0022G	40	25A/1000VDC	40		
		HAVSO2S0040G	50	63A/1000VDC	50		
	AC:380V(±15%) Three Phase DC:250V-800V	HAVSO4T0007G	10	16A/1000VDC	12		
		HAVSO4T0015G	10		12		
		HAVSO4T0022G	10		12		
		HAVSO4T0040G	25		25		
		HAVSO4T0055G	25	25A/1000VDC	25		
		HAVSO4T0075G	40		40		
		HAVSO4T0110G	50	63A/1000VDC	50		
		HAVSO4T0150G	63		63		
		HAVSO4T0185G	63		63		
		HAVSO4T0220G	100	100A/1000VDC	95		
		HAVSO4T0300G	100		95		
		HAVSO4T0370G	125		115		

MOTOR MANAGEMENT

SMART Pump Variable Speed Drives



SMART Pump (SP) drives are full-featured dedicated drives for parabolic load applications like pumps, fans, and chillers. SP drives have a wide range of integrated features like multi-pump control, dry run protection, sensor-less flow and energy calculation, pump cleaning, fire override mode, frost, condensation and hammer effect protections to meet the needs of pump, fans and chillers for modern buildings.

Online Content



Motor Capacity (kW)																	
2.2	3	4	5.5	7.5	11	15	19	22	30	37	45	55	75	90	110	132	160
HAV-SP-4T*																	
HAV-SP-2T**																	

*4T: 380V 3 phase | **2T: 220V 3 phase

Improved Energy Savings

With many integrated control modes like ECO-mode, V²/F, and PID with sleep mode.

High Robustness

- Stable operation in difficult environments
- Built-in category C3 EMC filter (≥ 11kW)

Special program functions

- Multi-pump control
- Energy meter
- Flow calculation
- Pump cleaning
- Fire Override mode
- Dual Ramp

Pump-specific protections

- Dry run detection
- Frost and condensation protection
- Hammer effect protection
- Undervoltage, overvoltage, overcurrent, overload protection
- Phase-loss protection
- Short-circuit protection

PC Tool-Himel studio

- Parameters setting and copy
- Monitoring drive status
- Monitoring IO terminal status and test
- Drive debugging and trial run
- Fault record and measurement
- Firmware upgrade

Support most communication protocols for the pump and fan

- One drive support most popular 3 protocols in the pump and fan applications
- Build in Modbus RTU/RS485 port
- Build in Modbus TCP/RJ45 port
- Provide BACnet IP extension card



SMART Pump Variable Speed Drives



SMART Pump Variable Speed Drive

Specialist for pump and fan



IMPROVED ENERGY SAVINGS

- 3 integrated control modes – ECO-mode, V2/F, and PID with sleep mode



ROBUST OPERATIONS

- Perfect for harsh environments
- Built-in category C3 EMC filter ($\geq 11\text{kW}$)



SPECIAL PROGRAM FUNCTIONS

- Multi-pump control
- Energy meter
- Flow calculation
- Pump cleaning
- Fire override mode
- Dual Ramp



PUMP SPECIFIC PROTECTION

- Dry run detection
- Frost and condensation protection
- Hammer effect protection
- Phase-loss and short-circuit protection



PC TOOL - HIMEL STUDIO

- Parameters setting and copy
- Monitoring drive & IO terminal status
- Drive debugging and trial run
- Fault record and measurement
- Firmware upgrade




SUPPORT FOR MOST COMMUNICATION PROTOCOLS

- Supports most popular 3 protocols in the pump & fan applications
- Build in Modbus RTU/RS485 port
- Build in Modbus TCP/RJ45 port
- BACnet IP extension card

SMART Pump Variable Speed Drives




Specifications

Range Name		SMART Pump
Design		
Capacity range	Three phase 200V Class	AC: 200V(-15%)-240V(+10%) 2.2~45kW
	Three phase 400V Class	AC:380V(-15%)~440V(+10%) 2.2~160kW
Frequency	Input frequency	50/60Hz
	Output frequency	0-599Hz
Overload capacity		120% for 1min
Control method	V/f	√
	Sensorless vector control	√
	Eco mode control	√
Start torque		0.5Hz, 120%
Built-in PID		√
Keypad		Pluggable
Display		LED/LCD
Multispeed control		16 stages in one cycle
I/O	DI1-DI4	NPN/PNP, Input: 9-30VDC
	DI5	NPN/PNP, Input: 15-30VDC
	DO1	Pulse input: max. 50kHz
	DO2	9-30VDC, max. 50mA
		Pulse output max.50kHz
	AI1	V: 0-10V
		I:0-20mA
	AI2	Resolution:1/1000
	AO1	V: 0-10V
		I:0-20mA
	AO2	Resolution:1/1000
	RO(Ta, Tb, Tc)	NO: 24VDC 3A/ 250VAC 5A NC: 24VDC 3A/ 250VAC 3A
Built-in communication (Max. speed)		RS485, ModbusTCP/RTU (38.4kbps)
Options	Extension I/O	DI/DO/RO
	Extension Keypad	Support, cable length:2m, 5m
	Extension Communication Card	BACnet (<18.5kW installed independent; ≥18.5kW installed in VSD)
Functionality		Multi-pump control Dry run protection Energy/ flow calculator Frost and condensation protection Pump cleaning Fire override mode Eco-mode/PID with sleep mode/Special pump protections
Installation Way		Wall mounted, cabinet, flange installation
Dust Shields		√
EMC Filter	C2	—
	C3	Built-in EMC filter (≥11kW)
Braking unit		Built-in (≤22kW)
Environment	Operation temperature	-10-40℃ no capacity reduction, 40℃ -50℃ capacity reduction
	Humidity	≤95%RH
	Altitude	≤1000m, no capacity reduction
	IP level	IP20
Global certificates		CE

SMART Pump Variable Speed Drives



Specifications

Range Name		SMART Pump
Design		
Features	Velocity ratio	1:100
	Frequency precision	Digital setting: Max frequency X ±0.01% Analog setting: Max frequency X ±0.2%
	Frequency resolution	Digital setting: Max frequency X ±0.01% Analog setting: Max frequency X ±0.1%
	Torque rise	Integrated auto-torque raising function; with manual- setting: 0.1%~30.0%
	V/F control curve definition	Linear, Square, V ^{1.7} /F, V ^{1.2} /F
	Acceleration/Deceleration Time	4 types of ACC/DEC time selection; optional time unit selection(Min/s); setting range: 0~60hours;
	DC braking	Start frequency: 0.00~60.00Hz; braking time: 0.0~30.0S; braking current: 0.0~100%
	Automatic voltage regulation(AVR)	√
	Auto current limitation	√
	Auto PMW adjustment	√
Protections	Special pump protection	Voltage limit, dry run, pump load monitor, frost and condensation protections
	VSD protection function	Over-current, over-voltage, under-voltage, over-heat, over-load, short circuit.
	Cooling	Air- cooling
Warranty		24 months

Reference Selection

Range Name	Series Name	Input	Adaptation	Drive
HAV	SP	4T	0110	P
	↓	↓	↓	↓
HA: Himel Automation	S:SMART	2: 220V 4: 380V – 440V	0022: 2.2kW 0075: 7.5kW 0110: 11kW 0185: 18.5kW 1100: 110kW	P: Normal-duty
V: VSD M: Motion H: HMI P: PLC	P: Pump	T: Three-phase		

SMART Pump Variable Speed Drives



References

Input Voltage	Commercial Reference	Selection			Overload Output Current	
		Motor Power (kW)	Motor Power (HP)	Continuous Output Current (A)	A	%
AC: 200 - 240V Three Phase	HAVSP2T0022P	2.2	3	10.08	12.1	120%
	HAVSP2T0030P	3	4	11.5	13.8	120%
	HAVSP2T0040P	4	5	16.2	19.4	120%
	HAVSP2T0055P	5.5	7.5	20.3	24.4	120%
	HAVSP2T0075P	7.5	10	26.7	32	120%
	HAVSP2T0110P	11	15	39	46.8	120%
	HAVSP2T0150P	15	20	52.5	63	120%
	HAVSP2T0185P	18.5	25	62.4	74.9	120%
	HAVSP2T0220P	22	30	73.6	88.3	120%
	HAVSP2T0300P	30	40	98.7	118.4	120%
	HAVSP2T0370P	37	50	121	145.2	120%
	HAVSP2T0450P	45	60	147	176.4	120%
AC: 380 - 440V Three Phase	HAVSP4T0022P	2.2	3	5	6	120%
	HAVSP4T0030P	3	4	7.5	9	120%
	HAVSP4T0040P	4	5	8.8	10.6	120%
	HAVSP4T0055P	5.5	7.5	13	15.6	120%
	HAVSP4T0075P	7.5	10	17	20.4	120%
	HAVSP4T0110P	11	15	25	30	120%
	HAVSP4T0150P	15	20	32	38.4	120%
	HAVSP4T0185P	18.5	25	37	44.4	120%
	HAVSP4T0220P	22	30	45	54	120%
	HAVSP4T0300P	30	40	60	72	120%
	HAVSP4T0370P	37	50	75	90	120%
	HAVSP4T0450P	45	60	90	108	120%
	HAVSP4T0550P	55	75	110	132	120%
	HAVSP4T0750P	75	100	157	188.4	120%
	HAVSP4T0900P	90	125	180	216	120%
	HAVSP4T1100P	110	150	214	256.8	120%
HAVSP4T1320P	132	175	256	307.2	120%	
HAVSP4T1600P	160	200	307	368.4	120%	

SMART Pump Variable Speed Drives



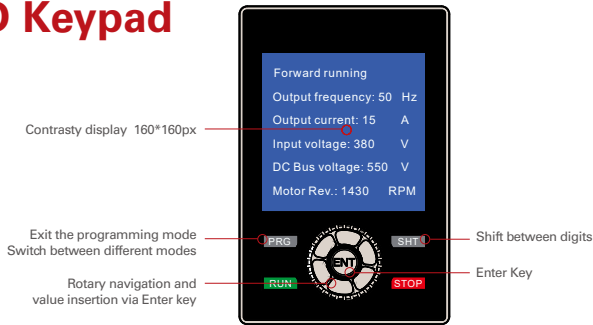
Dimensions

Input Voltage	Commercial Reference	Dimensions(mm)			Mounting Dimensions (mm)				Mounting Hole Diameter (mm)	CAD Diagram
		W	H	D	W1	H1	D1	D2		
AC: 200-240V Three Phase	HAVSP2T0022P	120	215	163	109	204	133	85	5.5	(a)
	HAVSP2T0030P	120	215	163	109	204	133	85	5.5	
	HAVSP2T0040P	120	215	163	109	204	133	85	5.5	
	HAVSP2T0055P	150	259	181	138	248	150	104	5.5	
	HAVSP2T0075P	150	259	181	138	248	150	104	5.5	
	HAVSP2T0110P	205	322	215	188	305	176	130	6.5	
	HAVSP2T0150P	235	370	235	218	350	200	146	7	(b)
	HAVSP2T0185P	235	370	235	218	350	200	146	7	
	HAVSP2T0220P	305	490	275	200	470	270	211	10	
	HAVSP2T0300P	305	490	275	200	470	270	211	10	
	HAVSP2T0370P	320	560	307	197	543	302	240	10	
	HAVSP2T0450P	320	560	307	197	543	302	240	10	
AC: 380-440V Three Phase	HAVSP4T0022P	120	215	163	109	204	133	85	5.5	(a)
	HAVSP4T0030P	120	215	163	109	204	133	85	5.5	
	HAVSP4T0040P	120	215	163	109	204	133	85	5.5	
	HAVSP4T0055P	120	215	163	109	204	133	85	5.5	
	HAVSP4T0075P	120	215	163	109	204	133	85	5.5	
	HAVSP4T0110P	150	259	181	138	248	150	104	5.5	
	HAVSP4T0150P	150	259	181	138	248	150	104	5.5	(b)
	HAVSP4T0185P	205	322	215	188	305	176	130	6.5	
	HAVSP4T0220P	205	322	215	188	305	176	130	6.5	
	HAVSP4T0300P	235	370	235	218	350	200	146	7	
	HAVSP4T0370P	235	370	235	218	350	200	146	7	
	HAVSP4T0450P	305	490	275	200	470	270	211	10	
	HAVSP4T0550P	305	490	275	200	470	270	211	10	(b)
	HAVSP4T0750P	320	560	307	197	543	302	240	10	
	HAVSP4T0900P	320	560	307	197	543	302	240	10	
	HAVSP4T1100P	320	560	307	197	543	302	240	10	
HAVSP4T1320P	355	678	319	240	659	314	261	11		
HAVSP4T1600P	355	678	319	240	659	314	261	11		

SMART Pump Variable Speed Drives



LCD Keypad



Features	Benefits
Display	<ul style="list-style-type: none"> ◆ More visible status information ◆ Intuitive operation ◆ Short commissioning times ◆ User-friendly interface
Rotary navigation	<ul style="list-style-type: none"> ◆ Quick navigation and input of values
Quick commissioning	<ul style="list-style-type: none"> ◆ Visible parameter names ◆ Possible to commission without documentation ◆ Easily copy parameters between multiple drives

VSD Accessories

Type	Commercial Reference	Short Description	Applicable Product		Pictures
			Applicable Commercial Reference	Specifications	
IO extension card	HAVSPIO3DI3R	IO extension card with 3 DI and 3 relay	HAVSP4T0022P ~ HAVSP4T1600P	4T*: 2.2 - 160kW	
Keypad bracket	HAVXSJPT	Keypad holder for external keypad	HAVSP4T0022P ~ HAVSP4T1600P	4T*: 2.2 - 160kW	
External Keypad	HAVSPLKD**	External keypad	HAVSP4T0022P ~ HAVSP4T1600P	4T*: 2.2 - 160kW	
	HAVSPLCD	LCD keypad	HAVSP4T0022P ~ HAVSP4T1600P	4T*: 2.2 - 160kW	
Keypad cable	HAVXSCAB2	Length 2m	HAVSP4T0022P ~ HAVSP4T1600P	4T*: 2.2 - 160kW	
	HAVXSCAB5	Length 5m	HAVSP4T0022P ~ HAVSP4T1600P	4T*: 2.2 - 160kW	
Communication card	HAVSPBACNET	Extension communication card	HAVSP4T0022P ~ HAVSP4T1600P	4T*:2.2-160kW	

*4T: 380V 3 Phase | ** All VSDs have built-in removable keypad. HAVSPLKD is sold as a spare part.



METERING

Efficient metering and monitoring at affordable price

Electricity is lifeline of your business. Measuring critical power parameters can help you manage the energy costs, making a positive impact on your bottom-line. Himel Metering products facilitate analysis of power quality reliability and preventative maintenance.

Fast and reliable parametrization is pivotal to high operational efficiency of industrial and commercial operations. From billing to monitoring and diagnostics, Himel Metering portfolio offers cost efficient devices to analyze, measure and control key electrical parameters.



Himel Meters enable facility managers and personnel to better understand the resource consumption—critical to the operation of modern manufacturing units



Himel Metering devices offer a cost-efficient approach to a wide variety of metering requirements for residential, commercial or industrial applications



Our Metering products are tailored to monitor electrical consumption and power distribution in the circuit—proven to improve the reliability of electrical energy in critical operations



Himel Metering products have user-friendly LCD display with keypad providing intuitive navigation through the menu structure, ideal for building power management and monitoring

METERING



HP606 Digital Panel Meters



HP606

Meter model: Amperemeter, Voltmeter, Combination meter, Multifunction Meter
Connection type: Single-phase / Three-phase
Accuracy: class 0.5
Frequency: 45-65Hz
Dimension types: 3 types (96, 72, 48)

307

HDT(S)S606 Three-phase Four-wire Watt-hour Meter



HDT(S)S606

Current specification: 1.5(6)A, 3(6)A, 5(20)A, 5(40)A, 5(60)A, 20(80)A, 10(100)A
Connection Type: Three-phase Four-wire
Accuracy: Class 1
Frequency: 50/60Hz

317

H72 & H96 Panel Meters



H96

H72

Specification: 72x72mm, 96x96mm
Type: Ammeter, Voltmeter, Frequency Meter
Frequency: 50/60Hz

313

HLMK Current Transformers



HLMK

Rated primary current: 30A-5000A
Rated secondary current: 5A
Maximum rated voltage: 0.66kV
Accuracy class: 0.5, 1.0
Frequency: 50Hz

324

HDDS606 Single-phase Watt-hour Meter



HDDS606

Current specification: 1.5(6)A, 2.5(10)A, 5(20)A, 5(30)A, 10(40)A, 15(60)A, 20(80)A, 10(100)A
Connection Type: Single-phase
Accuracy: Class 1
Frequency: 50/60Hz

317

METERING

Range Presentation

HP606 is Himel range of new Digital Meters:

- Applied to power monitoring and panel builder cabinet
- Product types: current, voltage, combination, and multifunction
- Dimension types: 3 types (96, 72, 48)



Features

- ◆ New design and elegant appearance: material of high permeability plexiglass, LED or LCD display; and wide visual range
- ◆ Accurate metering and reliable performance: high accuracy and resolution ratio; high ability of overloading
- ◆ Four-remote control: teleindication, telecontrol, Telemetry, and remote regulating
 - √ Teleindication: build communication with data collector, network module, and workstation via Rs485
 - √ Telecontrol: operation on local or remote workstation (off-site), e.g. remote tripping and closing
 - √ Telemetry: remote parameters adjustment
 - √ Remote regulating: remote parameters metering

Range Presentation

HDDS606 and HDT(S)S606 series are Himel range of Electronic Watt-hour Meter, which provide:

- Measuring the active energy in the single-phase or three-phase AC power network at frequency of 50Hz or 60Hz
- Measuring the active energy of enterprises, transformer sub-station or power stations, and be used as automatic meters of power transmission and distribution network



Features

- ◆ Smaller and Elegant:
 - 50% smaller in size to save installation space
 - Upgraded appearance design
- ◆ Accurate Measurement & Safe and Reliable:
 - Automatic calibration for inspection
 - Three lead sealings: factory, verification and installation; more secure for electricity anti-stealing.
- ◆ Well Designed & Intelligent and Convenient:
 - Wider current range, and easier for model selection
 - First limit design of bump on the tail cover in our industry, and flip angle of the tail cover can be more than 135°
 - More convenient and firming on wiring.
- ◆ Qualified Materials & Excellent Performance:
 - Temperature rise is only 15K, which is far less than national standard 25K.
 - Power loss is less than 0.5W.
 - Heat deformation temperature reaches to 200°C

Range Presentation

HLMK Series is Himel range of Current Transformer, to measure and transform high current to low current

Features

- ◆ 100% pure copper varnished wire
- ◆ Optimized electric conductivity, less power loss and better stability
- ◆ Shell is made of flame retardant PC material
- ◆ Maximum rated voltage is 0.66kV



METERING

HP606 Digital Panel Meters

Standard: IEC60051



Product Overview

- New design, and it's applied to power monitoring and panel builder cabinet
- Product types: current, voltage, combination, and multifunction
- Dimension types: 3 types (96, 72, 48)

Model Selection

The HP606 Series includes the following models:

- HPZ single/three-phase voltmeter
- HPA single/three-phase amperemeter
- HPD combination meter
- HPDM multifunction meter

Selection Code

Model	Input mode	Panel dimension	Meter structure	Display mode	Range	
HP*606	L	72	P	1	Y 5A	
HPA606: HPA606 Amperemeter	L: AC	48: 96×48 mm (only for single-phase meter)	P: Programmable Display Instrument S: DO+RS485	1: One-row LED display	NA	5A: Secondary 1A: Secondary
		72: 72×72 mm		1: One-row LED display 4: Three-row LED display		
		96: 96×96 mm	P: Programmable Display Instrument S: DO+RS485	1: One-row LED display 4: Three-row LED display 4: Three-row LED display		
HPZ606: HPZ606 Voltmeter	L: AC	48: 96×48 mm (only for single-phase meter)	P: Programmable Display Instrument S: DO+RS485	1: One-row LED display	Y: 100V O: 600V	NA
		72: 72×72 mm	P: Programmable Display Instrument S: DO+RS485	1: One-row LED display 4: Three-row LED display		
		96: 96×96 mm	P: Programmable Display Instrument S: DO+RS485	1: One-row LED display 4: Three-row LED display 4: Three-row LED display		
HPD606: HPD606 Combination meter	L: AC	72: 72×72 mm	P: Programmable Display Instrument T: RS485	4: Three-row LED display	Y: 100V O: 600V	5A: Secondary 1A: Secondary
		96: 96×96 mm				
HPDM606: HPDM606 Multifunction meter	L: AC	72: 72×72 mm	P: Programmable Display Instrument T: RS485	3Y: Three-phase LCD display (only for multifunction meter) 4: Three-row LED display	Y: 100V O: 600V	5A: Secondary 1A: Secondary
		96: 96×96 mm	P: Programmable Display Instrument T: RS485			

Note: Normally the combination meter is composed of voltage, current, and frequency. If customer needs more functions, then a multi-function meter is required.

Features

- ◆ New design and elegant appearance: material of high permeability plexiglass, LED or LCD display; and wide visual range
- ◆ Accurate metering and reliable performance: high accuracy and resolution ratio; high ability of overloading
- ◆ Four-remote control: teleindication, telecontrol, Telemetering, and remote regulating
 - √ Teleindication: build communication with data collector, network module, and workstation via Rs485
 - √ Telecontrol: operation on local or remote workstation (off-site), e.g. remote tripping and closing
 - √ Telemetering: remote parameters adjustment
 - √ Remote regulating: remote parameters metering

Online Content



HP606

METERING

HP606 Digital Panel Meters

Standard: IEC60051

Range Table

Current range	Direct connection AC: 0.1~5A DC: 0~5A
	AC: external current transformer 5A/5A 10kA/5A DC: current shunt 75mV 10kA/75mV
Voltage range	Direct connection AC: 3~600V; DC: 0~600V
	AC: external voltage transformer 380V/100V~ 380kV/100V; DC: external resistor of 750V~ 1.5kV
Frequency range	45Hz~65Hz
Power factor	0.5 (lead) ~1 ~0.5 (lag)

Technical Parameters

Input	Network system		Single-phase & Three-phase	
	Voltage	Overload	Continuous: 1.2×Un; Instantaneous: 2×Un for lasting 1s	
	Current	Overload	Continuous: 1.2×In; Instantaneous: 10×In for lasting 5s	
	Frequency		45~65Hz	
Function module	Switch input (DI)		Photocoupler Isolation of passive dry contact	
	Switch output (DO)		Output of two-loop passive relay, contact capacity: 3A/30VDC,3A/250VAC, Values of upper and lower limit alarm, hysteresis can be set as what you want. Output method: remote control (used as switch output) or off-limit alarm	
	Electrical energy pulse		Two-loop electrical pulse output	
	Electrical energy pulse constant		Active power: 8000imp/kwh Reactive power: 8000imp/kvarh	
	Communication	Method		RS485
		Protocol		MODBUS-RTU
		Baud rate		1200, 2400, 4800, 9600 bps
		Parity bit		Odd parity, even parity, no parity
Display	Display mode		(1) Long lifecycle and highlighted LED display; (2) Wide viewing LCD display	
Accuracy Class	Voltage, current, frequency, active power, power factor		Class 0.5	
	active energy		Class 1	
IP Protection			IP54	
Auxiliary power supply	Range		AC220V	
	Power consumption		< 5VA	
Standard	IEC 60068-2, IEC 61010-1, IEC 60529, IEC 61000-4, IEC 61557-1			

Working Environment and Condition

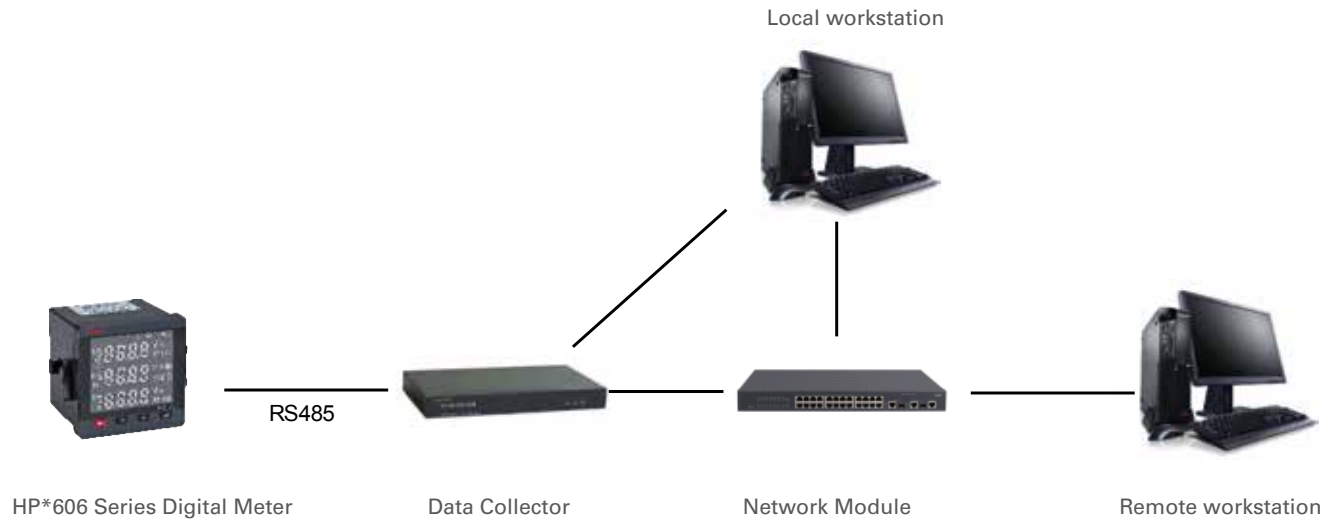
Ambient temperature	Allowed ambient temperature: -10°C~+45°C ; limited operating temperature: -25°C~+55°C
Environmental humidity	≤ 85%RH
Working environment	No mold and insect, no salt spray, no dewing, light dust and sand are allowed, withstand mechanical force of instruments is the basic type, altitude ≤ 2000m.

METERING

HP606 Digital Panel Meters

Standard: IEC60051

Communication Application



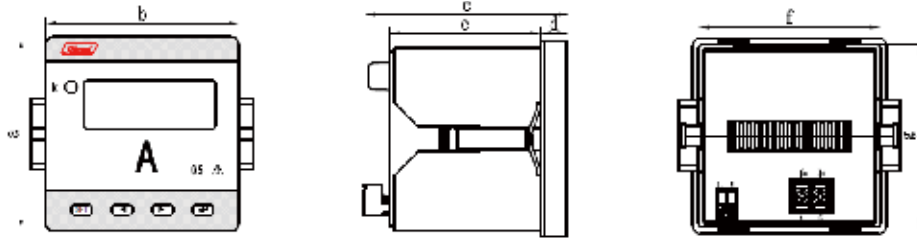
METERS

HP606 Digital Panel Meters

Standard: IEC60051

Product Dimension

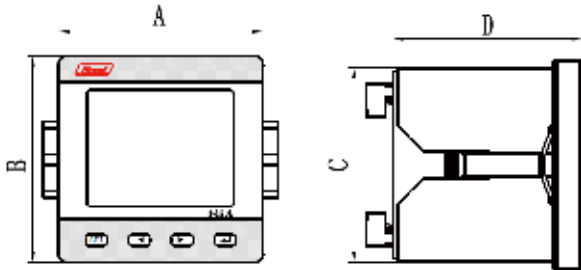
·Single-phase Amperemeter / Voltmeter Dimension



Unit: mm

Model	Dimension							Mounting hole size	
	a	b	c	d	e	f	g		
72	72	72	100.5	13.5	74.5	66	66	67	67
96	96	96	100.5	13.5	74.5	90.5	90.5	92	92
48	48	96	100.5	13.5	74.5	90.5	43.5	45	92

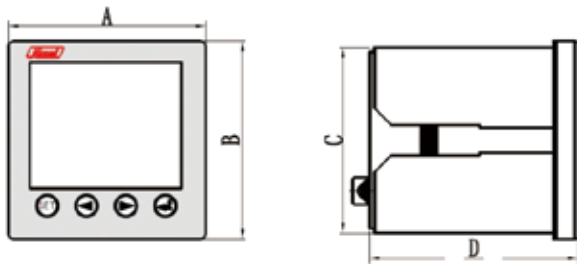
Three-phase Amperemeter / Voltmeter Dimension



Unit: mm

Model	Dimension				Mounting hole size
	A	B	C	D	
72	72	72	66	88	67*67
96	96	96	90.5	88	92*92

·Three-phase Combination / Multifunction Meter Dimension



Unit: mm

Model	Dimension				Mounting hole size
	A	B	C	D	
72	72	72	66	88	67*67
96	96	96	90.5	88	92*92

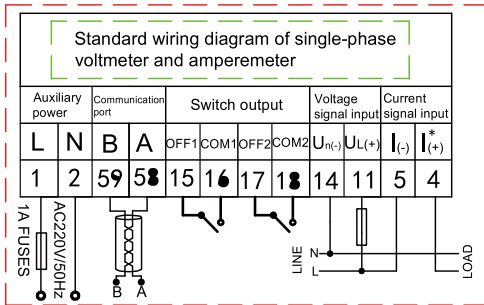
METERS

HP606 Digital Panel Meters

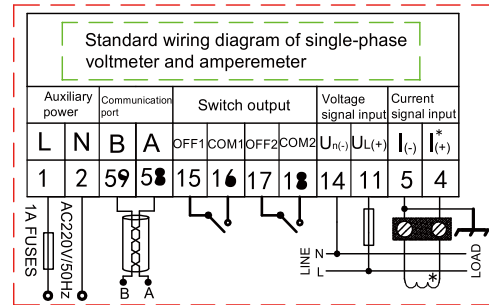
Standard: IEC60051

Wiring Diagram for Terminal Block

Single-phase Amperemeter / Voltmeter

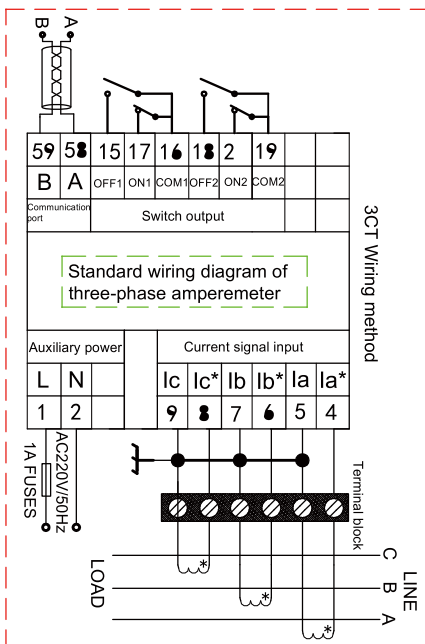


Direct Connection

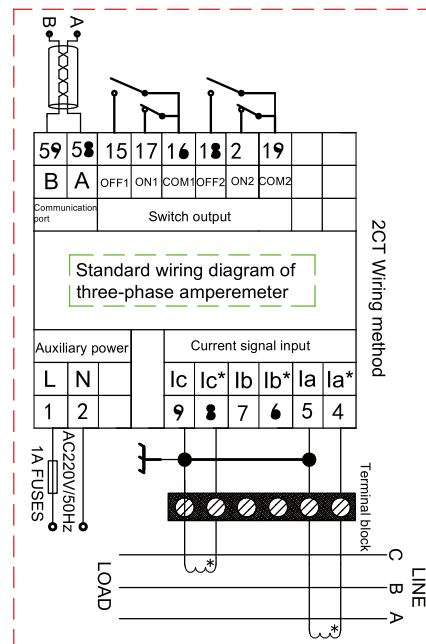


External transformer connection

Three-phase Amperemeter



Three-phase three-wire



Three-phase four-wire

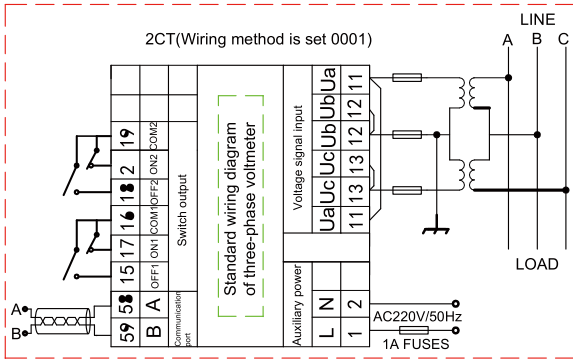
METERING

HP606 Digital Panel Meters

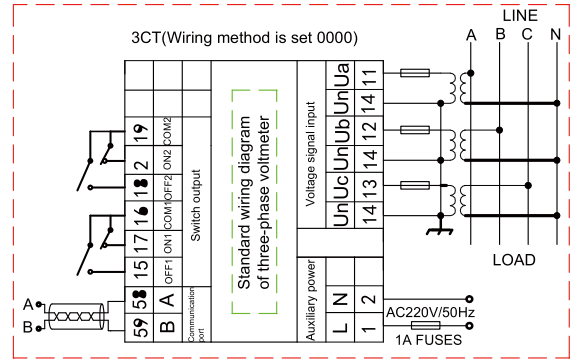
Standard: IEC60051

Wiring Diagram for Terminal Block

Three-phase Voltmeter

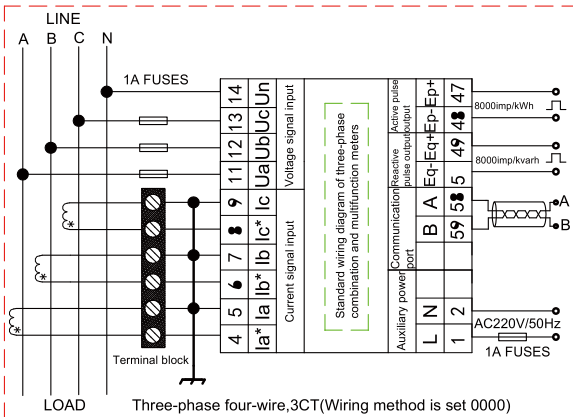


Three-phase three-wire

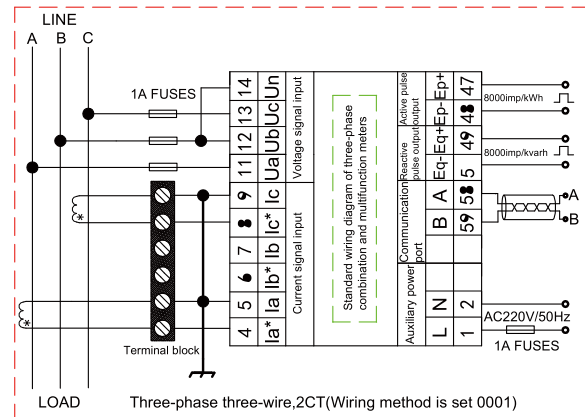


Three-phase four-wire

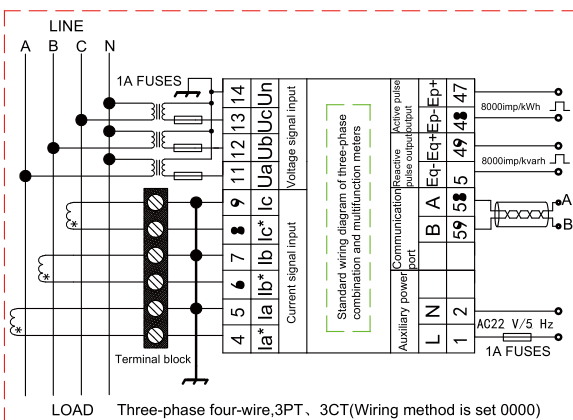
Three-phase Combination and Multifunction meters



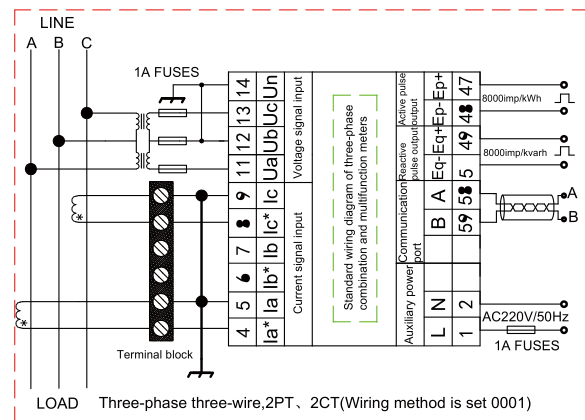
Direct Connection



Direct Connection



External voltage
transformer connection
Three-phase three-wire



External voltage
transformer connection
Three-phase four-wire

METERING

H72 & H96 Panel Meter

Standard: IEC60051



Range Presentation

H72 & H96 series is Himel range of panel meters which provides:

- H72T/H72L & H96T/H96L can be used to measure the current, voltage or frequency in the AC circuit
- H72C & H96C can be used to measure the current or voltage in the DC circuit
- They are mainly used as indicating instrument for high or low-voltage switch cabinet, power supply cabinet, control cabinet and other electric-control facilities in the AC transmission circuit system.

