



ENYFLEX –
EMPTY ENCLOSURES
FOR PRO'S

hensel-electric.de

HENSEL

Always by your side

HENSEL has been at your side as a reliable and high-quality brand for electrical installation and power distribution for 90 years. Those who use HENSEL solutions know that they can rely on durability, robustness and ease of use. Cable junction boxes, power distributors and switchgear from HENSEL are the first choice, especially in environments where the highest level of electrical safety is required. However, HENSEL also stands for active support along the entire planning and assembly chain in order to master the challenges of the future together with you.



WHEN THE GOING GETS TOUGH.

Where the environmental conditions are particularly demanding, the solutions from HENSEL show their particular strengths. Moisture, dirt, heat or other physical external influences can impair safe energy distribution. Here, HENSEL is your best possible partner.



HENSEL LASTS.

In harsh environments, robustness and durability are particularly important for the power supply. The engineering team at HENSEL therefore attaches great importance to resistant and high-quality materials and workmanship for every product.



QUALITY IS NOT SIMPLY A PHRASE.

At HENSEL, quality is not only in the products, but in every single step of the process. Quality awareness is also a matter of course for our employees every day. HENSEL quality is incorporated into every single aspect of the business – from attentive service to the smallest accessory.



PERFECT FUNCTION.

On the construction site, everything has to fit and move quickly. So that you, as a professional, can do your job perfectly, all HENSEL products are not only produced to a high standard, but are also easy to assemble and operate. At HENSEL, design means above all practical ergonomics.



MORE THAN JUST PRODUCTS.

Of course, you can count on HENSEL's proven service. However, in addition to daily advice and short delivery times, HENSEL also offers you help with your system planning and support with digital tools – such as ENYGUIDE, the 3D planning tool for distribution systems.

INDUSTRIAL ENCLOSURES FOR INDIVIDUAL CUSTOMISATION

We'll help you to find exactly the right box and components to suit your application and make your product work in any environment.

EMPTY ENCLOSURES IN
ACCORDANCE WITH IEC 62208





For customised solutions and individual applications

The robust enclosures developed, manufactured and distributed by HENSEL are suitable as universal encapsulation to fulfill many demanding tasks in industrial and commercial sites. They protect individual installations of electrical devices and electronic components in manufacturing processes, in the automation of machines and plants or in the industrial control sector. They are used as industrial, display and operating enclosures in a wide variety of industries, applications and environments. Configure your best product and find the best solution for your application!

Simple, fast and safe

Enclosures made from thermoplastics can be easily and quickly machined for customized applications. Whether drilling, milling or sawing, the enclosures can be easily machined with conventional tools. Wherever sensitive electronic or electrical components and other sensitive components need to be protected against external influences, Hensel's robust enclosures are used. The high quality enclosures offer the highest level of protection against dust and water, corrosion, impact and UV radiation. They can easily be used in extreme industrial environments and under tough conditions.





GENERAL INFORMATION

IEC 62208 Enclosures for low-voltage switchgear and controlgear assemblies.



GENERAL INFORMATION

The IEC 62208 standard applies to empty enclosures, prior to the incorporation of switchgear and controlgear components by the user, as supplied by the enclosure manufacturer. It specifies general definitions, classifications, characteristics and test requirements of enclosures to be used as part of switchgear and controlgear assemblies (e.g. in accordance with the IEC 61439-series).

PROTECTION AGAINST ELECTRIC SHOCK

In order to protect individuals in the event of faults against electric shock and the accompanying risks, enclosures are classified with protection class I (electrical earth) and protection class II (protection by total or reinforced insulation). HENSEL empty enclosures are manufactured from insulating material and provide protection against electric shock according to protection class II.



IP-CODES

for protecting electrical equipment against dust and water

Electrical equipment must be protected from external influences and conditions for safety reasons. The two-digit IP-Codes indicate to what extent the enclosure provides protection against hazardous parts and ingress of dust (1st digit) or water (2nd digit). For example IP 65: Electrical equipment inside the enclosure is protected against dust and harmful water and humidity. Therefore the IP-Codes indicate the suitability of enclosures for different environmental conditions.



