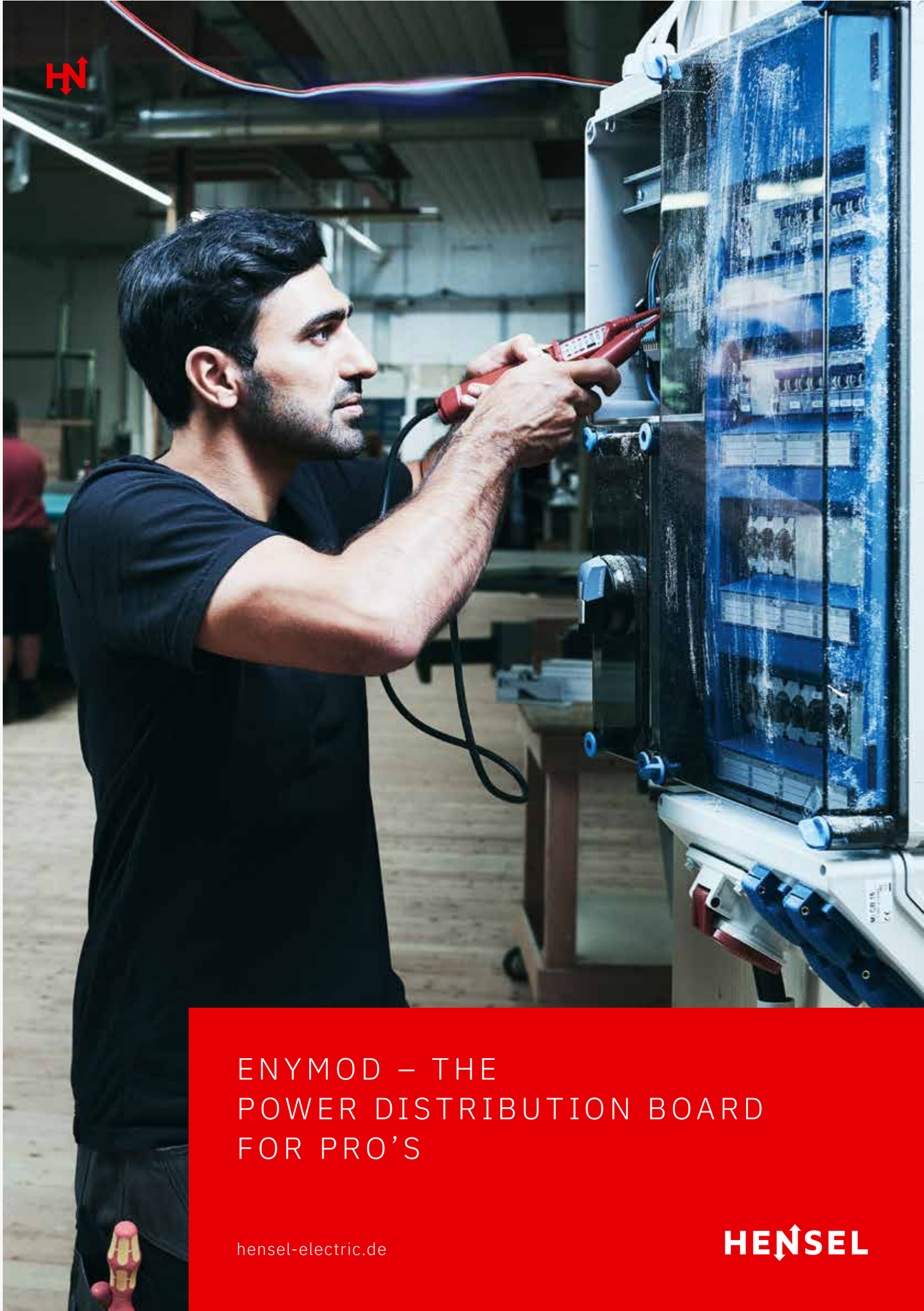
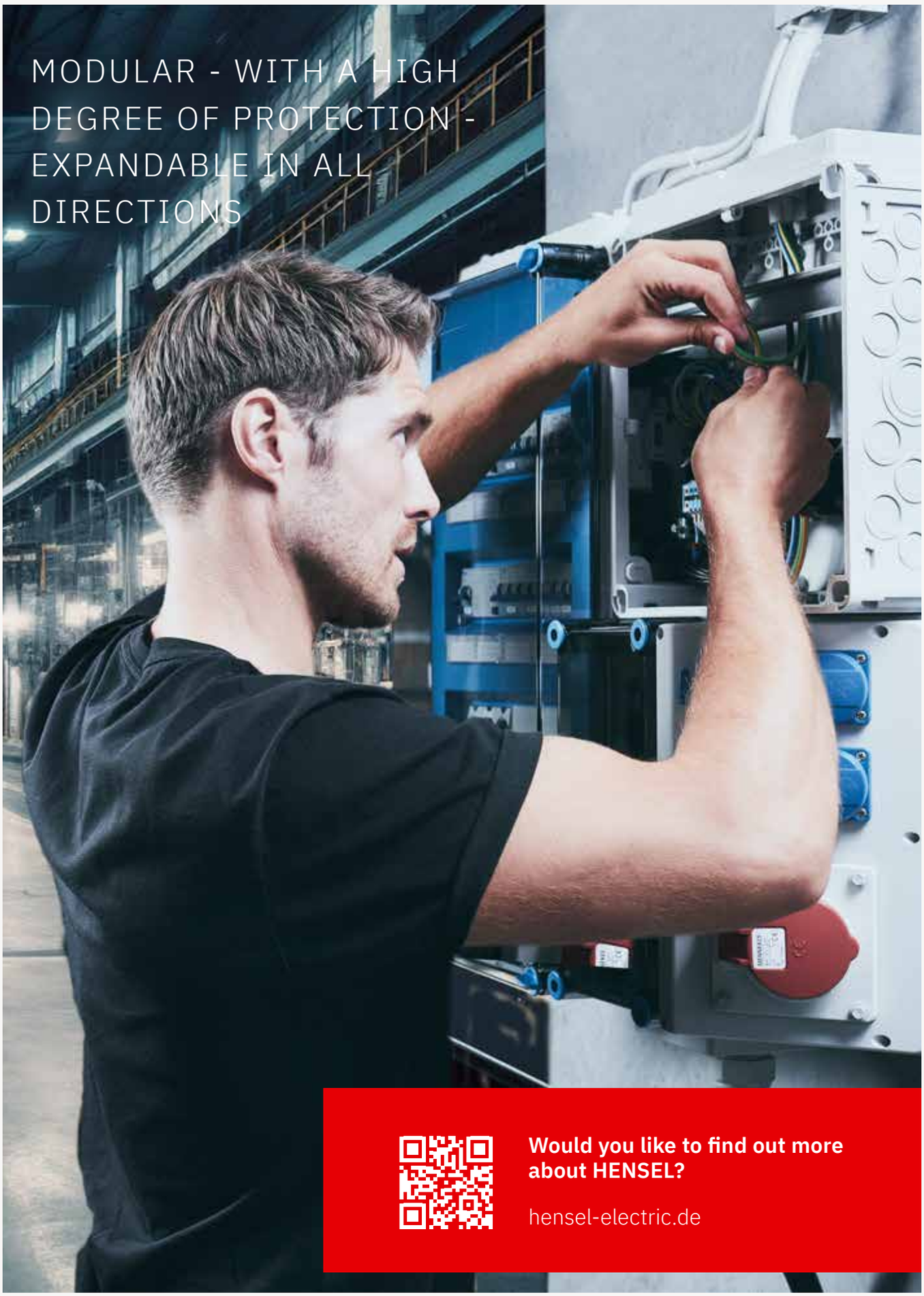


ENYMOD – THE POWER DISTRIBUTION BOARD FOR PRO'S

hensel-electric.de

HENSEL


MODULAR - WITH A HIGH DEGREE OF PROTECTION - EXPANDABLE IN ALL DIRECTIONS
Would you like to find out more about HENSEL?
hensel-electric.de

Mi-POWER DISTRIBUTION BOARDS UP TO 630 A

Combinable boxes system, Degree of protection: IP 65,
out of polycarbonate, Protection class II ⧈,
for the assembly of power distribution boards (PSC) up to 630 A
in accordance with IEC 61439-2

414 ___ 429 Product advantages

430 ___ 441 Empty boxes

442 ___ 456 Circuit breaker box
with or without PE and N terminals / with or withiout hinged flaps

ACCESSORIES AND TECHNICAL DETAILS

457 ___ 481 Accessories

482 ___ 489 Technical details

Further technical information
can be found on the Internet
www.hensel-electric.de -> Products

COMBINABLE ENCLOSURE SYSTEM

For the assembly of power switchgear and controlgear assemblies (PSC) up to 630 A

IP 65

IN ACCORDANCE WITH IEC 61439-2





For protected outdoor installation, here e.g. with protective roof





Safe, even in extreme environments with dust, dirt, moisture and in harsh industrial atmospheres.

- + Combinable enclosure system
- + Power distribution box up to 630 A as power switchgear and controlgear assembly (PSC)
- + In accordance with IEC 61439-2
- + Degree of protection IP 65
- + Protection Class II, ⧈
- + EMC-compatible busbar system
- + Suitable for indoor and protected outdoor installation
- + Functional boxes with standardised assemblies up to 630 A
- + Resistant in commercially used objects, in harsh industrial atmospheres and demanding environmental conditions.
- + Plan distribution boards easily, quickly and securely with our ENYGUIDE4 configurator!

Start now:
enyguide.de

POWER SWITCHGEAR AND CONTROLGEAR ASSEMBLY (PSC) IN ACCORDANCE WITH IEC 61439-2

Safe in dust, dirt, moisture and harsh industrial atmospheres



The HENSEL advantages

Material:

+ Burning behaviour: Glow wire test IEC 60695-2-11, self-extinguishing, flame retardant
+ UV-resistant in accordance with IEC 61439-1, para. 10.2.4: The material is tested for UV resistance.
+ Toxic behaviour: silicone- and halogen-free
+ Chemical resistance: resistant to acids, alkalis, petrol and mineral oil



Lids:

+ All box sizes with lid
+ Transparent or opaque
+ Depending on the electrical function, cover with manual operation (for unskilled persons) or tool operation (for skilled persons)
+ Mi hinges for lids enable to operate installation device within a large area
+ Sealable

Enclosure system

+ Functional boxes with standardised assemblies up to 630 A
+ Functional boxes for measuring energy data
+ Protection covers with protected, editable and undetachable labelling strips
+ Mounting plates for device installation
+ Panel feed-throughs with large openings for the electrical connection between the boxes
+ Cable entries on all box walls via metric knockouts or via flanges
+ Wall mounting directly on the box, via external brackets or with mounting rails
+ Sealing and locking option

Accessories

+ Connection Boxes for the installation of devices that must be operated externally, such as plug devices, push buttons and switches
+ Cable entries via flanges with metric knockouts or elastic sealing membranes or cable insertion up to 72 mm cable diameter



Transparent lids
Electrical functions are always in view thanks to transparent covers. Errors can be localized immediately. The current flow is always visible from the outside in the case of a error and for retrofitting.

Dimensionally stable and safe
Mi- boxes give way in the event of an impact or shock and immediately spring back to their original shape. Brief contact with live parts does not trigger a short circuit.
Personal protection remains.

Flexible and expandable
even when retrofitting additional circuits. Depending on the number of additional circuits required, box sizes are available to match. They can be mounted horizontally or vertically on any enclosure wall in a 150 mm grid.