Features

- ◆ 72*72mm dimension for H72 series, while 96*96mm dimension for H96 series;
- ◆ For amperemeter with direct connection, maximum current can reach 50A in AC circuit, while maximum current is 20A in DC circuit;
- ◆ For voltmeter with direct connection, maximum voltage can reach 600V in both AC and DC circuits;
- ◆ Accuracy of amperemeter and voltmeter is class 1.5, and accuracy of frequency meter is class 1.0.

Online Content



H72



H96

Selection Code

Range name	Primary Current / Voltage / Frequency	Connection method
H72	50	A
H72TA: H72 AC Amperemeter H96TA: H96 AC Amperemeter	5: 5A 20: 20A ... 5000: 5000A 10000: 10000A	Default: External transformer connection A: Direct connection (1-20A)
H72LV: H72 AC Voltmeter H96LV: H96 AC Voltmeter	300: 300V 500: 500V 600: 600V	Default: Direct connection (30-600V)
H96CV: H96 DC Voltmeter	300: 300V 500: 500V 600: 600V	Default: Direct connection (3-600V)
H72LHZ: H72 frequency meter H96LHZ: H96 frequency meter	01200V	

Note: • CT must be purchased separately for Amperemeter above 20A

- the last digit of selection code plus WG by default

Technical Parameters

Panel Meters	H72/H96
Standard	IEC 60051
Dielectric strength test	Frequency 50/60Hz, Voltage 2000V, duration 1 minute
Impact test	Maximum acceleration 147m/s ²
Response time	≤4s
Angular Deflection	90°
Temperature	-25°C ~ +40°C
Humidity	(25%-80%) RH
Environment	No mildew, insects, salt mist, dew, sand and dust are permitted
Installation	Installed vertically
IP Grade	IP42

METERING

H72 & H96 Panel Meter

Standard: IEC60051

H72 series panel meter provides

- ◆ H72T/H72L applies to measure the current, voltage or frequency in the AC circuit
- ◆ H72C applies to measure the current or voltage in the DC circuit
- ◆ Mainly be used as an indicating instrument for high or low-voltage switch cabinet, power supply cabinet, control cabinet and other electric-control facilities in the AC transmission circuit system

Order Information

Type	Accuracy rating	Specification	Note	Dimensions (mm)	Reference
Ammeter	1.5	30/5A	AC Type External connection transformer 2 times of current overload	72×72×67.5	H72TA30WG
		40/5A		72×72×67.5	H72TA40WG
		50/5A		72×72×67.5	H72TA50WG
		60/5A		72×72×67.5	H72TA60WG
		75/5A		72×72×67.5	H72TA75WG
		80/5A		72×72×67.5	H72TA80WG
		100/5A		72×72×67.5	H72TA100WG
		150/5A		72×72×67.5	H72TA150WG
		160/5A		72×72×67.5	H72TA160WG
		200/5A		72×72×67.5	H72TA200WG
		250/5A		72×72×67.5	H72TA250WG
		300/5A		72×72×67.5	H72TA300WG
		400/5A		72×72×67.5	H72TA400WG
		600/5A		72×72×67.5	H72TA600WG
		800/5A		72×72×67.5	H72TA800WG
		1000/5A		72×72×67.5	H72TA1000WG
		1600/5A		72×72×67.5	H72TA1600WG
		5000/5A		72×72×67.5	H72TA5000WG
		10000/5A		72×72×67.5	H72TA10000WG
					5A
	1.5	5A	DC Type	72×72×67.5	H72CA5AWG
Voltmeter	1.5	300V	AC Type	72×72×67.5	H72LV300WG
		500V		72×72×67.5	H72LV500WG
		600V		72×72×67.5	H72LV600WG
		500V	DC Type	72×72×67.5	H72CV500WG
Frequency meter	1.0	45-55HZ (200V)	AC Type	72×72×67.5	H72LHZ01200VWG

METERING

H72 & H96 Panel Meter

Standard: IEC60051

H96 series panel meter provides

- ◆ H96T/H96L applies to measure the current, voltage or frequency in the AC circuit
- ◆ H96C applies to measure the current or voltage in the DC circuit
- ◆ Mainly be used as an indicating instrument for high or low-voltage switch cabinet, power supply cabinet, control cabinet and other electric-control facilities in the AC transmission circuit system

Order Information

Type	Accuracy rating	Specification	Note	Dimensions (mm)	Reference
Ammeter	1.5	30/5A	AC Type	96×96×67.5	H96TA30WG
		40/5A		96×96×67.5	H96TA40WG
		50/5A		96×96×67.5	H96TA50WG
		60/5A		96×96×67.5	H96TA60WG
		75/5A		96×96×67.5	H96TA75WG
		80/5A		96×96×67.5	H96TA80WG
		100/5A		96×96×67.5	H96TA100WG
		150/5A		96×96×67.5	H96TA150WG
		160/5A		96×96×67.5	H96TA160WG
		200/5A	External connection transformer	96×96×67.5	H96TA200WG
		250/5A		96×96×67.5	H96TA250WG
		300/5A		96×96×67.5	H96TA300WG
		400/5A		96×96×67.5	H96TA400WG
		600/5A		96×96×67.5	H96TA600WG
		800/5A		96×96×67.5	H96TA800WG
		1000/5A		96×96×67.5	H96TA1000WG
		1600/5A		96×96×67.5	H96TA1600WG
		5000/5A		96×96×67.5	H96TA5000WG
		10000/5A		96×96×67.5	H96TA10000WG
			5A	AC Type Direct connection	96×96×67.5
	1.5	5A	DC Type	96×96×67.5	H96CA5AWG
Voltmeter	1.5	300V	AC Type	96×96×67.5	H96LV300WG
		500V		96×96×67.5	H96LV500WG
		600V		96×96×67.5	H96LV600WG
		500V	DC Type	96×96×67.5	H96CV500WG
Frequency meter	1.0	45-55HZ (200V)	AC Type	96×96×67.5	H96LHZ01200VWG

METERING

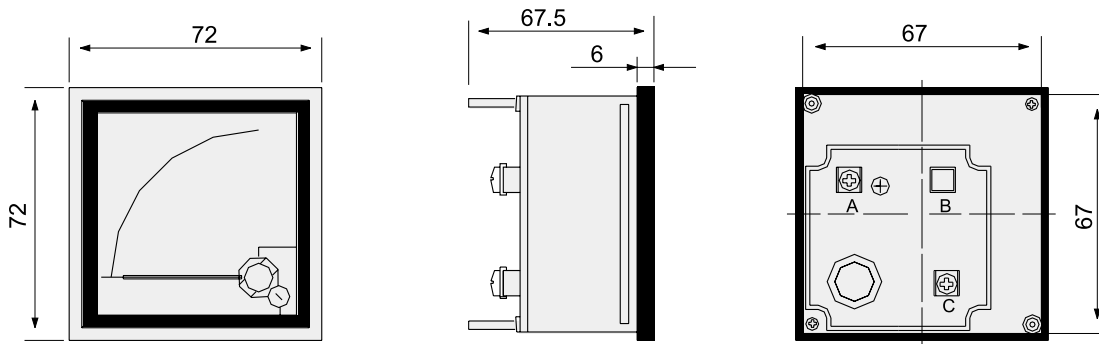
H72 & H96 Panel Meter

Standard: IEC60051

Overall Dimensions

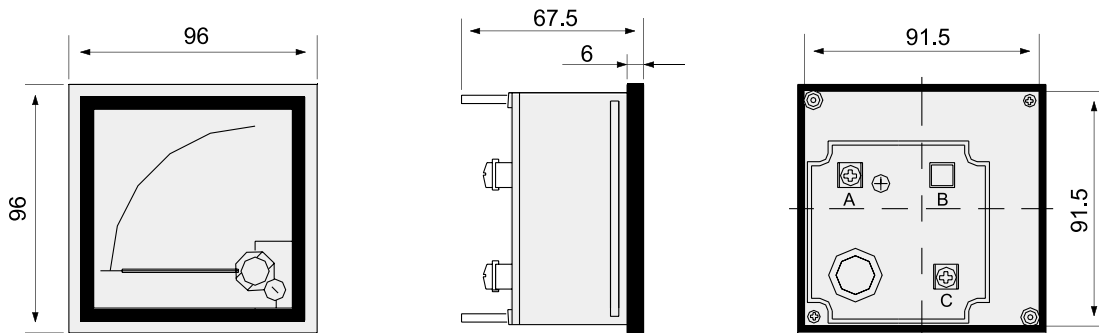
H72 series panel meter

Unit:mm



H96 series panel meter

Unit:mm



METERING

Electronic Watt-hour Meters HDDS606 & HDT(S)S606



Product Introduction

Our new generation watt-hour meters are designed and developed to adapt to the reconstruction of power network. They are the high-tech products manufactured with high quality, intelligent and convenient applications. Our new meters are widely used in high and low voltage metering cabinets, final distribution metering cabinets, residential, shopping malls, etc.

New generation includes:

- Single-phase: HDDS606 dial display or LCD display with RS485 and infrared.
- Three-phase: HDT(S)S606 dial display or LCD display with RS485 and infrared.

Online Content



HDDS606



HDT(S)S606

Selection Code

Model	Voltage	Accuracy	Current Specification	Frequency	Connection	Display Mode
HDDS606	M	1	6M4	6	H	C
HDDS606: Single-phase Electronic Watt-hour Meter	M: 220V N: 230V	Default: Class 1	6M4: 1.5(6)A 10M4: 2.5(10)A 20M4: 5(20)A 30M6: 5(30)A 40M4: 10(40)A 60M4: 15(60)A 80M4: 20(80)A 100M10: 10(100)A	Default: 50Hz 6: 60Hz	Default: Direct connection (No external CT/VT type)	Default: Dial display without any optional function C: LCD display (485 interface & infrared)
HDT(S)S606: Three-phase Four-wire Electronic Watt-hour Meter	V: 3*230/400V W: 3*57.7/100V V: 3*230/400V	Default: Class 1	20M4: 5(20)A 40M8: 5(40)A 60M12: 5(60)A 80M4: 20(80)A 100M10: 10(100)A 6M4: 1.5(6)A 6M2: 3(6)A	Default: 50Hz 6: 60Hz	Default: Direct connection H: Connect via VT/CT	Default: Dial display C: LCD display(485 interface & infrared)

Note: for HDDS606 the last digit of selection code plus L by default

METERING

Electronic Watt-hour Meters - HDDS606 & HDT(S)S606

Product Features



Smaller & Elegant

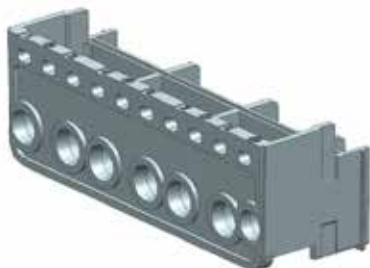
- 50% smaller in size to save installation space
- Upgraded appearance design

Accurate Measurement, Safe & Reliable

- Automatic calibration for inspection
- Three lead sealings: factory, verification and installation; more secure for electricity anti-stealing.

Well Designed, Intelligent & Convenient

- Wider current range, and easier for model selection
- First limit design of bump on the tail cover in our industry, and flip angle of the tail cover can be more than 135°
- More convenient and firming on wiring.



Qualified Materials & Excellent Performance

- Temperature rise is only 15K, which is far less than national standard 25K.
- Power loss is less than 0.5W.
- Heat deformation temperature reaches to 200°C.

METERING

Electronic Watt-hour Meters - HDDS606 & HDT(S)S606



Technical Parameters		
Energy Meters	HDDS606	HDT(S)S606
Connection Method	Single phase	Three-phase four-wire
Accuracy	Class 1	
Rated Voltage (V)	220, 230	3*57.7/100V (External transformer) 3*230/400V
Current Specification	1.5(6)A, 2.5(10)A, 5(20)A, 10(40)A, 15(60)A, 10(100)A	3*57.7/100V: 1.5(6)A, 3(6)A
		3*230/400V: 1.5(6)A, 3(6)A, 5(20)A, 5(40)A, 5(60)A, 20(80)A, 10(100)A
Display Mode	Dial meter or LCD	
Default functions in LCD Model	Infrared communication, RS485 communication	
Normal working voltage	0.9~1.1 (Reference voltage)	
Ultimate working voltage	0.0~1.15 (Reference voltage)	
Rated Voltage	0.75Un~1.15Un	

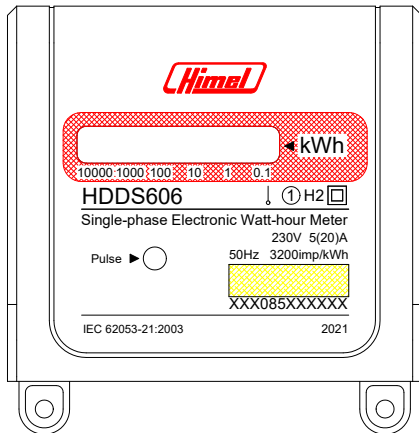
Working Conditions

- Power consumption
Power consumption in voltage circuit: 2W/10VA
Power consumption in current circuit: 4VA
- Temperature range
Range of specified working temperature: -10°C~+45°C
Range of ultimate working temperature: -25°C~+55°C
- Humidity range
Annual average relative humidity: <75%.

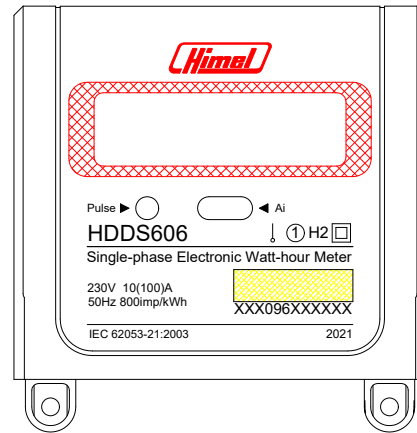
METERING

Electronic Watt-hour Meters - HDDS606 & HDT(S)S606

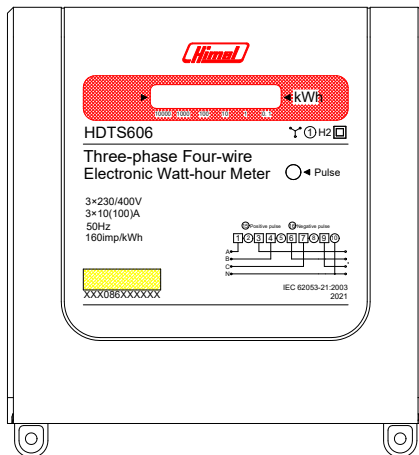
Nameplate Design



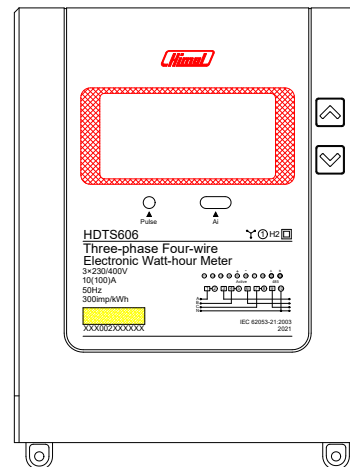
HDDS606 - Dial display



HDDS606 - LCD display



HDT(S)S606 - Dial display



HDT(S)S606 - LCD display

METERING

Electronic Watt-hour Meters - HDDS606 & HDT(S)S606

Error Limit of Watt-hour Meters

• HDDS606

Load Current	Power factor COSφ	Error (%)	
		Class 1	Class 2
$0.05I_b \leq I < 0.1I_b$	1	±1.5	±2.5
$0.1I_b \leq I \leq I_{max}$	1	±1.0	±2.0
$0.1I_b \leq I < 0.2I_b$	0.5L	±1.5	±2.5
	0.8C	±1.5	-
$0.2I_b \leq I \leq I_{max}$	0.5L	±1.0	±2.0
	0.8C	±1.0	-

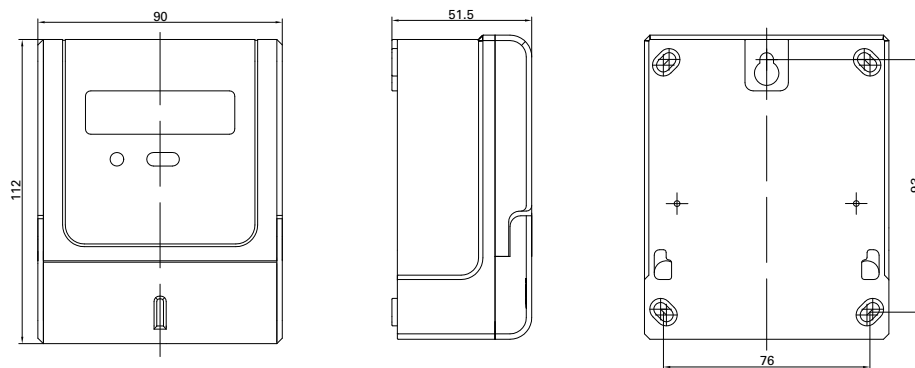
• HDT(S)S606

Current value		Active Power Class 1		Active Power Class 2	
Direct connection	Through the transformer	Power factor COSφ	Error %	Power factor COSφ	Error %
$0.05I_b \leq I < 0.1I_b$	$0.02I_n \leq I < 0.05I_n$	1	±1.5	1	±2.5
$0.1I_b \leq I \leq I_{max}$	$0.05I_n \leq I \leq I_{max}$	1	±1.0	1	±2.0
$0.1I_b \leq I < 0.2I_b$	$0.05I_n \leq I < 0.1I_n$	0.5L	±1.5	0.5L	±2.5
		0.8C	±1.5	0.8C	±2.5
$0.2I_b \leq I \leq I_{max}$	$0.1I_n \leq I \leq I_{max}$	0.5L	±1.0	0.5L	±2.0
		0.8C	±1.0	0.8C	±2.0

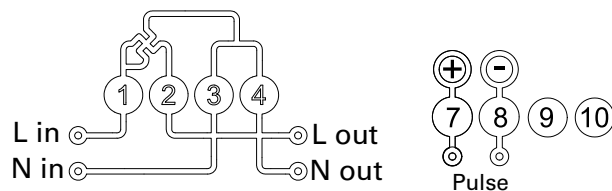
Installation dimensions and Wiring Diagrams

Single-phase

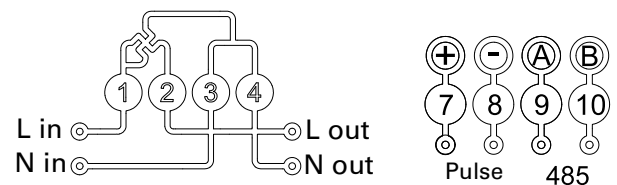
• Overall Dimension



• Wiring Diagram



Without communication



With communication

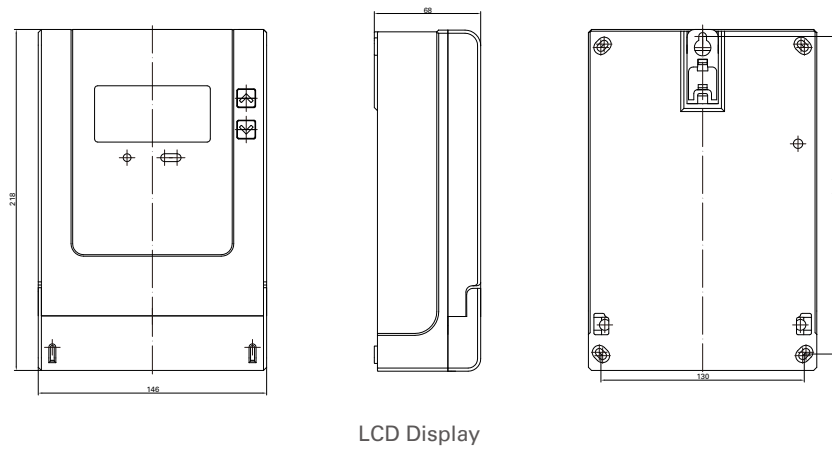
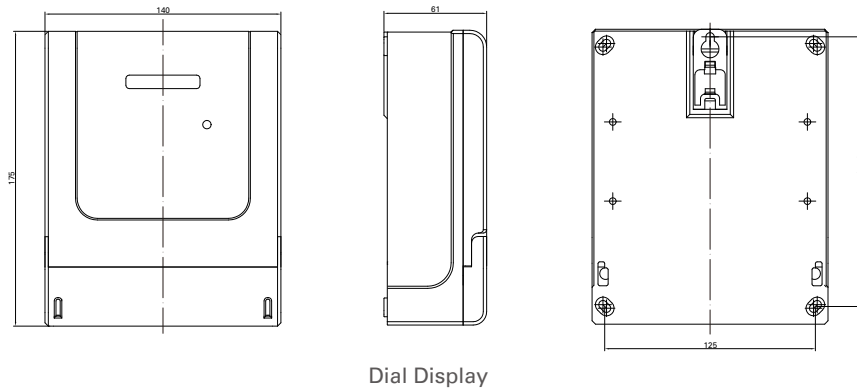
METERING

Electronic Watt-hour Meters - HDDS606 & HDT(S)S606

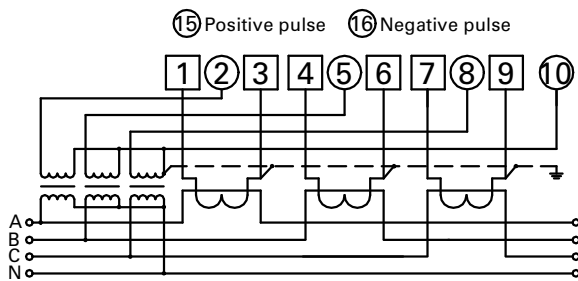
Installation dimensions and Wiring Diagrams

Three-phase

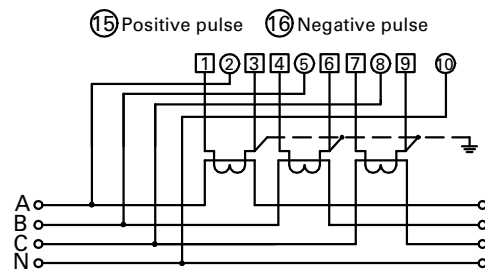
• Overall Dimension



• Wiring Diagram



Wiring diagram of three-phase four-wire external current and voltage transformer connection
($3 \times 57.7/100V$ $3 \times 1.5(6)A$, $3 \times 3(6)A$)



Wiring diagram of three-phase four-wire external current transformer connection
($3 \times 230/400V$ $3 \times 1.5(6)A$, $3 \times 3(6)A$)

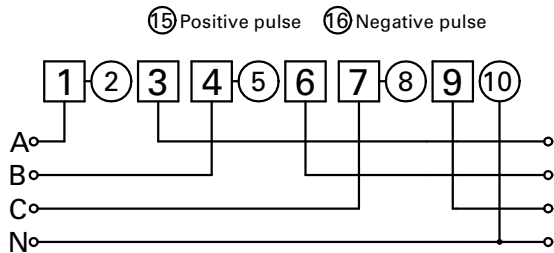
METERING

Electronic Watt-hour Meters - HDDS606 & HDT(S)S606

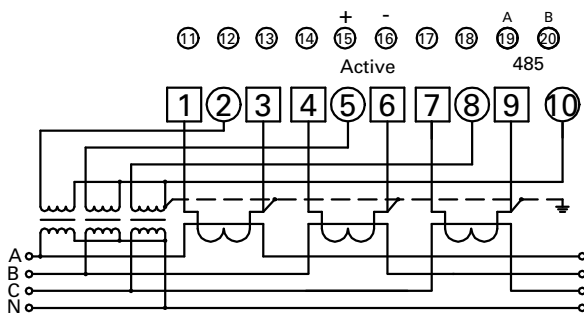
Installation dimensions and Wiring Diagrams

Three-phase

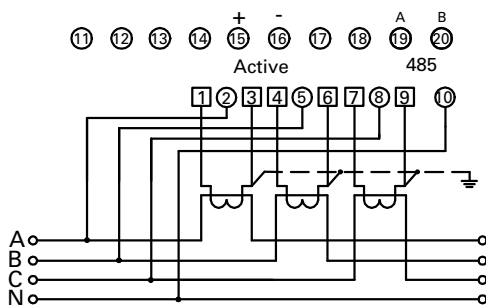
• Wiring Diagram



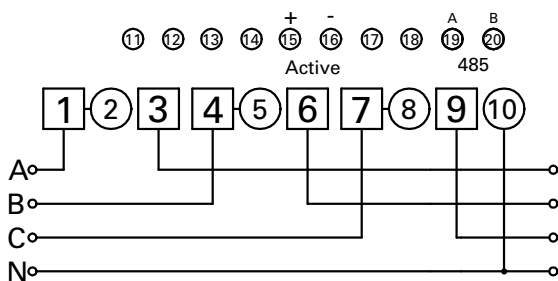
Wiring diagram of three-phase four-wire direct-connection
($3 \times 230/400V$ $I \geq 3 \times 5(20)A$)



HDT(S)S606 three-phase four-wire electronic watt-hour meter
(LCD, infrared, and 485) ($3 \times 57.7/100V$ $3 \times 1.5(6)A$ $3 \times 3(6)A$),
connected through the external current and voltage transformer



HDT(S)S606 three-phase four-wire electronic watt-hour meter
(LCD, infrared, and 485) ($3 \times 230/400V$ $3 \times 1.5(6)A$,
 $3 \times 3(6)A$), connected through the external current transformer



HDT(S)S606 three-phase four-wire electronic watt-hour meter
(LCD, infrared, and 485) ($3 \times 230/400V$ $I \geq 3 \times 5(20)A$),
direct connection type

METERING

HLMK Current Transformers

Standard: IEC60044-1



Range Presentation

HLMK Series is Himel range of Current Transformer, to measure and transform high current to low current

Features

- ◆ 100% pure copper varnished wire
- ◆ Optimized electric conductivity, less power loss and better stability
- ◆ Shell is made of flame retardant PC material
- ◆ Maximum rated voltage is 0.66kV

Online Content



HLMK

Selection Code

Range name	Maximum rated voltage	Accuracy class	Rated primary current	Bus-bar dimension
HLMK	P6	P1	30	30
HLMK	P6: 0.66kV	Default: class 0.5 P1: class 1	30: 30A 50: 50A 75: 75A ... 5000: 5000A	30: 30×10mm 40: 40×10mm 50: 50×15mm 60: 60×20mm 80: 80×10mm or 60×30mm 100: 100×30mm or 60×40mm 120: 120×25mm or 80×30mm

Rating Table

Busbar diameter (mm)	Φ 30	Φ 40	Φ 50	Φ 60	Φ 80	Φ 100	Φ 120
Rated primary current to select (A)	30 50 75 100 150 200	250 300 400 500	300 400 500 600 750 800 1000	500 600 750 800 1000 1200 1500	600 750 800 1000 1200 1500 2000 2500	600 750 800 1000 1200 1500 2000 2500 3000	1500 2000 2500 3000 4000 5000

Technical Parameters

Current Transformers	HLMK
Rated primary current	30A-5000A
Rated secondary current	5A
Maximum rated voltage	0.66kV
Accuracy class	0.5, 1.0
Short time thermal current	I _{th} =100I _n
Security coefficient security coefficient	FS<5
Standard	IEC 60044-1
Certificate	CE