EFFECTS

on the degree of protection (IP-Code) when devices are built in the lid

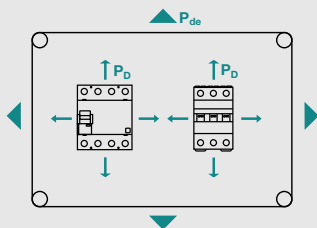
If any switches, displays, push buttons or other equipment are built into the lid of an enclosure, the manufacturer must consider the effects on the degree of protection at that specific point. The installation of electrical equipment into the lid, door or wall of an enclosure can reduce the degree of protection of the enclosure in that specific installation area depending on the degree of protection of the equipment and depending on additional measures for sealing the point of entry. Example: The installation of an IP 44 socket into the lid of an IP 65 enclosure reduces the degree of protection in that specific area to IP 44. The enclosure itself still provides IP 65, but the manufacturer has to draw attention to the fact, that the socket only provides IP 44 for the area where it is installed.

OPERATING AND AMBIENT CONDITIONS

Empty enclosures according to IEC 62208 are applicable in ambient temperatures from -25 °C to +40 °C (outdoor installation) or from -5 °C to +40 °C (indoor installation).

The IEC 62208 requires the specification of the power dissipation capability P_{de} of the enclosures

The enclosure with its power dissipation capability P_{de} has to be able to dissipate the power loss P_D of the installed electrical equipment inside of the enclosure without exceeding the limits of operating and ambient temperatures.



P_{de} = Power dissipation capability
 P_D = Power dissipation

TEMPERATURE RISE IN ENCLOSURES AND POWER DISSIPATION

In relationship with the outside temperatures the temperature rise inside of enclosures, caused by the flowing current and the power loss P_D of the installed electrical equipment, has to be considered. Most devices are designed for maximum ambient temperatures of +40 °C to +55 °C. Accordingly there may only be a narrow range for the temperature rise inside of the enclosure if the ambient temperature is close to the maximum operating temperature of the installed equipment.

The enclosure with its power dissipation capability P_{de} has to be able to dissipate the power loss P_D of the installed electrical equipment inside of the enclosure without exceeding the limits of operating and ambient temperatures. This ensures that the inside of an enclosure is not heated inadmissibly at a defined installed power loss and guarantees the operative readiness and reliable performance of the built-in electrical equipment.

The power dissipation P_D of the electrical equipment is given in the technical data of the respective manufacturers. The power dissipation capability P_{de} of Hensel empty enclosures are given in the technical data of this catalogue.

APPLICATION EXAMPLES

EMPTY ENCLOSURES IN ACCORDANCE WITH IEC 62208





ENYEXPERT – MORE KNOWLEDGE IN YOUR HAND

Always be up-to-date on the go. In addition to useful information, the HENSEL app offers simple and practical tools to make your everyday work easier.

- + **Data slide / data disc**
Determination of conductor cross-section and length
- + **Cable gland finder**
Find the suitable cable size for your cable
- + **HENSEL expert**
Quickly find your nearest HENSEL expert



AVAILABLE FOR ANDROID AND
IOS (FREE OF CHARGE)



ANDROID
Scan QR-Code



IOS
Scan QR-Code

SERVICE@HENSEL – DIGITAL, ANALOGUE AND ON SITE

In addition to the ENYEXPERT app, HENSEL offers other useful and innovative tools that significantly facilitate the everyday work in the electrical trade:



+ MY HENSEL-BOX

Your Logo on the HENSEL-box

Use the HENSEL-box as a business card for your installation services



Please contact your HENSEL expert:
hensel-electric.de

+ ENYGUIDE

The 3D Configurator for Mi- and ENYSTAR distribution boards

Whether as a 2D drawing or as a three-dimensional image – The intuitive 3D planning tool ENYGUIDE supports electrical specialists in the planning, project planning and ordering of HENSEL ENYSTAR and Mi Distribution boards.



More:
enyguide.de

+ CALCULATION TOOL

for the verification of the permissible temperature rise

The online tool for quickly and easily determining the power loss.