The integrated system solution!
Mi CONNECTION BOXES

LIGHT AND FLEXIBLE

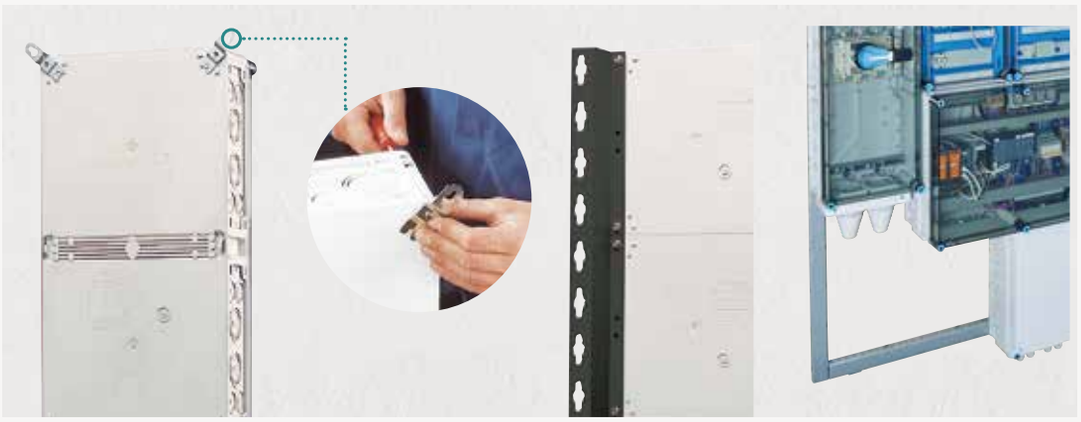
In assembly, connection and installation

Cable slot allows cables to be inserted from the front





Removable box fin to insert cables via two boxes or a easier wiring



External brackets, mounting rails or mounting frame for wall mounting

MODULAR ENCLOSURE SYSTEM

Mi-Power distribution boards are highly adaptable for confined spaces in industrial and commercial operations

+ Modular
+ With high degree of protection
+ Can be combined in all directions (vertical and horizontal)
+ Different cover heights and intermediate frames allow the installation of devices with different installation height

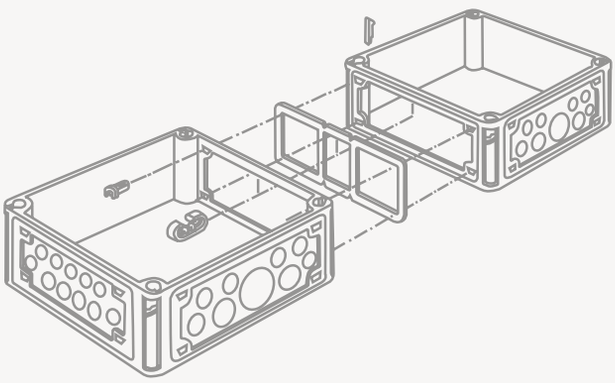
6 BOX SIZES
CAN BE FREELY COMBINED!

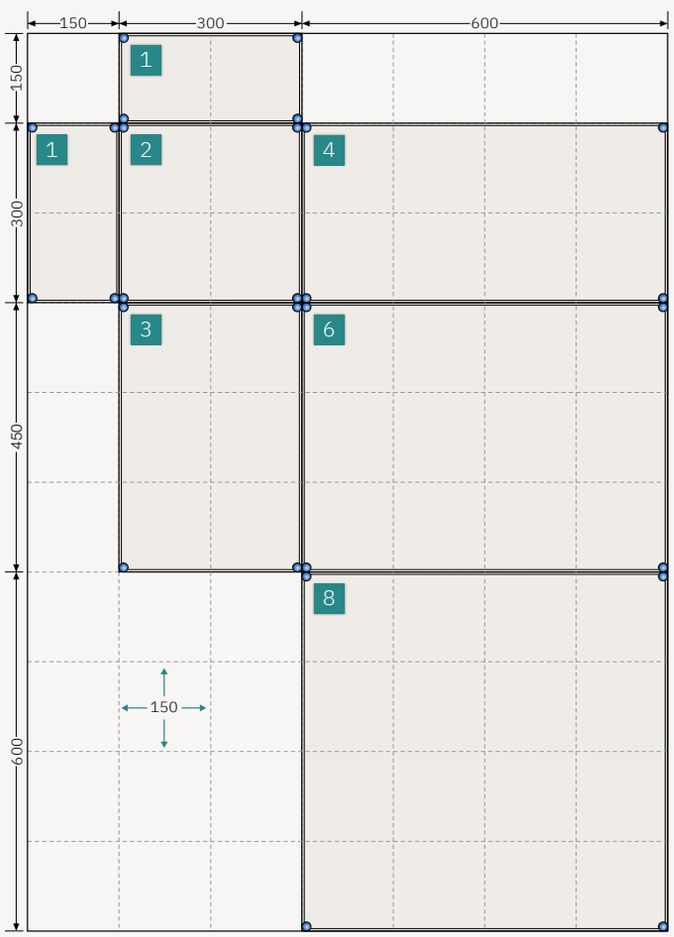


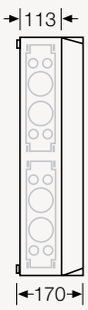
Combinable in all directions

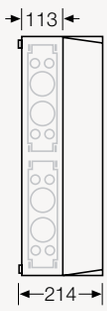
+ Six box sizes can be freely combined in all directions and can also be used as individual boxes
+ The combinable enclosure system is ideally suited for the quick and easy construction of power switchgear assemblies (PSC) up to 630 A
+ Box size 6 (600 x 450 mm): Due to an enlarged terminal compartment directly in the housing, some electrical functions can be installed more economical.
+ 6 box sizes:
  1_ 150 x 300 mm
  2_ 300 x 300 mm
  3_ 450 x 300 mm
  4_ 600 x 300 mm
  5_ 600 x 450 mm
  6_ 600 x 600 mm



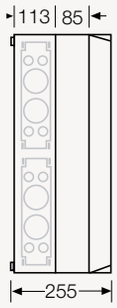


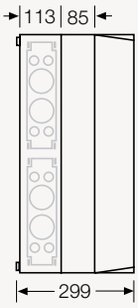






Enclosure depths
Different enclosure depths allow the installation of deeper devices.





Extension frame
for box sizes 4, 6 and 8 increase the enclosure depth by 85 mm in each case.

Please scan the QR code or see our website hensel-electric.de to get detailed information.

HIGH-QUALITY MATERIAL

For demanding applications



Robust and resistant: Resistant to dust and water, Mi distribution boards withstand heavy loads.

+ Flame-retardant, self-extinguishing Burning behaviour: Glow wire test 960°C in accordance with IEC 60695-2-11
+ UV-resistant

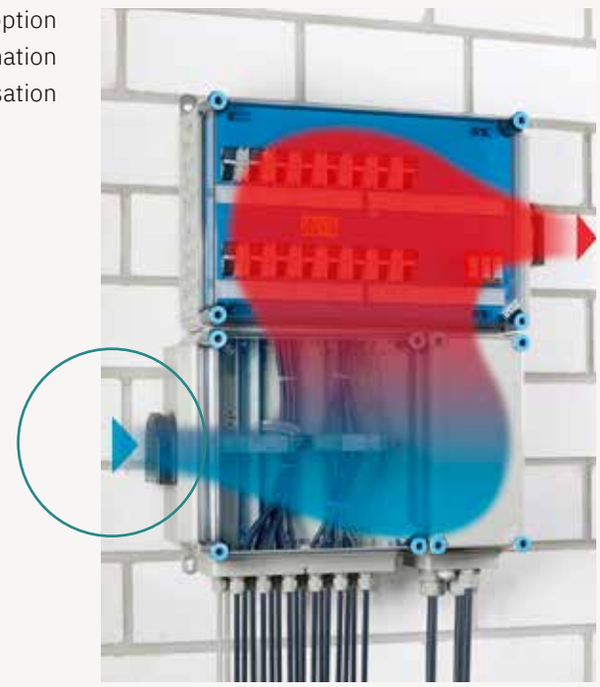
TIGHT & SAFE

for demanding environmental conditions



Safe, even in extreme outdoors weather conditions, e.g. with protective roof.

Ventilation option to reduce the formation of condensation



ALWAYS THE SUITABLE LOCKING SYSTEM

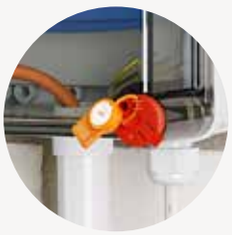
for access and operation areas

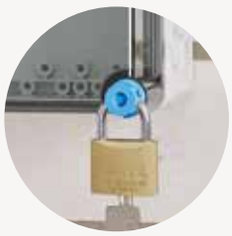






Hinged flap and hinged lid for easy operation of devices





Seal closure or padlock prevent unauthorised opening of the lids



Depending on the electrical function, lid with manual actuation (for unskilled persons) or tool operation (for skilled persons)

SAFETY FOR PERSONS

by total insulation



Cover strips cover unused equipment openings from accidental touch

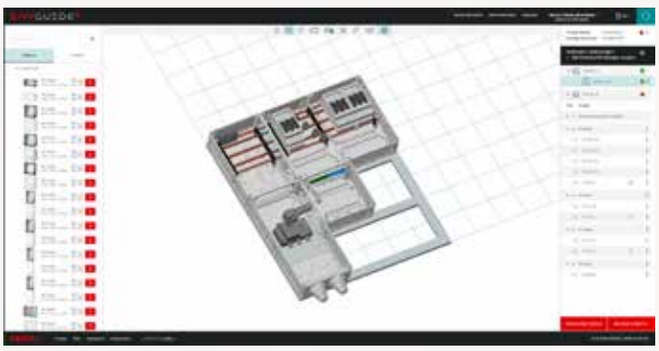
Complete protection against accidental contact for devices that can be operated and devices that are contacted on busbars

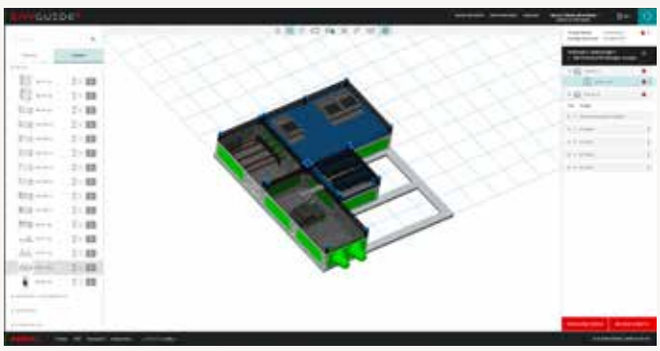
ENYGUIDE 4 – THE NEW GENERATION OF THE 3D CONFIGURATOR FOR SIMPLE, FAST AND SECURE CONFIGURATION.

Plan, check and order Mi- and ENYSTAR enclosures quickly and easily.

Optimised user guidance and interface

+ Large icons and the new drag & drop function make it easier to select and place enclosures and accessories.
+ Tools and accessories are clearly organised to speed up your planning.
+ Higher resolution and detailed 3D visualisation for a precise preview of your configuration.



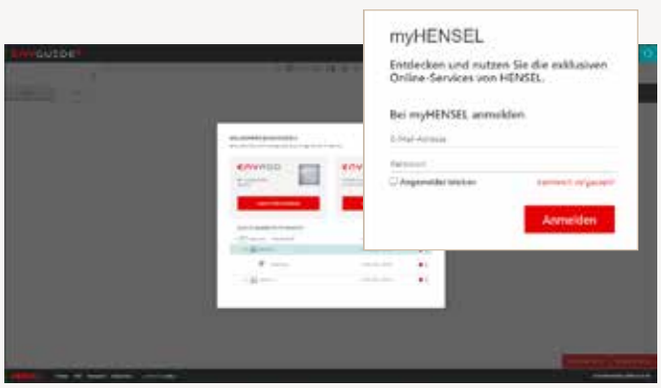


Advanced functions for precise planning

+ Automatic power loss calculation and generation of the design verification of the permissible heating.
+ Intelligent suggestions for accessory positions and simple adaptation or replacement of enclosures.
+ Information on enclosures and accessories, including data sheets and digital product data, can be accessed simply by clicking on the link to the HENSEL website.

Access and security

+ Easy access via myHENSEL or limited access without login.
+ Securely stored projects in the password-protected area for access at any time.
+ Personalised documents and layout drawings for a professional appearance.



Seamless integration

+ Automatic generation of assembly drawings, parts lists and order lists.





Compatibility and future-ready

+ Projects from the previous ENYGUIDE version can be easily imported into ENYGUIDE 4.
  Regular updates guarantee that the software, product range and prices are always up to date.

FOR SIMPLE, FAST AND SAFE CONFIGURATION OF DISTRIBUTION BOARDS



You can also find all the advantages in this video

Start now:
enyguide.de

SYSTEM

Electrical parameters



Electrical Rated values

Rated voltage: max. 690 V a.c.
Rated insulation voltage: 690 V a.c., 1000 V d.c.
Rated current max. 630 A
Rated short-time withstand current max. 21 kA

System properties



Environmental conditions

Ambient temperature

+ for distribution boards in accordance with IEC 61439:
  -5 °C up to 35 °C, max. + 40 °C,
  Relative humidity: 50% at 40 °C,
  100% at 25 °C
+ for empty enclosures:
  - 25 °C up to + 70 °C
  The climatic infl uences and effects on the equipment are to be considered, see technical details /operating and ambient conditions



Impact strength

Degree of protection against mechanical load IK 08 (5 Joules) in accordance with IEC 50102



Application area

The enclosures are suitable for protected outdoor installation.
However, the climatic influences and effects on the operating equipment must be taken into account.