METERING

HLMK Current Transformers

Standard: IEC60044-1



HLMK Series Current Transformer provides

- ◆ Measuring and transforming the high current to low current

Order Information

Accuracy Class: 0.5 Maximum Rated Voltage: 0.66KV

Model	Rated Current Primary/Secondary (A)	Rated Load (VA)	Bus-bar (mm)	Diameter (mm)	Number of Turns through the core	Reference
HLMK-0.66-30	30/5	5-3.75		20	5	HLMKP63030
	50/5	5-3.75		20	3	HLMKP65030
	75/5	5-3.75		20	2	HLMKP67530
	100/5	5-3.75		20	2	HLMKP610030
	150/5	5-3.75	30×10	20	1	HLMKP615030
	200/5	5-3.75	30×10	20	1	HLMKP620030
HLMK-0.66-40	250/5	5-3.75	40×10	30	1	HLMKP625040
	300/5	5-3.75	40×10	30	1	HLMKP630040
	400/5	5-3.75	40×10	30	1	HLMKP640040
	500/5	5-3.75	40×10	30	1	HLMKP650040
HLMK-0.66-50	300/5	5-3.75	50×15	35	1	HLMKP630050
	400/5	5-3.75	50×15	35	1	HLMKP640050
	500/5	5-3.75	50×15	35	1	HLMKP650050
	600/5	10-3.75	50×15	35	1	HLMKP660050
	750/5	10-3.75	50×15	35	1	HLMKP675050
	800/5	10-3.75	50×15	35	1	HLMKP680050
HLMK-0.66-60	1000/5	10-3.75	50×15	35	1	HLMKP6100050
	500/5	5-3.75	60×20	45	1	HLMKP650060
	600/5	10-3.75	60×20	45	1	HLMKP660060
	750/5	10-3.75	60×20	45	1	HLMKP675060
	800/5	10-3.75	60×20	45	1	HLMKP680060
	1000/5	10-3.75	60×20	45	1	HLMKP6100060
HLMK-0.66-80	1200/5	10-3.75	60×20	45	1	HLMKP6120060
	1500/5	10-3.75	60×20	45	1	HLMKP6150060
	600/5	10-3.75	80×10 or 60×30	50	1	HLMKP660080
	750/5	10-3.75	80×10 or 60×30	50	1	HLMKP675080
	800/5	10-3.75	80×10 or 60×30	50	1	HLMKP680080
	1000/5	10-3.75	80×10 or 60×30	50	1	HLMKP6100080
	1200/5	10-3.75	80×10 or 60×30	50	1	HLMKP6120080
	1500/5	15-3.75	80×10 or 60×30	50	1	HLMKP6150080
HLMK-0.66-100	2000/5	15-3.75	80×10 or 60×30	50	1	HLMKP6200080
	2500/5	15-3.75	80×10 or 60×30	50	1	HLMKP6250080
	600/5	10-3.75	100×30 or 60×40	60	1	HLMKP6600100
	750/5	10-3.75	100×30 or 60×40	60	1	HLMKP6750100
	800/5	10-3.75	100×30 or 60×40	60	1	HLMKP6800100
	1000/5	10-3.75	100×30 or 60×40	60	1	HLMKP61000100
	1200/5	10-3.75	100×30 or 60×40	60	1	HLMKP61200100
	1500/5	15-3.75	100×30 or 60×40	60	1	HLMKP61500100
HLMK-0.66-120	2000/5	15-3.75	100×30 or 60×40	60	1	HLMKP62000100
	2500/5	15-3.75	100×30 or 60×40	60	1	HLMKP62500100
	3000/5	20-3.75	100×30 or 60×40	60	1	HLMKP63000100
	1500/5	15-3.75	120×25 or 80×30	60	1	HLMKP61500120
	2000/5	15-3.75	120×25 or 80×30	60	1	HLMKP62000120
	2500/5	15-3.75	120×25 or 80×30	60	1	HLMKP62500120
HLMK-0.66-120	3000/5	20-3.75	120×25 or 80×30	60	1	HLMKP63000120
	4000/5	20-3.75	120×25 or 80×30	60	1	HLMKP64000120
	5000/5	20-3.75	120×25 or 80×30	60	1	HLMKP65000120

METERING

HLMK Current Transformers

Standard: IEC60044-1



Accuracy Class: 1 Maximum Rated Voltage: 0.66KV

Model	Rated Current Primary/ Secondary (A)	Rated Load (VA)	Bus-bar (mm)	Diameter (mm)	Number of Turns through the core	Reference
HLMK-0.66-30	30/5	5-3.75		20	5	HLMKP6P13030
	50/5	5-3.75		20	3	HLMKP6P15030
	75/5	5-3.75		20	2	HLMKP6P17530
	100/5	5-3.75		20	2	HLMKP6P110030
	150/5	5-3.75	30×10	20	1	HLMKP6P115030
	200/5	5-3.75	30×10	20	1	HLMKP6P120030
HLMK-0.66-40	300/5	5-3.75	30×10	20	1	HLMKP6P130030
	250/5	5-3.75	40×10	30	1	HLMKP6P125040
	300/5	5-3.75	40×10	30	1	HLMKP6P130040
	400/5	5-3.75	40×10	30	1	HLMKP6P140040
	500/5	5-3.75	40×10	30	1	HLMKP6P150040
	600/5	10-3.75	40×10	30	1	HLMKP6P160040
HLMK-0.66-50	300/5	5-3.75	50×15	35	1	HLMKP6P130050
	400/5	5-3.75	50×15	35	1	HLMKP6P140050
	500/5	5-3.75	50×15	35	1	HLMKP6P150050
	600/5	10-3.75	50×15	35	1	HLMKP6P160050
	750/5	10-3.75	50×15	35	1	HLMKP6P175050
	800/5	10-3.75	50×15	35	1	HLMKP6P180050
	1000/5	10-3.75	50×15	35	1	HLMKP6P1100050
1200/5	10-3.75	50×15	35	1	HLMKP6P1120050	
HLMK-0.66-60	500/5	5-3.75	60×20	45	1	HLMKP6P150060
	600/5	10-3.75	60×20	45	1	HLMKP6P160060
	750/5	10-3.75	60×20	45	1	HLMKP6P175060
	800/5	10-3.75	60×20	45	1	HLMKP6P180060
	1000/5	10-3.75	60×20	45	1	HLMKP6P1100060
	1200/5	10-3.75	60×20	45	1	HLMKP6P1120060
	1500/5	10-3.75	60×20	45	1	HLMKP6P1150060
2000/5	10-3.75	60×20	45	1	HLMKP6P1200060	
HLMK-0.66-80	600/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P160080
	750/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P175080
	800/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P180080
	1000/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P1100080
	1200/5	10-3.75	80×10 or 60×30	50	1	HLMKP6P1120080
	1500/5	15-3.75	80×10 or 60×30	50	1	HLMKP6P1150080
	2000/5	15-3.75	80×10 or 60×30	50	1	HLMKP6P1200080
2500/5	15-3.75	80×10 or 60×30	50	1	HLMKP6P1250080	
HLMK-0.66-100	600/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P1600100
	750/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P1750100
	800/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P1800100
	1000/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P11000100
	1200/5	10-3.75	100×30 or 60×40	60	1	HLMKP6P11200100
	1500/5	15-3.75	100×30 or 60×40	60	1	HLMKP6P11500100
	2000/5	15-3.75	100×30 or 60×40	60	1	HLMKP6P12000100
2500/5	15-3.75	100×30 or 60×40	60	1	HLMKP6P12500100	
3000/5	20-3.75	100×30 or 60×30	60	1	HLMKP6P13000100	
HLMK-0.66-120	1500/5	15-3.75	120×25 or 80×30	60	1	HLMKP6P11500120
	2000/5	15-3.75	120×25 or 80×30	60	1	HLMKP6P12000120
	2500/5	15-3.75	120×25 or 80×30	60	1	HLMKP6P12500120
	3000/5	20-3.75	120×25 or 80×30	60	1	HLMKP6P13000120
	4000/5	20-3.75	120×25 or 80×30	60	1	HLMKP6P14000120
5000/5	20-3.75	120×25 or 80×30	60	1	HLMKP6P15000120	

METERING

HLMK Current Transformers

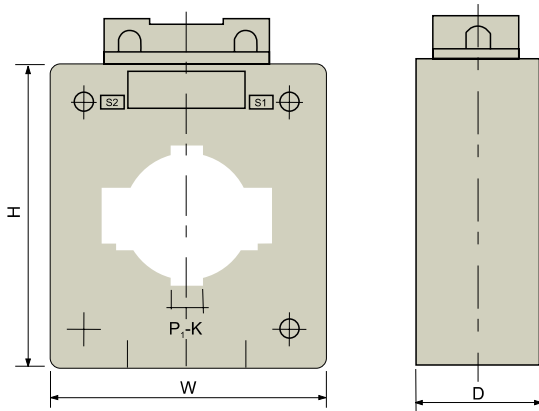
Standard: IEC60044-1



Technical Data	
Current Transformers	HLMK
Rated primary current	30A-5000A
Rated secondary current	5A
Maximum rated voltage	0.66kV
Accuracy class	0.5, 1.0
Short time thermal current	$I_{th}=100I_n$
Security coefficient security coefficient	FS<5
Standard	IEC 60044-1

Overall Dimensions

Unit: mm



Model	H	W	D
HLMK-0.66-30	79	60	37
HLMK-0.66-40	99	75	40
HLMK-0.66-50	99	82	40
HLMK-0.66-60	126	102	40
HLMK-0.66-80	118	125	40
HLMK-0.66-100	136	170	40
HLMK-0.66-120	136	190	41



VOLTAGE STABILIZERS

Keep your appliances safe at affordable price

Stabilizers are perfect guard for equipment against voltage fluctuations critical to high performance, greater reliability and saving electricity. Himel Voltage Stabilizers ensure safe functioning of the connected load by facilitating seamless adjustment of regulation range as per the supply voltage variation.

The compact design allows them to fit into a wide variety of spaces in homes, offices, and commercial setups. Our Stabilizers improve power quality, increase power delivery, minimize maintenance costs and extend equipment life.



Himel Voltage Stabilizers provide protection against under and over-voltage, overload, short circuit, and temperature rise



Himel Voltage Stabilizers are compact devices suitable for residential, commercial, industrial, and utility applications



The advanced technology of Himel Voltage Stabilizers ensures a substantially reliable output voltage, critical for application health



Himel Voltage Stabilizers have a built-in convenient status indication to monitor the input and output performance with ease

VOLTAGE STABILIZERS



HTND Servo type Voltage Stabilizers



HTND



HTND2



HTND3

Rated capacity: 0.5~30kVA
Regulation type: servo motor type

333

HAVRL Relay type Voltage Stabilizers



HAVRL

Rated capacity: 0.5-10kVA
Regulation type: relay type

337

HSVCB Servo type wall-mounted Voltage Stabilizers



HSVCB

Rated capacity: 3-10kVA
Regulation type: servo motor type
Installation method: wall-mounted

335

HSJW Three-phase AC Voltage Stabilizers up to 60kVA



HSJW

Rated capacity: 1.5-60kVA
Regulation type: servo motor type

339

HAVRB Relay Type Wall-Mounted Voltage Stabilizer



HAVRB

Rated Capacity: 1-12kVA
Regulation Type: Relay Type
Installation Method: Wall-mounted

336

HSBW Three-phase AC Voltage Stabilizers up to 2000kVA



HSBW

Rated capacity: 10-2000kVA
Regulation type: servo motor type

340

VOLTAGE STABILIZERS

Easy Selction Guide for Single-phase Voltage Stabilizer

Capacity: $\leq 2\text{kVA}$:

- Plug socket is available for applications
- Suitable for protections of home appliances, e.g. TV, washing machine, fridge, etc.

3kVA ~10kVA:

- Suitable for home, office and shops
- Suitable for protections of more than 1 device working, e.g. air conditioner plus lamps and TV.

10-30kVA:

- Cabinet type
- It is available in home, office and shops
- Selection of HTND/HTND2/HTND3 will depend on your specified requirement
- Suitable for protection of multi devices.

Product Overview

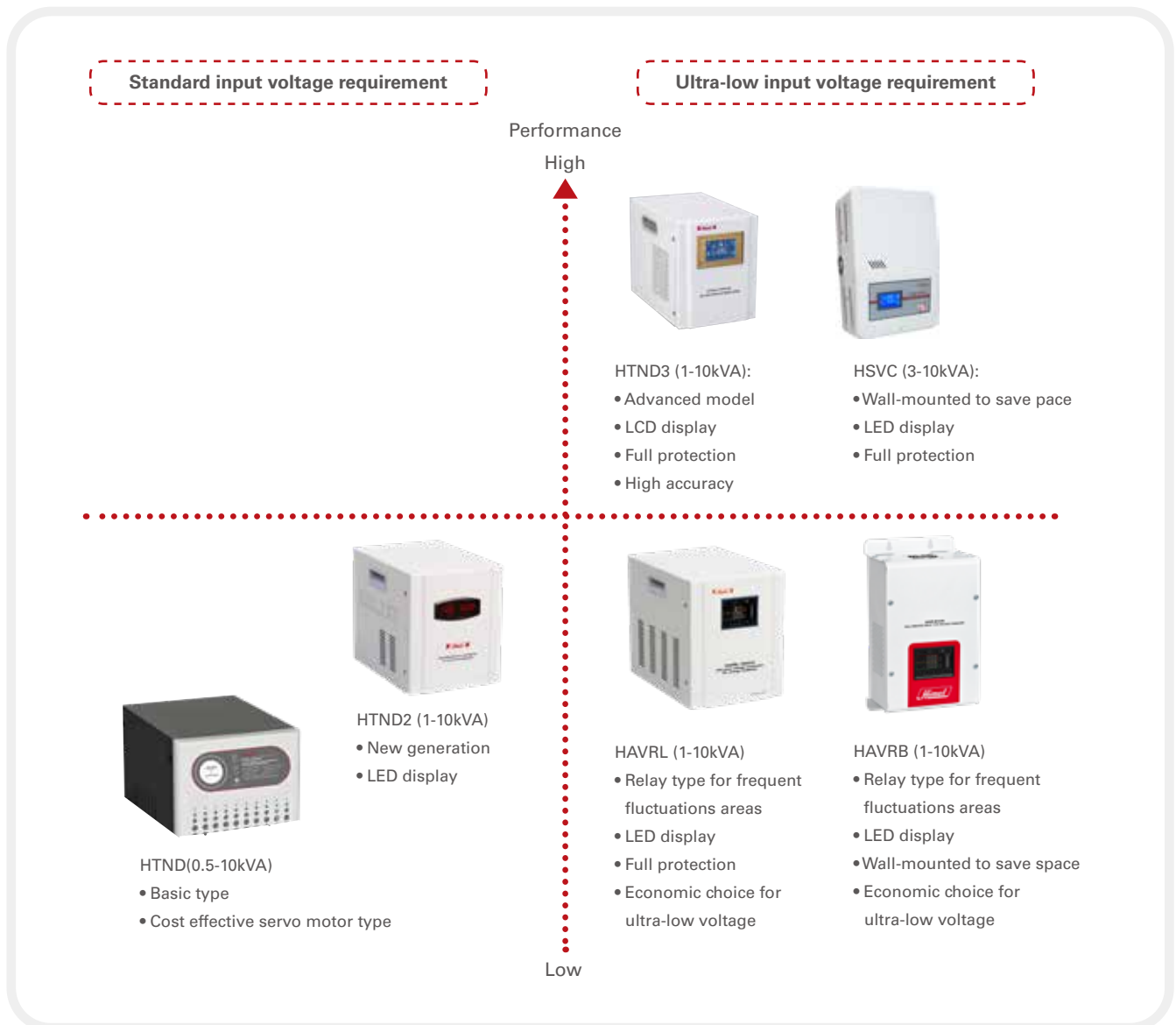
Single-Phase Voltage Stabilizer

- √ Servo motor type
 - HTND · HTND2 · HTND3 · HSVC
- √ Relay type
 - HAVRL

Three-Phase Voltage Stabilizer

- √ Servo motor type
 - HSJW · HSBW

Voltage Stabilizer capacity: 1kVA~10kVA (single-phase)





Voltage Stabilizers

Keep your appliances safe from unstable power supply



VOLTAGE STABILIZERS

HTND Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Range Presentation

HTND is Himel range of single-phase servo motor type voltage stabilizers. It's up to 30KVA with high accuracy and smooth stabilization.

Online Content



HTND



HTND2



HTND3

Selection Code

Model	Power Rating	Connection Type	Input Voltage	Output Voltage
HTND	P5	HE	I110	O230
HTND: HTND series	P5: 0.5kVA 1: 1kVA 1P5: 1.5kVA 2: 2kVA 3: 3kVA 5: 5kVA 7: 7kVA 10: 10kVA 10G: 10kVA cabinet 15G: 15kVA cabinet 20G: 20kVA cabinet 30G: 30kVA cabinet	HE: Europe plug (1.5kVA) HB: British plug (only when capacity ≤ 1.5kVA) H: Terminal connect	Default: Standard 150-250V I110: Input: 110-250V	Default: Output 220V O230: Output 230V
HTND2: HTND2 series	1: 1kVA 1P5: 1.5kVA 2: 2kVA 3: 3kVA 5: 5kVA 7: 7kVA 10: 10kVA 10G: 10kVA cabinet 15G: 15kVA cabinet 20G: 20kVA cabinet 30G: 30kVA cabinet	HE: Europe plug (only when capacity ≤ 10kVA) HB: British plug (only when capacity ≤ 10kVA) H: Terminal connect	Default: Standard 140-250V I85: Input: 85-250V I110: Input: 110-250V	Default: Output 220V O230: Output 230V
HTND3: HTND3 series	1: 1kVA 1P5: 1.5kVA 2: 2kVA 3: 3kVA 5: 5kVA 7: 7kVA 10: 10kVA 10G: 10kVA cabinet 15G: 15kVA cabinet 20G: 20kVA cabinet 30G: 30kVA cabinet	HE: Europe plug (only when capacity ≤ 10kVA) HB: British plug (only when capacity ≤ 10kVA) H: Terminal connect	Default: Standard 140-250V I85: Input: 85-250V I110: Input: 110-250V	Default: Output 220V O230: Output 230V

Note: Additional features are available, please consult us if you want to customized type.

Spare Parts List - For HTND Family

- ✓ Servo motor
- ✓ Carbon brush
- ✓ PCB
- ✓ Limit switch
- ✓ Regulating coil
- ✓ Compensating coil (when capacity ≥ 15kVA)
- ✓ Screen

Note: Additional features are available. Please reach to local sales for further information.

VOLTAGE STABILIZERS

HTND Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Technical Parameters

HTND product series		HTND	HTND2	HTND3
Rated Capacity	kVA	0.5~30	1~30	
Output voltage	Accuracy of stabilized voltage	0.5~5kVA: 220 (or 230) ±4%; 110 (or 115) ±4% 7~30kVA: 220 (or 230) ±4%	1~5kVA: 220 (or 230) ±4%; 110 (or 115) ±4% 7~30kVA: 220 (or 230) ±4%	
	Undervoltage Protection	V	184 (or 194) ±4	
	Overvoltage Protection	V	246 (or 256) ±4	
Range of Input Voltage	V	140~250		
Customized Input Range	V	100-240	85-250 or 110-250	
Extended Function	Optional	By-pass (not available for 30kVA)	By-pass (not available for 30kVA)	By-pass (not available for 30kVA)
		Fan	Fan	Fan
		Output undervoltage protection	Temperature rise protection	Input undervoltage protection
		Overload protection	Overload protection	
		Temperature rise protection	Input undervoltage protection	
		Input undervoltage protection	Time delay	
Time delay				
Cooling Mode		Air cooling can be customized (not for standard product: standard one is self-cooling)		
Voltage-regulating Speed	s	<1 (variation of input voltage is 10%)		
Temperature rise	K	<80		
Frequency	Hz	50/60		
Display mode		Dial meter (0.5-10kVA) LED (10-30kVA)	LED	LCD
Insulation grade		B		
Insulation resistance	MΩ	≥5		
Time Delay	min	5±2 (not for standard product) can be customized		
Withstand voltage	V/1min	1500		
Efficiency		92%		
Maximum rated current	A	2.3 (0.5kVA), 4.5 (1kVA), 6.8 (1.5kVA), 9.1 (2kVA), 13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 45.5 (10kVA), 68 (15kVA), 90.9 (20kVA), 136 (30kVA)		
Certification		CE		
Standard		EN61000-6-2/ EN61000-6-4/EN61558-1		

Note:

- By-pass is not available for 30kVA.
- Customization of additional protection on request.

Portfolio for HTND family (not customized type)

HTND product series		HTND	HTND2	HTND3
Characteristics	Description	Single phase full automatic AC voltage stabilizer		
	Capacity	0.5,1,1.5,2,3,5,7,10,15,20,30kVA	1,1.5,2,3,5,7,10,15,20,30kVA	1,1.5,2,3,5,7,10,15,20,30kVA
	Type	Servo motor	Servo motor	Servo motor
	Standard	EN 61000-6-2,61000-6-4,61558-1		
	Certification	CE	CE	CE
Protection	Overvoltage	✓	✓	✓
	Short circuit	✓	✓	✓
	Overload	*	*	✓
	Undervoltage (output)	*	✓	✓
	Temperature rise	*	*	✓
	Time delay	*	*	✓
	By-pass	*	*	*

Note:

- (1) "*" means optional functions for this series, which is required to be customized;
- (2) Even through overload protection is not the standard feature for all series, short circuit protection can help the system protect against overload issue at a certain level;
- (3) By-pass is not available for 30kVA.

VOLTAGE STABILIZERS

HSVCB Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Range Presentation

HSVCB is Himel range of single-phase wall-mounted servo motor type voltage stabilizers. It's up to 10KVA, and facilitates saving of mounting space.

Online Content



HSVCB

Selection Code

Model	Power Rating	Display	Input Voltage	Output Voltage
HSVCB	5	C	I110	O230
HSVCB	3: 3kVA 5: 5kVA 7: 7kVA 8: 8kVA 10: 10kVA	Default: pointer display (dial meter) C: LCD	Default: Standard 140-250V I85: Input: 85-250V I110: Input: 110-250V	Default: Output 220V O230: Output 230V

Note: Additional features are available, please contact local Himel sales.

Technical Parameters

Type		HSVCB High Precise Full-Automatic AC Voltage Stabilizer	
Rated Capacity	kVA	3~7	10
Output Voltage	Accuracy of stabilized voltage	220 (or 230) $\pm 4\%$; 110 (or 115) $\pm 4\%$	220 (or 230) $\pm 4\%$
	Undervoltage Protection	184 (or 194) ± 4 (not for standard product) can be customized	
	Overvoltage protection	246 (or 256) ± 4	
Range of input voltage	V	110-250, 140-150 or 85-250	
Customized Input Range	V	85-250	
Extended function*	Optional	Fan Input undervoltage protection	
Voltage-regulating speed	s	<1 (variation of input voltage is 10%)	
Temperature rise	K	<80	
Frequency	Hz	50/60	
Display mode		LED or LCD	
Insulation resistance	M Ω	≥ 5	
Time delay	min	5 ± 4 (not for standard product) can be customized	
Withstand voltage	V/1min	1500	
Efficiency		> 92%	
Maximum rated current	A	13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 45.5 (10kVA)	
Standard		EN61000-6-2/ EN61000-6-4/EN61558-1	
Certification		CE	

* Please consult us.

Spare Parts List

√ Servo motor √ Carbon brush √ PCB √ Limit switch √ Relay √ Regulating coil √ Screen

VOLTAGE STABILIZERS

HAVRB Voltage Stabilizer

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Range Presentation

HAVRB is Himel range of single-phase wall-mounted relay type voltage stabilizers. It's up to 12KVA, and it facilitates saving of mounting space and solves the issue of frequent fluctuations from the power grid.

Selection Code

Model	Power Rating	Input Voltage	Output Voltage
HAVRB	5	I110	-
HAVRB	1: 1kVA 1P5: 1.5kVA 2: 2kVA 3: 3kVA 5: 5kVA 7: 7kVA 8: 8kVA 10: 10kVA 12: 12kVA	Default: Standard 140~250V I85: Input: 85~250V I110: Input: 110~250V	Default: Output 220V

Note: HAVRB only has 220V output. Additional features are available, please consult local sales for further information.

Technical Parameters

Relay Type Wall-mounted Voltage Stabilizers			HAVRB
Output Voltage	Accuracy of stabilized voltage	V	220±8%
	Undervoltage protection	V	184±4
	Overvoltage protection	V	250±4
Range of Input Voltage		V	140~250
Standard Function			Overload protection Short circuit protection Output overvoltage protection Output undervoltage protection Time delay
Customized Input Range	V		110-250 or 85-250
Extended Function*	Optional		Fan By-pass Input undervoltage protection Temperature rise protection
Voltage-regulating Speed	ms		<10
Temperature Rise	K		<75 (with rated load)
Frequency	Hz		50/60
Display Mode			LED
Insulation Resistance	MΩ		≥5
Efficiency			>90%
Maximum Rated Current	A		1.5 (1kVA), 6.8 (1.5kVA), 9.1 (2kVA), 13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 36.4 (8kVA), 45 (10kVA), 54.5 (12kVA)
Standard			EN61000-6-2/ EN61000-6-4/EN61558-1

*please contact local Himel Sales for customization requirement.

VOLTAGE STABILIZERS

HAVRL Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Range Presentation

HAVRL is Himel range of single-phase relay type voltage stabilizers. It's up to 10KVA, and it can solve the frequent fluctuations issue from power grid.

Online Content



HAVRL

Selection Code

Model	Power Rating	Connection Type	Input Voltage
HAVRL	P5	HE	I110
HAVRL	P5: 0.5kVA 1: 1kVA 1P5: 1.5kVA ... 10: 10kVA	HE: Europe plug HB: British plug	Default: Input: 85-250V I110: Input: 110-250V

Note: HAVRL only has 220V output. Additional features are available, please consult us if you want to customized type.

Technical Parameters

Ultra-Low Voltage Relay Type Voltage Stabilizer			HAVRL	
Type			HAVRL Ultra-Low Voltage Full-Automatic AC Voltage Stabilizer	
			Standard Model	Economic Model
Rated capacity	kVA		0.5-10	
Output voltage	Accuracy of stabilized voltage	V	220±8%; 110±10% (only when capacity is equal or less than 5kVA)	
	Overvoltage protection	V	250±4	
Range of input voltage	V		85-250	110-250
Customized input range	V		110-250 or 140-250	140-250
Extended function*	Optional		By-pass Fan Input undervoltage protection	
Power factor			0.8	0.6
Voltage-regulating speed	ms		<10	
Temperature rise	K		<75 (with rated load)	
Frequency	Hz		50/60	
Display mode			LED	
Insulation resistance	MΩ		≥5	
Efficiency			>90%	
Maximum rated current	A		2.3 (0.5kVA), 4.5 (1kVA), 6.8 (1.5kVA), 9.0 (2kVA), 13.6 (3kVA), 22.7 (5kVA), 31.8 (7kVA), 45 (10kVA)	
Standard			EN61000-6-2/ EN61000-6-4/EN61558-1	

*Additional features are available. Please contact local sales for further information.

VOLTAGE STABILIZERS

HAVRL Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1

Portfolio for HSVC & HAVRL & HAVRB (not customized type)

HTND product series		HSVC-B	HTND2		HAVRB
			Standard Model	Economic Model	
Characteristics	Description	Single phase full automatic AC voltage stabilizer			
	Capacity	3,5,7,10kVA	0.5,1,1.5,2,3,5,7,10kVA		1,1.5,2,3,5,7, 8, 10, 12KVA
	Type	Servo motor	Relay type		
	Standard	EN 61000-6-2,61000-6-4,61558-1			
	Certification	CE	-		-
Protection	Overvoltage	✓	✓		✓
	Overload	✓	✓		✓
	Temperature rise	✓	✓		●
	Short circuit	✓	✓		✓
	Undervoltage (output)	●	✓	-	●
	Time delay	●	✓		●
	By-pass	✓	*		●

Note:

(1) "*" means optional functions for this series, which can be customized as per request.

(2) "●" means that for HSVC series, output undervoltage protection and time delay function cannot be extended at the same time: customer can only choose one of them for each order; otherwise, the value of the output undervoltage protection should be set as a fixed value and this function cannot be selected;

(3) Even through overload protection is not the standard one for all series, short circuit protection can help the system protect against overload issue at a certain level.

Spare Parts List - for HSVC & HAVRL

✓ Servo motor (only for HSVC)

✓ Carbon brush (only for HSVC)

✓ PCB

✓ Limit switch (only for HSVC)

✓ Relay (only for HAVRL)

✓ Regulating coil

✓ Screen

VOLTAGE STABILIZERS

HSJW Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Range Presentation

HSJW is Himel range of three-phase servo motor type voltage stabilizers. It's up to 60KVA with high accuracy.

Online Content



HSJW

Selection Code

Model	Power Rating	Shape	Display	Input Voltage	Output Voltage
HSJW	1P5	G	E	I250	O400
HSJW	1P5: 1.5kVA 3: 3kVA 4P5: 4.5kVA 6: 6kVA 9: 9kVA 15: 15kVA 20: 20kVA 30: 30kVA 45: 45kVA 60: 60kVA	Default: Desktop; Only for 1.5KVA~4.5KVA G: Cabinet	Default: Dial meter display E: LED display MLCD: Multifunction meter (LCD) display	Default: I/260-430V for 1.5-30kVA; I/ 304-456V for 45-60kVA I250: Input 250-423V	Default: Output 380V O400: Output 400V

Technical Parameters

Three-Phase Voltage Stabilizer		HSJW	
Type		HSJW Three-Phase Full-Automatic AC Voltage Stabilizer	
Rated capacity	kVA	1.5-30	45-60
Output voltage	Accuracy of stabilized voltage	380 (or 400) ±4%	
	Undervoltage Protection	320 (or 340) ±7 (not for standard product) can be customized	
	Oversvoltage Protection	425 (or 445) ±7	
Range of input voltage	V	260-430	304-456 (or 320-480)
Customized input range	V	250~423	
Extended function*	Optional	By-pass Fan Input undervoltage protection Output undervoltage protection Overload protection Phase failure protection Temperature rise protection Time delay Surge protector	
Voltage-regulating speed	s	<1 (variation of input voltage is 10%)	
Temperature rise	K	<80	
Ambient temperature	°C	-5°C~+40°C	
Frequency	Hz	50/60	
Display mode		Dial Meter (Panel Meter) or LED or LCD	
Insulation resistance	MΩ	≥5	
Withstand voltage	V/1min	1500	
Efficiency		> 92%	
Maximum rated current	A	2.3(1.5kVA), 4.6(3kVA), 6.8(4.5kVA), 9.1(6kVA), 13.7(9kVA), 22.8(15kVA), 30.4(20kVA), 45.6(30kVA), 68(45kVA), 91(60kVA)	
Certification		CE	
Standard		EN61000-6-2/ EN61000-6-4/EN61558-1	

* Please consult us.

VOLTAGE STABILIZERS

HSBW Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Range Presentation

HSBW is Himel range of three-phase servo motor type voltage stabilizers. It's up to 2000KVA with high accuracy.

Online Content



HSBW

Selection Code

Model	Power Rating	Display	Input Voltage	Output Voltage
HSBW	10	E	I250	O400
HSBW	10: 10kVA 15: 15kVA 30: 30kVA 50: 50kVA ... 1000: 1000kVA 1600: 1600kVA 2000: 2000kVA	Default: Dial meter display E: LED display MLCD: Multifunction meter (LCD) display	Default: I/ 304-456V I250: Input 250~423V	Default: Output 380V O400: Output 400V

Technical Parameters

Three Phase Compensation Voltage Stabilizer			HSBW
Type			HSBW Three-Phase Compensation AC Voltage Stabilizer
Rated capacity		kVA	10-2000
Output voltage	Accuracy of stabilized voltage	V	380 (or 400) $\pm 3\%$
	Undervoltage protection	V	320 (or 340) ± 7
	Overvoltage protection	V	425 (or 445) ± 7
Range of input voltage		V	304-456 (or 320-480)
Customized input range		V	250-423 or 304-470
Extended function*		Optional	By-pass Fan Input undervoltage protection Overload protection Phase failure protection Temperature rise protection Time delay Surge protector
Voltage-regulating speed		s	<1 (variation of input voltage is 10%)
Temperature rise		K	<60
Ambient temperature		°C	-5°C~+40°C
Frequency		Hz	50/60
Display mode			Dial Meter (Panel Meter) or LED or LCD
Insulation resistance		MΩ	≥ 5
Withstand voltage		V/1min	2000
Efficiency			$\geq 95\%$
Standard			EN61000-6-2/ EN61000-6-4/EN61558-1

* Please contact local Himel sales

VOLTAGE STABILIZERS

HSBW Voltage Stabilizers

Standard: EN61000-6-2, EN61000-6-4, EN61558-1



Portfolio for HSJW & HSBW (not customized type)

product series		HSJW	HSBW
Characteristics	Description	Three phase full automatic AC voltage stabilizer	
	Capacity	1.5,3,4.5,6,9,15,20,30,45,60kVA	10,15,30,50,100,150,200,250,300,400,500,600,800,1000,1600,2000kVA
	Type	Servo motor	Servo motor
	Standard	EN 61000-6-2,61000-6-4,61558-1	
	Certification	CE	-
Protection	Oversvoltage	√	√
	Temperature rise	*	*
	Overload	*	*
	Undersvoltage (output)	*	√
	Short circuit	√	√
	Time delay	*	*
	By-pass	*	*

Note:

(1) "*" means optional functions for this series, which is required to be customized with higher cost;

(2) Even through overload protection is not the standard one for all series, short circuit protection can help the system protect against overload issue at a certain level.