+ PORTAL 61439

The platform with all information about design and assembly according to IEC 61439 / EN 61439.



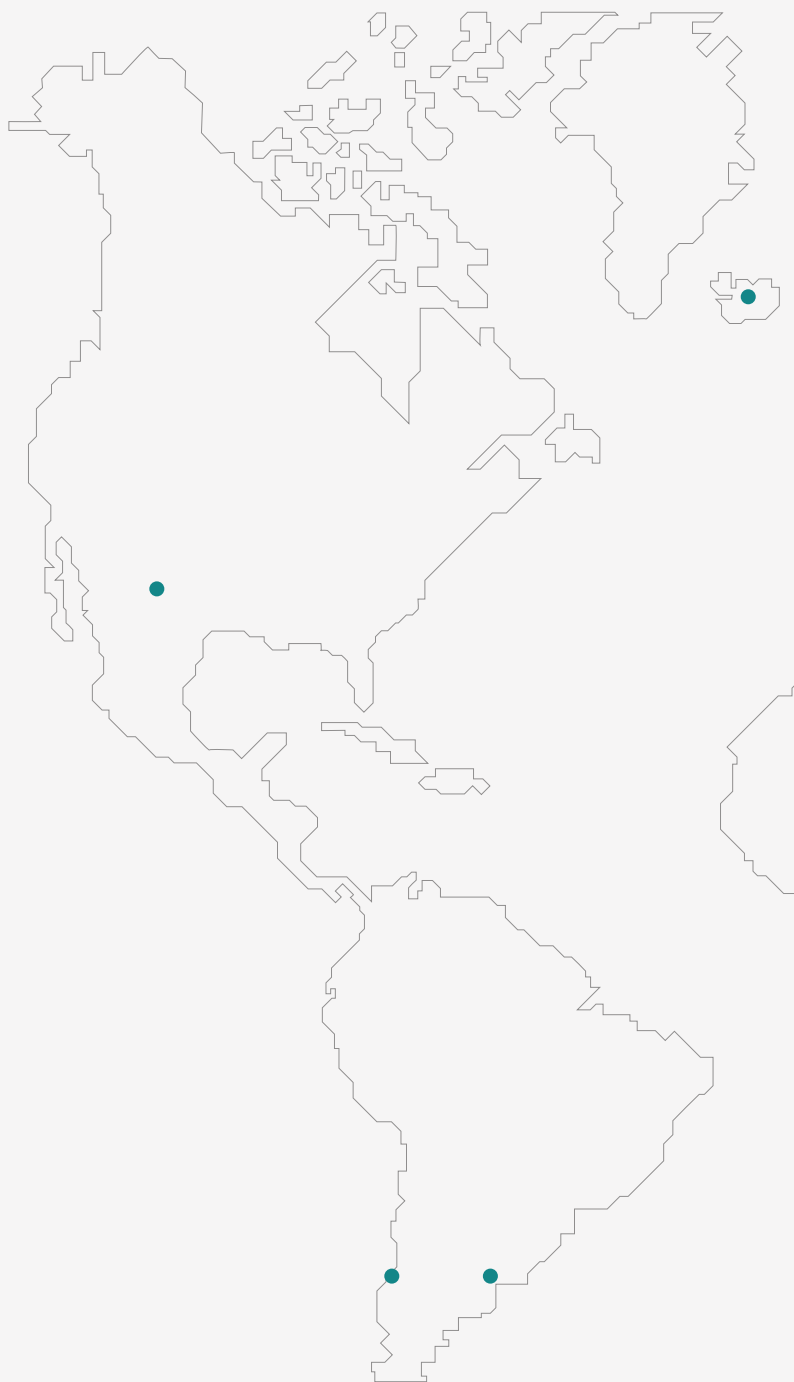
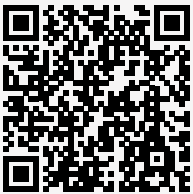
WE PROVIDE YOU WITH PROJECT SUPPORT!