Protection against foreign solid objects and direct contact

Dust-proof
Degree of protection IP **6**5



Insulation

Insulated enclosures
(Protection Class II)



Protection against ingress of water with harmful effects

Protected against water jets
Degree of protection IP 6**5**

MATERIAL

Material properties: Polycarbonate



Burning behaviour

Glow wire test 960 °C in accordance with IEC 60695-2-11 self-extinguishing, flame retardant



Chemical resistance

Resistance against acids 10% and alkaline 10%, petrol and mineral oil



UV resistance

UV resistance according to IEC 61439-1 para. 10.2.4: The material is examined for UV resistance.



Toxic behaviour

Silicone- and halogen-free

FOR DEMANDING ENVIRONMENTAL CONDITIONS

Mi distribution boards with different functional boxes for your different areas of application

CAN BE COMBINED IN ALL DIRECTIONS



Boxes for electrical functions



Empty boxes



Empty boxes
with hinged lid



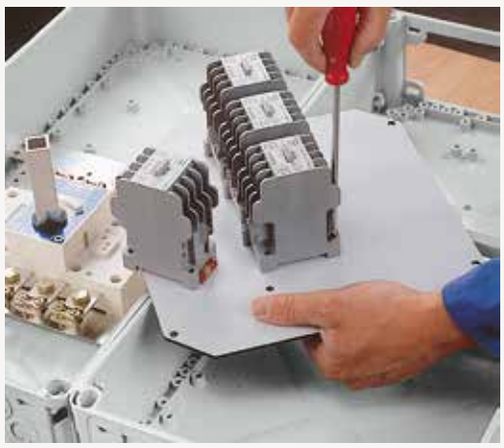
Circuit breaker boxes

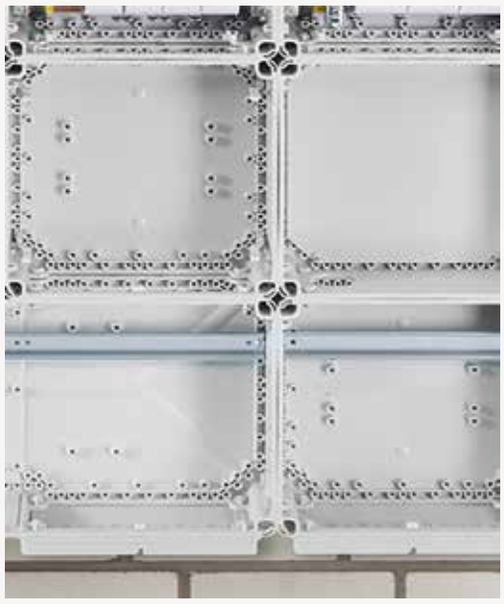
EMPTY BOXES

for the assembly of power distribution boards (PSC) up to 630 A in accordance with IEC 61439-2









Product benefits

+ Transparent or opaque boxes lids
+ Empty boxes with hinged lid, trilaterally combinable
+ Device installation either on mounting plates or DIN rails
+ Installation depths extendable by using lids of different heights or extension frames
+ Protection class II, ⧈
+ Degree of protection: IP 65
+ Material: PC (polycarbonate)
+ Colour: grey, RAL 7035

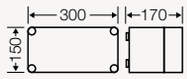
More information on these products: hensel-electric.de

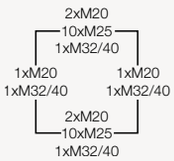


Mi 0100

Built-in dimensions H x W x D:

125 x 275 x 150 mm





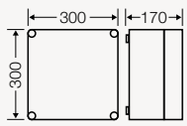
+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Box size: 1

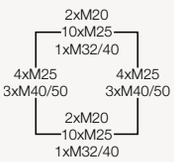
Power dissipation capability	P_{de} = 0,6 W, 1 K



Mi 0200

Built-in dimensions H x W x D:
275 x 275 x 150 mm





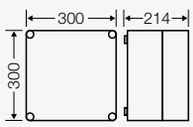
+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Box size: 2

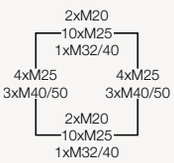
Power dissipation capability	P_{de} = 1,2 W, 1 K



Mi 0210

Built-in dimensions H x W x D:
275 x 275 x 195 mm





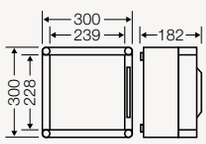
+ Max. installation depth with built-in mounting plate 191 mm, with DIN rail 180 mm
+ Box size: 2

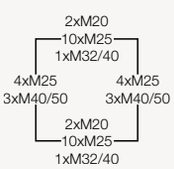
Power dissipation capability	P_{de} = 1,3 W, 1 K



Mi 0220

Built-in dimensions H x W x D:
275 x 275 x 119 mm





+ Max. installation depth with built-in mounting plate 115 mm, with DIN rail 104 mm
+ Box size: 2
+ with hinged lid for built-in equipment with protection cover which must be operated

Power dissipation capability	P_{de} = 1,2 W, 1 K

MORE INFORMATION ON HENSEL-ELECTRIC.DE

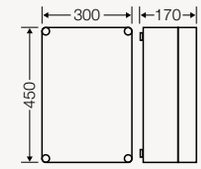


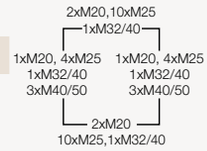
Mi 0300

Built-in dimensions H x W x D: 425 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Box size: 3

Power dissipation capability	P_{de} = 1,5 W, 1 K







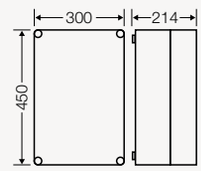


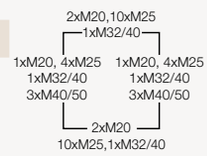
Mi 0310

Built-in dimensions H x W x D: 425 x 275 x 195 mm

+ Max. installation depth with built-in mounting plate 191 mm, with DIN rail 180 mm
+ Box size: 3

Power dissipation capability	P_{de} = 1,8 W, 1 K







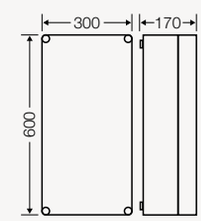


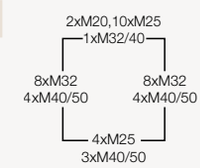
Mi 0400

Built-in dimensions H x W x D: 575 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Box size: 4

Power dissipation capability	P_{de} = 1,9 W, 1 K







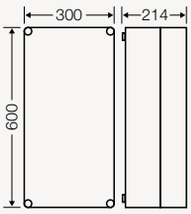


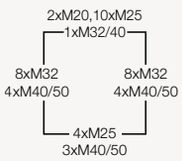
Mi 0410

Built-in dimensions H x W x D: 575 x 275 x 195 mm

+ Max. installation depth with built-in mounting plate 191 mm, with DIN rail 180 mm
+ Box size: 4

Power dissipation capability	P_{de} = 2 W, 1 K





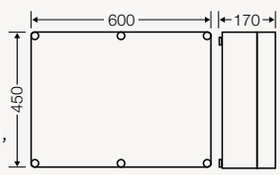


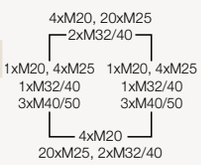
Mi 0600

Built-in dimensions H x W x D: 425 x 575 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Box size: 6

Power dissipation capability	P_{de} = 2,6 W, 1 K





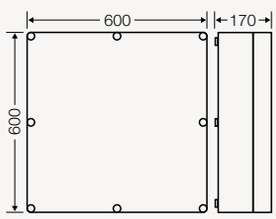


Mi 0800

Built-in dimensions H x W x D: 575 x 575 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Box size: 8
+ Cable entry only possible via flange

Power dissipation capability	P_{de} = 3,3 W, 1 K



ENYMOD
Mi Power distribution boards

MORE INFORMATION ON HENSEL-ELECTRIC.DE

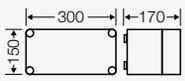


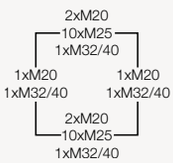
Mi 0101

Built-in dimensions H x W x D:
125 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Box size: 1

Power dissipation capability	P_{de} = 0,6 W, 1 K





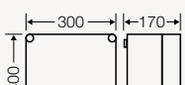


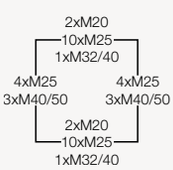
Mi 0201

Built-in dimensions H x W x D:
275 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Box size: 2

Power dissipation capability	P_{de} = 1,2 W, 1 K





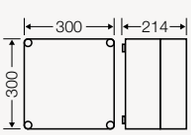


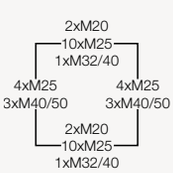
Mi 0211

Built-in dimensions H x W x D:
275 x 275 x 195 mm

+ Max. installation depth with built-in mounting plate 191 mm, with DIN rail 180 mm
+ Box size: 2

Power dissipation capability	P_{de} = 1,3 W, 1 K





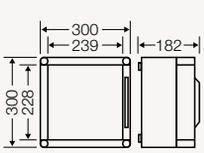


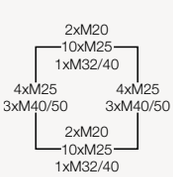
Mi 0221

Built-in dimensions H x W x D:
275 x 275 x 119 mm

+ Max. installation depth with built-in mounting plate 115 mm, with DIN rail 104 mm
+ Box size: 2
+ with hinged lid for built-in equipment with protection cover which must be operated

Power dissipation capability	P_{de} = 1,2 W, 1 K





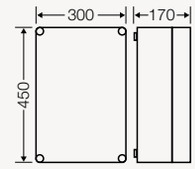


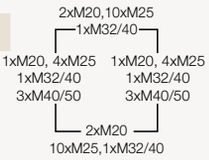
Mi 0301

Built-in dimensions H x W x D:
425 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Box size: 3

Power dissipation capability	P_{de} = 1,5 W, 1 K





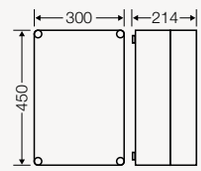


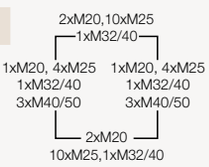
Mi 0311

Built-in dimensions H x W x D:
425 x 275 x 195 mm

+ Max. installation depth with built-in mounting plate 191 mm, with DIN rail 180 mm
+ Box size: 3

Power dissipation capability	P_{de} = 1,8 W, 1 K





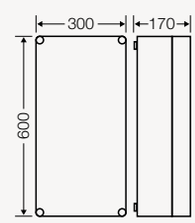


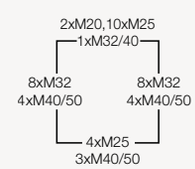
Mi 0401

Built-in dimensions H x W x D:
575 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Box size: 4

Power dissipation capability	P_{de} = 1,9 W, 1 K





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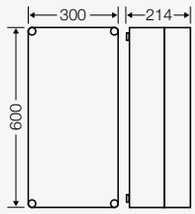
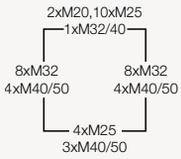
Mi 0411

Built-in dimensions H x W x D: 575 x 275 x 195 mm

+ Max. installation depth with built-in mounting plate 191 mm, with DIN rail 180 mm
+ Box size: 4

Power dissipation capability	P_{de} = 2 W, 1 K





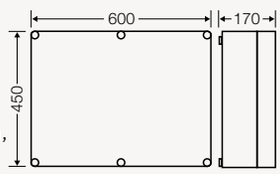


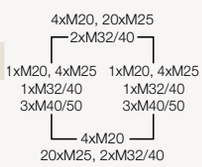
Mi 0601

Built-in dimensions H x W x D: 425 x 575 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Box size: 6