Spare Parts List - for HSBW

√ Servo motor √ Carbon brush head √ PCB √ Limit switch √ Screen



CONTROL COMPONENTS

Achieve optimal results with Himel

Industrial Components are the lifeline of operations, especially in factory automation and machine safety. Himel offers a range of control components suitable for industrial, OEM, and systems integrator purposes such as sensing, automation, machine safety, and industrial communication.

Easily available, highly efficient, and reliable—Himel Control Components ensure that your industrial and commercial facilities are safe and protected from electrical hazards.



Our Control Components are rigorously tested against international quality standards and can be trusted for personnel and equipment safety



The advanced design of Himel Control Components extends the life cycle of equipment, optimizing maintenance expenditure and application availability

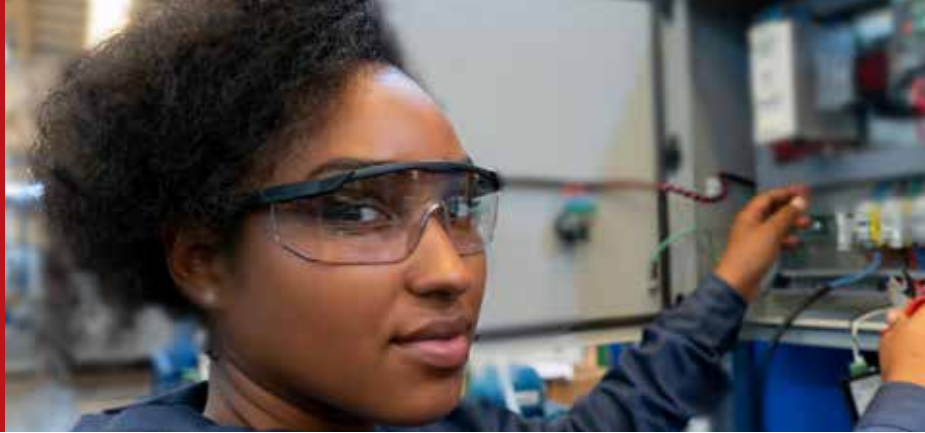


Himel Control Components optimize the usability and efficiency of equipment and systems, increasing operational uptime



Himel Control Components are available for a wider range of applications in industries, plants, and utilities

CONTROL COMPONENTS



HLAY5 Pushbuttons, Switches and Pilot Lights



HLAY5

Degree of protection: IP40 (IP65 with protective cover)
Material: Plastic/ Metal
Drilling or cut-out for mounting: Ø 22mm **346**

HLAY5CS Control Stations



HLAY5CS

Compatible with HLAY5 pushbutton and switches Ø 22mm **349**

HLAY7 Pushbuttons, Switches and Pilot Lights



HLAY7

Degree of protection: IP50 **350**
Material: Plastic
Drilling or cut-out for mounting: Ø 22/25/30mm

HLD11 Pilot lights



HLD11

Degree of protection: IP65
Step-down type: Resistance/ Capacitance
Specification: AC/DC: 6V/12V/24V/36V/48V/110V/220V /230V/380V AC: 220V, 230V, 380V **353**

Miniature Relays



HDZ9

Rated current: **354**
3A, 5A, 10A
Pole:
2P/3P/4P
Maximum Rated voltage:
690V



HJSZ3

Rated Voltage: **358**
AC 120, 240, 400V
DC 125, 250V
Delay after power-on :
0.05s-24h,
Delay after power-off :
0.1s-30M



HXJ9

Rated voltage : 380, 400V
Overvoltage : 380-460V, 400-480V
Undervoltage : 300-380V, 320-400V **359**

HKG Digital Time Switches



HKG

Rated control voltage:
HKG316T: 230/400V AC
HKG316TD: 230/380V AC **360**

HDJS18 Time Relays



HDJS18

Rated conventional thermal current: 10A
Control voltage: AC: 220V, 110V (customized),
380V (customized)
AC/DC: 24V
Time delay: 5s, 10s, 30s, 60s, 120s, 180s, 360s, 480s
Time-delay method: Switch-on delay, off delay **361**

CONTROL COMPONENTS

HXC Limit Switch



HXCKM



HXCKP



HXCKD



HXCMP

362

HDK Switch Mode Power Supplies



HDK-US

Rated Power: 35W, 50W, 75W, 100W, 150W, 200W, 350W
 AC Input Voltage: 35~150W: 100-264V
 Output Voltage: 5V, 12V, 24V, 36V, 48V



HDK-NS

Rated Power: 75W, 120W, 240W, 480W
 AC Input Voltage: 100-240V
 Output Voltage: 75W & 120W: 12V, 24V, 36V, 48V
 240W & 480W: 24V, 48V

365

HBK Control Transformers



HBK

Rated voltage up to 1200V
 Rated capacity: 25VA~20kVA

368

HICF Axial Fan



HICF

220V AC at 50/60 Hz; DC12V; DC24V
 Double ball bearing and oil bearing;
 Accessories: Metal protection net, filter net, three in one dustproof net

369

Terminal Blocks



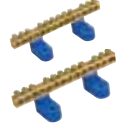
HICTUK



HTB010



HTB112



HTB007

General connection terminals
 Grounding connection terminals
 Fuse modular connection terminals
 Double level connection terminals
 Accessories

373

HCF Cable Connectors



HCF

Thread specification: Metric Standard/ Germany Standard
 Material: Nylon 66
 Installation: Standard threaded hole
 Color: Black/ Grey

381

Industrial Plugs & Sockets



HIPS series industrial plugs & sockets



HD series industrial plugs & sockets

383

HLAY5 Pushbuttons, Switches and Pilot Lights

Standard: IEC 60947-5-1



Range Presentation

HLAY5 is Himel range of Pushbuttons, Switches and Pilot Lights designed to control and indicate the status of the circuit.

Features




- ◆ Compact size, suitable for small cabinet equipment
- ◆ Metal type delivers excellent resistance to mechanical shock and vibration
- ◆ Plastic type provides high resistance to chemical agents
- ◆ Screw clamp terminals allowing fast and easy connection
- ◆ Modular design allows flexible and simple setup for complete products


Online Content



HLAY5

Selection Code

Range Name	Type	Color	Contacts
HLAY5	BA	4	2
	HLAY5BA: Metal Flush HLAY5EA: Plastic Flush	1: White 2: Black 3: Green 4: Red 5: Yellow 6: Blue	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC
	HLAY5BC: Metal Φ 40 Mushroom HLAY5EC: Plastic Φ 40 Mushroom HLAY5BR: Metal Φ 60 Mushroom HLAY5ER: Plastic Φ 60 Mushroom	3: Green 4: Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC
	HLAY5BL832: Metal Double-headed flush/flush HLAY5BL842: Metal Double-headed flush/projecting	Default: Green and Red	5: 1NO+1NC

Range Name	Type	Diameter of Push	Color	Contacts
HLAY5	BS	5	4	2
	HLAY5BS: Metal Emergency stop pushbuttons, turn to release HLAY5ES: Plastic Emergency stop pushbuttons, turn to release	4: Φ 30 5: Φ 40 6: Φ 60	3: Green 4: Red	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC


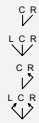


CONTROL COMPONENTS

HLAY5 Pushbuttons, Switches and Pilot Lights


Standard: IEC 60947-5-1



Selection Code

Range Name	Type	Number and Type of Positions	Contacts
HLAY5	BD	3	3
	<p>HLAY5BD: Metal Selector switches with standard handle</p> <p>HLAY5ED: Plastic Selector switches with standard handle</p>	<p>2: 2p, stay put</p> <p>3: 3p, stay put</p> <p>4: 2p, spring return</p> <p>5: 3p, spring return</p> 	<p>1: 1NO</p> <p>2: 1NC</p> <p>3: 2NO</p> <p>4: 2NC</p> <p>5: 1NO+1NC</p>
	<p>HLAY5BJ: Metal Selector switches with long handle</p> <p>HLAY5EJ: Plastic Selector switches with long handle</p>		
	<p>HLAY5BG: Metal Key switches</p> <p>HLAY5EG: Plastic Key switches</p>		

Range Name	Type	Color	Supply Voltage	Contacts	Light Source
HLAY5	BW3	3	M	1	L
	<p>HLAY5BW3: Metal Illuminated pushbuttons with flush push</p> <p>HLAY5EW3: Plastic Illuminated pushbuttons with flush push</p>	<p>1: White</p> <p>3: Green</p> <p>4: Red</p> <p>5: Yellow</p> <p>6: Blue</p> <p>7: Pure white</p> <p>8: Pure blue</p>	<p>T: 6V</p> <p>B: 24V</p> <p>F: 110V</p> <p>M: 220V</p> <p>Q: 380V</p>	<p>1: 1NO</p> <p>2: 1NC</p> <p>3: 2NO</p> <p>4: 2NC</p> <p>5: 1NO+1NC</p>	L: LED
	<p>HLAY5BW84: Metal Illuminated pushbuttons with double-headed flush/projecting</p> <p>HLAY5EW84: Plastic Illuminated pushbuttons with double-headed flush/projecting</p>	<p>Default: Green and Red</p>	<p>T: 6V</p> <p>B: 24V</p> <p>F: 110V</p> <p>M: 220V</p> <p>Q: 380V</p>	<p>5: 1NO+1NC</p>	L: LED

Range Name	Type	Supply Voltage	Color	Light Source
HLAY5	BV	M	3	L
	<p>HLAY5BV: Metal Pilot light</p>	<p>T: 6V</p> <p>B: 24V</p> <p>F: 110V</p> <p>M: 220V</p> <p>Q: 380V</p>	<p>1: White</p> <p>3: Green</p> <p>4: Red</p> <p>5: Yellow</p> <p>6: Blue</p> <p>7: Pure white</p> <p>8: Pure blue</p>	L: LED

CONTROL COMPONENTS

HLAY5 Pushbuttons, Switches and Pilot Lights

Standard: IEC 60947-5-1



Selection Code

Range Name	Type	Contacts
HLAY5	BE10	1
	HLAY5BE10: Contact blocks	1: 1NO 2: 1NC 3: 2NO 4: 2NC 5: 1NO+1NC



Technical Parameters

Range name			HLAY5				
Usage mode			Rated value				
AC-15	Rated voltage (Ue)	V	380		220		
	Rated current (Ie)	A	2		3.3		
DC-13	Rated voltage (Ue)	V	220		110		
	Rated current (Ie)	A	0.5		1.1		
Mechanical endurance	10 ⁵	10(Flush, Mushroom, Illuminated type)					
		1(Other types)					
Electric endurance	10 ⁵	AC: 10 / DC: 2 (Flush,Mushroom type)					
		0.5 (Other types)					
Rated thermal current (Ith)	A	6					
Rated impulse withstand voltage (Uimp)	V	6000					
Degree of protection			IP40 (IP65 with protective cover)				
Illuminated pushbutton							
Power supplier voltage	V	6	12	24	110	220	380
LED		✓	✓	✓	✓	✓	✓

Environment

Temperature	-5°C to +40°C
Relative humidity	≤ 50% (40°C) 90% (20°C)
Altitude	≤ 2000m
Pollution degree	3

CONTROL COMPONENTS

HLAY5CS Control Stations

Standard: IEC 60947-5-1



Range Presentation

HLAY5CS is Himel range of Control Stations designed for auxiliary or direct control of industrial machinery and processes.

Features

- ◆ Single-brand solution for Himel control stations and pushbuttons simplifies your choices
- ◆ Maximized flexibility
 - Empty control stations for customer assembly
 - Complete control stations with ready-to-use buttons
- ◆ Wide offer of pushbuttons and accessories for commonly encountered functions

Online Content



HLAY5CS

Selection Code

Range name	Type	Enclosure material	Cut-outs	Enclosure cover	Pushbutton Material	Empty Enclosures/ Complete Stations (Pushbutton Code)
HLAY5	CS	P	1	1	B	A
HLAY5	CS: Control station	P: Plastic	1: 1-hole 2: 2-hole 3: 3-hole 4: 4-hole 5: 5-hole	1: White 5: Yellow	B: Metal E: Plastic	Default: Empty enclosures A: Flush S: Emergency stop pushbuttons, turn to release

Technical Parameters

Control Stations		HLAY5CS	
Main			
Associated control and signalling units		Ø 22 control and signalling units	
Number of cut-outs		1, 2, 3, 4 or 5	
Material		ABS	
Lid colour		White or yellow	
Degree of protection		IP40 (IP54 with protective cover)	
Function		According to equipment fitted: <ul style="list-style-type: none"> ● Start or Stop ● Start-Stop with pilot light ● Motion control ● Emergency stop 	
Knockout diameter		M20(PG13.5)	
Complementary			
Rated insulation voltage (Ui)		660V	
Rated conventional thermal current (Ith)		6A	
Rated voltage (Ue)		220V/380V	
Rated current (Ie)	AC-15	1.3A/3A	
	DC-13	0.27A/0.55A	
Environment			
Ambient air temperature for storage		-25 to +70°C	
Ambient air temperature for operation		-25 to +70°C	
Conformity to standards		IEC60947-5-1	



CONTROL COMPONENTS

HLAY7 Pushbuttons, Switches and Pilot Lights

Standard: IEC 60947-5-1



Pushbuttons, Switches and Pilot Lights

HLAY7 is Himel range of plastic Pushbuttons, Switches and Pilot lights designed to control and indicate the status of the circuit.

Features

- ◆ Wide choice of heads and cut-outs
- ◆ Stackable modules, flexible to assemble more contacts
- ◆ Anti-rotation plate prevents the pushbutton head from rotation

Online Content



HLAY7

Selection Code

Range Name	Type	Contacts	Color	Drilling or cut-out for mounting
HLAY7	BN	11	3	2
	HLAY7**BN: Flush, spring return	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	1: White 2: Black 3: Green 4: Red 5: Yellow 6: Blue	2: Ø22 3: Ø25 4: Ø30
	HLAY7**BNZS: Flush, push-push HLAY7**GN: Projecting, spring return HLAY7**GNZS: Projecting, push-push HLAY7**JN: Recessed (high guard)		3: Green 4: Red	
	HLAY7**M: Ø40 Mushroom, spring return HLAY7**MZS: Ø40 Mushroom, push-push HLAY7**ZS: Ø40 Emergency stop pushbuttons, turn to release		3: Green 4: Red	

Range Name	Type	Contacts	Number and Type of Positions	Color	Drilling or cut-out for mounting
HLAY7	XB	11	20	2	2
	HLAY7**X: Selector switches with standard handle HLAY7**XB: Selector switches with long handle HLAY7**Y: Key switches	10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC	20: 2p, stay put 21: 2p, spring return from right to center 30: 3p, stay put 31: 3p, spring return from right to center 33: 3p, spring return to center	2: Black 3: Green 4: Red 0: for Key switches	2: Ø22 3: Ø25 4: Ø30



CONTROL COMPONENTS


HLAY7 Pushbuttons, Switches and Pilot Lights


Standard: IEC 60947-5-1



Selection Code

Range Name	Type	Contacts	Color	Supply Voltage	Drilling or cut-out for mounting	Light Source
HLAY7	DZS	11	4	M	2	L
	<p>HLAY7**D: Illuminated projecting, spring return</p> <p>HLAY7**DZS: Illuminated projecting, push-push</p>	<p>10: 1NO</p> <p>01: 1NC</p> <p>20: 2NO</p> <p>02: 2NC</p> <p>11: 1NO+1NC</p>	<p>3: Green</p> <p>4: Red</p> <p>5: Yellow</p> <p>6: Blue</p> <p>7: Pure white</p> <p>8: Pure blue</p>	<p>T: 6V</p> <p>B: 24V</p> <p>F: 110V</p> <p>M: 220V</p> <p>Q: 380V</p>	<p>2: Ø22</p> <p>3: Ø25</p> <p>4: Ø30</p>	<p>L: LED</p>
	<p>HLAY7**DM: Illuminated mushroom, spring return</p> <p>HLAY7**DMZS: Illuminated mushroom, push-push</p>		<p>3: Green</p> <p>4: Red</p>			

Range Name	Type	Contacts	Number and Type of Positions (For switches)	Color	Supply Voltage	Drilling or cut-out for mounting	Light Source
HLAY7	XD	11	20	3	M	2	L
	<p>HLAY7**XD: Illuminated selector switches with standard handle</p>	<p>10: 1NO</p> <p>01: 1NC</p> <p>20: 2NO</p> <p>02: 2NC</p> <p>11: 1NO+1NC</p>	<p>20: 2p, stay put</p> <p>30: 3p, stay put</p>	<p>3: Green</p> <p>4: Red</p>	<p>T: 6V</p> <p>B: 24V</p> <p>F: 110V</p> <p>M: 220V</p> <p>Q: 380V</p>	<p>2: Ø22</p> <p>3: Ø25</p> <p>4: Ø30</p>	<p>L: LED</p>

Range Name	Type	Color	Supply Voltage	Drilling or cut-out for mounting
HLAY7	XD3	4	M	2
	<p>HLAY7XD3: Pilot Light LED</p>	<p>1: White</p> <p>3: Green</p> <p>4: Red</p> <p>5: Yellow</p> <p>6: Blue</p> <p>7: Pure white</p> <p>8: Pure blue</p>	<p>T: 6V</p> <p>B: 24V</p> <p>F: 110V</p> <p>M: 220V</p> <p>Q: 380V</p>	<p>2: Ø22</p>

CONTROL COMPONENTS

HLAY7 Pushbuttons, Switches and Pilot Lights

Standard: IEC 60947-5-1



Selection Code

Range Name

Type

Contacts

HLAY7

BE10

1



HLAY7BE10: Contact blocks

1: 1NO
2: 1NC
3: 2NO
4: 2NC
5: 1NO+1NC



Technical Parameters

Pushbuttons and Switches			HLAY7		
Usage mode			Rated value		
AC-15	Rated voltage (Ue)	V	660	380	220
	Rated current (Ie)	A	1.1	2	3.3
DC-13	Rated voltage (Ue)	V	440	220	110
	Rated current (Ie)	A	0.25	0.5	1
Mechanical endurance	10 ⁵	10 (Flush type), 3 (Switches)			
		1 (Push-push type)			
Electric endurance	10 ⁵	6 (Flush type), 1 (Switches)			
		0.5 (Push-push type)			
Rated thermal current (Ith)	A	10			
Operation frequency	T/h	1200			
Contact resistance	mΩ	≤50			
Illuminated pushbutton			LED		
Working voltage	(Ue)V	6, 24, 110, 220, 380			
Lifetime	h	≥3000			

Environment

Ambient temperature	-5°C~+40°C
Relative humidity	≤50% (40°C) 90% (20°C)
Altitude	≤2000m
Pollution degree	3

CONTROL COMPONENTS

HLD11 Pilot Lights

Standard: IEC 60947-5-1



Range Presentation

HLD11 is Himel range of Pilot Lights designed for:

- Pilot signal and alarm signal
- Emergency signals and other instructions incidents signals

Features





- ◆ Compact design, all-in-one functionality
- ◆ LED light with long life, low consumption, high brightness
- ◆ IP65 front-of-panel high protection against ingress of solid objects, dust, and water
- ◆ Excellent resistance to mechanical shock and vibration
- ◆ Anti-interference, no improper indication of residual lights

Online Content



HLD11

Selection Code

Range name	Drilling or cut-out for mounting	Type	Step-down type	Shape of head	Rated voltage	Color
HLD11	22	D	4	1	M	4
	22: Ø22	A: Full cover head & long terminal	2: Resistance type 4: Capacitance type	1: Circular	T: AC/DC 6V J: AC/DC 12V B: AC/DC 24V F: AC/DC 110V M: AC/DC 220V N: AC 230V Q: AC 380V	7: White 3: Green 4: Red 5: Yellow 8: Blue
	22: Ø22	B: Half cover head & long terminal	2: Resistance type 4: Capacitance type	1: Circular	T: AC/DC 6V J: AC/DC 12V B: AC/DC 24V F: AC/DC 110V M: AC/DC 220V N: AC 230V Q: AC 380V	7: White 3: Green 4: Red 5: Yellow 8: Blue
	22: Ø22	C: Full cover head & short terminal	2: Resistance type 4: Capacitance type	1: Circular	T: AC/DC 6V J: AC/DC 12V B: AC/DC 24V F: AC/DC 110V M: AC 220V N: AC 230V Q: AC 380V	7: White 3: Green 4: Red 5: Yellow 8: Blue
	22: Ø22	D: Half cover head & short terminal	2: Resistance type 4: Capacitance type	1: Circular	T: AC/DC 6V J: AC/DC 12V B: AC/DC 24V F: AC/DC 110V M: AC 220V N: AC 230V Q: AC 380V	7: White 3: Green 4: Red 5: Yellow 8: Blue

Technical Parameters

Pilot Lights	HLD11	
Rated voltage	AC/DC (Resistance type) A2,B2: 6V,12V,24V,36V,48V,110V,220V, C2,D2: 6V,12V,24V,36V,48V,110V	AC (Capacitance type) A4,B4,C4,D4: 220V,230V,380V
Rated current (mA)	≤50	≤20
Working life (H)	30000	
Brightness of light (cd/m ²)	≥40	
Power frequency withstand voltage	2500V AC 1min	
Degree of protection	IP65	

CONTROL COMPONENTS

HDZ9 Miniature Relays

Standard: IEC60947-4



Range Presentation

HDZ9 is Himel range of Miniature Relays designed to implement control signal conversion to low power output.

They can be widely used for industrial control applications

Features

- ◆ Rated current: 3A, 5A, 10A
- ◆ Pole: 2-pole, 3-pole, 4-pole
- ◆ Maximum rated operating Voltage: 690V
- ◆ Rated operating frequency: 50/60Hz
- ◆ Coil specification: DC: 6V~220V; AC: 6V~380V
- ◆ New specification: Rotary push button

Online Content



HDZ9

Selection Code

Range name	Current	Poles	AC/DC	LED	Coil voltage	Type
HDZ9	05	2	D	L	M	R
HDZ9	03: 3A 05: 5A 10: 10A	2: 2P 3: 3P 4: 4P	Default: AC D: DC	Default: None L: LED	T: 6V J: 12V B: 24V C: 36V E: 48V F: 110V S: 127V M: 220V N: 230V U: 240V Q: 380V	Default: Classic R: Rotary button

Technical Parameters

Miniature relays		HDZ9					
Type		03	05			10	
		4P	2P	3P	4P	2P	3P 4P
Max load current		3A	5A			10A	
Max operation voltage		250VAC 28VDC					
Contact resistance		≤100mΩ					
Contact material		Silver Alloy					
Electrical endurance		≥100000 times (1800 times/h)					
Mechanical endurance		≥10000000 times (18000 times/h)					
Actuation voltage (23°C)		DC: ≤75% (rated voltage), AC: ≤80% (rated voltage)					
Release voltage (23°C)		DC: ≥10% (rated voltage), AC: ≥30% (rated voltage)					
Maximum voltage (23°C)		110% (rated voltage)					
Insulation resistance		≥100MΩ (500VDC)					
Coil power		DC: 0.9W AC:1.2VA					
Actuation time (rated voltage)		≤15ms					
Release time (rated voltage)		≤10ms					
Withstand voltage	polar- contacts	1500VAC/1min (residual current is 1mA)					
	bipolar - contacts	1200VAC/1min (residual current is 1mA)					
	coil -contacts	1500VAC/1min (residual current is 1mA)					
Ambient temperature		-25°C~+55°C					
Ambient humidity		35%~85%RH					
Atmospheric pressure		86~106KPa					
Installation method		Plug-in					
Weight		30g					
Coil voltage		DC: 6V~220V; AC: 6V~380V.					
Certificate		CB, CE, SEMKO					

HDZ9 Miniature Relays

Standard: IEC60947-4



HDZ9 Miniature Relay

Reliable switching safety in compact space



DURABLE

Longer operation duration
Tested for >100,000 cycle times



RELIABLE

High-quality copper coil
ensures stable magnetic field
Reliable on/off action



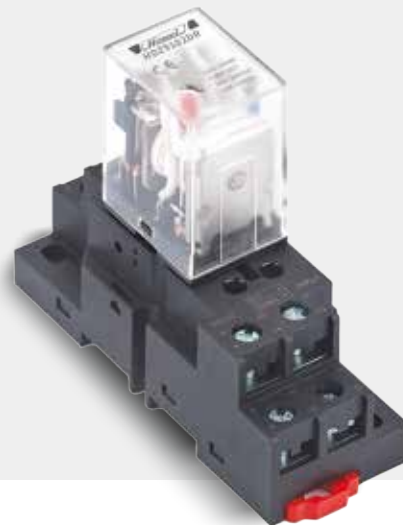
MORE OPTIONS

3 types of base selection
(Eco, Basic and European)
LED and test button available



FIREPROOF CASE

PC flame retardant material
Safe at temperature up to 260°C.



FEATURES

- ✓ High switching capacity
- ✓ Wide operating voltage range
- ✓ High density packaging

IDEAL FOR

- ✓ Factory automation equipment
- ✓ Industrial processes

CONTROL COMPONENTS

HDZ9 Miniature Relays

Standard: IEC60947-4

Base Selection Code

Classic Type



Rated Current	Poles	Control Voltage	LED	Reference	Base		
					Economical	Basic	European
5A	2	AC	L	HDZ9052L*	HPYF08A	HPYF08A15	HPYF08AZ
		AC	None	HDZ9052*	HPYF08A	HPYF08A15	HPYF08AZ
		DC	L	HDZ9052DL*	HPYF08A	HPYF08A15	HPYF08AZ
		DC	None	HDZ9052D*	HPYF08A	HPYF08A15	HPYF08AZ
	3	AC	L	HDZ9053L*	HPYF11A		
		AC	None	HDZ9053*	HPYF11A		
		DC	L	HDZ9053DL*	HPYF11A		
		DC	None	HDZ9053D*	HPYF11A		
	4	AC	L	HDZ9054L*	HPYF14A	HPYF14A15	HPYF14AZ
		AC	None	HDZ9054*	HPYF14A	HPYF14A15	HPYF14AZ
		DC	L	HDZ9054DL*	HPYF14A	HPYF14A15	HPYF14AZ
		DC	None	HDZ9054D*	HPYF14A	HPYF14A15	HPYF14AZ
3A	4	AC	L	HDZ9034L*	HPYF14A	HPYF14A15	HPYF14AZ
		AC	None	HDZ9034*	HPYF14A	HPYF14A15	HPYF14AZ
		DC	L	HDZ9034DL*	HPYF14A	HPYF14A15	HPYF14AZ
		DC	None	HDZ9034D*	HPYF14A	HPYF14A15	HPYF14AZ
10A	2	AC	L	HDZ9102L*	HPTF08A	HPTF08A15	
		AC	None	HDZ9102*	HPTF08A	HPTF08A15	
		DC	L	HDZ9102DL*	HPTF08A	HPTF08A15	
		DC	None	HDZ9102D*	HPTF08A	HPTF08A15	
	3	AC	L	HDZ9103L*	HPTF11A	HPTF11A15	
		AC	None	HDZ9103*	HPTF11A	HPTF11A15	
		DC	L	HDZ9103DL*	HPTF11A	HPTF11A15	
		DC	None	HDZ9103D*	HPTF11A	HPTF11A15	
	4	AC	L	HDZ9104L*	HPTF14A	HPTF14A15	
		AC	None	HDZ9104*	HPTF14A	HPTF14A15	
		DC	L	HDZ9104DL*	HPTF14A	HPTF14A15	
		DC	None	HDZ9104D*	HPTF14A	HPTF14A15	



CONTROL COMPONENTS

HDZ9 Miniature Relays

Standard: IEC60947-4

Base Selection Code

Rotary Button Type



Rated Current	Poles	Control Voltage	LED	Reference	Base		
					Economical	Basic	European
5A	2	AC	L	HDZ9052L*R	HPYF08A	HPYF08A15	HPYF08AZ
		AC	None	HDZ9052*R	HPYF08A	HPYF08A15	HPYF08AZ
		DC	L	HDZ9052DL*R	HPYF08A	HPYF08A15	HPYF08AZ
		DC	None	HDZ9052D*R	HPYF08A	HPYF08A15	HPYF08AZ
3A	4	AC	L	HDZ9034L*R	HPYF14A	HPYF14A15	HPYF14AZ
		AC	None	HDZ9034*R	HPYF14A	HPYF14A15	HPYF14AZ
		DC	L	HDZ9034DL*R	HPYF14A	HPYF14A15	HPYF14AZ
		DC	None	HDZ9034D*R	HPYF14A	HPYF14A15	HPYF14AZ



* is control voltage and with/with not test button
Base type

Accessory jump ring	Adapted
HPY36M2C	HPYF08A15
HPY36S	HPYF08A15 HPYF08A HPYF14A15 HPYF14A HPTF08A
HIHPY36M	HPYF14AZ HPYF08AZ HPTF08A15

CONTROL COMPONENTS

HJSZ3 Electronic Timer Relays

Standard: IEC60947-4



Range Presentation

HJSZ3 is Himel range of Electronic Timer relay designed for industrial control applications.

HJSZ3 is applicable to AC 50Hz circuits with controlling voltage up to 400V.