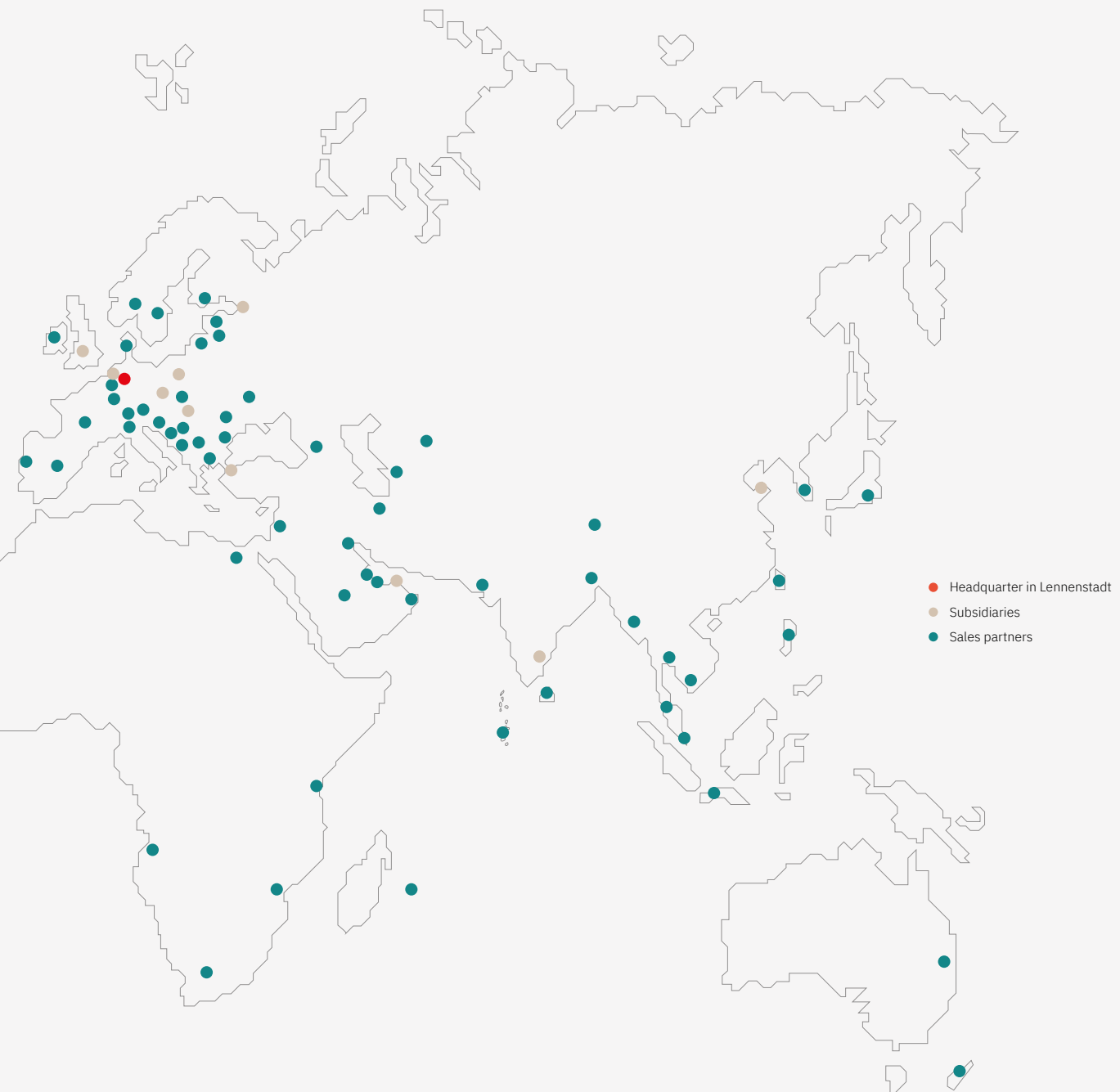
HENSEL maintains a close-knit network of technical field offices, distribution bases, subsidiaries and foreign representative offices throughout the world.

Please scan the QR code or see our website

www.hensel-electric.de

to get detailed information.





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