Power dissipation capability	P_{de} = 2,6 W, 1 K





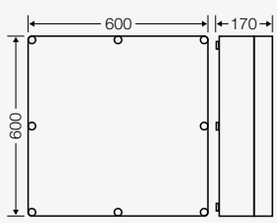


Mi 0801

Built-in dimensions H x W x D: 575 x 575 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Box size: 8
+ Cable entry only possible via flange

Power dissipation capability	P_{de} = 3,3 W, 1 K

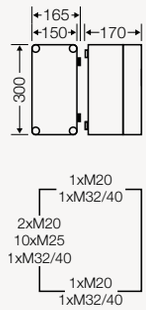




Mi 9100

Built-in dimensions H x W x D:
125 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Trilaterally combinable
+ Lid hinges attached

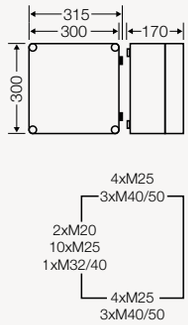




Mi 9200

Built-in dimensions H x W x D:
275 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Trilaterally combinable
+ Lid hinges attached

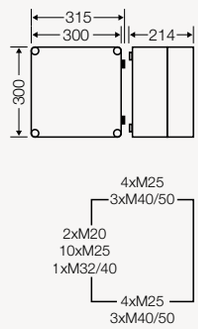




Mi 9210

Built-in dimensions H x W x D:
275 x 275 x 195 mm

+ Max. installation depth with built-in mounting plate 191 mm, with DIN rail 180 mm
+ Trilaterally combinable
+ Lid hinges attached

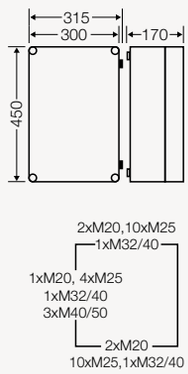




Mi 9300

Built-in dimensions H x W x D:
425 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Trilaterally combinable
+ Lid hinges attached



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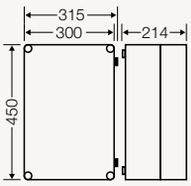
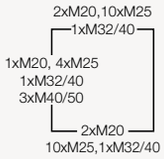
Mi 9310

Built-in dimensions H x W x D:
425 x 275 x 195 mm

+ Max. installation depth with built-in mounting plate 191 mm, with DIN rail 180 mm
+ Trilaterally combinable
+ Lid hinges attached





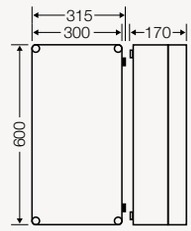


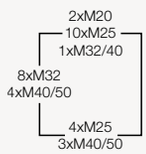


Mi 9400

Built-in dimensions H x W x D:
575 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Trilaterally combinable
+ Lid hinges attached





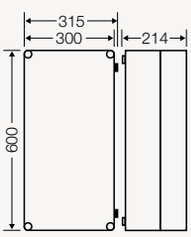


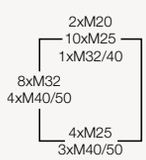


Mi 9410

Built-in dimensions H x W x D:
575 x 275 x 195 mm

+ Max. installation depth with built-in mounting plate 191 mm, with DIN rail 180 mm
+ Trilaterally combinable
+ Lid hinges attached





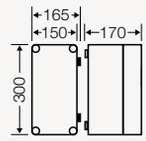


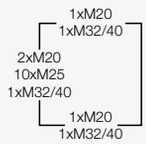


Mi 9101

Built-in dimensions H x W x D:
125 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Trilaterally combinable
+ Lid hinges attached



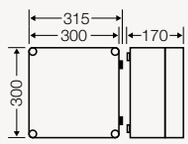


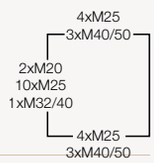


Mi 9201

Built-in dimensions H x W x D:
275 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Trilaterally combinable
+ Lid hinges attached



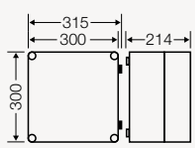


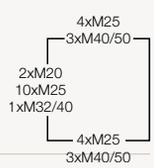


Mi 9211

Built-in dimensions H x W x D:
275 x 275 x 195 mm

+ Max. installation depth with built-in mounting plate 191 mm, with DIN rail 180 mm
+ Trilaterally combinable
+ Lid hinges attached



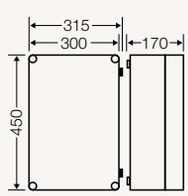


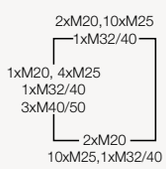


Mi 9301

Built-in dimensions H x W x D:
425 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Trilaterally combinable
+ Lid hinges attached





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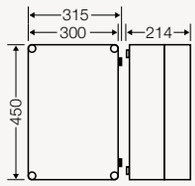
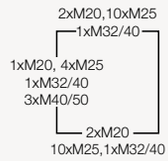
Mi 9311

Built-in dimensions H x W x D:
425 x 275 x 195 mm

+ Max. installation depth with built-in mounting plate 191 mm, with DIN rail 180 mm
+ Trilaterally combinable
+ Lid hinges attached





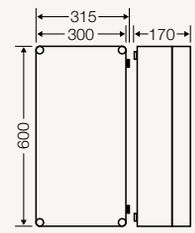


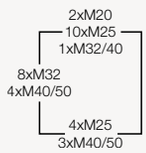


Mi 9401

Built-in dimensions H x W x D:
575 x 275 x 150 mm

+ Max. installation depth with built-in mounting plate 146 mm, with DIN rail 135 mm
+ Trilaterally combinable
+ Lid hinges attached





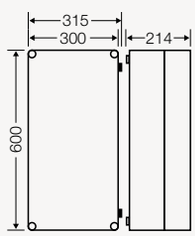


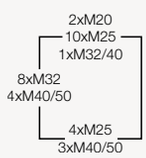


Mi 9411

Built-in dimensions H x W x D:
575 x 275 x 195 mm

+ Max. installation depth with built-in mounting plate 191 mm, with DIN rail 180 mm
+ Trilaterally combinable
+ Lid hinges attached



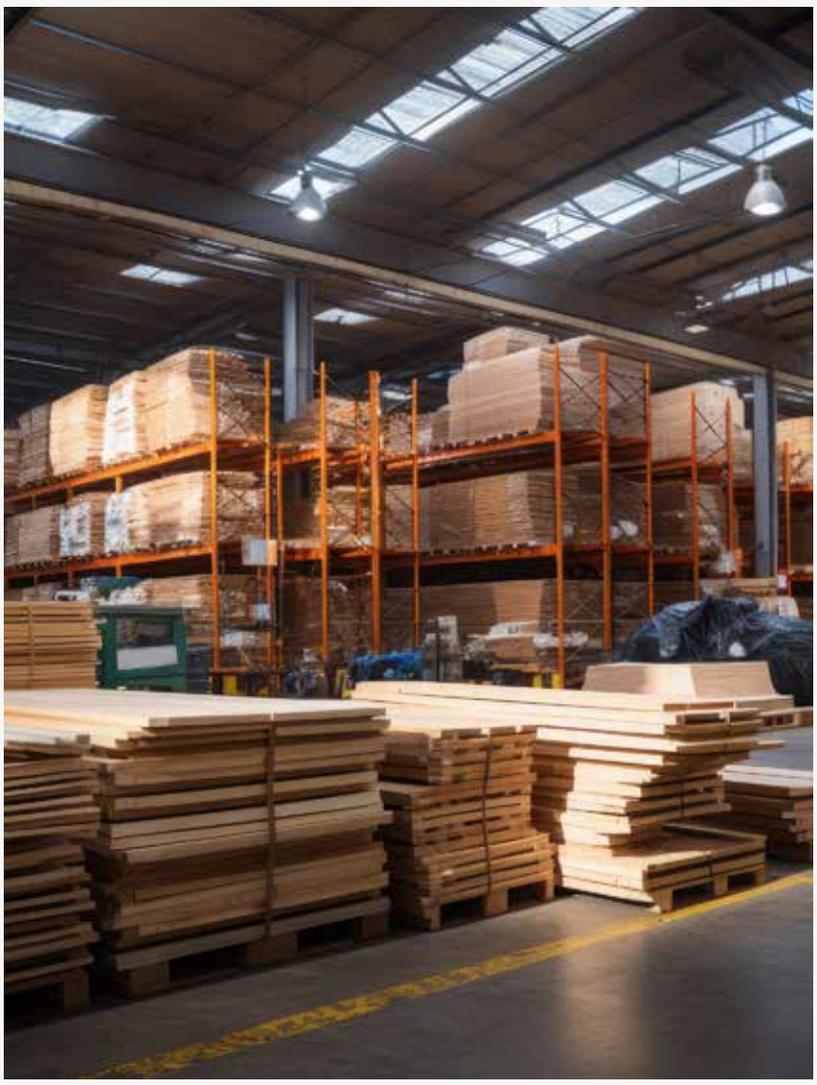




CIRCUIT BREAKER BOXES

for the assembly of power distribution boards (PSC) up to 630 A in accordance with IEC 61439-2









Product benefits

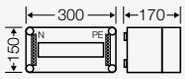
+ Transparent lids
+ Hinged flap or hinged lid for easy operation of installation devices
+ Hinged flap lock against unauthorised opening available, see accessories
+ Protection against direct contact with hazardous live parts for operable installation devices
+ Included blanking strips for unused DIN rail openings
+ Attached labelling strips for circuit identification
+ Protection class II, ⧈
+ Degree of protection: IP 65
+ Material: PC (polycarbonate)
+ Colour: grey, RAL 7035

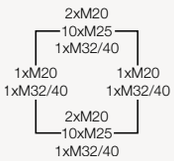
More information on these products: hensel-electric.de



Mi 1109

with 1x 9 modules (18 mm)





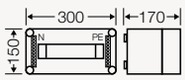
+ With FIXCONNECT® N- and PE terminal
+ 8 clamping units per pole, Plug-in terminal connection
  2 clamping units per pole, screw connection
+ Terminal cross-section (incoming cable) per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ Terminal cross-section (outgoing cable) per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips

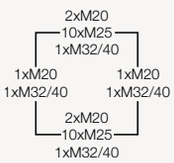




Mi 1112

with 1x 12 modules (18 mm)





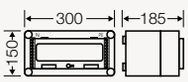
+ With screw-type terminals for PE and N, for copper conductors
+ Number of clamping units per pole: 10, (screw connection)
+ Terminal cross-section per clamping unit:
  1 x 16 mm², Cu
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips

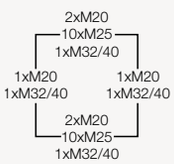




Mi 1111

with 1x 12 modules (18 mm)
with hinged flap





+ With screw-type terminals for PE and N, for copper conductors
+ Number of clamping units per pole: 10, (screw connection)
+ Terminal cross-section per clamping unit:
  1 x 16 mm², Cu
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips



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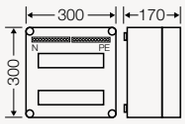
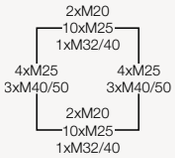
Mi 1224

with 2x 12 modules (18 mm)





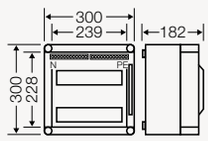
+ With FIXCONNECT® N- and PE terminal
+ 12 clamping units per pole, Plug-in terminal connection
  3 clamping units per pole, screw connection
+ Terminal cross-section (incoming cable) per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ Terminal cross-section (outgoing cable) per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips

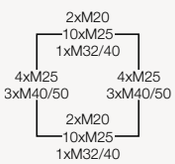




Mi 1220

with 2x 12 modules (18 mm)





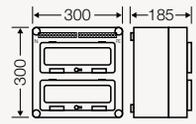
+ With FIXCONNECT® N- and PE terminal
+ 12 clamping units per pole, Plug-in terminal connection
  3 clamping units per pole, screw connection
+ Terminal cross-section (incoming cable) per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ Terminal cross-section (outgoing cable) per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ For installation of DIN rail equipment in accordance with DIN 43880
+ with hinged lid for built-in equipment with protection cover which must be operated
+ With protection cover
+ Included accessories: blanking strips, labelling strips