Features

- ◆ Multi-position type Time delay range
- ◆ Power-on/off delay type available
- ◆ Wide rated voltage input range from 85%~110%

Selection Code

Range name	Time delay	Operation voltage	Range name	Time delay	Operation voltage
HJSZ3A	A	120	HJSZ3F	2S	120
HJSZ3A Time delay after power-on	A: 0.05-0.5s/5s/30s/3M B: 0.1-1s/10s/60s/6M C: 0.5-5s/50s/5M/30M D: 1-10s/100s/10M/60M E: 6s-60s/10M/60M/6h F: 0.2M-2M/20M/2h/12h G: 0.4M-4M/40M/4h/24h	120 240 400	HJSZ3F Time delay after power-off	1S: 0.1-1s 2S: 0.2-2s 3S: 0.3s-3s 5S: 0.5s-5s 6S: 0.6s-6s 10S: 1s-10s 20S: 2s-20s 30S: 3s-30s 60S: 6s-60s 100S: 10s-100s 180S: 18s-180s 5M: 0.5min-5min 6M: 0.6min-6min 10M: 1min-10min 20M: 2min-20min 30M: 3min-30min	120 240 400

Technical Parameters

Electronic Timer Relays		HJSZ3
Condition	AC-15 DC-13	400V/1.95A; 240V/1.5A; 120V/3.0A 250V/0.27A; 125V/0.55A
Repetitive error		≤5%
Rated thermal current		5A
Mechanical life		≥1×10 ⁶ times
Electric life		≥1×10 ⁵ times
Power loss		≤3W
Working mode		A: Delay after power-on F: Delay after power-off
Reset mode		A: Power-off reset F: External device reset
Contacteur endurance		A: 5A (Resistive) F: 1A(Resistive)
Delay time		HJSZ3A: 0.05s-0.5s/5s/30s/3M, 0.1s-1s/10s/60s/6M
		0.5s-5s/50s/5M/30M, 1s-10s/100s/10M/60M
		6s-60s/10M/60M/6h, 0.2M-2M/20M/2h/12h
		0.4M-4M/40M/4h/24h
		HJSZ3F: 0.1s-1s, 0.2s-2s, 0.3s-3s, 0.5s-5s, 0.6s-6s, 1s-10s, 2s-20s, 3s-30s, 6s-60s, 10s-100s, 10s-120s, 10s-180s, 0.4M-4M, 0.5M-5M, 0.6M-6M, 1M-10M, 2M-20M, 3M-30M
Temperature		-5°C ~ +40°C
Installation mode		Din rail mounted, Panel mounted

CONTROL COMPONENTS

HXJ9 Phase Failure and Sequence Protection Relay

Standard: IEC60947-4



Range Presentation

HXJ9 is Himel range of phase failure and sequence protection relay

Features

- ◆ Rated frequency is 50Hz, and rated control supply AC voltage is 400V
- ◆ Phase failure and phase sequence protections

Online Content

*coming soon

Order Information

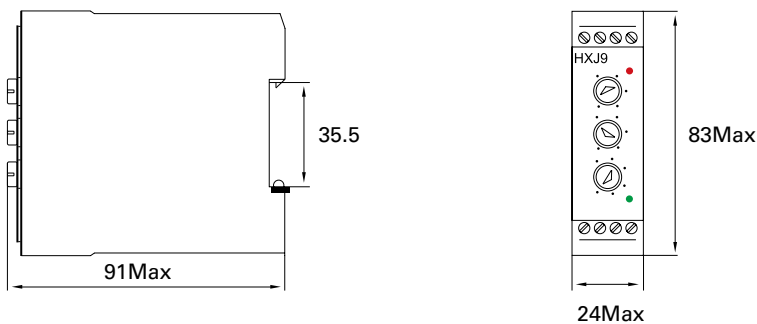
Function	Voltage	Reference
Phase Failure and Sequence Protection	380V	HXJ9
	400V	HXJ9400

Technical Parameters

Standard	IEC 60947-5-1
Overvoltage protection	Adjustable, HXJ9: 380~460V, HXJ9400: 400~480V, Reaction time: 1.5s-4s (adjustable)
Undervoltage protection	Adjustable, HXJ9: 300~380V, HXJ9400: 320~400V. Reaction time: 2s-9s (adjustable)
Phase failure & phase wrong protect time	Reaction time $\leq 2s$
Contact mode	1 NO, 1NC
Contact endurance	5A Resistive
Power voltage	AC 400V
Mechanical lifetime	$\geq 1 \times 10^6$ times
Electrical lifetime	$\geq 1 \times 10^5$ times
Power loss	$\leq 1W$
Contact capacity	AC400V \times 3

Overall Dimensions

Unit: mm



CONTROL COMPONENTS

HKG Digital Time Switches

Standard: IEC60947-5-1



Range Presentation

- HKG is Himel range of Digital Time Switches to control electrical components, turning on and off the circuits according to the scheduled time.
- Rated AC frequency is 50Hz, and rated AC control voltage is 400V or below
- Time control components in automatic control circuit, and turn on or off the circuits according to the scheduled time

Features

- ◆ Full range up to 400V
- ◆ Up to 32 daily switches (16 ON-16 OFF)
- ◆ Daily or weekly program
- ◆ Reset method:
HKG316T: Power-off reset
HKG316TD: Key-button reset
HKG816: Key-button reset

Selection Code

Range name	Rated control voltage	Output number
HKG316T	230	2
HKG316T HKG316TD HKG816A: White cover HKG816B: Transparent cover	230: 230V (HKG816 is only working under 230V) 400: 400V	Default: Single output 2: Double output (only for HKG316T)



Technical Parameters				
Digital Time Switches	HKG316T	HKG316TD	HKG816A	HKG816B
Control time	1min≤t≤168h (time is controlled in a daily cycle or a weekly cycle)			
Utilization mode	AC-15: 240V/3A 400V/1.9A	AC-15: 240V/3A	AC-15: 240V/3A; 400V/1.9A	
Maximum switch times per day	16-ON-16-OFF (Single output) 8-ON-8-OFF (Double output)	16-ON-16-OFF	16-ON-16-OFF	
Rated control voltage	230/400V AC	230/380V AC	230V AC	
Rated thermal current	10A			
Accuracy	≤2s/day			
Display Model	Digital LED display			
Time-set Mode	Digital Keyswitch setting			
Battery	Inner alkaline battery	Inner rechargeable battery		

Online Content



HKG

HDJS18 Time Relays

IEC 60947-5



Range Presentation

HDJS18 is Himel range of Time Relay and it provides:

- Switch-off Delay
- Switch-on Delay
- Interval Delay

It is widely used for staircase lamps on automatic switch-off control according to scheduled time.

Features

- ◆ Small size
- ◆ Elegant appearance
- ◆ High accuracy of time delay
- ◆ High capacity of contacts
- ◆ Strong anti-interference ability
- ◆ Easy for installation

Online Content



HDJS18

Selection Code

Model	Time-delay type	Time delay	Control voltage	Voltage type
HDJS18	A	10S	220	AD
HDJS18: Product name	Default: interval delay A: off delay B: switch-on delay	10S: 1-10s 120S: 12-120s 480S: 48-480s	220: 220V 24: 24V	Default: AC AD: AC/DC

Technical Parameters		HDJS18
Time Relays		HDJS18
Rated conventional thermal current I _{th} (A)		10
AC-15	U _e (V)	380/240
	I _e (A)	1.9/3
DC-13	U _e (V)	24
	I _e (A)	1.1
Control voltage U _s (V)		AC: 220, 110 (customized), 380 (customized) AC/DC: 24
Repetitive error		≤5%
Time delay		5s, 10s, 30s, 60s, 120s, 180s, 360s, 480s
Mechanical durability (time)		≥1 million
Electrical durability (time)		≥100 thousand
Time-delay method		Switch-on delay, off delay, interval delay
Standard		IEC 60947-5
Ambient Temperature		-5°C~+40°C
Range of operating control voltage		85%~110% U _s
Altitude		≤2000m
Installation category		II
Pollution class		3

CONTROL COMPONENTS

HXC Limit Switch

Standard: EN60947-5-1



Range Presentation

Himel Limit Switches facilitate efficient and precise automatic monitoring of movement limits. Especially suitable for space-restricted applications like OEM machinery, they are designed and tested for harsh environments.

Features

- ◆ Double circuit type of limit switch
- ◆ Compact size, IP65/66 water-proof and oil-proof construction
- ◆ Built-in contact box has double-spring and long mechanical life
- ◆ Smooth operation with larger over travel distance
- ◆ Various types for different application

Online Content



HXC

Selection Code

Range name	Series	Type	Head
HXC	KM	8108	E
Limit Switch	KM: Metal box KP: Plastic box KD: full-metal box MP: Micro switch, plastic box	Selection of triggering head type	E: Eco type



Technical Parameters

series	HXCKM	HXCKP	HXCKD	HXCMP
Operation speed	5mm-0.5m/s	5mm-0.5m/s	5mm-0.5m/s	0.05mm-1m/s (Plunger type)
Operating frequency	Electrical: 30 operations/min	Electrical: 30 operations/min	Electrical: 30 operations/min	Electrical: 20 operations/min
Contact resistance	25mΩ max. (initial value)	25mΩ max. (initial value)	25mΩ max. (initial value)	15mΩ max. (initial value)
Insulation resistance	100mΩ min. (below 500VDC)	100mΩ min. (below 500VDC)	100mΩ min. (below 500VDC)	100mΩ min. (at 500VDC)
Vibration	10-55Hz,1.5mm double amplitude	10-55Hz,1.5mm double amplitude	10-55Hz,1.5mm double amplitude	(*10 to 20Hz): 1.5 Vibration amplitude action duration: 10 to 55Hz
Shock	Mechanical durable: 1, 000m/Sec2 (about 100G'S)	Mechanical durable: 1, 000m/Sec2 (about 100G'S)	Mechanical durable: 1, 000m/Sec2 (about 100G'S)	Mechanical durable: 1, 000m/Sec2 (about 100G'S)
Malfunction	300m/Sec2 (about 30G'S)	300m/Sec2 (about 30G'S)	300m/Sec2 (about 30G'S)	300m/Sec2 (about 30G'S)
Ambient temperature	Using: -20~+70°C (With no icing)	Using: -20~+70°C (With no icing)	Using: -20~+70°C (With no icing)	Using: -20~+80°C (With no icing)
Humidity	<95% RH	<95% RH	<95% RH	General purpose type: 85% RH max. Sealed type: 95% RH max.
Electrical life	500,000 operations above	500,000 operations above	500,000 operations above	500,000 operations above
Protection level	IP65	IP65	IP66	IP65(with cap)
CE	YES	YES	YES	YES

CONTROL COMPONENTS

HXC Limit Switch

Standard: EN60947-5-1

HXCKM Series



HXCKM-8104E



HXCKM-8105E



HXCKM-8107E



HXCKM-8108E



HXCKM-8109E



HXCKM-8111E



HXCKM-8112E



HXCKM-8122E

HXCKP Series



HXCKP-101



HXCKP-102



HXCKP-103



HXCKP-111



HXCKP-112



HXCKP-127



HXCKP-121



HXCKP-121M



HXCKP-131



HXCKP-131M

CONTROL COMPONENTS

HXC Limit Switch

Standard: EN60947-5-1

HXCKD Series



HXCKD-001



HXCKD-003



HXCKD-021



HXCKD-021M



HXCKD-031



HXCKD-031M



HXCKD-012



HXCKD-041



HXCKD-051

HXCMP Series



HXCMP-1701



HXCMP-1702



HXCMP-1703



HXCMP-1703M



HXCMP-1704



HXCMP-1704M



HXCMP-1705



HXCMP-1706



HXCMP-1306



HXCMP-1307



HXCMP-1308



HXCMP-1309



HXCMP-1308X



CAP-B



CAP-Y



CAP-C

CONTROL COMPONENTS

HDK Switch Mode Power Supply

Standard: EN 61558-1



Range Presentation

HDK is Himel range of Switch Mode Power Supply. It can be widely used in the following fields:

- Industrial control system
- Industrial automation machinery
- Mechanical and electrical equipment
- Electronic instruments
- Household appliances

In the above, it can be used as the power supply for LED screen, electronic testing equipment, control equipment, radio and television, computer network, medical apparatus and instruments, intelligent monitoring, and many more.

Features

HDK-US:

- ◆ 30mm ultra-thin enclosure design
- ◆ Easy to install and light weight
- ◆ Full range of AC input voltage (90~264VAC); high efficiency and small output ripple
- ◆ Low power loss design; less heat consumption; no load power consumption is only 0.2-1.0W
- ◆ High frequency PWM control technology & fast response
- ◆ High power MOSFET driving; stable and reliable operation; strong overload ability
- ◆ 100% full load aging test can be passed for all products
- ◆ Complete protection functions: overvoltage protection, overload protection, over-temperature protection, short circuit protection, etc.

HDK-NS (Din-rail type):

- ◆ Din-rail type for installation
- ◆ Narrow surface metal enclosure design
- ◆ Excellent capacity of heat dissipation
- ◆ Full range of AC input voltage (90~264VAC); high efficiency and small output ripple
- ◆ Low power loss design
- ◆ Complete protection functions: overvoltage protection, overload protection, over-temperature protection, short circuit protection, etc.

Selection Code

Model HDK	Type US	Rated Power 50	Output Voltage 12
Product series name	US: Ultra-thin type	35: 35W 50: 50W 75: 75W 100: 100W 150: 150W 200: 200W 350: 350W	05: 5V 12: 12V 24: 24V 36: 36V 48: 48V
Product series name	NS: Narrow surface type	75: 75W 120: 120W 240: 240W 480: 480W	12: 12V 24: 24V 36: 36V 48: 48V (for 240W and 480W, only 24V and 48V are available)

Online Content



HDK

HDK Switch Mode Power Supply

Standard: EN61558-1



HDK Switch Mode Power Supply

Designed for efficient power conversion



MULTI PROTECTION

Protection against overload,
over-voltage, over-temperature
and short circuit



PURE COPPER COIL

More stable magnetic field
Reliable on-off action



HIGH EFFICIENCY

Heat dissipation
Multiple vent design



HIGH LEVEL SAFETY

Dust cover
Fully coated PCB



FEATURES

- ✔ High reliability
- ✔ Wide range of input voltage
- ✔ High output accuracy
- ✔ CB certification (HDKU-S Series)

IDEAL FOR

- ✔ Factory automation equipment
- ✔ Industrial processes
- ✔ Lighting Industry (HDKU-S Series)

CONTROL COMPONENTS

HDK Switch Mode Power Supply

Standard: EN61558-1



Technical Parameters		
Product Type	HDK-US	HDK-NS
AC Input Voltage	35W, 50W, 75W, 100W, 150W: 100~264 V (actual input voltage range: 90~264 V) 200W, 350W: 85~132 V / 176~264 V (can be switched)	100-240VAC
Voltage Accuracy	±1%	±1%
Ripple and Noise	≤1% peak value (100mVp-p standard)	1%(mVp-p) of rated output voltage
Regulation range of Output Voltage	±10%	±10%
Voltage Tolerance	±1%	±1%
Overload Protection	110%-150%	110%-150%
Load Regulation Rate	±1%	±1%
Leakage Current	< 2mA240VAC	< 2mA240VAC
Efficiency	O/5V: ≥ 80% O/12V: ≥ 85% O/24V, 36V: ≥ 86% O/48V: ≥ 88%	88%
Standard	EN61558-1	EN61558-1

CONTROL COMPONENTS

HBK Control Transformers

Standard: IEC61558-2-2



Range Presentation

HBK series is Himel range of AC to AC Voltage Transformers, applicable to the electrical system of the machine tool and other mechanical equipment. Used as the power supply of the control circuits, lighting circuit, signaling circuits and electronic devices; it also has two or more than two electrical-isolated winding transformer

Features

- ◆ Simple structure and strong anti-seismic capacity
- ◆ High level automation and good product consistency.
- ◆ Good safety performance and high production efficiency
- ◆ Strong load capacity and overvoltage capacity

Online Content



HBK

Selection Code

Range name	Rated capacity	Voltage ratio (input/output)	Isolation	Transformer type	Voltage type
HBK	100	E9	G	M	C
HBK	00025: 25VA 00050: 50VA 00060: 60VA 00063: 63VA 00100: 100VA 10000: 10kVA 15000: 15kVA 20000: 20kVA	D1: 380V/220V D2: 380V/36V D3: 380V/24V D7: 220V/220V D8: 220V/36V D9: 220V/24V D5V: 380V/5V E1: 400V/230V E7: 230V/230V E8: 230V/36V E9: 230V/24V E5V: 230V/5V F1: 240V380V 415V/12V24V110V F2: 230V380V415V /12V24V230V	Default: no isolation G: isolation: only available when input equals to output voltage	Default: single-input & single-output type M: Multi-input & Multi-output type	For Multi-input & Multi-output type, two structures can be selected: C: Center-tapped Winding S: Separate Winding

Note: For customization requirement, please reach out to local sales.

Technical Parameters

Control Transformers	HBK
Rated voltage	≤1200V
Rated frequency	50Hz, 60Hz
Insulation resistance	≥5MΩ
Insulation class	B
Rated duty	Uninterrupted Duty
Standard	IEC 61558-2-2
Certificate	CE

CONTROL COMPONENTS

HICF Axial Fan

Standard: EN 55032:2015; EN61000-3-2:2014; EN61000-3-3:2013;



Range Presentation:

HICF series axial fan is designed for cooling and air ventilation of control panels, cabinets, machines, electric appliance, EV cars, etc.

The products meet the requirements of 24h continuous working condition.

Features:

- ◆ With good quality and high strength shell, the HICF series axial fan is temperature, break and corrosion resistant.
- ◆ Equipped with high quality motor, the axial fan has large air volume, low noise and good heat dissipation effect.
- ◆ High quality copper coil, good conductivity, low power consumption, low heating.
- ◆ Anti-reverse wire connection protection - safer to use.

Online Content



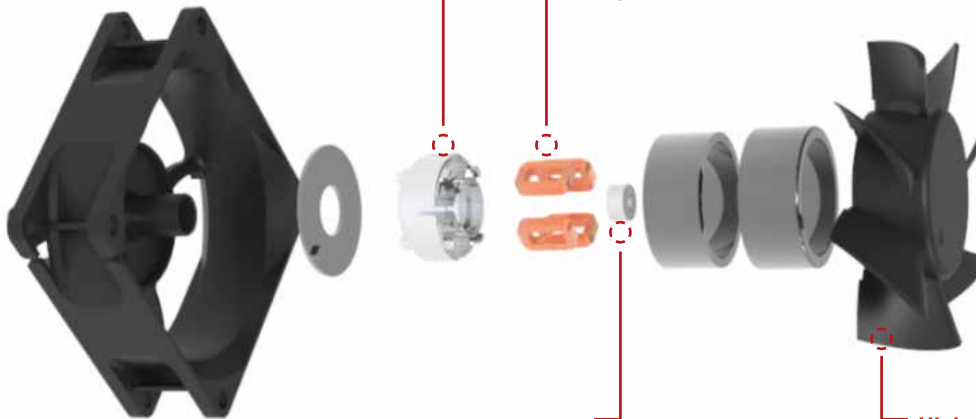
HICF

Silicon steel:

Super thick steel, ensuring stability of the fan

Cooper wire:

High quality cooper wire, lower temperature rise, long mechanical life



Bearing:

Dual-ball bearing: High quality dual-ball bearing motor, low friction, high efficiency and longer life endurance

Oil bearing motor: Low cost, vibration absorption and low noise

High quality PBT blade:

Environment friendly and fireproof PBT blade, excellent structure stability and large air volume.

Selection Code

Range name	Width	Height	Voltage	Bearing	Connection
HICF	280	80	A2	B	L
HICF	40: 40x40mm 50: 50x50mm 80: 80x80mm 92: 92x92mm 120: 120x120mm 160: 160x160mm 180: 180x180mm 200: 200x200mm ... Special: 170: 172x150mm	15: 15mm 20: 20mm 25: 25mm 38: 38mm 50: 50mm 60: 60mm 70: 70mm	A2: AC220V D2: DC24V D1: DC12V ...	B: ball S: lube	L: cable-out

CONTROL COMPONENTS

HICF Axial Fan

Standard: EN 55032:2015; EN61000-3-2:2014; EN61000-3-3:2013;

Technical Parameter

AC axial Fan

Frame is made of Aluminium Alloy material, Impeller is made of :PBT+30%GF material

Insulation level: CLASS B

Protection level: IP44



Commercial reference	HICF8025A2BL	HICF8025A2SL	HICF8038A2BL	HICF8038A2SL
Product size (mm)	80*80*25	80*80*25	80*80*38	80*80*38
Rated voltage	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz
Rated current (A)	0.09/0.08A	0.09/0.08A	0.06/0.05A	0.06/0.05A
Rated power(W)	15/12W	15/12W	9.5/7W	9.5/7W
Speed (RPM)	2300/2750	2300/2750	2550/3100	2550/3100
Air pressure mmH ₂ O (mmAQ)	2.2/2.4	2.2/2.4	2.6/2.8	2.6/2.8
Noise level (dBA)	38	38	38	38
Air flow (CFM)	32/35	32/35	39/42	39/42



Commercial reference	HICF9225A2BL	HICF9225A2SL	HICF9238A2SL	HICF12025A2BL
Product size (mm)	92*92*25	92*92*25	92*92*38	120*120*25
Rated voltage	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz
Rated current (A)	0.1/0.08A	0.1/0.08A	0.06/0.05A	0.1/0.08A
Rated power(W)	13/11W	16/13W	10/8W	17/14W
Speed (RPM)	2350/2800	2350/2800	2300/2750	2300/2700
Air pressure mmH ₂ O (mmAQ)	3.1/3.4	3.1/3.4	4.5/4.9	2.9/3.1
Noise level (dBA)	38	38	41	45
Air flow (CFM)	45/50	45/50	66/72	44/45



Commercial reference	HICF12025A2SL	HICF12038A2BL	HICF12038A2SL	HICF15050A2BL
Product size (mm)	120*120*25	120*120*38	120*120*38	150*150*50
Rated voltage	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz
Rated current (A)	0.1/0.08A	0.15/0.12A	0.15/0.12A	0.25/0.23A
Rated power(W)	17/14W	21/18W	21/18W	35/32W
Speed (RPM)	2300/2700	2600/3000	2600/3000	2600/2900
Air pressure mmH ₂ O (mmAQ)	2.9/3.1	6.7/7.6	6.7/7.6	16/17.8
Noise level (dBA)	45	48	48	51
Air flow (CFM)	44/45	93/98	93/98	372/400

CONTROL COMPONENTS

HICF Axial Fan

Standard: EN 55032:2015; EN61000-3-2:2014; EN61000-3-3:2013;



Commercial reference	HICF16060A2BL	HICF17040A2BL	HICF17050A2BL	HICF20060A2BL	HICF20070A2BL
Product size (mm)	160*160*60	172*150*38	172*150*51	200*200*60	200*200*70
Rated voltage	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz	220V AC at 50/60 Hz
Rated current (A)	0.13/0.1A	0.14/0.13A	0.25/0.23A	0.48/0.5A	0.2/0.22A
Rated power(W)	25/24W	28/27W	35/32W	68/75W	45/52W
Speed (RPM)	2750/3150	2850/3300	2600/2900	2600/3000	2550/2950
Air pressure mmH ₂ O (mmAQ)	26.5/28.6	10.2/11.6	17/18.8	25/33	32
Noise level (dBA)	61	51	51	67	68
Air flow (CFM)	390/420	150/170	206/251	370/420	465

DC Axial Fan

Made of PBT+30%GF material; Insulation level:CLASS B; protection level: IP44.



Commercial reference	HICF4020D2SL	HICF5015D2BL	HICF5020D2BL	HICF6025D2BL	HICF8025D2BL
Product size (mm)	40*40*20	50*50*15	50*50*20	60*60*25	80*80*25
Rated voltage	24V DC	24V DC	24V DC	24V DC	24V DC
Rated current (A)	0.05A	0.1A	0.12A	0.12A	0.25A
Rated power(W)	0.72W	2.4W	2.4W	4.8W	2.64W
Speed (RPM)	5800RPM	6400RPM	5800RPM	5500RPM	3500RPM
Air pressure mmH ₂ O (mmAQ)	3.9	5.23	6.55	8.1	4.94
Noise level (dBA)	27	36.7	35.08	37.8	37.9
Air flow (CFM)	6.6	14.5	21.71	23.8	43.9






Commercial reference	HICF9225D2BL	HICF9225D2SL	HICF12025D2BL	HICF12025D1BL	HICF12038D1BL	HICF12038D2BL
Product size (mm)	92*92*25	92*92*25	120*120*25	120*120*25	120*120*38	120*120*38
Rated voltage	24V DC	24V DC	24V DC	12V DC	12V DC	24V DC
Rated current (A)	0.38A	0.26A	0.25A	0.25A	0.3A	0.2A
Rated power(W)	7.2W	7.2W	6.72W	7.2W	4.8W	4.8W
Speed (RPM)	4000RPM	4000RPM	2600RPM	2600RPM	2600RPM	2500RPM
Air pressure mmH ₂ O (mmAQ)	6	6	5.3	5.3	6.24	6.24
Noise level (dBA)	41.2	41.2	37.2	37.2	42.6	42.6
Air flow (CFM)	64.8	64.8	78.2	78.2	117.6	117.6

CONTROL COMPONENTS

HICF Axial Fan

Standard: EN 55032:2015; EN61000-3-2:2014; EN61000-3-3:2013;

Accessories			
Picture	Commercial reference	Description	Size
 <p>Metal protection net</p>	HICFG80	Metal protection net, Suitable for 80mm fan	80MM
	HICFG90	Metal protection net, Suitable for 92mm fan	90MM
	HICFG110	Metal protection net, Suitable for 110mm fan	110MM
	HICFG120	Metal protection net, Suitable for 120mm fan	120MM
	HICFG150	Metal protection net, Suitable for 150-160mmfan	150MM
	HICFG200	Metal protection net, Suitable for 200-210mm fan	200MM
 <p>Filter net</p>	HICFF80	Filter net, Suitable for 80mm fan	80MM
	HICFF92	Filter net, Suitable for 90mm fan	90MM
	HICFF120	Filter net, Suitable for 120mm fan	120MM
	HICFF170	Filter net, Suitable for 170x50 150x50mm fan	150MM
	HICFF200	Filter net, Suitable for 200mm fan	200MM
 <p>Three in one dustproof net</p>	HICFD80	Three in one dustproof net for 80mm fan	80MM
	HICFD90	Three in one dustproof net for 92mm fan	90MM
	HICFD120	Three in one dustproof net for 120mm fan	120MM
	HICFD150	Three in one dustproof net for 160mm fan	150MM
	HICFD200	Three in one dustproof net for 210mm fan	200-210mm

CONTROL COMPONENTS

HICTUK series Terminal

Standard: EN60947-7-1; EN60947-7-2; EN60947-7-3; EN60947-1



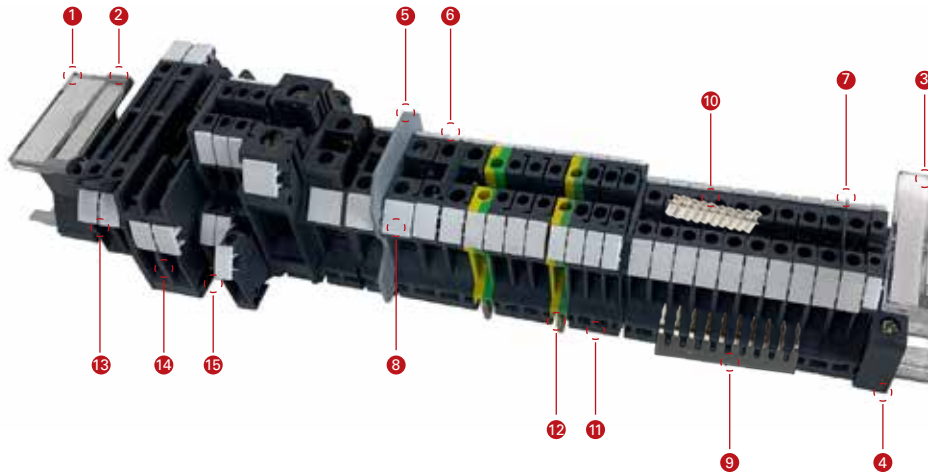
Range Presentation:

HICTUK series terminal is designed for distribution box and control panels. It offers the terminal blocks from 1.5mm²-95mm². Except general terminal block, it also contains the ground terminal block, test terminal block, double-level flange terminal block, and fuse modular terminal block. Accessories like marker bar, spacer plate, fixed bridge and side bridge are also available which making connecting wires easier.

Features:

- ◆ **High quality nickle plated copper material:**
Excellent wear resistance and corrosion resistance, good conductivity
- ◆ **Strong shell with good engineering plastics:** Flame retardant, high temperature resistant, firm and safe
- ◆ **Plenty of connection blocks and accessories:**
Maximum flexibility

Product Appearance



Online Content



HICTUK

Accessories		Terminal blocks	
1	Big marker clip	11	General terminal block
2	Small marker clip	12	Installation ground terminal block
3	Transparent marker clip	13	Fuse modular terminal block
4	HICTUK fixings	14	Test terminal block
5	Spacer plate	15	Double-level flange terminal block
6	Big spacer		
7	Small spacer		
8	Blank marker bar		
9	Side insert bridge connector		
10	Fixed Bridge connector		

Selection Code

Series name	Connection ability	Terminal block type
HICTUK	3	N
HICTUK: Terminal blocks	1P5: 1.5mm ² 2P5: 2.5mm ² 3: 3mm ² 5: 5mm ² 6: 6mm ² 10: 10mm ² 35: 35mm ² 50: 50mm ² 95: 95mm ²	General Type: N(1P5,3,5,6,10,35,50,95),B(2P5); Ground terminal: JD (From 2P5 to 35); Double-level terminal: K3; K5; KB5(KB5-Both layer can be bridged) Test terminal: T; (Just 6T) Fuse modular terminal: HES1 (Just 5HES1)

CONTROL COMPONENTS

HICTUK series Terminal

Standard: EN60947-7-1; EN60947-7-2; EN60947-7-3; EN60947-1



Technical Parameter						
Product Type	HICTUK series general terminal block					
Product reference	HICTUK1P5N	HICTUK2P5B	HICTUK3N	HICTUK5N	HICTUK6N	HICTUK10N
cable cross section(mm ²)	0.14-1.5	0.2-2.5	0.2-2.5	0.2-4	0.2-6	0.5-10
cable cross section(AWG)	26-16	24-12	24-12	24-10	24-8	20-6
In rated current (A)	17.5	24	24	32	41	57
Ue rated operational voltage (V)	500V	800V	800V	800V	800V	800V
Dielectric strength (V)	500V	800V	800V	800V	800V	800V
Product size (Length*Width*Height) (mm*mm*mm)	42.5*4.2*41	42.5*6.2*41	42.5*5.2*46	42.5*6.2*46	42.5*8.2*46	42.5*10.2*46
Installation mode	NS32, NS35					
connections - terminals	M2	M3	M3	M3	M4	M4
Tightening torque(N.m)	0.22-0.25 N.m	0.6-0.8 N.m	0.6-0.8 N.m	0.6-0.8 N.m	1.5-1.8 N.m	1.5-1.8 N.m
Wire stripping length(mm)	7	7	8	8	10	10
Insulation material	PA					
Flame retardance	V2					
Ambient air temperature for operation (°C)	-40 ~100					



HICTUK2P5G



HICTUKFB12P5B



HICTUKEB2P5BD



HICTUKTSK



HICTUKATP



HICTUKW

Accessories Reference:						
Spacer plate	HICTUK2P5G		HICTUK3N10NG			
Fixed bridge	-	HICTUKFB12P5B	HICTUKFB13N	HICTUKFB12P5B	HICTUKFB16N	HICTUKFB110N
Side insert bridge	-	HICTUKEB2P5BD	HICTEB103N	HICTUKEB2P5BD	-	-
Spacer	-	HICTUKTSKK3	HICTUKTSK			
Block sort	HICTUKATP					
Fixing	HICTUKW					
Transparent marker clip	HICTUKLMAT					
Big marker clip	HICTUKB2					
Small marker clip	HICTUKB1					
Blank marker bar	HICTUK1P5NZB4	HICTUK 2P5N5NZB6	HICTUK3NZB5	HICTUK 2P5N5NZB6	HICTUK6NZB8	HICTUK10NZB10
Printed marker bar	-	HICTUK 2P5N5NZB6M	HICTUK3NZB5M	HICTUK 2P5N5NZB6M	HICTUK6NZB8M	HICTUK10NZB10M

CONTROL COMPONENTS

HICTUK series Terminal

Standard: EN60947-7-1; EN60947-7-2; EN60947-7-3; EN60947-1



Technical Parameter

Product Type	HICTUK series general terminal block			
Product reference	HICTUK16N	HICTUK35N	HICTUK50N	HICTUK95N
cable cross section(mm ²)	2.5-16	10-35	16-50	35-95
cable cross section(AWG)	14-4	8-2	6-2/0	4-3/0
In rated current (A)	76	125	150	232
Ue rated operational voltage (V)	800V	800V	1000V	1000V
Dielectric strength (V)	800V	1000V	1000V	1000V
Product size (Length*Width*Height) (mm*mm*mm)	42.5*12.2*53	50*16*62	70.5*20*77	84*25*90.5
Installation mode	NS32, NS35			
connections - terminals	M4	M6	M6	M8
Tightening torque(N.m)	1.5-1.8 N.m	3.2-3.7N.m	6-8N.m	15-20N.m
Wire stripping length(mm)	11	16	24	33
Insulation material	PA			
Flame retardance	V2			
Ambient air temperature for operation (°C)	-40 ~100			



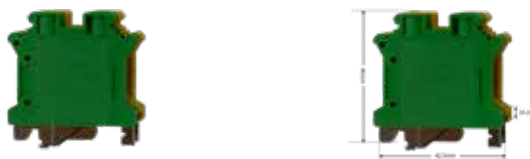
Accessories reference

Spacer plate	HICTUK16NG	-	-	-
Fixed bridge	HICTUKFB116N	HICTUKFB135N	-	-
Side insert bridge	-	-	-	-
Spacer	HICTUKTSK		-	-
Block sort	HICTUKATP	-	-	-
Fixing	HICTUKW			
Transparent marker clip	HICTUKLMAT			
Big marker clip	HICTUKB2			
Small marker clip	HICTUKB1			
Blank marker bar	HICTUK16NZB12			
Printed marker bar	HICTUK16NZB12M			

CONTROL COMPONENTS

HICTUK series Terminal

Standard: EN60947-7-1; EN60947-7-2; EN60947-7-3; EN60947-1



Technical Parameter

Product Type	HICTUK Series installation ground terminal block						
Product reference	HICTUK2P5JD	HICTUK3JD	HICTUK5JD	HICTUK6JD	HICTUK10JD	HICTUK16JD	HICTUK35JD
cable cross section(mm ²)	0.2-2.5	0.2-2.5	0.2-4	0.2-6	0.5-10	2.5-16	10-35
cable cross section(AWG)	24-12	24-12	24-10	24-8	20-6	14-4	8-2
In rated current (A)	24	24	32	41	57	76	125
Ue rated operational voltage (V)	-	-	-	-	-	-	-
Dielectric strength (V)	-	-	-	-	-	-	-
Product size (Length*Width*Height) (mm*mm*mm)	42.5*6.2*41	42.5*5.2*46	42.5*6.2*46	42.5*8.2*46	42.5*10.2*46	42.5*12.2*53	50.5*14.8*61.5
Installation mode	NS32,NS35						
Connections - terminals	M3	M3	M3	M4	M4	M4	M6
Cable cross section(mm ²)	0.2-2.5	0.2-2.5	0.2-4	0.2-6	0.5-10	2.5-16	10-35
Tightening torque(N.m)	0.6-0.8 N.m	0.6-0.8 N.m	0.6-0.8 N.m	1.5-1.8 N.m	1.5-1.8 N.m	1.5-1.8 N.m	3.2-3.7N.m
Wire stripping length(mm)	7	8	8	10	10	11	16
Insulation material	PA						
Flame retardance	V2						
Ambient air temperature for operation(°C)	-40 ~100						



HICTUK2P5G



HICTUKFB12P5B



HICTUKEB2P5BD



HICTUKTSK



HICTUKATP



HICTUKW

Accessories Reference

Spacer plate	-						
Fixed bridge	-						
Side insert bridge	-						
Spacer	-						
Fixing	HICTUKW						
Transparent marker clip	HICTUKLMAT						
Big marker clip	HICTUKB2						
Small marker clip	HICTUKB1						
Blank marker bar	HICTUK 2P5N5NZB6	HICTUK 3NZB5	HICTUK 2P5N5NZB6	HICTUK 6NZB8	HICTUK 10NZB10	HICTUK16NZB12	
Printed marker bar	HICTUK 2P5N5NZB6M	HICTUK 3NZB5M	HICTUK 2P5N5NZB6M	HICTUK 6NZB8M	HICTUK 10NZB10M	HICTUK16NZB12M	

CONTROL COMPONENTS

HICTUK series Terminal

Standard: EN60947-7-1; EN60947-7-2; EN60947-7-3; EN60947-1



Technical Parameter					
Product Type	HICTUK series Fuse modular terminal block	HTCTUK series Test terminal block	HICTUK series Double-level flange terminal block		
Product reference	HICTUK5HESI	HICTUK6T	HICTUKK3	HICTUKK5	HICTUKKB5
cable cross section(mm ²)	0.2-4	0.2-6	0.2-2.5	0.2-4	0.2-4
cable cross section(AWG)	24-12	24-8	24-12	24-10	24-10
In rated current (A)	6.3	41	2.5	4	4
Ue rated operational voltage (V)	500V	500V	500V	500V	500V
Dielectric strength (V)	500V	500V	500V	500V	500V
Product size (Length*Width*Height) (mm*mm*mm)	72.5*8.2*56	72.5*8.2*51.5	57*5.2*61	57*6.2*61	68*6.2*61
Installation mode	NS32,NS35				
Connections - terminals	M3	M4	M3	M3	M3
Cable cross section(mm ²)	0.2-4	0.2-6	0.2-2.5	0.2-4	0.2-4
Tightening torque(N.m)	0.6-0.8 N.m	1.5-1.8 N.m	0.6-0.8 N.m	0.6-0.8 N.m	0.6-0.8 N.m
Wire stripping length(mm)	8	13	8	8	8
Insulation material	PA				
Flame retardance	V2				
Ambient air temperature for operation(°C)	-40 ~100				



HICTUKLMAT



HICTUKB2



HICTUKB1



HICTUK3NZB5



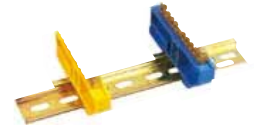
HICTUK3NZB5 M

Accessories Reference					
Spacer plate	-	HICTUK6TG	HICTUKK3G		-
Fixed bridge	-	HICTUKFB1RTKS	HICTUKFB13N	HICTUKFB12P5B	-
Side insert bridge	-	-	HICTUKEB2P5BD	HICTEB103N	-
Spacer	-	-	HICTTSKK3		
Fixing	HICTUKW				
Transparent marker clip	HICTUKLMAT				
Big marker clip	HICTUKB2				
Small marker clip	HICTUKB1				
Blank marker bar	HICTUK6NZB8	HICTUK6NZB8	HICTUK3NZB5	HICTUK2P5N5NZB6	HICTUK2P5N5NZB6
Printed marker bar	HICTUK6NZB8M	HICTUK6NZB8M	HICTUK3NZB5M	HICTUK2P5N5NZB6M	HICTUK2P5N5NZB6M

CONTROL COMPONENTS

HTB Brass Terminal Blocks

Standard: EN 61439-6



Range Presentation

HTB is Himel range of Brass Terminal Blocks designed for distribution box, distribution cabinet, lighting box, etc.

Features


- ◆ Brass with high strength, greater hardness, good wear resistance, high carrying capacity, easy wiring, not easy to oxidize
- ◆ Wide choice of thickness and width


Online Content



HTB

Selection Code

Range name	Type	Cross section	Number of holes	*Color of holder	Reference	Hole diameter (mm)	Installation dimension (mm)	Overall dimension (mm)
HTB	010	0609	W4	Y				
	010: 010 typ	0609: 6mm*9mm	W4: 4 holes W6: 6 holes W8: 8 holes W10: 10 holes W12: 12 holes W14: 14 holes W16: 16 holes	Y: Yellow B: Blue	HTB0100609W4* HTB0100609W6* HTB0100609W8* HTB0100609W10* HTB0100609W12* HTB0100609W14* HTB0100609W16*	5.2	35x7.5	88.5x12.1 88.5x12.1 88.5x12.1 88.5x12.1 90.5x12.1 103.5x12.1 116.5x12.1
		0812: 8mm*12mm	W4: 4 holes W6: 6 holes W8: 8 holes W10: 10 holes W12: 12 holes W14: 14 holes W16: 16 holes	Y: Yellow B: Blue	HTB0100812W4* HTB0100812W6* HTB0100812W8* HTB0100812W10* HTB0100812W12* HTB0100812W14* HTB0100812W16*	6		88.5x12.1 88.5x12.1 88.5x12.1 88.5x12.1 102.5x12.1 117.5x12.1 132x12.1

Range name	Type	Cross section	Number of holes	*Color of holder	Reference	Hole diameter (mm)	Installation dimension (mm)	Overall dimension (mm)
HTB	019	0609	W4	B				
	019: 019 type	0609: 6mm*9mm	W4: 4 holes W6: 6 holes W8: 8 holes W10: 10 holes W12: 12 holes W14: 14 holes W16: 16 holes	B: Blue G: Green	HTB0190609W4* HTB0190609W6* HTB0190609W8* HTB0190609W10* HTB0190609W12* HTB0190609W14* HTB0190609W16*	5.2	64.5 77.5 90.5 103.5 116.5 129.5 142.5	76.5x12.5 89.5x12.5 102.5x12.5 115.5x12.5 128.5x12.5 141.5x12.5 154.5x12.5
		0812: 8mm*12mm	W4: 4 holes W6: 6 holes W8: 8 holes W10: 10 holes W12: 12 holes W14: 14 holes W16: 16 holes	B: Blue G: Green	HTB0190812W4* HTB0190812W6* HTB0190812W8* HTB0190812W10* HTB0190812W12* HTB0190812W14* HTB0190812W16*	6	71.5 86.5 101.5 116.5 131.5 146.5 161.5	84.5x12.5 99.5x12.5 114.5x12.5 129.5x12.5 144.5x12.5 159.5x12.5 174.5x12.5

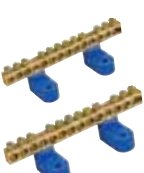
CONTROL COMPONENTS

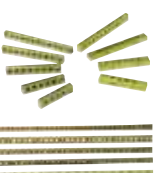
HTB Brass Terminal Blocks


Standard: EN 61439-6



Selection Code

Range name	Type	Cross section	Number of holes	*Color of holder	Reference	Hole diameter (mm)	Installation dimension (mm)	Overall dimension (mm)
HTB	007	0609	W6	B				
	007: 007 type	0609: 6mm*9mm	W6: 6 holes W8: 8 holes W10: 10 holes W12: 12 holes W14: 14 holes W16: 16 holes	B: Blue G: Green	HTB0070609W6* HTB0070609W8* HTB0070609W10* HTB0070609W12* HTB0070609W14* HTB0070609W16*	5.2	44.5	58.5x29 65.5x29 78.5x29 91.5x29 104.5x29 117.5x29
		0812: 8mm*12mm	W6: 6 holes W8: 8 holes W10: 10 holes W12: 12 holes W14: 14 holes W16: 16 holes	B: Blue G: Green	HTB0070812W6* HTB0070812W8* HTB0070812W10* HTB0070812W12* HTB0070812W14* HTB0070812W16*	6	52.5	68.5x28.5 77.5x28.5 92.5x28.5 107.5x28.5 122.5x28.5 137.5x28.5

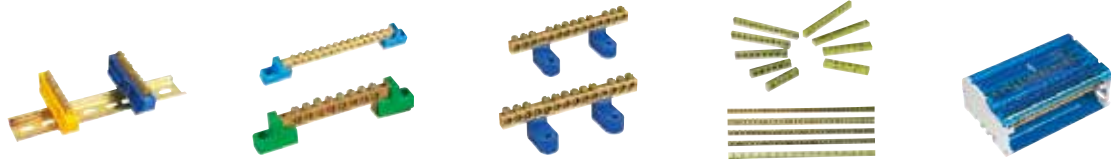
Range name	Type	Cross section	Number of holes	Reference	Hole diameter (mm)	Screw dimension (mm)
HTB	043	1616	W078			
	043: 043 type	1616: 16x16 1414: 14x14 1010: 10x10 0812: 8x12 0810: 8x10 0909: 9x9 0709: 7x9 0808: 8x8 0609: 6x9 0608: 6x8	W78: 78 holes W109: 109 holes W116: 116 holes W116: 116 holes W116: 116 holes W116: 116 holes W133: 133 holes W133: 133 holes W133: 133 holes W133: 133 holes	HTB0431616W078 HTB0431414W109 HTB0431010W116 HTB0430812W116 HTB0430810W116 HTB0430909W116 HTB0430709W133 HTB0430808W133 HTB0430609W133 HTB0430608W133	9 7 6 6.5 6 5.5 5.2 5.2 5	M6*12 M6*12 M5*10 M5*10 M5*10 M5*10 M4*10 M4*8 M4*8 M4*8

Range name	Type	Cross section	Number of holes	Reference	Hole diameter (mm)	Screw dimension (mm)
HTB	112	W2	P7			
	112: 112 type	W2: 2 lines W2: 2 lines W4: 4 lines W4: 4 lines W4: 4 lines	P7: 7 holes P15: 15 holes P7: 7 holes P11: 11 holes P15: 15 holes	HTB112W2P7 HTB112W2P15 HTB112W4P7 HTB112W4P11 HTB112W4P15	65*45*51 132*45*51 65*88*51 100*88*51 132*88*51	45xM4 112xM4 45xM4 80xM4 112xM4

CONTROL COMPONENTS

HTB Brass Terminal Blocks

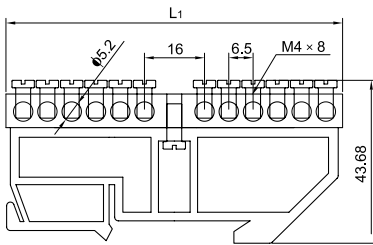
Standard: EN 61439-6



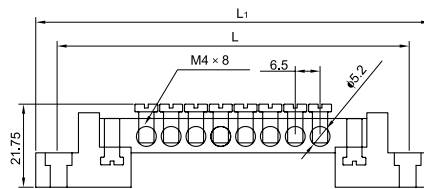
Technical Parameters

Type	HTB010	HTB019	HTB007	HTB043	HTB112
Hole	4, 6, 8, 10, 12, 14, 16	4, 6, 8, 10, 12, 14, 16	6, 8, 10, 12, 14, 16	78, 109, 116, 133	2x7, 2x15, 4x7, 4x11, 4x15
Hole diameter (mm)	5.2, 6	5.2, 6	5.2, 6	5, 9	5.2
Screw dimension (mm)	M4*8, M5*10	M4*8, M5*10	M4*8, M5*10	M4*8~M6*12	M4
Max current(A)	100, 150	100, 150	100, 150	100, 200	125

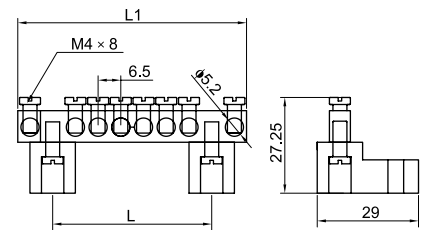
Dimensions



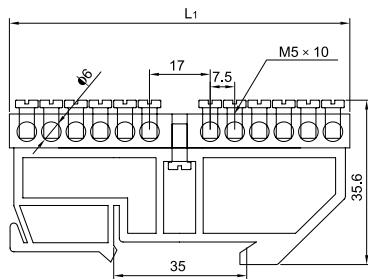
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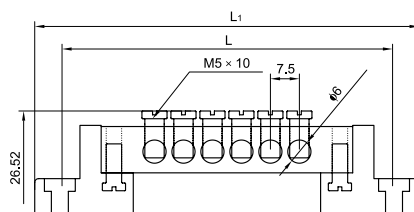
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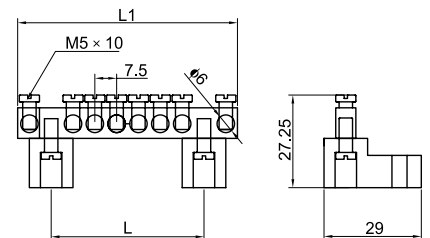
HTB0070609



HTB0100812



HTB0190812



HTB0070812

CONTROL COMPONENTS

HCF Cable Connectors

Standard: EN 60947-1



Range Presentation


HCF is Himel range of Cable Connectors designed for fixing cables of control panel, power distribution box, machine, electrical appliance, etc.

Online Content



HCF

Selection Code

Range name	Thread type	Thread external diameter (mm)	IP	Color	Reference	Cable range (mm)	Panel hole (mm)	Thread length (mm)	Spanner size A&F	
HCF MG 12 IP68 W										
 MG: Metric	12:12	IP68	B: Black W: Gray	HCFMG12IP68B	HCFMG12IP68W	7.6-4.6	12.5	8.5	18/19	
	16:16			HCFMG16IP68B	HCFMG16IP68W	10-6	16.5	15	22/22	
	20:20			HCFMG20IP68B	HCFMG20IP68W	14-9	20.5	15	27/27	
	25:25			HCFMG25IP68B	HCFMG25IP68W	18-13	25.5	15	33/33	
	32:32			HCFMG32IP68B	HCFMG32IP68W	25-18	33	15	41/41	
	40:40			HCFMG40IP68B	HCFMG40IP68W	30-24	41	20	50/50	
	50:50			HCFMG50IP68B	HCFMG50IP68W	41-30	51	22	62/62	
	63:63			HCFMG63IP68B	HCFMG63IP68W	51-40	64	25	75/75	
PG: German	7: 7	IP54	W: Gray	-	HCFPG7IP54W	7-3.5	12.5	8	17/19	
	9: 9			-	HCFPG9IP54W	8-4.5	15.2	8.5	22/19	
	11: 11			-	HCFPG11IP54W	10.5-6	18.6	9	24/22	
	13: 13			-	HCFPG135IP54W	12.5-7.5	20.4	9.6	27/24	
	16:16			-	HCFPG16IP54W	14-8.5	22.5	10	30/27	
	21: 21			-	HCFPG21IP54W	18-12.5	28.3	12	36/33	
	29: 29			-	HCFPG29IP54W	25-18	37	15	46/41	
	36: 36			-	HCFPG36IP54W	30-23	47	15	57/50	
	42: 42			-	HCFPG42IP54W	39-30	54	15.5	64/62	
	48: 48			-	HCFPG48IP54W	45-35	59.3	15.5	70/65	

Technical Parameters

Cable Connectors	HCF
Thread specification	Metric Standard/ German Standard
Material	Nylon 66
Working temperature	-40°C~+100°C
Max temperature in short interval	+120°C
Installation	Standard threaded hole
Colour	Black & gray

CONTROL COMPONENTS

HDIN DIN Rail

Standard: EN 60947-1



Range Presentation


Himel DIN Rail offers unparalleled flexibility in the systematic mounting of electrical components. With strong support for circuit breakers, terminal blocks, relays, contactors, etc. you get optimum space for efficient heat dissipation.

Online Content



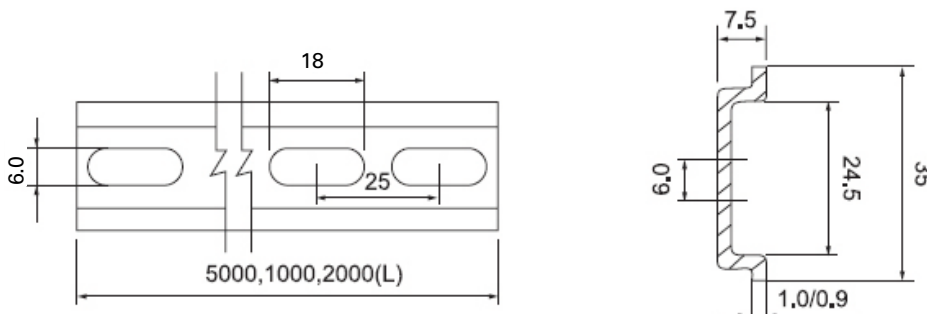
HDIN

Selection Code

Range Name	Material	Length
HDIN	02T	1000
<p>HDIN: Thickness (mm) 1.0 DIN Rail</p> 	<p>02T: Aluminum 12T: Steel</p>	<p>1000: 1000mm 2000: 2000mm</p>

Overall Dimensions

Unit: mm



Industrial Plugs & Sockets

Standard: IEC60309-1; IEC60309-2



HIPS Industrial Plugs & Sockets

Aviation quality, safe and durable



UP TO 10-YEARS LIFE

- Nickel-plated H59 copper with high oxidation and corrosion resistance
- Passed 96 hours salt spray test
- RoHS 2.0 certification



ROBUST & DURABLE

- PA66 + PA6 mixed patented material case
- Flame retardant up to 850°C
- High IP level, IP67/44



QUICKER ASSEMBLY

- Stainless-steel shrapnel, easy to plug and install
- Prevents scratches when wiring



STRONG OVERLOAD CAPACITY (UP TO 200%)

- Low temperature rise ensures minimal power loss
- Wide temperature range -25°C ~ 80°C



RELIABLE WIRING

- Strong tensile resistance with more threads and cable
- Dirt preventing soft elastomer

CONTROL COMPONENTS

Industrial Plugs & Sockets

Standard: IEC60309-1; IEC60309-2



Range Presentation:

HIPS series is a new generation Industrial Plug and Socket design. Faster to plug and install, they provide better stability, widely used in outdoor and other harsh environments like docks, construction sites, farms, airports, and electric vehicle charging stations etc. HIPS series product line covers moving and fixed plugs and sockets.

Features:

- ◆ **Nickel-plated copper conductor:**
Excellent wear and corrosion resistance, withstand 50000 times of plugging.
- ◆ **High-quality flame retardant PA shell:**
Strong impact resistance, UV resistance and flame retardant, high durability in tough conditions
- ◆ **Snap on design for plug and connector:**
convenient for disassembly and assembly

Online Content



HIPS




Selection Code

Range name	Type	Poles	Rated current	Protection level	Rated voltage	Reference	
HIPS	0	3	16	IP44	3		
	0-Moving industry plug	3: 2P+E 4: 3P+E 5: 4P+E	16: 16A 32: 32A 64: 63A (IP67 only) 125: 125A (IP67 only)	IP44 IP67	3: 220-250VAC (For 2P+E) 4: 380-415VAC (For 3P+E) 5: 200-346VAC; 240V-415VAC; (For 4P+E)	HIPS0316IP443 HIPS0332IP443 HIPS0416IP444 HIPS0432IP444 HIPS0516IP445 HIPS0532IP445	HIPS0316IP673 HIPS0332IP673 HIPS0363IP673 HIPS03125IP673 HIPS0416IP674 HIPS0432IP674 HIPS0463IP674 HIPS04125IP674 HIPS0516IP675 HIPS0532IP675 HIPS0563IP675 HIPS05125IP675
	1-Surface mounted industry socket	3: 2P+E 4: 3P+E 5: 4P+E	16: 16A 32: 32A 63: 63A (IP67 only) 125: 125A (IP67 only)	IP44 IP67	3: 220-250VAC (For 2P+E) 4: 380-415VAC (For 3P+E) 5: 200-346VAC; 240V-415VAC; (For 4P+E)	HIPS1316IP443 HIPS1332IP443 HIPS1416IP444 HIPS1432IP444 HIPS1516IP445 HIPS1532IP445	HIPS1316IP673 HIPS1332IP673 HIPS1363IP673 HIPS13125IP673 HIPS1416IP674 HIPS1432IP674 HIPS1463IP674 HIPS14125IP674 HIPS1516IP675 HIPS1532IP675 HIPS1563IP675 HIPS15125IP675

CONTROL COMPONENTS

Industrial Plugs & Sockets

Standard: IEC60309-1; IEC60309-2

Range name	Type	Poles	Rated current	Protection level	Rated voltage	Reference	
HIPS	0	3	16	IP44 IP67	3		
	2-Moving industry socket	3: 2P+E	16: 16A	IP44 IP67	3: 220-250VAC (For 2P+E) 4: 380-415VAC (For 3P+E) 5: 200-346VAC; 240V-415VAC; (For 4P+E)	HIPS2316IP443	HIPS2316IP673
		4: 3P+E	32: 32A			HIPS2332IP443	HIPS2332IP673
		5: 4P+E	63: 63A (IP67 only) 125: 125A (IP67 only)			HIPS2416IP444	HIPS2363IP673
	3-Concealed fixed industry socket	3: 2P+E	16: 16A	IP44 IP67	3: 220-250VAC (For 2P+E) 4: 380-415VAC (For 3P+E) 5: 200-346VAC; 240V-415VAC; (For 4P+E)	HIPS3316IP443	HIPS3316IP673
		4: 3P+E	32: 32A			HIPS3332IP443	HIPS3332IP673
		5: 4P+E	63: 63A (IP67 only) 125: 125A (IP67 only)			HIPS3416IP444	HIPS3363IP673
	5-Concealed fixed industry plug	3: 2P+E	16: 16A	IP44 IP67	3: 220-250VAC (For 2P+E) 4: 380-415VAC (For 3P+E) 5: 200-346VAC; 240V-415VAC; (For 4P+E)	HIPS5316IP443	HIPS5316IP673
		4: 3P+E	32: 32A			HIPS5332IP443	HIPS5332IP673
		5: 4P+E	63: 63A (IP67 only) 125: 125A (IP67 only)			HIPS5416IP444	HIPS5363IP673
						HIPS2432IP444	HIPS23125IP673
						HIPS2516IP445	HIPS2416IP674
						HIPS2532IP445	HIPS2432IP674
							HIPS2463IP674
							HIPS24125IP674
							HIPS2516IP675
							HIPS2532IP675
							HIPS2563IP675
							HIPS25125IP675
							HIPS3432IP444
							HIPS3416IP674
							HIPS3432IP674
							HIPS3463IP674
							HIPS34125IP674
							HIPS3516IP675
							HIPS3532IP675
							HIPS3563IP675
							HIPS35125IP675
							HIPS5432IP444
							HIPS5516IP445
							HIPS5432IP674
							HIPS5463IP674
							HIPS54125IP674
							HIPS5516IP675
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							HIPS5563IP675
							HIPS55125IP675

Industrial Plugs & Sockets

Standard: IEC 60309-1-2
























Range Presentation

HDPM, HDP, HDSM, HDSF, HDPS are Himel ranges of Industrial Plugs and Sockets designed for quick disassembly and assembly of electrical connection. They are mainly used in OEM industry and temporary power supply.

Features

- ◆ Waterproof and dustproof.
- ◆ Long mechanical life and durability

Selection Code

Range name	Pole no	Rated current	IP	Rated voltage	Reference
HDPM	3	32	IP44	1	
HDPM: Moving industrial plugs 	3: 2P+E 	16: 16A 32: 32A	IP44: IP44	1: 110~130V	HDPM316IP441 HDPM332IP441
	4: 3P+E 			Default: 230~250V	HDPM316IP44 HDPM332IP44
	5: 3P+N+E 			Default: 400~415V	HDPM416IP44 HDPM432IP44
	3: 2P+E 	63: 63A	IP67: IP67	Default: 230~250V	HDPM516IP44 HDPM532IP44
	4: 3P+E 			Default: 240~415V	HDPM463IP67
	5: 3P+N+E 			Default: 230~400V	HDPM563IP67
		125: 125A		Default: 240~415V	HDPM5125IP67
HDP: Fixed industrial plugs 	3: 2P+E 	16: 16A 32: 32A	IP44: IP44	1: 110~130V	HDP316IP441 HDP332IP441
	4: 3P+E 			Default: 230~250V	HDP316IP44 HDP332IP44
	5: 3P+N+E 			Default: 400~415V	HDP416IP44 HDP432IP44
	3: 2P+E 	63: 63A	IP67: IP67	Default: 230~400V	HDP516IP44 HDP532IP44
	4: 3P+E 			Default: 240~415V	HDP463IP67
	5: 3P+N+E 			Default: 230~400V	HDP563IP67
HDSM: Moving Industrial sockets 	3: 2P+E 	16: 16A 32: 32A	IP44: IP44	1: 110~130V	HDSM316IP441 HDSM332IP441
	4: 3P+E 			Default: 230~250V	HDSM316IP44 HDSM332IP44
	5: 3P+N+E 			Default: 400~415V	HDSM416IP44 HDSM432IP44
	3: 2P+E 	63: 63A 125: 125A	IP67: IP67	Default: 230~400V	HDSM516IP44 HDSM532IP44
	4: 3P+E 			Default: 240~415V	HDSM363IP67 HDSM3125IP67
	5: 3P+N+E 			Default: 400~415V	HDSM463IP67 HDSM4125IP67
				Default: 230~400V	HDSM563IP67
				Default: 240~415V	HDSM5125IP67

CONTROL COMPONENTS

Industrial Plugs & Sockets

Standard: IEC 60309-1-2



HDSF: Fixed industrial sockets



3: 2P+E 4: 3P+E 5: 3P+N+E 	16: 16A 32: 32A	IP44: IP44	1: 110~130V HDSF316IP441 HDSF332IP441
			Default: 230~250V HDSF316IP44 HDSF332IP44
			Default: 400~415V HDSF416IP44 HDSF432IP44
			Default: 230~400V HDSF516IP44
			Default: 240~415V HDSF532IP44
			Default: 230~250V HDSF363IP67 HDSF3125IP67
3: 2P+E 4: 3P+E 5: 3P+N+E 	63: 63A 125: 125A	IP67: IP67	Default: 400~415V HDSF463IP67 HDSF4125IP67
			Default: 230~400V HDSF563IP67
			Default: 240~415V HDSF5125IP67

Range Name	Input and Output	Rated Current	Rated Voltage	Reference	Pole no.
HDPS	3	16	230		
HDPS: Multi-function plugs and sockets 	3: 1 Plug & 2 Sockets	16: 16A	230: 230V 110: 110V	HDPS316230 HDPS316110	2P+E
	4: 1 Plug & 3 Sockets		230: 230V 110: 110V	HDPS416230 HDPS416110	

Technical Parameters

Industrial Plugs & Sockets	HDPM, HDP, HDSM, HDSF, HDPS
Connecting type	Fixed, moving, multi-function
Pole	2P+E, 3P+E, 3P+N+E
Voltage	110-415V, 230V
Current	16A, 32A, 63A, 125A
Standard	IEC 60309-1-2

Online Content



HD



Product Portfolio for Panel Builders and Original Equipment Manufacturers





HOME ELECTRIC

Himel Homes, Happy Homes

Safe homes make happy homes—something you and your family deserve. Himel offers a comprehensive line of best-in-class, international standards-compliant, and affordable wiring products designed to meet the needs of homebuilders, architects, project consultants and designers.

Himel's residential solutions are a confluence of design, safety, efficiency, and affordability - just the right mix for the space you live and work in. From switches and sockets to USB chargers and dimmers, you will find products where form and function intertwine.



Our Home Electric products are rigorously tested against international quality standards and can be trusted for human and appliance safety



Himel Home Electric products support ease and flexibility in installation so that you save your valuable time in developing safer homes, offices and buildings



With Himel Wiring Devices you get choice of colours and palettes, and more possibilities to enhance your living space with easier and safer electrical functions



Himel Home Electric products are designed to exceedingly meet the expectations of unique lifestyles. Be it a home office, personal study or a retail showroom

HOME ELECTRIC



Advanced Series Wiring Devices



British & International

Device presentation: Complete Mechanism
Number of gang: Up to 4
Rated current: 10A / 20A / 45A

394

BLiSS Series Wiring Devices



2Pin, European, International

Device presentation: plate and module separated
Number of gang: up to 6
Rated current: 10A / 16A / 20A / 32A/45A

418

Prime V2 Series Wiring Devices



British, 2Pin, German & International

Device presentation: complete mechanism
Number of Gang: Up to 6
Rated current: 16A / 20A / 45A

400

Click Series Wiring Devices



2Pin, American, International

Device presentation: complete mechanism
Number of gang: up to 4
Rated current: 10A & 15A

427

Modern Series Wiring Devices



2Pin, German & French

Number of Gang: Up to 3
Rated current: 10AX

408

Floor Series Wiring Devices



American, International, British

Euro, 3Pin, 2Pin
Device presentation: box and module separated
Number of modules: Up to 6

434

Curvo Series Wiring Devices



2Pin, German & French

Number of Gang: Up to 2
Rated current: 10A/16A

413

HOME ELECTRIC

Extension Sockets Accessories and Tools



Socket Outlet Standard: British & Universal **439**
Standard: BS1363 & IEC60884
Cable length: 3M 5M

Weatherproof Series Accessories and Tools



Waterproof and Dustproof **442**
IP Level: IP12 and IP55
Color: 6 colors and 2 finishes
Material: ABS & PS

Tool Series Accessories and Tools



Enhance the way you work **444**

Cable Ties Accessories and Tools



Color: Black / White / Colorful **445**
Material: Nylon 66
Tensile strength (LBS): 18 / 40 / 49
Max bundle diameter: 22 / 35 / 50 / 65 / 82 / 90

Electrical Tape Accessories and Tools



Flame retardant material **447**
Available in a range of sizes and colors

Smart Series Home Accessories



Socket Outlet Standard: British, Euro, American **449**
Remote control: Himel APP
Voice control: Google Home / Amazon Alexa



BRITISH WIRING DEVICES

With the elegant simplicity of the standard finishes, Himel range of wiring devices compatible with British Standards is a pure class. The classical tones are reimagined for perfect harmony with modern environments, for both residential and commercial applications.

Advanced Series

British Wiring Devices



Range Presentation

Himel's Advanced Series is future-oriented range of switches and sockets, designed to add accent to your interiors, with utmost compliance to international safety standards. With a range of five different finishes, smooth shape, modern and discrete design that fit any home, any application, they set new standards in versatility and ease of use.

Tested to comply with the IEC safety standards and made in high quality polycarbonate, Advanced Switches and Sockets are virtually unbreakable.

Features

- ◆ Two-layered product to offer screw-less design
- ◆ Fire Retardant Polycarbonate
- ◆ Tested under 100 degrees
- ◆ >58% Copper for parts made from cold-rolled sheet
- ◆ Middle east: GCC
- ◆ Malaysia: SIRIM
- ◆ Nigeria: SONCAP
- ◆ Works with Himel Smart

Selection Code

Range name	Functionality	Color
HWDA	XXX	C
A: Advanced	You may replace XX codes by functionality codes listed Below	Default: White G: Gold M: Metallic B: Brown

Online Content



Advanced Series

Color Selection



White



Gold



Metallic



Brown



This offer is available only in countries following British Standards.
For more information, contact local Himel Sales.

Advanced Series

British Wiring Devices



Himel

ADVANCED SERIES

STYLISH SWITCHES THAT COMPLIMENT MODERN SPACES

Range of Switches and Sockets fully compliant with IEC standards, now available in 4 colours to fit any application.