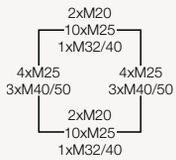




Mi 1222

with 2x 12 modules (18 mm)
with hinged flap



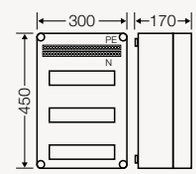


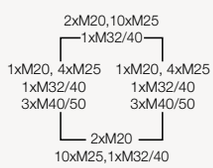
+ With FIXCONNECT® N- and PE terminal
+ 12 clamping units per pole, Plug-in terminal connection
  3 clamping units per pole, screw connection
+ Terminal cross-section (incoming cable) per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ Terminal cross-section (outgoing cable) per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips



Mi 1336

with 3x 12 modules (18 mm)





+ With FIXCONNECT® N- and PE terminal
+ 24 clamping units per pole, Plug-in terminal connection
  6 clamping units per pole, screw connection
+ Terminal cross-section (incoming cable) per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ Terminal cross-section (outgoing cable) per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips

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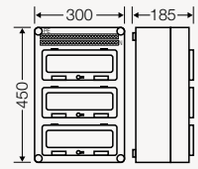
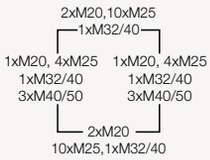
Mi 1333

with 3x 12 modules (18 mm)
with hinged flap



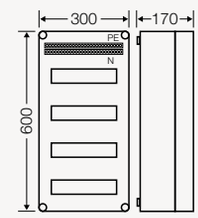


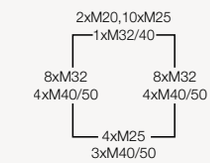
- With FIXCONNECT® N- and PE terminal
- 24 clamping units per pole, Plug-in terminal connection
  6 clamping units per pole, screw connection
- Terminal cross-section (incoming cable) per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
- Terminal cross-section (outgoing cable) per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
- For installation of DIN rail equipment in accordance with DIN 43880
- With protection cover
- Included accessories: blanking strips, labelling strips



Mi 1448

with 4x 12 modules (18 mm)



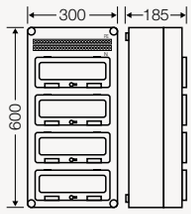


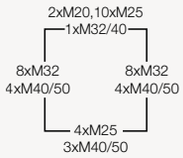
- With FIXCONNECT® N- and PE terminal
- 24 clamping units per pole, Plug-in terminal connection
  6 clamping units per pole, screw connection
- Terminal cross-section (incoming cable) per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
- Terminal cross-section (outgoing cable) per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
- For installation of DIN rail equipment in accordance with DIN 43880
- With protection cover
- Included accessories: blanking strips, labelling strips



Mi 1444

with 4x 12 modules (18 mm)
with hinged flap



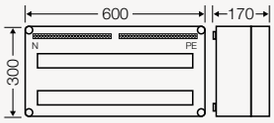


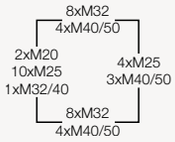
+ With FIXCONNECT® N- and PE terminal
+ 24 clamping units per pole, Plug-in terminal connection
  6 clamping units per pole, screw connection
+ Terminal cross-section (incoming cable) per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ Terminal cross-section (outgoing cable) per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips



Mi 1456

with 2x 28 modules (18 mm)





+ With FIXCONNECT® N- and PE terminal
+ 24 clamping units per pole, Plug-in terminal connection
  6 clamping units per pole, screw connection
+ Terminal cross-section (incoming cable) per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ Terminal cross-section (outgoing cable) per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With removable DIN rail rack for earth connection
+ With protection cover
+ Included accessories: blanking strips, labelling strips

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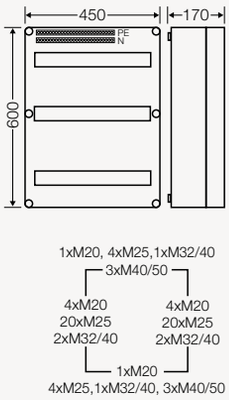
Mi 1654

with 3x 18 modules (18 mm)



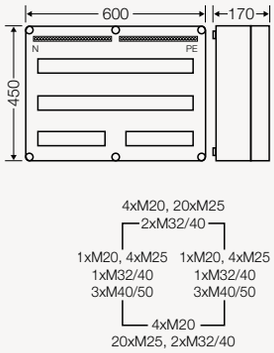
+ With FIXCONNECT® N- and PE terminal
+ 24 clamping units per pole, Plug-in terminal connection
  6 clamping units per pole, screw connection
+ Terminal cross-section (incoming cable) per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ Terminal cross-section (outgoing cable) per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With removable DIN rail rack for earth connection
+ With protection cover
+ Included accessories: blanking strips, labelling strips

IP 65



Mi 1684

with 2x 12 modules and 2x 28 modules



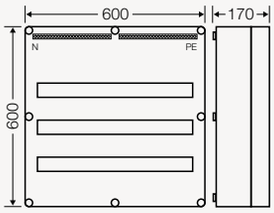
+ With FIXCONNECT® N- and PE terminal
+ 24 clamping units per pole, Plug-in terminal connection
  6 clamping units per pole, screw connection
+ Terminal cross-section (incoming cable) per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ Terminal cross-section (outgoing cable) per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With removable DIN rail rack for earth connection
+ With protection cover
+ Included accessories: blanking strips, labelling strips

IP 65



Mi 1884

with 3x 28 modules (18 mm)



- With FIXCONNECT® N- and PE terminal
- 24 clamping units per pole, Plug-in terminal connection
  6 clamping units per pole, screw connection
- Terminal cross-section (incoming cable) per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
- Terminal cross-section (outgoing cable) per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
- For installation of DIN rail equipment in accordance with DIN 43880
- Cable entry only possible via flange
- With removable DIN rail rack for earth connection
- With protection cover
- Included accessories: blanking strips, labelling strips



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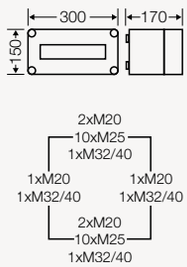
Mi 1115

with 1x 12 modules (18 mm)
without N- and PE-terminals

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips

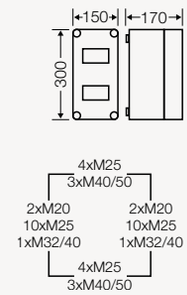




Mi 1106

with 2x 6 modules (18 mm)
without N- and PE-terminals

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips

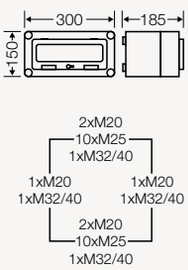




Mi 1117

with 1x 12 modules (18 mm)
without N- and PE-terminals
with hinged flap

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips

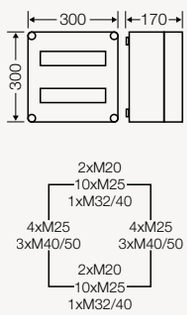




Mi 1225

with 2x 12 modules (18 mm)
without N- and PE-terminals

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips

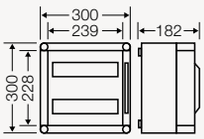


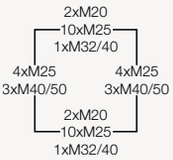


Mi 1226

with 2x 12 modules (18 mm)
without N- and PE-terminals

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ with hinged lid for built-in equipment with protection cover which must be operated
+ With protection cover
+ Included accessories: blanking strips, labelling strips



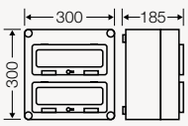


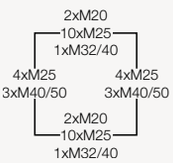


Mi 1227

with 2x 12 modules (18 mm)
without N- and PE-terminals
with hinged flap

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips



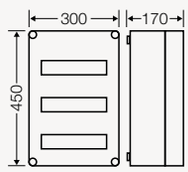


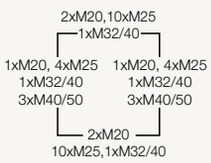


Mi 1335

with 3x 12 modules (18 mm)
without N- and PE-terminals

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips



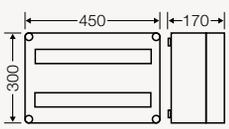


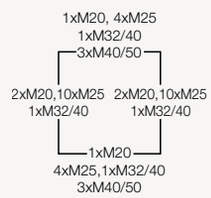


Mi 1331

with 2x 18 modules (18 mm)
without N- and PE-terminals

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips





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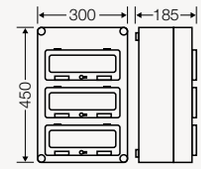
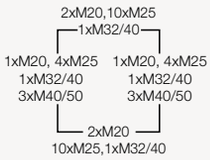
Mi 1337

with 3x 12 modules (18 mm)
without N- and PE-terminals
with hinged flap

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips



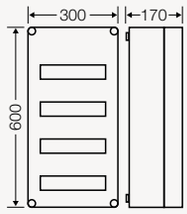


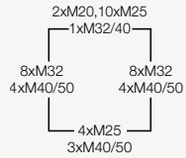


Mi 1441

with 4x 12 modules (18 mm)
without N- and PE-terminals

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips



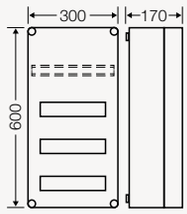


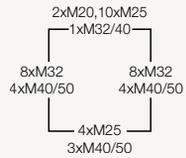


Mi 1440

with 3x 12 modules (18 mm)
without N- and PE-terminals

+ With 1 DIN rail 216 mm wide (for installation depth of 72 mm)
+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips



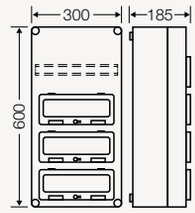


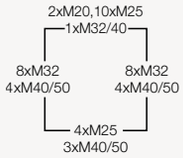


Mi 1443

with 3x 12 modules (18 mm)
without N- and PE-terminals
with hinged flap

+ With 1 DIN rail 216 mm wide (for installation depth of 72 mm)
+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips



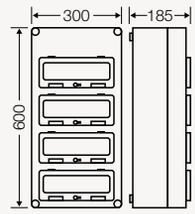


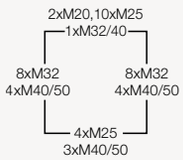


Mi 1445

with 4x 12 modules (18 mm)
without N- and PE-terminals
with hinged flap

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With protection cover
+ Included accessories: blanking strips, labelling strips



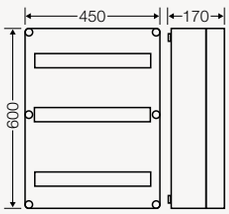


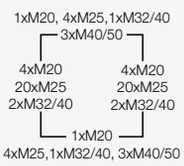


Mi 1653

with 3x 18 modules (18 mm)
without N- and PE-terminals

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With removable DIN rail rack for earth connection
+ With protection cover
+ Included accessories: blanking strips, labelling strips



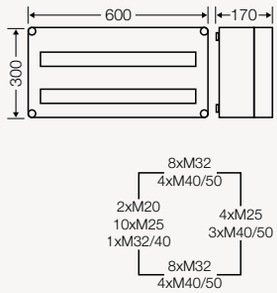




Mi 1455

with 2x 28 modules (18 mm) without N- and PE-terminals

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With removable DIN rail rack for earth connection
+ With protection cover
+ Included accessories: blanking strips, labelling strips

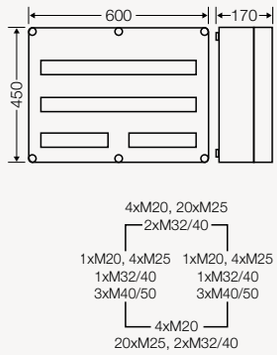




Mi 1683

with 2x 12 modules and 2x 28 modules without N- and PE-terminals

+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ With removable DIN rail rack for earth connection
+ With protection cover
+ Included accessories: blanking strips, labelling strips

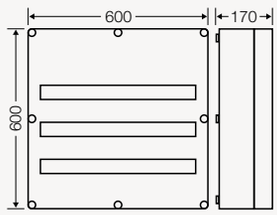




Mi 1885

with 3x 28 modules (18 mm) without N- and PE-terminals

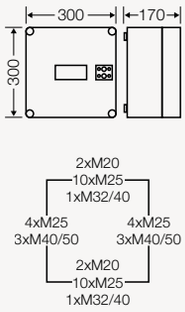
+ Order PE/N terminals separately
+ For installation of DIN rail equipment in accordance with DIN 43880
+ Cable entry only possible via flange
+ With removable DIN rail rack for earth connection
+ With protection cover
+ Included accessories: blanking strips, labelling strips