DESIGN
White, Brown, Silver and Gold colours to match your wall palette.

DURABILITY
Rigorous switch on/off and socket insertion quality checks for years-long life.

SAFETY
Fire-retardant polycarbonate material and inbuilt safety shutter.

EASE
Fit and forget solution with easy installation of the screwless front plate.

ADVANCED SERIES



Easy **Installation**
Modern **Design**
Multiple **Functions**



Switches



HWDA1S
10A 1 Gang 1 Way Switch
Box:10
Carton:100



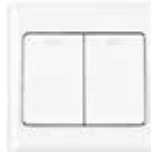
HWDA1S2
10A 1 Gang 2 Way Switch
Box:10
Carton:100



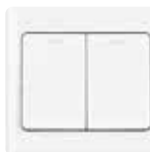
HWDA1S3
10A Intermediate Switch
Box:10
Carton:100



HWDA1PS
Press Switch
Box: 10
Carton: 100



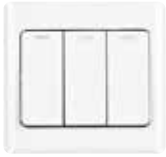
HWDA2S
10A 2 Gang 1 Way Switch
Box:10
Carton:100



HWDA2S2
10A 2 Gang 2 Way Switch
Box:10
Carton:100

Advanced Series

British Wiring Devices



HWDA3S
10A 3 Gang 1 Way Switch
Box: 10
Carton: 100



HWDA3S2
10A 3 Gang 2 Way Switch
Box: 10
Carton: 100



HWDA4S
10A 4 Gang 1 Way Switch
Box: 10
Carton: 100



HWDA4S2
10A 4 Gang 2 Way Switch
Box: 10
Carton: 100



HWDABS
Bell Switch
Box: 10
Carton: 100



HWDACS
Curtain Switch
Box: 10
Carton: 100



HWDA2MS
2 Gang Momentary Switch
Box:10 ; Carton:100



HWDAD10
1000W Dimmer
Box:8
Carton:80



HWDAFC3
300VA 230V Fan Control
Box:8
Carton:80

Socket Outlets



HWDA13SS
13A Switched Socket
Box: 10
Carton: 100



HWDA13SN
13A Switched Socket with Neon
Box: 10 ; Carton: 100



HWDA13SSUSB
13A Socket with Switch with 2USB
Box: 10 ; Carton: 100



HWDAT13S
13A Twin Switched Socket
Box:5
Carton:50



HWDAT13SN
13A Twin Switched Socket with Neon
Box:5
Carton:50



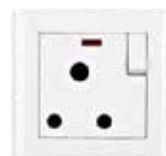
HWDA13USB
13A Socket + 2USB
Box:8
Carton:80



HWDAT13SSUSB
2gang 13A Socket with Switch with 2USB
Box: 5 Carton: 50



HWDA15SS
15A Switched Socket
Box: 10
Carton: 100



HWDA15SN
15A Switched Socket with Neon
Box: 10 ; Carton: 100

Advanced Series

British Wiring Devices



HWDAUS
13A Universal Socket
Box: 10
Carton: 100



HWDAUSUSB
13A Universal Socket + 2USB
Box: 8
Carton: 80



HWDA20S
1 Gang 20A DP Switch with Neon
Box: 10 ; Carton : 100



HWDA45S
1 Gang 45A DP Switch with Neon
Box: 10
Carton : 100



HWDA45ST
1 Gang 45A DP Switch with Neon(146 Type)
Box: 5
Carton : 50



HWDA20S2
1 Gang 2 Way 20A DP Switch with Neon and Earth
Box: 10
Carton : 100



HWDA20SBR
20A 1gang 1way Double Pole Switch with big rocker
Box: 10 ; Carton : 100

Telecommunication Accessories



HWDA1TS
RJ11 Telephone Socket
Box: 10
Carton: 100



HWDA2TS
2 RJ11 Telephone Socket
Box: 10
Carton: 100



HWDA1DS
RJ45 Data Socket
Box: 10
Carton: 100



HWDA2DS
2 RJ45 Data Socket
Box: 10
Carton: 100



HWDA1SS
Satellite Socket
Box: 10
Carton: 100



HWDA1S1T
Satellite + RJ11 Tel Socket
Box: 10
Carton: 100



HWDAB
Blank Plate
Box: 20
Carton: 200



HWDA13FCU
13A Fused Connection Unit
Box: 10 ; Carton: 100



HWDATBP
Twin Gang Blank Plate
Box: 10
Carton: 100

Advanced Series

British Wiring Devices



Future Ready

Upgrade your Advanced Series switches with our WIFI Smart modules



HHESM
Smart Switch Module
Box: 1
Carton: 100



HHE2SM
2 Gang Switch Module
Box: 1
Carton: 100



HHESD
Smart Dimmer Module
Box: 1
Carton: 100



HHE2SD
2 Gang Dimmer Module
Box: 1
Carton: 100



Prime V2 Series

British Wiring Devices



Range Presentation

Prime V2 series is designed to address the needs for a wide range of applications in residential projects, commercial buildings, offices and hotels etc. Available in more than 100 functionalities required for complete hotel functions, this range is available in a classic white finish with a sleek, elegant appearance.

Features

- ◆ Up to 6 Gangs
- ◆ Complete Hotel offer
- ◆ USB enabled sockets
- ◆ 4mm diameter silver contact
- ◆ 1.5mm metal plate
- ◆ Smartphone holders available
- ◆ Works with Himel Smart

Selection Code

Range name

Functionality

HDWP

XXX

P: Prime V2

You may replace XX codes by functionality codes listed below

Online Content



Prime V2



This offer is available only in countries following British Standards.
For more information, contact local Himel Sales.

PRIME SERIES



ELEVATE THE BASICS
MINIMALIST DESIGN
COMPLETE SET OF
FUNCTIONS



Switches



HWDPS1G1W
16A 1 Gang 1 Way Switch
Box: 10
Carton: 100



HWDPS1G2W
16A 1 Gang 2 Way Switch
Box: 10
Carton: 100



HWDPS2G1W
16A 2 Gang 1 Way Switch
Box: 10
Carton: 100



HWDPS2G2W
16A 2 Gang 2 Way Switch
Box: 10
Carton: 100



HWDPS3G1W
16A 3 Gang 1 Way Switch
Box: 10
Carton: 100



HWDPS3G2W
16A 3 Gang 2 Way Switch
Box: 10
Carton: 100

Prime V2 Series

British Wiring Devices



HWDPS4G1W
16A 4 Gang 1 Way Switch
Box: 10
Carton: 100



HWDPS4G2W
16A 4 Gang 2 Way Switch
Box: 10
Carton: 100



HWDPS5G1W
16A 5 Gang 1 Way Switch
Box: 10
Carton: 100



HWDPS6G1W
16A 6 Gang 1 Way Switch
Box: 10
Carton: 100



HWDPSDB
Doorbell Switch
Box: 10
Carton: 100



HWDPB1G1W
16A 1 Gang 1 Way Switch,
Big Button
Box: 10
Carton: 100



HWDPB1G2W
16A 1 Gang 2 Way Switch,
Big Button
Box: 10
Carton: 100



HWDPB2G1W
16A 2 Gang 1 Way Switch,
Big Button
Box: 10
Carton: 100



HWDPB2G2W
16A 2 Gang 2 Way Switch,
Big Button
Box: 10
Carton: 100



HWDPB3G1W
16A 3 Gang 1 Way Switch,
Big Button
Box: 10
Carton: 100



HWDPB3G2W
16A 3 Gang 2 Way, Big Button
Box: 10
Carton: 100



HWDPB4G1W
16A 4 Gang 1 Way Switch,
Big Button
Box: 10
Carton: 100



HWDPB4G2W
16A 4 Gang 2 Way Switch,
Big Button
Box: 10
Carton: 100



HWDPBDB
Doorbell Switch, Big Button
Box: 10
Carton: 100



HWDP20A
20A Switch With Neon
Box: 10
Carton: 100



HWDP45A
45A Switch With Neon
Box: 10
Carton: 100

Dimmers



HWDPFS3
Fan Speed 300W
Box: 8
Carton: 80



HWDPFS5
Fan Speed 500W
Box: 8
Carton: 80



HWDPLD3
Light Dimmer 300W
Box: 8
Carton: 80

Prime V2 Series

British Wiring Devices



HWDP1D5
Light Dimmer 500W
Box: 8
Carton: 80



HWDP1D10
Light Dimmer 1000W
Box: 8
Carton: 80



HWDP1D15
Light Dimmer 1500W
Box: 8
Carton: 80



HWDP1GD3
1 Gang Switch With
Dimmer 300W
Box: 8
Carton: 80



HWDP1GD5
1 Gang Switch With
Dimmer 500W
Box: 8
Carton: 80

Socket Outlets



HWDP13AS
13A Socket
Box: 10
Carton: 100



HWDP13ASS
13A Switched Socket
Box: 10
Carton: 100



HWDP13ASSN
13A Switched Socket
With Neon
Box: 10
Carton: 100



HWDP13ASSNUSB
13A Switched Socket + 1USB
Box: 8
Carton: 80



HWDP13ASSN2USB
13A Switched Socket + 2USB
Box: 8
Carton: 80



HWDPMF
16A MF Socket
Box: 10
Carton: 100



HWDPMF5
16A MF Switched Socket
Box: 10
Carton: 100



HWDPMF5N
16A MF Switched Socket
With Neon
Box: 10
Carton: 100



HWDPMF5NUSB
16A MF Switched Socket
With Neon + 1USB
Box: 8
Carton: 80



HWDPMF5N2USB
16A MF Switched Socket
With Neon + 2USB
Box: 8
Carton: 80



HWDP15SS
15A Switched Socket
Box: 10
Carton: 100



HWDP15SSN
15A Switched Socket
With Neon
Box: 10
Carton: 100



HWDP5PS
16A 5Pin MF Socket
Box: 10
Carton: 100



HWDP5PSS
16A 5Pin MF Switched
Socket
Box: 10
Carton: 100

Prime V2 Series

British Wiring Devices



HWDP5PSSN
16A 5Pin MF Switched Socket
With Neon
Box: 10
Carton: 100



HWDP5PSSNUSB
16A 5Pin MF Switched
Socket With Neon + 1USB
Box: 8
Carton: 80



HWDP5PSSN2USB
16A 5Pin MF Switched Socket
With Neon+2USB
Box: 8
Carton: 80



HWDP213ASS
2X13A Switched Socket
Box: 5
Carton: 50



HWDP213ASSN
2X13A Switched Socket
With Neon
Box: 5
Carton: 50



HWDP213ASSN2USB
2X13A Switched Socket
With Neon + 2USB
Box: 5
Carton: 50



HWDP2MFS
2X16A 5Pin MF
Switched Socket
Box: 5
Carton: 50



HWDP2MFSN
2X16A 5Pin MF Switched
Socket With Neon
Box: 5
Carton: 50



HWDP2MFSN2USB
2X16A 5Pin MF Switched
Socket With Neon+2USB
Box: 5
Carton: 50



HWDPEUR
16A Europe Socket
Box: 10
Carton: 100



HWDP2PS
10A 2Pin Socket
Box: 10
Carton: 100



HWDP2G2PS
10A 2X2Pin Socket
Box: 10
Carton: 100



HWDP3G2PS
10A 3X2Pin Socket
Box: 10
Carton: 100



HWDP1G1W2P
1 Gang 1 Way Switch
And 10A 2Pin Socket
Box: 10
Carton: 100



HWDP1G2W2P
1 Gang 2 Way Switch And
10A 2Pin Socket
Box: 10
Carton: 100



HWDP1G1W22P
1 Gang 1 Way Switch And
10A 2X2Pin Socket
Box: 10
Carton: 100



HWDP1G2W22P
1 Gang 2 Way Switch And
10A 2X2Pin Socket
Box: 10
Carton: 100



HWDP2G1W2P
2 Gang 1 Way Switch And
10A 2Pin Socket
Box: 10
Carton: 100



HWDP2G2W2P
2 Gang 2 Way Switch And
10A 2Pin Socket
Box: 10
Carton: 100



HWDP2G1W22P
2 Gang 1 Way Switch And
10A 2X2Pin Socket
Box: 10
Carton: 100



HWDP2G2W22P
2 Gang 2 Way Switch And
10A 2X2Pin Socket
Box: 10
Carton: 100



HWDP2PUSB
10A 2Pin Socket + USB
Box: 10
Carton: 100



HWDP2P2USB
10A 2Pin Socket + 2USB
Box: 10
Carton: 100



HWDPCU
Cooker Unit 3X6
Box: 5
Carton: 50

Prime V2 Series

British Wiring Devices



Accessories



HWDP45AO
45A outlet
Box: 10
Carton: 100



HWDPHS3
Shaver 3X3
Box: 1
Carton: 24



HWDPHS6
Shaver 3X6
Box: 1
Carton: 18



HWDPBP3
Blank Plate 3X3
Box: 20
Carton: 200



HWDPBP6
Blank Plate 6X6
Box: 10
Carton: 100



HWDPTV
TV Socket
Box: 10
Carton: 100



HWDP2TV
Double TV Socket
Box: 10
Carton: 100



HWDPTEL
Tel Socket
Box: 10
Carton: 100



HWDP2COM
Computer Socket
Box: 10
Carton: 100



HWDP2TEL
Double Tel Socket
Box: 10
Carton: 100



HWDP2COM
Double Computer Socket
Box: 10
Carton: 100



HWDP2COMTEL
Computer+Tel Socket
Box: 10
Carton: 100



HWDPTVTEL
TV+Tel Socket
Box: 10
Carton: 100



HWDP2SAT
Satellite Socket
Box: 10
Carton: 100



HWDP2SATTEL
Satellite + Tel Socket
Box: 10
Carton: 100



HWDP2SATTV
Satellite + TV Socket
Box: 10
Carton: 100



HWDP20AO
20A outlet
Box: 10
Carton: 100

Hotel Accessories



HWDP2TD
Touch Delay Switch
(With Energy Saving)
Box: 8
Carton: 80



HWDP2VC
Voice Control Switch
(With Energy Saving)
Box: 8
Carton: 80



HWDP2VC3L
Voice Control With Fire
Protection And Energy
Saving (Three Line)
Box: 8
Carton: 80

Prime V2 Series

British Wiring Devices



HWDPVC4L
Voice Control With Fire Protection And Energy Saving (Four Line)
Box: 8
Carton: 80



HWDPHDND
Doorbell Switch With Do Not Disturb
Box: 10
Carton: 100



HWDPHDNDI
Do Not Disturb Inside Switch
Box: 10
Carton: 100



HWDPHB
Human Body Sensor Switch
Box: 8
Carton: 80



HWDPHBF
Human Body Sensor Switch With Fire Protection Function
Box: 8
Carton: 80



HWDPHKC
Insert Card For Power (Three Line) 40A
Box: 6
Carton: 60



HWDPHKCLF
Insert Card For Power (Induction Type, Low Frequency) 40A
Box: 6
Carton: 60



HWDPHKCHF
Insert Card For Power (Induction Type, High Frequency) 40A
Box: 5
Carton: 60



HWDPH
Stick Style Phone Holder
Box: 18
Carton: 180



HWDPHSG
Stick Style Phone Holder Gold
Box: 18
Carton: 180



HWDPHS
Phone Holder-Single
Box: 20
Carton: 200



HWDPHSDG
Phone Holder-Double Gold
Box: 10
Carton: 100

Future Ready

Upgrade your Prime Series switches with our WIFI Smart modules



HHESM
Smart Switch Module
Box: 1
Carton: 100



HHE2SM
2 Gang Switch Module
Box: 1
Carton: 100



HHESD
Smart Dimmer Module
Box: 1
Carton: 100



HHE2SD
2 Gang Dimmer Module
Box: 1
Carton: 100





EUROPEAN WIRING DEVICES

Himel European Wiring Devices are a selection of brilliant finishes with timeless sophistication, making them the perfect choice for new buildings and renovation, alike. Striking a balance between safety and aesthetics, these devices have been rigorously tested against international quality standards.

Modern Series

European Wiring Devices



Range Presentation

Switch to the future with Modern Series. With striking design, high quality material and durable making, Modern switches and sockets are ideally suited for new construction and renovation project, alike. A wide variety of functionalities and large range of colours to choose from, along with latest light and metal edition allows you to create an unlimited number of combinations.

Features

- ◆ 60 functionalities
- ◆ Two material options: light plastic and metallic
- ◆ All sockets available with shutters to prevent accidents
- ◆ Multiple frames up to 6 gangs
- ◆ Sleek design with complete functionality
- ◆ Works with Himel Smart

Selection Code

Range name

Functionality

Color

HWDM

XXX

C

M: Modern

You may replace XX codes by functionality codes listed below

Default: White
C: Cream
SM: Smoke
MK: Metallic Black
MO: Mocha
MB: Metallic Beige
SV: Silver

Online Content



Modern Series

Color Selection



White



Cream



Smoked Grey



Mocha



Silver



Metallic Beige



Metallic Black



This offer is available only in countries following European Standards.
 For more information, contact local Himel Sales.

MODERN SERIES



MODERN, SLEEK, MINIMAL
Inspiring aesthetics and convenience



Socket Outlets



HWDM1S
Switch
Box: 15
Carton: 150



HWDM2S
2 Gang Switch
Box: 15
Carton: 150



HWDM1C
Push Button
Box: 15
Carton: 150



HWDM1S2
2 Way Switch
Box: 15
Carton: 150



HWDM2S2
2 Gang 2 Way Switch
Box: 15
Carton: 150



HWDMDC
Door Check
Box: 15
Carton: 150

Modern Series

European Wiring Devices



HWDMDB
Door Bell
Box: 15
Carton: 150



HWDMCS
Roller Blind Switch, 1 Gang
Box: 15
Carton: 150



HWDM2CS
Roller Blind Switch, 2 Gang
Box: 15
Carton: 150



HWDMMB
Volume Control Switch
Box: 12
Carton: 120



HWDMMW
Intermediate Switch
Box: 15
Carton: 150



HWDM3S
3 Gang Switch
Box: 15
Carton: 150



HWDMWD
Water Heater
Box: 15
Carton: 150



HWDM1SI
Illuminated Switch
Box: 15
Carton: 150



HWDM2SI
Illuminated 2 Gang Switch
Box: 15
Carton: 150



White: HWDM1CI
Socket Outlets: Illuminated
Push Button
Box: 15
Carton: 150



HWDM1CI2
Illuminated 2 Way Switch
Box: 15
Carton: 150



HWDMBB
Illuminated Push Button
with Label Holder
Box: 15
Carton: 150



HWDMSO
Socket
Box: 15
Carton: 150



HWDM5SOS
Socket with Child Protection
Box: 15
Carton: 150



HWDM5SS
Socket with Side Earth with
Child Protection
Box: 15
Carton: 150



HWDMES
Socket with Side Earth
Box: 15
Carton: 150



HWDMESC
Socket with Side Earth with
Cover
Box: 15
Carton: 150



HWDMUPS
Socket with Pin Earth
Box: 15
Carton: 150



HWDMUPSSC
Socket with Pin Earth with
Child Protection with cover
Box: 15
Carton: 150



HWDMUPSS
Socket with Pin Earth with
Child Protection
Box: 15
Carton: 150



HWDM5SCS
Socket with Side Earth with
Child Protection with cover
Box: 15
Carton: 150



HWDMUPSC
Socket with Pin Earth with
Cover
Box: 15
Carton: 150



HWDM2SO
Double Socket
Box: 10
Carton: 100



HWDM2ES
Double Socket with Side Earth
Box: 10
Carton: 100

Modern Series

European Wiring Devices



HWDM2UPS
Double Socket with Pin Earth
Box: 10
Carton: 100



HWDM1SI
Dimmer, 1000VA
Box: 12
Carton: 120



HWDM2SI
Illuminated Dimmer, 1000VA
Box: 12
Carton: 120



HWDM1CI
2Way Dimmer, 600A
Box: 12
Carton: 120

Telecommunication Accessories



HDMTV
TV Socket, Ending-Intermediate
Box: 15
Carton: 150



HDMSAT
TV SAT Socket, Intermediate
Box: 15
Carton: 150



HDMSATL
TV SAT Radio Socket, Intermediate
Box: 15
Carton: 150



HWDMSATV
TV SAT Socket, Ending
Box: 15
Carton: 150



HWDMSATF
SAT Socket, Single with F Connector
Box: 15
Carton: 150



HWDMSTATE
SAT Socket, Single
Box: 15
Carton: 150



HWDMT
Telephone Socket
Box: 15
Carton: 150



HWDMNT
Telephone Socket Cat 3
Box: 15
Carton: 150



HWDM2NT
Double Telephone Socket Cat 3
Box: 15
Carton: 150



HWDMDS
Data Socket Faceplate w/o connector
Box: 15
Carton: 150



HWDMDS5
Data Socket RJ45, Cat 5
Box: 15
Carton: 150



HWDM2DS5
Double Data Socket RJ45, Cat 5
Box: 15
Carton: 150



HWDM5P3
Data + Tel Socket (RJ45 Cat 5 + Cat 3)
Box: 15
Carton: 150



HWDMC
Cable Output
Box: 15
Carton: 150



HWDMDS6
Data Socket RJ45, Cat 6
Box: 15
Carton: 150

Modern Series

European Wiring Devices



HWDM2DS6
Double Data Socket RJ45,
Cat 6
Box: 15
Carton: 150



HWDM6P3
Data + Phone Socket
(Cat 6 + Cat 3)
Box: 15
Carton: 150



HWDM2DS
Double Data Socket Faceplate
w/o connector
Box: 15
Carton: 150



HWDMS
Audio Socket
Box: 15
Carton: 150

Electronic Group



HDMMS
Movement Detector
Box: 15
Carton: 150



HDMKC
Hotel Key Card Switch
Box: 15
Carton: 150



HWDM1F
Single Frame
Box: 15
Carton: 150



HWDM2F
Double Frame
Box: 15
Carton: 150



HWDM3F
Triple Frame
Box: 15
Carton: 150



HWDM4F
Quadruple Frame
Box: 15
Carton: 150

Future Ready

Upgrade your Modern Series switches with our WIFI Smart modules



HHESM
Smart Switch Module
Box: 1
Carton: 100



HHE2SM
2 Gang Switch Module
Box: 1
Carton: 100



HHESD
Smart Dimmer Module
Box: 1
Carton: 100



HHE2SD
2 Gang Dimmer Module
Box: 1
Carton: 100



HOME ELECTRIC

Curvo Series

European Wiring Devices



Range Presentation

Modern living places demand wiring devices that are safer, versatile, yet offer sophisticated elegance. Designed for YOU in mind, Curvo Series is amalgamation of pleasing aesthetics and wider spectrum of functions for every desired residential and commercial application.

Monochromatic finish, sleek dimensions, and original allure make them the timeless choice.

Features

- ◆ Greater versatility with 21 functionalities
- ◆ Better protection against accident with shutters included in sockets
- ◆ Protected claws to prevent hand injuries during installation
- ◆ Superior safety with fire retardant material
- ◆ Quality assurance with SNI certification
- ◆ Multitask with optional USB charger socket outlet

Selection Code

Range name	Functionality	Color
HWDCV	XXX	X
CV: Curvo	You may replace XX codes by functionality codes listed below	Default: White

Online Content



Curvo Series

CURVO SERIES



Timeless Design
Enhanced Safety
Multiple Functions



Switches



HWDCV1S
1 Gang 1 Way Switch
Box:8
Carton:80



HWDCV1SL
1 Gang 1 Way Switch with
LED
Box:8 ; Carton:80



HWDCV1S2
1 Gang 2 Way Switch
Box:8
Carton:80



HWDCV2S
2 Gang 1 Way Switch
Box:8
Carton:80



HWDCV2S2
2 Gang 2 Way Switch
Box:8
Carton:80



HWDCVBS
Bell Switch
Box:8
Carton:80

HOME ELECTRIC

Curvo Series

European Wiring Devices



HWDCVBSL
Bell Switch with LED
Box: 8
Carton: 80



HWDCVLD
1 Gang Light Dimmer
Box: 6
Carton: 60



HWDCVFC
1 Gang Fan Control
Box: 6
Carton: 60

Socket Outlet



HWDCV2PS
1 Gang 2 Pin Socket
Box: 10
Carton: 100



HWDCVSS
1 Gang Schuko Socket
Box: 8
Carton: 80



HWDCVFS
1 Gang French Socket
Box: 8
Carton: 80



HWDCV2P2S
2 Gang 2 Pin Socket
Box: 5
Carton: 50



HWDCVS2S
2 Gang Schuko Socket
Box: 4
Carton: 40



HWDCVSSC
1 Gang Schuko Socket
with Cover
Box: 6 ; Carton: 60

Telecommunication Accessories



HWDCVTV
1 Gang Isolated TV Socket
Box: 10
Carton: 100



HWDCVSA
1 Gang Satellite Socket
Box: 8
Carton: 80



HWDCVTS
1 Gang Telephone Socket
Box: 8
Carton: 80



HWDCVDS
1 Gang Data Socket
Box: 8
Carton: 80



HWDCVTDS
1 Gang Tel + Data Socket
Box: 8
Carton: 80



HWDCVUSB
Double USB Socket
Box: 8
Carton: 80

Curvo Series

European Wiring Devices

Flush Plates



HWDCVF2
Double Frame
Box: 14
Carton: 140

Future Ready

Upgrade your Curvo Series switches with our WIFI Smart modules



HHESM
Smart Switch Module
Box: 1
Carton: 100



HHE2SM
2 Gang Switch Module
Box: 1
Carton: 100



HHESD
Smart Dimmer Module
Box: 1
Carton: 100



HHE2SD
2 Gang Dimmer Module
Box: 1
Carton: 100





MODULAR WIRING DEVICES

Himel helps in accentuating your interior décor through Modular Wiring Devices rigorously tested for quality and safety against regional and international standards. Whether you need timeless white or classy metallic or beige, our modular devices offer a wide choice of ergonomics and finishes.

Bliss Series

Modular Wiring Devices



Range Presentation

Bliss switches and sockets are pure design, offering a versatile alternative to traditional white switches and sockets. With a wider range of combination of panel shapes and colours and a large variety of functional modules, Bliss is totally customizable to meet all home and building needs.

Designed with fireproof polycarbonate with reinforced interior plates, every Bliss product is robust, strong and durable. Bliss is available in 3 different frames:

- ◆ Bliss Oval, offering simple yet modern combination
- ◆ Bliss Curve, with an attractive finish to adore luxury homes
- ◆ Bliss Flat, high-class electroplated frame for showstopper spaces

Bliss also integrates into any smart home with Himel Smart module compatibility.

Features

- ◆ Euro and Modular plates available
- ◆ 22 colors and 3 different finishes (plain, metallic and wood)
- ◆ 3 different frame design (Oval, Curve and Flat)
- ◆ High grade PC, flame retardant and impact resistant
- ◆ Reinforced honeycomb structure for longer life and stronger support
- ◆ Works with Himel Smart


Online Content



Bliss Series

Selection Code-Overall

Range name	Functionality	Plate Design	Color
HWDB	XXX	X	XX
B: Bliss	You may replace XX codes by functionality codes listed below	O: Oval C: Curve F: Flat	WH: White P0-P9: Original color MP1-MP6: Metallic painting WO1-WO7: Wooden color

 This offer is available only in Egypt. For more information, contact local Himel Sales.

BLISS SERIES



INFINITE POSSIBILITIES

**3 FRAMES | 3 FINISHES | 23 COLOURS |
55 MODULES**



Switches



HWDBS1G1W
16A Single Switch 1
gang 1 way -22mm
Box: 48
Carton: 480



HWDBS1G1WWL
16A Single Switch 1 gang
1 way with lamp -22mm
Box: 48
Carton: 480



HWDBS1G2W
16A Single Switch 1
gang 2 way -22mm
Box: 48
Carton: 480



HWDBS1G2WWL
16A Single Switch 1 gang
2 way with lamp -22mm
Box: 48
Carton: 480



HWDBSDB
16A Doorbell
Switch -22mm
Box: 48
Carton: 480



HWDBSDBWL
16A Doorbell Switch
with Lamp -22mm
Box: 48
Carton: 480

Bliss Series

Modular Wiring Devices



HWDBM1G1W
16A Single Switch 1 gang 1 way -44mm
Box: 32
Carton: 320



HWDBM1G1WWL
16A Single Switch 1 gang 1 way with lamp -44mm
Box: 32
Carton: 320



HWDBM1G2W
16A Single Switch 1 gang 2 way -44mm
Box: 32
Carton: 320



HWDBM1G2WWL
16A Single Switch 1 gang 2 way with lamp -44mm
Box: 32
Carton: 320



HWDBMDB
16A Doorbell Switch -44mm
Box: 32
Carton: 320



HWDBMDBWL
16A Doorbell Switch with Lamp -44mm
Box: 32
Carton: 320



HWDBB1G1W
16A Single Switch 1 gang 1 way -66mm
Box: 24
Carton: 240



HWDBB1G1WWL
16A Single Switch 1 gang 1 way with lamp -66mm
Box: 24
Carton: 240



HWDBB1G2W
16A Single Switch 1 gang 2 way -66mm
Box: 24
Carton: 240



HWDBB1G2WWL
16A Single Switch 1 gang 2 way with lamp -66mm
Box: 24
Carton: 240



HWDBBDB
16A Doorbell Switch -66mm
Box: 24
Carton: 240



HWDBBDBWL
16A Doorbell Switch with Lamp -66mm
Box: 24
Carton: 240



HWDBISWL
16A Intermediate Switch with lamp
Box: 48
Carton: 480



HWDB20DPWL
20A DP switch with lamp
Box: 48
Carton: 480



HWDB32DPWL
32A DP switch with lamp 44mm
Box: 32
Carton: 320



HWDB45DPWL
45A DP switch with lamp 44mm
Box: 32
Carton: 320



HWDB1WCS
Curtain Switch 1 Way
Box: 48
Carton: 480



HWDB2WCS
Curtain Switch 2 Way
Box: 48
Carton: 480



HWDBDOUS
Double switch
Box: 48
Carton: 480

Bliss Series

Modular Wiring Devices

Socket Outlet



HWDBUS
10A 250V Universal
Socket
Box: 32
Carton: 320



HWDB2PS
16A 250V Euro
American 2 Pin Socket
Box: 48
Carton: 80



HWDBSS
16A 250V Schuko Socket
Box: 32
Carton: 320



HWDBFS
16A 250V French Socket
Box: 32
Carton: 320



HWDB16IS
16A Italian Socket
Box: 48
Carton: 480



HWDB10IS
10A Italian Socket
Box: 48
Carton: 480



HWDB2PES
10A European 2
round pin socket
Box: 48
Carton: 480



HWDB1USB
Single USB 2.1A Socket
Box: 48
Carton: 480



HWDB2USB
Double USB 2.1A Socket
Box: 48
Carton: 480



HWDBSCHO
Schuko Socket Red
Box: 32
Carton: 320

Blank Filler



HWDBSBF
Blank Filler -11mm
Box: 336
Carton: 3360



HWDBBBF
Blank Filler -22mm
Box: 192
Carton: 1920

Accessories



HWDBDS
Cat 6 Data Socket
Box: 48
Carton: 480



HWDBTEL
Cat 3 TEL Socket
Box: 48
Carton: 480



HWDBSAT
F Type Satellite Socket
Box: 48
Carton: 480



HWDBSATE
Satellite Socket
Straight
Box: 48 ; Carton: 480



HWDBTV
TV socket
Box: 48
Carton: 480



HWDBTD
Touch Delay 45 seconds
Switch
Box: 32 ; Carton: 320

Bliss Series

Modular Wiring Devices



HWDBEL
Emergency Light
Box: 48
Carton: 480



HWDBPIR
Motion Sensor Switch
PIR more than 4meters
Box: 32
Carton: 320



HWDBVLCS
Voice and Light Control
Switch more than 70Db
Box: 32
Carton: 320



HWDBDNL
Doorbell name light
Box: 32
Carton: 320



HWDBMNL
Night Light 44mm
Box: 32
Carton: 320



HWDBBNL
Night Light 66mm
Box: 16
Carton: 160



HWDBD2EL
Emergency Lighting
2 Gang
Box: 32 ; Carton: 320



HWDBRB
Ring Bell 90DB
Box: 48
Carton: 480

Dimmers



HWDBDIM4
Dimmer Switch 400W
Box: 32
Carton: 320



HWDBDIM3
Dimmer Switch 300W
Box: 32
Carton: 320



HWDBFAN
Fan Switch 300W
Box: 32
Carton: 320



HWDBDVC
Volume Control Switch
Box: 32
Carton: 320

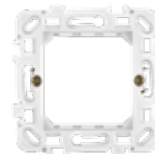
Plates



HWDBBP
Blank Plate 118mm
Box: 30
Carton: 300



HWDB2GF
European mounting
bracket without fixation
Box: 24
Carton: 240



HWDB2GEF
European mounting
bracket with fixation
Box: 24
Carton: 240

Bliss Series

Modular Wiring Devices



HWDB3GF
3 Gang Mounting Bracket
Box: 20
Carton: 200



HWDB4GF
4 Gang mounting
bracket
Box: 15
Carton: 150



HWDB6GF
6 Gang mounting
bracket
Box: 10
Carton: 100



HWDBEPOWH
Oval-European PlateWH
Box: 40
Carton: 400



HWDB1GPOWH
Oval-1 Gang PlateWH
Box: 20
Carton: 200



HWDB2GPOWH
Oval-2 Gang PlateWH
Box: 20
Carton: 200



HWDB2GPSOWH
Oval-2 Gang Plate
SeparatelyWH
Box: 20
Carton: 200



HWDB3GPOWH
Oval-3 Gang PlateWH
Box: 20
Carton: 200



HWDB4GPOWH
Oval-4 Gang PlateWH
Box: 20
Carton: 200



HWDB6GPOWH
Oval-6 Gang PlateWH
Box: 18
Carton: 180



HWDBEPCWH
Curve-European PlateWH
Box: 40
Carton: 400



HWDB3GPCWH
Curve-3 Gang PlateWH
Box: 20
Carton: 200



HWDBEPFWH
Flat-European PlateWH
Box: 40
Carton: 400



HWDB3GPFWH
Flat-3 Gang PlateWH
Box: 20
Carton: 200

Waterproof Case



HWDB2GWP
2 Gang Waterproof Case
Box: 14
Carton: 140



HWDB3GWP
3 Gang Waterproof Case
Box: 10
Carton: 100



HWDB4GWP
4 Gang Waterproof Case
Box: 10
Carton: 100

Bliss Series

Modular Wiring Devices

Selection Code-PLATE

Range name	Functionality	Design	Color
HWDB	XXP	X	XX
<p>B: Bliss</p>	<p>EP: European Plate 1GP: 1 Gang Plate 2GP: 2 Gang Plate 2GPS: 2 Gang Plate Separately 3GP: 3 Gang Plate 4GP: 4 Gang Plate 6GP: 6 Gang Plate</p>	<p>O: Oval C: Curve F: Flat</p>	<p>WH: White P0: Ivory P1: Green P2: Yellow P3: Orange P4: Pink P5: Red P6: Rose P7: Sky blue P8: Dark blue P9: Brown MP1: Metallic painting Sliver MP2: Metallic painting ST</p>
			<p>MP3: Metallic painting Blue MP4: Metallic painting Gold MP5: Metallic painting Bronze MP6: Metallic painting champagne WO1: Wood Mogano WO2: Wood Glossy WO3: Wood ARO Matt WO4: Wood Brown Matt WO5: Wood Brown Glossy WO6: Wood White WO7: Wood ZAN Matt</p>

Color



HWDB3GPOP0



HWDB3GPOP1



HWDB3GPOP2



HWDB3GPOP3



HWDB3GPOP4



HWDB3GPOP5



HWDB3GPOP6



HWDB3GPOP7



HWDB3GPOP8

Bliss Series

Modular Wiring Devices



HWDB3GPOP9



HWDB3GPOMP1



HWDB3GPOMP2



HWDB3GPOMP3



HWDB3GPOMP4



HWDB3GPOMP5



HWDB3GPOMP6



HWDB3GPOW01



HWDB3GPOW02



HWDB3GPOW03



HWDB3GPOW04



HWDB3GPOW05



HWDB3GPOW06



HWDB3GPOW07



AMERICAN WIRING DEVICES

Himel provides a broad selection of American Wiring Devices for residential and commercial applications. Available in an array of classic colours and metallic finishes, we offer industry-leading features for various environments, with the promise of reliability and safety.