Mi 1281

with 1x 6 modules (18 mm)



- Terminal cross-section (incoming cable) per clamping unit:
  1 x 10 mm² - 25 mm², solid, stranded, round, Cu
  1 x 6 mm² - 16 mm², flexible with end ferrule, Cu
- Terminal cross-section (outgoing cable) per clamping unit:
  1 x 6 mm² - 16 mm², solid, stranded, round, Cu
  1 x 4 mm² - 10 mm², flexible with end ferrule, Cu
- For installation of DIN rail equipment in accordance with DIN 43880
- With protection cover, sealeble
- Included accessories: lockable blanking strips, labelling strips



MORE INFORMATION ON HENSEL-ELECTRIC.DE

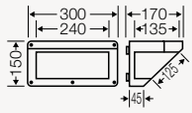
ACCESSORIES





Mi CB 10

Connection Box



- \+ Suitable for box wall: 300 mm
- \+ For the installation of devices that must be operated externally, such as plug devices, push buttons and switches
- \+ Position of the attachment: bottom, lateral
- \+ Hinged mounting area
- \+ Included accessories: fastening material

IP 65

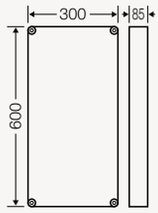
MORE INFORMATION ON HENSEL-ELECTRIC.DE



Mi ZR 4

Extension frame

+ Suitable for box sizes: 4
+ To increase the mounting depth by 85 mm
+ Degree of protection IP 65 is maintained with use of up to two pextension frames
+ Included accessories: fastening material

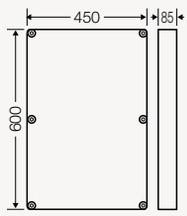




Mi ZR 6

Extension frame

+ Suitable for box sizes: 6
+ To increase the mounting depth by 85 mm
+ Degree of protection IP 65 is maintained with use of up to two pextension frames
+ Included accessories: fastening material

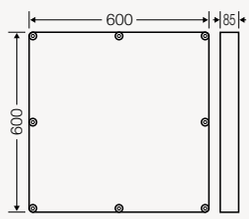




Mi ZR 8

Extension frame

+ Suitable for box sizes: 8
+ To increase the mounting depth by 85 mm
+ Degree of protection IP 65 is maintained with use of up to two pextension frames
+ Included accessories: fastening material





Mi TS 15

DIN rail

Length: 134 mm



+ In accordance with DIN EN 60715
+ Suitable for empty boxes size: 1, 6
+ For equipment or terminals with clip-on mounting
+ Included accessories: fastening material

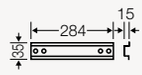
Material	steal, sendzimir galvanised



Mi TS 30

DIN rail

Length: 284 mm



+ In accordance with DIN EN 60715
+ Suitable for empty boxes size: 1, 2, 3, 4, 6, 8
+ For equipment or terminals with clip-on mounting
+ Included accessories: fastening material

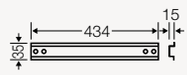
Material	steal, sendzimir galvanised



Mi TS 45

DIN rail

Length: 434 mm



+ In accordance with DIN EN 60715
+ Suitable for empty boxes size: 3, 6
+ For equipment or terminals with clip-on mounting
+ Included accessories: fastening material

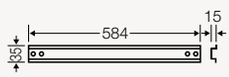
Material	steal, sendzimir galvanised



Mi TS 60

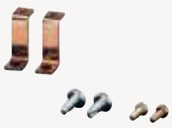
DIN rail

Length: 584 mm



+ In accordance with DIN EN 60715
+ Suitable for empty boxes size: 4, 6, 8
+ For equipment or terminals with clip-on mounting
+ Included accessories: fastening material

Material	steal, sendzimir galvanised



Mi DS 25

Spacer

+ Suitable for: empty boxes
+ Set with 2 pieces
+ For installation of Mi TS
+ Included accessories: fastening material



Mi DS 50

Spacer

+ Suitable for: empty boxes
+ Set with 2 pieces
+ For installation of Mi TS
+ Included accessories: fastening material

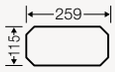


Mi MP 1

Mounting plate

+ Suitable for empty boxes size: 1, 2, 3, 4, 6
+ Included accessories: fastening material

Material	laminated paper, coated
Material thickness	4 mm



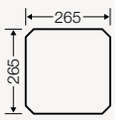


Mi MP 2

Mounting plate

+ Suitable for empty boxes size: 2, 3, 4, 6, 8
+ Included accessories: fastening material

Material	laminated paper, coated
Material thickness	4 mm



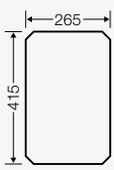


Mi MP 3

Mounting plate

+ Suitable for empty boxes size: 3, 4, 6
+ Included accessories: fastening material

Material	laminated paper, coated
Material thickness	4 mm

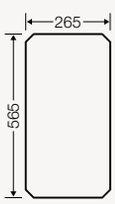


Mi MP 4

Mounting plate

+ Suitable for empty boxes size: 4, 6, 8
+ Included accessories: fastening material

Material	laminated paper, coated
Material thickness	4 mm



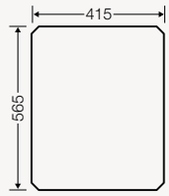


Mi MP 6

Mounting plate

+ Suitable for empty boxes size: 6
+ Included accessories: fastening material

Material	laminated paper, coated
Material thickness	4 mm



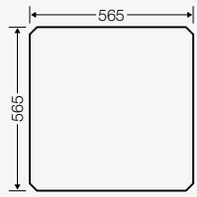


Mi MP 8

Mounting plate

+ Suitable for empty boxes size: 8
+ Included accessories: fastening material

Material	laminated paper, coated
Material thickness	4 mm





Mi BZ 11

Fixing screw

+ Length: 11 mm
+ For mounting at the base of the box
+ Suitable for material thickness: 1 mm - 2.5 mm
+ Self-tapping

Surface treatment	Galvanic / electrolytically galvanized



Mi BZ 13

Fixing screw

+ Length: 13 mm
+ For mounting at the base of the box
+ Suitable for material thickness: 2.5 mm - 4 mm
+ Self-tapping

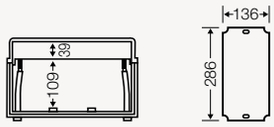
Surface treatment	Galvanic / electrolytically galvanized



Mi EP 01

Cover without cut-outs

+ Suitable for empty boxes size: 1
+ Dimensions H x W: 286 x 136 mm
+ For retrofitting
+ As protection cover or for installation of equipment
+ Included accessories: fastening material

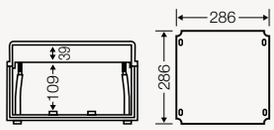




Mi EP 02

Cover without cut-outs

+ Suitable for empty boxes size: 2
+ Dimensions H x W: 286 x 286 mm
+ For retrofitting
+ As protection cover or for installation of equipment
+ Included accessories: fastening material

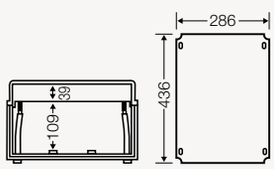




Mi EP 03

Cover without cut-outs

+ Suitable for empty boxes size: 3, 6
+ Dimensions H x W: 436 x 286 mm
+ For retrofitting
+ As protection cover or for installation of equipment
+ Included accessories: fastening material

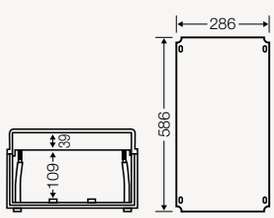




Mi EP 04

Cover without cut-outs

+ Suitable for empty boxes size: 4
+ Dimensions H x W: 586 x 286 mm
+ For retrofitting
+ As protection cover or for installation of equipment
+ Included accessories: fastening material

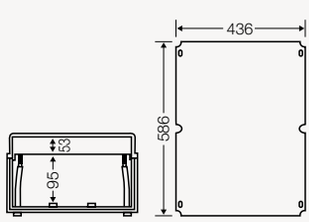




Mi EP 06

Cover without cut-outs

+ Suitable for empty boxes size: 6
+ Dimensions H x W: 586 x 436 mm
+ For retrofitting
+ As protection cover or for installation of equipment
+ Included accessories: fastening material



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AS 12

Blanking strip

+ 12 modules x 18 mm, divisible every 9 mm
+ For the covering of spare equipment openings, for material thickness up to 3 mm
+ Suitable for 12 modules



AS 18

Blanking strip

+ 18 modules x 18 mm, divisible every 9 mm
+ For the covering of spare equipment openings, for material thick pness up to 3 mm
+ Suitable for 18 modules



DAE 12

Spacer

+ Set with 12 pieces
+ For installation of Mi TS
+ For improvement in the heat dissipation of DIN rail mounted devices



Mi SA 2

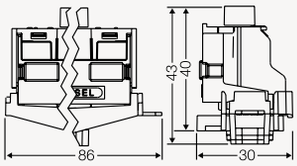
Dust protection cover

+ Suitable for box sizes: 1, 2, 3, 4, 6, 8
+ Set with 2 pieces



FC L 10

L terminal



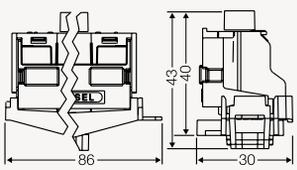
+ FIXCONNECT® terminal
+ 8 clamping units per pole, plug-in terminal connection
  2 clamping units per pole, screw connection
+ Connection cross-section plug-in terminals per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ Connection cross-section screw terminals per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ For installation on DIN rails in accordance with IEC 60715, top hat profile 35 mm

Rated current	I_n = 101 A



FC N 10

N terminal



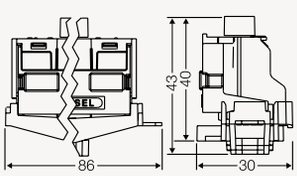
+ FIXCONNECT® terminal
+ 8 clamping units per pole, plug-in terminal connection
  2 clamping units per pole, screw connection
+ Connection cross-section plug-in terminals per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ Connection cross-section screw terminals per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ For installation on DIN rails in accordance with IEC 60715, top hat profile 35 mm

Rated current	I_n = 101 A



FC PE 10

PE terminal



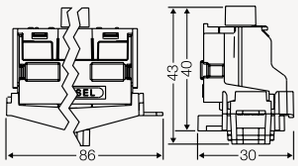
+ FIXCONNECT® terminal
+ Or boxes with 1 x 12 modules
  (through terminal reduction to 9 modules)
+ 8 clamping units per pole, plug-in terminal connection
  2 clamping units per pole, screw connection
+ Connection cross-section plug-in terminals per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ Connection cross-section screw terminals per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ For installation on DIN rails in accordance with IEC 60715, top hat profile 35 mm

Rated current	I_n = 101 A



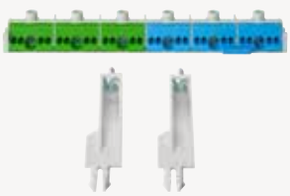
FC PN 10

PE terminal, N terminal



+ FIXCONNECT® terminal
+ 4 clamping units per pole, plug-in terminal connection
  1 clamping units per pole, screw connection
+ Connection cross-section plug-in terminals per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ Connection cross-section screw terminals per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ For installation on DIN rails in accordance with IEC 60715, top hat profile 35 mm

Rated current	I_n = 101 A

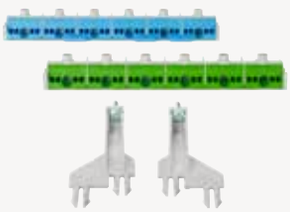


FC PN 30

PE terminal, N terminal

+ FIXCONNECT® terminal
+ 13 clamping units per pole, plug-in terminal connection
  3 clamping units per pole, screw connection
+ Connection cross-section plug-in terminals per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ Connection cross-section screw terminals per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ N separable, for up to 2 different N circuits
+ Included accessories: fastening material

Rated current	I_n = 75 A

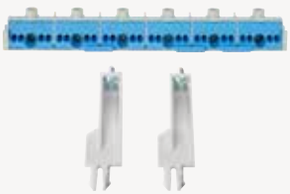


FC PN 60

PE terminal, N terminal

+ FIXCONNECT® terminal
+ 24 clamping units per pole, plug-in terminal connection
  6 clamping units per pole, screw connection
+ Connection cross-section plug-in terminals per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ Connection cross-section screw terminals per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ N separable, for up to 4 different N circuits
+ Included accessories: fastening material