Click Series

American Wiring Devices



Range Presentation

Click Series is characterized by its rounded shape and timeless sophistication. Its modern and discrete design can fit in any home application. Being made of high-quality Polycarbonate, the devices are durable and safer. With quick connection terminals, electricians can save up to 40% of installation time. No need of screwdriver, just clip and go.

Features

- ◆ Modular to provide a variety of options
- ◆ Quick connection terminals to save 40% of installation time
- ◆ 5 different colors
- ◆ Works with Himel Smart

Selection Code

Range name	Functionality	Color
HWDC	XXX	C
C: Click	You may replace XX codes by functionality codes listed below	Default: White G: Gold C: Coffee M: Metallic B: Black

Online Content



Click Series

Color Selection



White



Gold



Coffee



Black



Metallic



This offer is available only in Philippines. For more information, contact local Himel Sales.

CLICK SERIES



VERSATILE AND SOPHISTICATED WIRING DEVICES

for your home and offices



Switches



HWDC1SL
1 Gang 1 Way Switch Large Button
Box: 10
Carton: 100



HWDC1S2L
1 Gang 2 Way Switch Large Button
Box: 10
Carton: 100



HWDC1SS
1 Gang 1 Way Switch Small Button
Box: 10
Carton: 100



HWDC1S2S
1 Gang 2 Way Switch Small Button
Box: 10
Carton: 100



HWDC2SL
2 Gang 1 Way Switch Large Button
Box: 10
Carton: 100



HWDC2S2L
2 Gang 2 Way Switch Large Button
Box: 10
Carton: 100

Click Series

American Wiring Devices



HWDC2SS
2 Gang 1 Way Switch Small Button
Box: 10
Carton: 100



HWDC2S2S
2 Gang 2 Way Switch Small Button
Box: 10
Carton: 100



HWDC3S
3 Gang 1 Way Switch
Box: 10
Carton: 100



HWDC3S2
3 Gang 2 Way Switch
Box: 10
Carton: 100



HWDC4S
4 Gang 1 Way Switch
Box: 10
Carton: 100



HWDC4S2
4 Gang 2 Way Switch
Box: 10
Carton: 100



HWDCBS
Bell Switch
Box: 10
Carton: 100



HWDCD
1 Gang Dimmer Switch
(300W/220V)
Box: 8
Carton: 80



HWDCFS
1 Gang Fan Speed Switch
(300W/220V)
Box: 8
Carton: 80

Socket Outlets



HWDC12P
1 Gang 2 Pin Socket
Box: 10
Carton: 100



HWDC12PS
1 Gang 2 Pin Socket + Shutter
Box: 10
Carton: 100



HWDC22P
2 Gang 2 Pin Socket
Box: 10
Carton: 100



HWDC22PS
2 Gang 2 Pin Socket + Shutter
Box: 10
Carton: 100



HWDC32P
3 Gang 2 Pin Socket
Box: 10
Carton: 100



HWDC32PS
3 Gang 2 Pin Socket + Shutter
Box: 10
Carton: 100



HWDC1S2P
1 Gang 1 Way Switch 2 Pin Socket
Box: 10
Carton: 100



HWDC1S22P
1 Gang 2 Way Switch 2 Pin Socket
Box: 10
Carton: 100



HWDC1A
3 Pin American Socket
Box: 10
Carton: 100



HWDC1SA
1 Gang 1 Way Switch American Socket
Box: 10
Carton: 100



HWDC1S2A
1 Gang 2 Way Switch American Socket
Box: 10
Carton: 100



HWDC2A
2 Gang American Socket
Box: 10
Carton: 100

Click Series

American Wiring Devices



HWDC20A
1 Gang 20A Socket
Box: 10
Carton: 100



HWDC2TU
2 Gang Universal American Socket
Box: 10
Carton: 100



HWDCMF
2 Gang MF Socket
Box: 10
Carton: 100



HWDC1AUSB
American Socket + 2 port USB (2A)
Box: 8
Carton: 80



HWDCUSB
1 Gang USB Charger Socket
Box: 8
Carton: 80



HWDCSEN
1 Gang Sensory Switch
Box: 8
Carton: 80

Telecommunication Accessories



HWDC1T
1 Gang 4core Tel Socket
Box: 10
Carton: 100



HWDC8DS
1 Gang 8core Data Socket + Shutter
Box: 10
Carton: 100



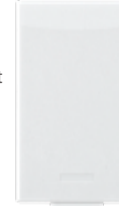
HWDC1S
1 Gang Satellite Socket
Box: 10
Carton: 100



HWDC1ST
1 Gang Satellite Socket + Tel Socket
Box: 10
Carton: 100



HWDC1SD
1 Gang Satellite Socket + Data Socket
Box: 10
Carton: 100



HWDC1WP
Weather-Proof Plate Cover Slim Type
Box: 8
Carton: 80



HWDC5P1
1 Gang Plate
Box: 20
Carton: 200



HWDC5P2
2 Gang Plate
Box: 20
Carton: 200



HWDC5P3
3 Gang Plate
Box: 20
Carton: 200



HWDC1P
Blank Plate
Box: 20
Carton: 200



HWDC1MC
1 Gang MCB Cover
Box: 20
Carton: 200



HWDC2MC
2 Gang MCB Cover
Box: 20
Carton: 200

Click Series

American Wiring Devices



Modular



HWDC51S
1 Way Switch 72mm
Box: 6
Carton: 144



HWDC51S2
2 Way Switch 72mm
Box: 6
Carton: 144




HWDC52S1
1 Way Switch 36mm
Box: 12
Carton: 288



HWDC52S2
2 Way Switch 36mm
Box: 12
Carton: 288



HWDC53S
1 Way Switch 24mm
Box: 18
Carton: 432




HWDC53S2
2 Way Switch 24mm
Box: 18
Carton: 432



HWDC53S3
3 Way Switch 24mm
Box: 18
Carton: 432




HWDC54S
1 Way Switch 18mm*2
Box: 12
Carton: 288




HWDC54S2
2 Way Switch 18mm*2
Box: 12
Carton: 288




HWDC52P
2 Pin Socket 24mm
Box: 18
Carton: 432



HWDC52PS
2 Pin Socket + Shutter 24mm
Box: 18
Carton: 432



HWDC5MF
MF Socket 36mm
Box: 12
Carton: 288



HWDC5AM
3 Pin American Socket 24mm
Box: 18
Carton: 432



HWDC520A
1 Gang 20A Socket 36mm
Box: 12
Carton: 288




HWDC5TW
Twin Receptacle
Box: 6
Carton: 144



HWDC5TWU
Twin Universal Receptacle
Box: 6
Carton: 144



HWDCAMUSB
American Socket + 2 port
USB (2A)
Box: 30
Carton: 300




HWDC5USB
2A USB Charger 24mm
Box: 16
Carton: 384



HWDC5SAT
Satellite Socket 24mm
Box: 18
Carton: 432



HWDC5TEL4
4core Tel Socket 24mm
Box: 18
Carton: 432



HWDC5DAT8
8core data Socket +Shutter
CAT5
Box: 18
Carton: 432

Click Series

American Wiring Devices



HWDC5BP
Blank Plate 24mm
Box: 36
Carton: 864



HWDC5BS
Bell Switch 24mm
Box: 18
Carton: 432



HWDC5D
Dimmer Switch
(300W/220V) 24mm
Box: 8
Carton: 192



HWDC5FS
Fan Speed Switch
(200W/220V) 24mm
Box: 8
Carton: 192



HWDC5SEN
Sensory Switch 36mm
Box: 8
Carton: 192



HWDC5BUZ
Buzzer
Box: 10
Carton: 240

Future Ready

Upgrade your Click Series switches with our WIFI Smart modules



HHESM
Smart Switch Module
Box: 1
Carton: 100



HHE2SM
2 Gang Switch Module
Box: 1
Carton: 100



HHESD
Smart Dimmer Module
Box: 1
Carton: 100



HHE2SD
2 Gang Dimmer Module
Box: 1
Carton: 100





PROFESSIONAL WIRING DEVICES

Ditch the cumbersome sockets from aesthetics of your meeting room. With Himel Floor Series, you get enough space for even the largest of plugs and smaller charging units, that vanish below the closed cover, seamlessly. Designed for a wide variety of floorings, such as such as parquet or laminate.

Floor Series

Professional Wiring Devices



Range Presentation

Himel Floor Sockets offer contemporary-design sockets that pop out from the floor and provide convenient power outlets. With corrosion resistance, flame retardant material and shutter protection, they are perfect for a wide range of floorings and countertop applications (including wood, carpet, granite and marble).

Features

- ◆ 22 optional modules
- ◆ Prevent electrical short circuit and reduce tripping hazards
- ◆ Corrosion resistant
- ◆ Wear and pressure-resistant panel material
- ◆ Flame retardant modules
- ◆ Shutter protector
- ◆ Indonesia: SNI
- ◆ Works with Himel Smart

Color Selection



Aluminum



Brass

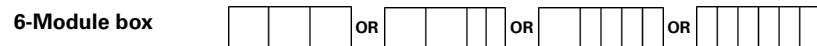
Online Content



Floor Series

Configuration Selection

Empty Box + Module Accessories



How To Order:



FLOOR SERIES



FOR THE BUILDINGS
OF TODAY AND
TOMORROW

Integrates seamlessly into any type
of floor.



Empty Boxes



without modules shown

HHEFS1A
POP UP FLOOR
SOCKET Alu. Alloy
3-Module box
Box: 1
Carton: 12



without modules shown

HHEFS1C
POP UP FLOOR SOCKET
Brass Alloy
3-Module box
Box: 1
Carton: 20



without modules shown

HHEFS2A
POP UP FLOOR
SOCKET Alu. Alloy
4-Module box
Box: 1
Carton: 20



without modules shown

HHEFS1CW
POP UP WATERPROOF
FLOOR SOCKET Brass Alloy
3-Module box
Box: 1
Carton: 20



without modules shown

HHEFS1AW
POP UP WATERPROOF
FLOOR SOCKET Alu. Alloy
3-Module box
Box: 1
Carton: 20



without modules shown

HHEFS2C
POP UP FLOOR SOCKET
Brass Alloy
4-Module box
Box: 1
Carton: 12

Floor Series

Professional Wiring Devices



HHEFS22A
POP UP FLOOR SOCKET Alu.
Alloy 3-Module * 2 box
Box: 1
Carton: 10

without modules shown



HHEFS22C
POP UP FLOOR SOCKET Brass
Alloy 3-Module * 2 box
Box: 1
Carton: 10

without modules shown



HHEFSTABA
POP UP TABLE SOCKET
AL. 6-Module box
Box: 1
Carton: 12

without modules shown



HHEFSTAB
OPEN COVER TABLE SOCKET
ABS 6-Module box
Box: 1
Carton: 12

without modules shown

2 Module Accessories



HHEFSF18
American Socket
Box: 10
Carton: 250



HHEFSF4
Universal Socket
Box: 10
Carton: 250



HHEFSF11
British Socket
Box: 10
Carton: 250



HHEFSF15
Euro Socket
Box: 10
Carton: 250



HHEFSF3
3Pin 10A Socket
Box: 10
Carton: 250



HHEFSF9
Double USB Charger
Box: 10
Carton: 250

1 Module Accessories



HHEFSF2
2Pin Socket
Box: 20
Carton: 500



HHEFSF58
Sound Socket
Box: 50
Carton: 1000



HHEFSF23
Tel Socket
Box: 50
Carton: 1000



HHEFSF21
Data Socket
Box: 50
Carton: 1000



HHEFSF20
Data Plate
Box: 100
Carton: 2000



HHEFSF56
Video Socket
Box: 50
Carton: 1000



HHEFSF55
Audio Socket
Box: 50
Carton: 1000



HHEFSF50
TV Socket
Box: 50
Carton: 1000



HHEFSF51
BNC Socket
Box: 50
Carton: 1000

Floor Series

Professional Wiring Devices



1 Module Accessories



HHEFSF52
3.5mm Earphone Socket
Box: 50
Carton: 1000



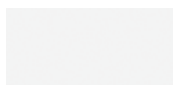
HHEFSF60
Cannon Socket
Box: 50
Carton: 1000



HHEFSF65
15 VGA Pin Socket
Box: 50
Carton: 1000



HHEFSF66
15 VGA Hole Socket
Box: 50
Carton: 1000



HHEFSF70
Empty Plate
Box: 100
Carton: 2000



HHEFSF68
HDMI Socket
Box: 50
Carton: 1000



HHEFSF6
USB Charger
Box: 20
Carton: 500



ACCESSORIES AND TOOLS

Be it a professional electrician or DIY enthusiast, electric tools and accessories are must-have for repair jobs and regular upkeeps. Himel offers versatile products for professional fixer-upper so that jobs are easy, faster, and safer.

Extension Sockets-British Standard

Standard: BS1363 IEC60884
Certificate: GCC ECAS



Range Presentation

A range of multi-outlet extensions with cord that are suitable for both home and workspace, they are perfect to connect several devices equipped with plugs with or without earth. Our extension sockets are flat and can be fitted underneath furniture, available with or without switch, to power on and off without operating the main socket.

Features

- ◆ BS & Universal extension socket with BS plug
- ◆ Cable length: 3M & 5M
- ◆ Rating: 13A/250V~
- ◆ USB output: 5V 2.1AMax
- ◆ Fire retardant PC material
- ◆ With child-safe shutter
- ◆ Up to 5gangs



This offer is available only in Malaysia & UAE.
For more information, contact local Himel Sales.

Online Content



Extension Socket

Selection Code

Range name	Functionality	Functionality
HESABS	3IS	3M
ES: Extension socket A: Advanced series BS: BS type UNBS: Universal type with BS plug	3IS: 3gang individual switch 4IS: 4gang individual switch 5IS: 5gang individual switch 3IS2USB: 3gang individual switch with 2USB 4IS2USB: 4gang individual switch with 2USB	3M: 3meters 5M: 5meters

Order Information



HESABS3IS3M
HESABS3IS5M
BS 3 Gang With Individual Switches
Cable length: 3M/5M
Box: 1
Carton: 24



HESABS4IS3M
HESABS4IS5M
BS 4 Gang With Individual Switches
Cable length: 3M/5M
Box: 1
Carton: 24



HESABS5IS3M
HESABS5IS5M
BS 5 Gang With Individual Switches
Cable length: 3M/5M
Box: 1
Carton: 24



HESABS3IS2USB3M
HESABS3IS2USB5M
BS 3 Gang Individual Switches with 2USB
Cable length: 3M/5M
Box: 1
Carton: 24

Extension Sockets-British Standard

Standard: BS1363 IEC60884
Certificate: GCC ECAS



HESABS4IS2USB3M
HESABS4IS2USB5M
BS 4 Gang Individual Switches with 2USB
Cable length:3M/5M
Box: 1
Carton: 24



HESAUNBS3IS3M
HESAUNBS3IS5M
Universal BS Plug 3 Gang Individual switch
Cable length:3M/5M
Box: 1
Carton: 24



HESAUNBS4IS3M
HESAUNBS4IS5M
Universal BS Plug 4 Gang Individual switch
Cable length:3M/5M
Box: 1
Carton: 24



HESAUNBS5IS3M
HESAUNBS5IS5M
Universal BS Plug 5 Gang Individual switch
Cable length:3M/5M
Box: 1
Carton: 3M:24/ 5M:20



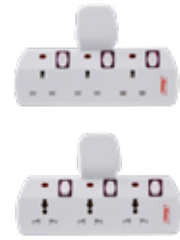
HESAUNBS3IS2USB3M
HESAUNBS3IS2USB5M
Universal BS Plug 3 Gang Individual
switch 2USB
Cable length:3M/5M
Box: 1
Carton: 24



HESAUNBS4IS2USB3M
HESAUNBS4IS2USB5M
Universal BS Plug 4 Gang Individual
switch 2USB
Cable length:3M/5M
Box: 1
Carton:3M:24/ 5M:20

Extension Sockets-British Standard

Standard: BS1363 IEC60884



Range Presentation

A range of multi-outlet extensions with cord that are suitable for both home and workspace, they are perfect to connect several devices equipped with plugs with or without earth.

Our extension sockets are flat and can be fitted underneath furniture, available with or without switch, to power on and off without operating the main socket.

Features

- ◆ BS & Universal adaptor with BS plug
- ◆ Rating: 13A/250V~
- ◆ USB output: 5V 2.1AMax
- ◆ Fire retardant PC material
- ◆ With child-safe shutter
- ◆ Up to 4gangs

Online Content



Extension Socket

Selection Code

Range name

Functionality

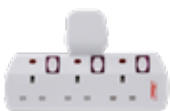
HESABSA

3IS

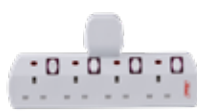
ES: Extension socket
A: Advanced series
BSA: BS adaptor
UNA: Universal adaptor

3IS: 3gang individual switch
4IS: 4gang individual switch
3IS2USB: 3gang individual switch with 2USB

Order Information



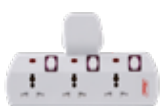
HESABSA3IS
 BS Adaptor 3 Gang
 Individual Switches
 Box: 1
 Carton: 36



HESABSA4IS
 BS Adaptor 4 Gang
 Individual Switches
 Box: 1
 Carton: 36



HESABSA3IS2USB
 BS Adaptor 3 Gang
 Individual switch
 2USB
 Box: 1
 Carton: 36



HESAUNA3IS
 Universal Adaptor 3
 Gang Individual switch
 Box: 1
 Carton: 36



HESAUNA4IS
 Universal Adaptor 4
 Gang Individual switch
 Box: 1
 Carton: 36



HESAUNA3IS2USB
 Universal Adaptor
 3 Gang Individual
 switch 2 USB
 Box: 1
 Carton: 36



HEBSP
 BS Plug
 Box: 20
 Carton: 480

Weatherproof Series



Range Presentation

Electrical networks are sensitive to rain, moisture, and dust that often pose safety concern to life. With Weatherproof Series, Himel provides the ideal residential weatherproof protection.

Designed with your safety in mind, every Weatherproof product is robust and durable. Our cases are available in 6 different colors and finishing, so that your décor and safety are always on point.

Features

- ◆ IP12 and IP55 covers available
- ◆ 6 colors and 2 different finishes (matte and shiny)
- ◆ Waterproof and Dustproof
- ◆ Large bottom hole for thick and large wires
- ◆ Safety lock to protect against misuse
- ◆ Compatible with most British format (86mm x 86mm) wall plates

Online Content



Weatherproof Series

Selection Code -Overall

Range Name	Protection	Color
HHEWP	XXXX	XXXX
WP: Weatherproof	You may replace XX codes by protection degree 55: IP55 Cover	TP: Transparent WH: White GO: Gold SL: Silver MG: Matte Grey MB: Matte Black

COVER CASE IP12



Protect your everyday power socket with style. Our attractive finishes can suit all types of interior and exterior designs.

WATERPROOF CASE IP55



Add an extra level of protection to your power socket with Himel IP55 protection. Perfect solution for maximum security for outdoor usages.

Weatherproof Series

COVER CASE IP12



HHEWPTP
Waterproof box-Transparent
Material:PS
Box:1
Carton:200



HHEWPWH
Waterproof box-White
Material:ABS
Box:1
Carton:200



HHEWPGO
Waterproof box-Gold
Material:ABS
Box:1
Carton:200



HHEWPSL
Waterproof box-Silver
Material:ABS
Box:1
Carton:200



HHEWPMG
Waterproof box-Matte grey
Material:ABS
Box:1
Carton:200



HHEWPMB
Waterproof box-Matte black
Material:ABS
Box:1
Carton:200

WEATHERPROOF CASE IP55



HHEWP55TP
Weatherproof box IP55-Transparent
Material:PS
Box:1
Carton:100



HHEWP55WH
Weatherproof box IP55-White
Material:ABS
Box:1
Carton:100

Tool Series



Range Presentation

Designed specifically for the professional electricians, Himel Tool Box is a handy set of the most commonly used tools, including electronic test pencil, cutter, hammer, electrical tape, screwdriver etc. Coming with a sleek attaché case, it can be easily carried and used.

Features

- ◆ Set: 8 pieces / 18 pieces
- ◆ Digital Multimeter / Digital Clamp Meter

Selection Code

Range name

HHETS

Functionality

8

TS: Tool set
D: Digital meter

8: 8 individual tools
18: 18 individual tools
MM: Digital Multimeter
CM: Digital Clamp Meter

Online Content



Tool Boxes

Order Information



HHETS8
Tool Set 8 Pieces
Box: 1
Carton: 10



Stationery Knife 18mm



6 inch Wire Cutter



Claw Hammer



Test Pencil



Cross & straight Screwdriver



Electrical Tape



2M Tape Measure



HHEDCM Digital Clamp Meter
Box: 1
Carton: 20



HHETS18
Tool Set 18 Pieces
Box: 1
Carton: 6



Cross & straight Screwdriver



Test Pencil



6 inch Long Nose Pliers



Claw Hammer



Hex Key



Stationery Knife 18mm



6 inch Wire Cutter



Electrical Tape



8 inch Adjustable Spanner



2M Tape Measure



HHEDMM Digital Multimeter
Box: 1
Carton: 45

Cable Ties



Range Presentation

A dependable accessory for electricians, Himel cable ties offer sturdy support to installations by holding cables together or in a designated spot. Our cable ties can also be used for hanging or storing parts. Being made from nylon 66, they are easier to use and meet expectations of DIY enthusiasts and professionals alike.

Features

- ◆ Material: Nylon 66
- ◆ Tensile Strength (LBS): 18 / 40 / 50
- ◆ Max Bundle Diameter: 22 / 35 / 50 / 65 / 82 / 90
- ◆ Flammability rating 94V-2
- ◆ Weather and UV Resistant
- ◆ High Strength locking

Online Content



Cable Ties

Commercial Ref	Length (mm)	Width (mm)	Colour	Minimum Operating Temperature	Maximum Operating Temperature	Maximum Bundle Diameter (mm)	Tensile Strength (LBS)	Quantity per bag	Bags per Master Carton
HHEC1025B	100	2.5	Black	-40°C	85°C	22	18	100	500
HHEC1025W	100	2.5	White	-40°C	85°C	22	18	100	500
HHEC1535B	150	3.5	Black	-40°C	85°C	35	40	100	250
HHEC1535W	150	3.5	White	-40°C	85°C	35	40	100	250
HHEC2048B	200	4.8	Black	-40°C	85°C	50	50	100	100
HHEC2048W	200	4.8	White	-40°C	85°C	50	50	100	100
HHEC2536B	250	3.6	Black	-40°C	85°C	65	40	100	100
HHEC2536W	250	3.6	White	-40°C	85°C	65	40	100	100
HHEC3048B	300	4.8	Black	-40°C	85°C	82	50	100	100
HHEC3048W	300	4.8	White	-40°C	85°C	82	50	100	100
HHEC3548B	350	4.8	Black	-40°C	85°C	90	50	100	100
HHEC3548W	350	4.8	White	-40°C	85°C	90	50	100	100
HHEC1025C1500	100	2.5	Black / White / Red / Blue /Yellow	-40°C	85°C	22	18	1500	40
HHEC1535C800	150	3.5	Black / White / Red / Blue /Yellow	-40°C	85°C	35	40	800	20

Color Selection



Black



White



Colorful

Cable Ties



**Small Thing
Big Use**

—
Himel Cable Ties

The unmissable products for electricians.

available in assorted
colors and sizes

Electrical Tape

Accessories & Tools



Range Presentation

Suitable for electrical insulation, binding, colour coding and general work.

Strong flame retardant performance

High temperature and high voltage resistance

Effectively protects your electrical wires

Features

- ◆ Available in wide range of sizes and colors
- ◆ Manufactured from flame retardant materials
- ◆ Compliant ROHS 1.0
- ◆ Operational temperature: 0°C to 80°C
- ◆ Compatible with voltage <600V

Online Content



Electrical Tape

Selection Code

Category	Series name	Thickness	Width	Length	Colour
HHE	ET	013	18	10	B
HHE: Himel Home Electric	ET: Electrical Tape	013: 0.13mm	18: 18mm	5: 5m 10: 10m 20: 20m	B: Black BL: Blue W: White G: Green R: Red Y: Yellow GREY: Grey YG: Yellow/Green
		015: 0.15mm	19: 19mm	5: 5m 10: 10m 20: 20m	B: Black BL: Blue W: White G: Green R: Red Y: Yellow YG: Yellow/Green
		018: 0.18mm	19: 19mm	20: 20m	B: Black

Pc(S)/Carton Depending On The Length

Length	Unit(Pc(S))	Pc(S)/Carton
10m	Roll	300
20m	Roll	200
5m	Roll	450

Electrical Tape

Accessories & Tools



Himel Electrical Tapes

The ultimate tool for electrical safety



Strong Adhesion



Flame Retardant



Easy to Tear



Lead Free



Works in Temp. up to 80°C



Indoor /Outdoor application up to 600V



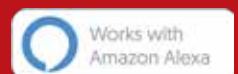
Made from high quality PVC



HIMEL SMART DEVICES

Connected Homes made Affordable

Himel Smart Devices - Smart Plug, Smart Bulb, and Smart Module ensure substantial power saving while making your home connected and safer. Easily controlled with your voice or smartphone, these plug and play devices don't need a separate hub or paid subscription service.



Smart Plug

Smart Devices



Range Presentation

Upgrade your regular appliance and add it to your smart home system via Himel Smart Plug. Easy to install, it can be plugged into most outlets to run small appliances through phone or voice commands. Increase power bill saving through automated scheduling.

Features

- ◆ Overload protection
- ◆ Fire Resistant material
- ◆ Easy installation
- ◆ Control with app or voice
- ◆ Compatible with Amazon Alexa & Google Home
- ◆ Setting Schedule Timer functionality

Selection Code

Range name	Functionality	Standard
HHES	P	US
S: Smart	P: Plug	US: American EU: European UK: British

Online Content



Smart Plug

Order Information



HHESPUK
Smart plug-UK 13A
Box: 1
Carton: 180



HHESPUS
Smart plug-US 16A
Box: 1
Carton: 200



HHESPEU
Smart plug-EU 16A
Box: 1
Carton: 180

Smart Bulbs

Smart Devices



Range Presentation

Brighter and easier to control, Himel Smart bulbs make home lighting more fun and comfortable. With built-in Wi-Fi radios connected directly with your router, you can control our bulbs remotely whenever you have an internet connection. There is no need of an expensive hub to control our devices, that's how we make connected home affordable. Play with our 16 million colors to transform the ambiance of any room.

Features

- ◆ E27 cap type
- ◆ Energy efficient LED lighting
- ◆ 2 color ranges: Soft White and Colorful
- ◆ Control with app or voice
- ◆ Compatible with Amazon Alexa & Google Home
- ◆ ScheduleTimer functionality

Selection Code

Range name

Color

HHES

BW

S: Smart

BW: White
RGB: Colorful

Online Content



Smart Bulbs

Order Information



HHESBW
9W White-E27
Box: 1
Carton: 50



HHESBRGB
9W RGB-E27
Box: 1
Carton: 50

Smart Modules

Smart Devices



Range Presentation

Himel Smart Module is an affordable in-wall on/off module that can be installed behind traditional electrical switches. You can control the on and off status of your devices simply with your smartphone. Himel Smart Module can make all switches smart. As long as the mobile phone has network(2G/3G/4G/WiFi), users can remotely control the lights at home by turning them on or off from anywhere at any time. Another feature available is to set timers for the light, which can include countdown/ scheduled/loop timers and thus enhance your everyday life.

Features

- ◆ Compact design
- ◆ Very low power consumption
- ◆ Easy installation
- ◆ Control with app or voice
- ◆ Compatible with Amazon Alexa & Google Home
- ◆ Setting Schedule Timer

Selection Code

Range name	Gang	Functionality
HHES	2	M
S: Smart	2: 2Gang	M: Switch D: Dimmer

Online Content



Smart Modules

Future Ready

Upgrade your Click Eco Series switches with our WIFI Smart modules



HHESM
Smart Switch Module
Box: 1
Carton: 100



HHE2SM
2 Gang Switch Module
Box: 1
Carton: 100



HHESD
Smart Dimmer Module
Box: 1
Carton: 100



HHE2SD
2 Gang Dimmer Module
Box: 1
Carton: 100





Contact us



Get in touch with Himel Team at <https://www.himel.com/contact-us>



Find a Local Himel Distributor at <https://www.himel.com/find-a-distributor>



Reach Himel Global Team at support@himel.com



Contact Global Himel Marketing and Communication Team at sm.himel.communications@himel.com



▲ **SCAN**

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