Rated current	I_n = 75 A

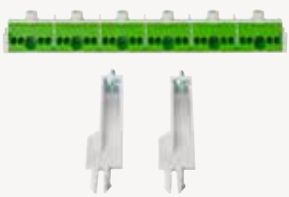


FC N 30

N terminal

+ FIXCONNECT® terminal
+ 24 clamping units per pole, plug-in terminal connection
  1 clamping units per pole, screw connection
+ Connection cross-section plug-in terminals per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ Connection cross-section screw terminals per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ Included accessories: fastening material

Rated current	I_n = 75 A



FC PE 30

PE terminal

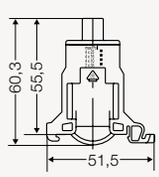
+ FIXCONNECT® terminal
+ 24 clamping units per pole, plug-in terminal connection
  1 clamping units per pole, screw connection
+ Connection cross-section plug-in terminals per clamping unit:
  1 x 1.5 mm² - 4 mm², solid, flexible, round, Cu
+ Connection cross-section screw terminals per clamping unit:
  4 x 1.5 mm² - 2.5 mm², solid, round, Cu
  1 x 1.5 mm² - 25 mm², flexible, round, Cu
  3 x 4 mm² - 6 mm², solid, round, Cu
  1 x 10 mm², solid, round, Cu
  1 x 16 mm² - 25 mm², stranded, round, Cu
+ Included accessories: fastening material

Rated current	I_n = 101 A



KKL 25

copper branch terminal



+ Terminal cross-section per clamping unit:
  3 x 6 mm² - 10 mm², solid, stranded, flexible, round, Cu
  2 x 16 mm² - 25 mm², stranded, flexible, round, Cu
  1 x 35 mm², stranded, flexible, round, Cu
+ As a connecting terminal
+ For installation on DIN rails in accordance with IEC 60715, top hat profile 35 mm
+ With two connected clamping units

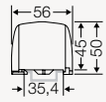
Rated insulation voltage	U_i = 690 V
Rated current	I_n = 102 A

MORE INFORMATION ON HENSEL-ELECTRIC.DE



KKL 34

Main line branch terminal



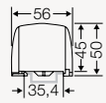
+ Number of clamping units per pole (L1-L3): 4, (screw connection)
+ Terminal cross-section per clamping unit:
  1 x 1.5 mm² - 16 mm², flexible with end ferrule, round, Cu
  1 x 2.5 mm² - 25 mm², solid, stranded, round, Cu
+ As a connecting terminal
+ For installation on DIN rails in accordance with IEC 60715, top hat profile 35 mm
+ Width: 63 mm

Rated insulation voltage	U_i = 690 V
Rated current	I_n = 80 A



KKL 48

Main line branch terminal



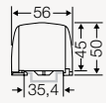
+ Number of clamping units per pole (L1-L3): 4, (screw connection)
  Number of clamping units per pole (N): 8, (screw connection)
+ Terminal cross-section per clamping unit:
  1 x 1.5 mm² - 16 mm², flexible with end ferrule, round, Cu
  1 x 2.5 mm² - 25 mm², solid, stranded, round, Cu
+ As a connecting terminal
+ For installation on DIN rails in accordance with IEC 60715, top hat profile 35 mm
+ Width: 89 mm

Rated insulation voltage	U_i = 690 V
Rated current	I_n = 80 A



KKL 54

Main line branch terminal



+ Number of clamping units per pole (L1-L3, N, PE): 4, (screw connection)
+ Terminal cross-section per clamping unit:
  1 x 1.5 mm² - 16 mm², flexible with end ferrule, round, Cu
  1 x 2.5 mm² - 25 mm², solid, stranded, round, Cu
+ As a connecting terminal
+ For installation on DIN rails in accordance with IEC 60715, top hat profile 35 mm
+ Width: 89 mm

Rated insulation voltage	U_i = 690 V
Rated current	I_n = 80 A



Mi FP 15

Flange
Knockouts: none

+ Suitable for box wall: 150 mm
+ Built-in dimensions height x width: 88 x 65 mm
+ Included accessories: fastening material



IP 65



Mi FM 15

Flange
Knockouts: 3 x M20
1 x M32, M40, M50

+ Suitable for box wall: 150 mm
+ Included accessories: fastening material



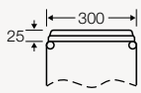
IP 65



Mi FP 20

Flange
Knockouts: none

+ Suitable for box wall: 300 mm
+ Built-in dimensions height x width: 88 x 215 mm
+ Included accessories: fastening material



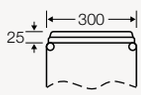
IP 65



Mi FM 20

Flange
Knockouts: 15 x M16
15 x M20

+ Suitable for box wall: 300 mm
+ Included accessories: fastening material



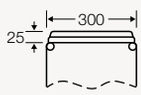
IP 65



Mi FM 25

Flange
Knockouts: 19 x M16, M25

+ Suitable for box wall: 300 mm
+ Included accessories: fastening material



IP 65

MORE INFORMATION ON HENSEL-ELECTRIC.DE

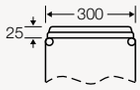


IP 65

Mi FM 32

Flange
Knockouts: 1 x M25, M32, M40
8 x M25, M32

+ Suitable for box wall: 300 mm
+ Included accessories: fastening material



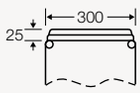


IP 65

Mi FM 40

Flange
Knockouts: 2 x M25, M32
5 x M32, M40

+ Suitable for box wall: 300 mm
+ Included accessories: fastening material



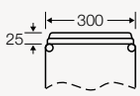


IP 65

Mi FM 50

Flange
Knockouts: 2 x M20
4 x M32, M40, M50

+ Suitable for box wall: 300 mm
+ Included accessories: fastening material



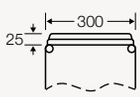


IP 65

Mi FM 60

Flange
Knockouts: 3 x M40, M50, M63

+ Suitable for box wall: 300 mm
+ Included accessories: fastening material



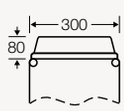


IP 65

Mi FM 63

Flange
Knockouts: 3 x M40, M50, M63
with cable arrangement space

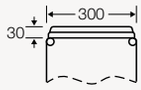
+ Suitable for box wall: 300 mm
+ Included accessories: fastening material





Mi FP 38

Flange
Sealing range:
29 x 7 mm - 12 mm,
4 x 7 mm - 14 mm,
4 x 11 mm - 20 mm,
1 x 16 mm - 29 mm



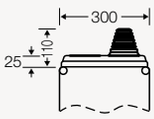
+ Cable entry via integrated (elastic membranes)
+ Suitable for box wall: 300 mm
+ Included accessories: fastening material

IP 65



Mi FP 70

Flange
Sealing range:
1 x 30 mm - 72 mm



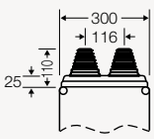
+ Cable entry via integrated (elastic membranes)
+ Suitable for box wall: 300 mm
+ Included accessories: fastening material

IP 65



Mi FP 72

Flange
Sealing range:
2 x 30 mm - 72 mm



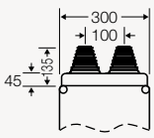
+ Cable entry via integrated (elastic membranes)
+ Suitable for box wall: 300 mm
+ Included accessories: fastening material

IP 65



Mi FP 82

Flange
Sealing range:
2 x 30 mm - 72 mm



+ Suitable for box wall: 300 mm
+ Degree of protection IP 54 only with additional strain and pressure prelief (e.g. Mi ZE 62)
+ Included accessories: fastening material

IP 54



Mi ZE 62

Strain relief

+ For 2 cables with max. 60 mm external diameter
+ To be used only in combination with Mi FP 82
+ Included accessories: fastening material

MORE INFORMATION ON HENSEL-ELECTRIC.DE



Mi GS 30

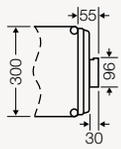
Box fin

+ Suitable for box wall: 300 mm
+ For inserting cables across 2 boxes
+ Removable
+ Can be retrofitted
+ Included accessories: fastening material



Mi BF 44

Ventilation flange



+ Suitable for box wall: 300 mm
+ For ventilation of Mi-Distribution boards in the event of extremely high internal temperatures or a risk of water condensation
+ Included accessories: fastening material

IP 44



BE 44

Ventilation insert

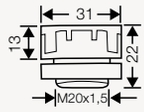


IP 44



BM 20G

Pressure compensation element for knockouts M20



+ Diameter: Ø 20.3 mm
+ For the reduction of condensation by pressure compensation in power distribution systems
+ Maximum boxes volume per pressure compensation element: 28 l, in order not to exceed leakage limit of 0.07 bar with pressure compensation
+ Suitable for wall thickness: up to 8 mm
+ Ambient temperature: - 40 °C up to + 100 °C
+ Maximum ambient temperature 24 h: 55 °C

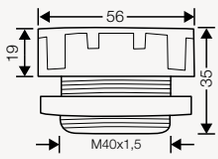
IP 54

Application area	Outdoor installation



BM 40G

Pressure compensation element for knockouts M40



+ Diameter: Ø 40.3 mm
+ For the reduction of condensation by pressure compensation in power distribution systems
+ Maximum boxes volume per pressure compensation element: 122 l, in order not to exceed leakage limit of 0.07 bar with pressure compensation
+ Suitable for wall thickness: up to 8 mm
+ Ambient temperature: - 40 °C up to + 100 °C
+ Maximum ambient temperature 24 h: 55 °C

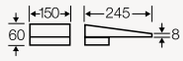
IP 54

Application area	Outdoor installation



IP 65

Mi DB 15



Canopy

Suitable for box wall: 150 mm

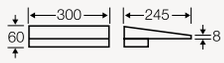
+ Included accessories: fastening material

Surface treatment	powder-coated



IP 65

Mi DB 30

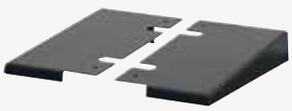


Canopy

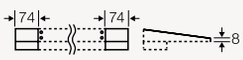
Suitable for box wall: 300 mm

+ Included accessories: fastening material

Surface treatment	powder-coated



Mi DB 01



Canopy end plate

+ Set with 2 pieces
+ For canopies FP DB xx and Mi DB xx
+ Included accessories: fastening material

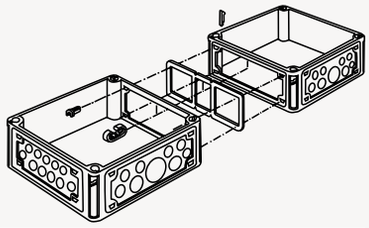
Surface treatment	powder-coated



Mi WD 2

Wall gasket

+ Suitable for box wall: 150 mm, 300 mm
+ For the assembly of Mi boxes
+ Included accessories: fastening material





Mi WT 1

Wall separator

+ Suitable for box wall: 300 mm
+ For connecting different box walls
+ Included accessories: fastening material



Mi BE

Fixing spares

+ Set with 4 pieces
+ When converting existing installations
+ For the assembly of Mi boxes



Mi SA 2

Dust protection cover

+ Suitable for box sizes: 1, 2, 3, 4, 6, 8
+ Set with 2 pieces



Mi ZW 30

Partition
for installation between the Mi-boxes

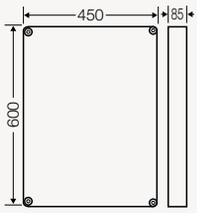
+ Suitable for box wall: 300 mm
+ Included accessories: fastening material



Mi PL 2

Sealing caps for converting
the lid fasteners

+ Set with 2 pieces





Mi SR 4

Conversion set
for conversion from manual operation to tool operation

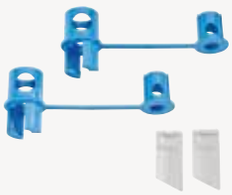
+ Set with 4 pieces



Mi SN 4

Conversion set
for conversion from tool operation to manual operation

+ Set with 4 pieces



Mi SV 2

Conversion set
for padlock (clip Ø max. 10 mm)

+ Set with 2 pieces
+ Can be used instead of fasteners for hand or tool operation in order to prevent unauthorised opening of the lids



Mi DR 04

Lid fastener for tool operation

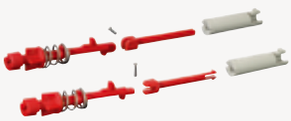
+ Set with 4 pieces
+ Locking devices with triangle 8 mm and key



DS 1

Spare key

+ Triangular key 8 mm



Mi ZS 20

Hinge

+ Suitable for box sizes: 1, 2, 3, 4
+ Set with 2 pieces
+ For operating installation device within a large area. The lid keeps permanently connected to the box.
+ When assembling several boxes, the insertion can only be carried out on the outer boxes.
+ Included accessories: fastening material



Mi ZS 40

Hinge

+ Suitable for box sizes: 1, 2, 3, 4, 6, 8
+ Set with 2 pieces
+ For operating installation device within a large area.
  The lid keeps permanently connected to the box.
+ Wall connectors or flanges are necessary for assembly
+ Not applicable in boxes with covers
+ Included accessories: fastening material



Mi ZS 60

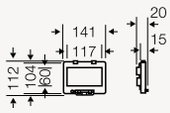
Hinge

+ Suitable for Boxes with extension frame size: 4, 6, 8
+ Set with 2 pieces
+ For operating installation device within a large area.
  The lid keeps permanently connected to the box.
+ Wall connectors or flanges are necessary for assembly
+ Not applicable in boxes with covers
+ Included accessories: fastening material



Mi KL 6

Opening dimension: 60 x 117 mm with hinged flap



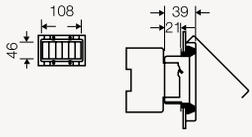
+ 1 x 6 modules x 18 mm
+ Lockable with hinged flap lock
+ Sealable without accessories
+ Included accessories: fastening material, with drill and saw template

IP 65



Mi BS 6

Cover without cut-outs



+ For Mi KL 6,
+ Dimensions H x W: 46 x 108 mm
+ For retrofitting
+ Suitable for hinged flap
+ As protection cover or for installation of equipment
+ Included accessories: fastening material

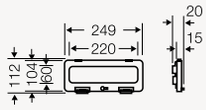
MORE INFORMATION ON HENSEL-ELECTRIC.DE



IP 65

Mi KL 12

Opening dimension: 60 x 220 mm
with hinged flap

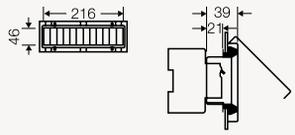


+ 1 x 12 modules x 18 mm
+ Lockable with hinged flap lock
+ Sealable without accessories
+ Included accessories: fastening material, with drill and saw template



Mi BS 12

Cover without cut-outs



+ Für Mi KL 12,Mi 1111,Mi 1222,Mi 1333,Mi 1443, Mi 1444,Mi 1445,Mi 1117,Mi 1227,Mi 1337,Mi 1119, Mi 1229,Mi 1339,Mi 144
+ Dimensions H x W: 46 x 216 mm
+ For retrofitting
+ Suitable for hinged flap
+ As protection cover or for installation of equipment
+ Included accessories: fastening material



Mi SK 01

Hinged flap lock

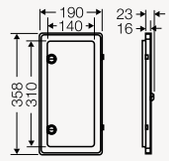
+ For retrofitting in hinged flaps of 6 or 12 modules width
+ consisting of: 1 lock (MI KL), 2 keys, 1 grooved pin



IP 54

NZ KL 54

Hinged flap
Opening dimension: 310 x 140 mm



+ For tool or manual operation
+ Can be locked with padlock (clip diameter max. 6 mm)
+ In accordance with DIN 43870
+ Sealable without accessories
+ Included accessories: fastening material

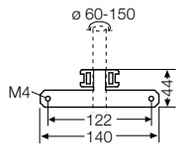


Mi MB 1

Pipe and pole mounting set

+ Suitable for box sizes: 1
+ Suitable for pipe/pole diameters of 60 - 150 mm
+ Set with 2 pieces
+ Included accessories: fastening screws, clamps

Material	Stainless steel V2A
Maximum load	25 kg



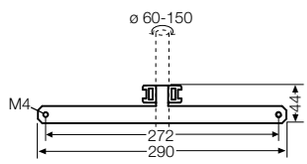


Mi MB 2

Pipe and pole mounting set

+ Suitable for box sizes: 1, 2, 3, 4
+ Suitable for pipe/pole diameters of 60 - 150 mm
+ Set with 2 pieces
+ Included accessories: fastening screws, clamps

Material	Stainless steel V2A
Maximum load	25 kg



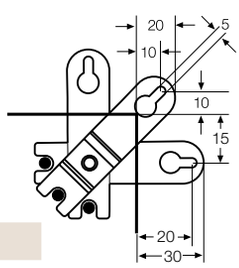


Mi AL 40

External brackets

+ Set with 4 pieces
+ For external fixing of enclosures of 60 - 150 mm
+ Included accessories: fastening material

Material	Stainless steel V2A



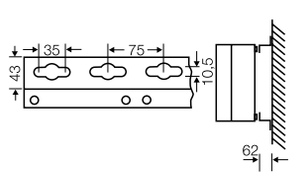


Mi MS 2

Profile for wall mounting

+ For MI distribution board assemblies up to 900 x 1200 mm
+ Included accessories: fastening material

Height	1950 mm
Surface treatment	powder-coated, sendzimir galvanised





Lackstift RAL 7016

12 ml

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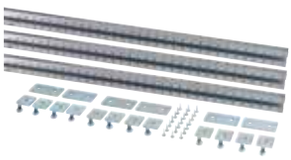
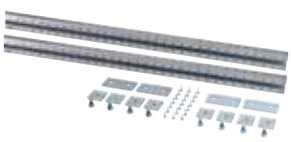


Mi MR 69

Mounting frame

+ Fixing brackets (Mi BL xx) are required for fixing to the wall
+ Set, consisting of 3x 2m rail, 6x 2-fold connection and 20x fixing screw
+ For approx. 1.6 m²
+ For Mi distribution boards up to 900 x 1800 mm
+ Included accessories: fastening material

Surface treatment	hot-dip galvanized



Mi MR 49

Mounting frame

+ Fixing brackets (Mi BL xx) are required for fixing to the wall
+ Set, consisting of 2x 2m rail, 4x 2-fold connection and 20x fixing screw
+ for approx. 1 m²
+ For Mi distribution boards up to 600 x 1200 mm or 900 x 900 mm
+ Included accessories: fastening material

Surface treatment	hot-dip galvanized



Mi MR 20

Mounting frame

+ Fixing brackets (Mi BL xx) are required for fixing to the wall
+ Set, consisting of 1x 2m rail, 2x 2-fold connection and 20x fixing screw
+ Included accessories: fastening materiall

Surface treatment	hot-dip galvanized

Mi POWER DISTRIBUTION BOARDS
TECHNICAL DETAILS



	Empty boxes **Mi 0...** **Mi 9...**	**Circuit breaker boxes** **Mi 1...**
Application area	**Suitable for indoor installation and outdoor installation, protected against weather infl uences** However, pay attention to the climatic effects on the installed equipment , for example, high or low ambient temperatures or formation of condensed water see technical information	
Resistance to occasional cleaning procedures (direct jet)	with high-pressure cleaner without cleaning additives, water pressure: max 100 bar, water temperature: Max. 80 °C, distance => 0.15 m, in accordance with IP 69K requirements, single boxes without lid equipment (no boxes assembly), boxes and cable glands at least IP 65.	
Ambient temperature - Average value over 24 hours - Maximum value - Minimum value	 – + 70 °C – 25 °C	 + 35 °C + 40 °C – 5 °C The ambient temperature is reduced at distribution boares by the installed equipment technology!
Relative humidity + short-time	– –	50% at 40 °C 100% at 25 °C
Fire protection in the event of internal faults	Demands placed on electrical devices from standards and laws: Minimum requirements - Glow wire test in accordance with IEC 60695-2-11: - 650 °C for boxes and cable glands - 850 °C for conducting components	
Burning behaviour + Glow wire test IEC 60695-2-11 + UL Subject 94	 960 °C V-2 flame-retardant self-extinguishing	 960 °C V-2 flame-retardant self-extinguishing
Degree of protection against mechanical load	IK 08 (5 Joule)	IK 08 (5 Joule)
Toxic behaviour	halogenfree [1)] silicone-free	halogenfree [1)] silicone-free

[1)] "Halogen-free" in accordance with IEC 60754-2"
Common test methods for cables - Determination of the amount of halogen acid gas".
For material properties see technical data.

Mi Distribution Boards comply with the requirements of the IEC 61439-2

Distribution boards assembled and wired according to manufacturer data without essential deviations from the original type or system.
To meet these requirements for Hensel Mi Distribution Boards, the following must be noted:

1. The distribution boards must consist of the verifi ed boxes documented in this list.
2. The wiring of the equipment must be carried out with the cross-sections and conductor types indicated in Table “Rating of insulated conductors in switchgear assemblies”, Index Technics.
3. Once the distribution board is completed, a routine test must be carried out in accordance with this standard.
4. The test must be certified with a test report.
5. The assembly must be provided with a manufacturer’s identification mark. Compliance with important data such as
   + limit of temperature rise
   + insulation resistance
   + rated short-time withstand current
   + rated short-time withstand current of the protective earth conductor
   + IP degrees of protection
   + creepage distances and clearances etc.

is verified for this system.

Standards and regulations

+ IEC 61439-2
  Low-voltage switchgear and controlgear assemblies (PSC)
+ IEC 60999
  Safety requirements for screw-type and screwless-type clamping units for electrical copper conductors
+ DIN EN 62444
  Cable glands for electrical installations
+ DIN 43880
  Built-in equipment for electrical installations; overall dimensions and related mounting dimensions
+ IEC 60529
  Degrees of protection provided by boxes (IP-Code)

Approvals

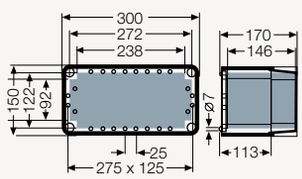
EZU Czech Republic
MEEI Hungary
GOST
ASTA

HENSEL

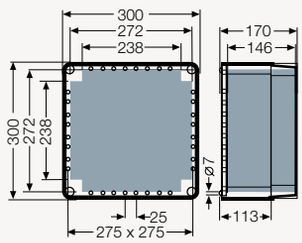
Dimensions of the interior installation depth with installed mounting plates.

The width of Mi Empty boxes Mi 9... enlarges about 15 mm because of the laterally mounted lid hinges, refer to product pages.

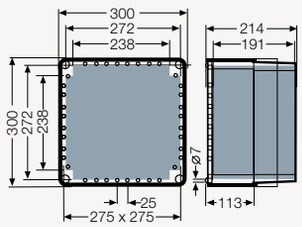
= usable installation space with mounted cable glands



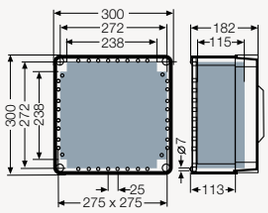
Mi 0100
Mi 0101
Mi 9100
Mi 9101



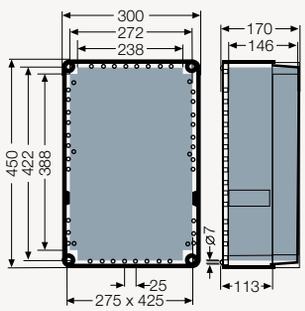
Mi 0200
Mi 0201
Mi 9200
Mi 9201



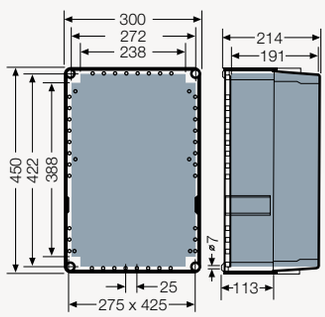
Mi 0210
Mi 0211
Mi 9210
Mi 9211



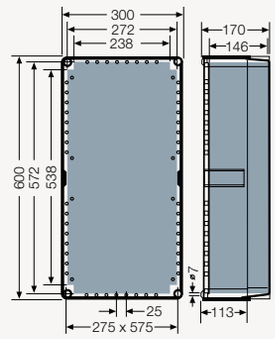
Mi 0220
Mi 0221



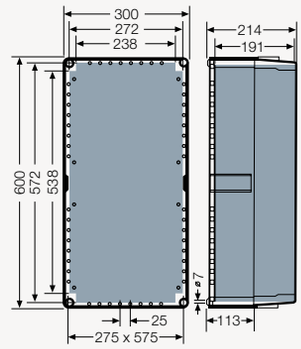
Mi 0300
Mi 0301
Mi 9310
Mi 9311



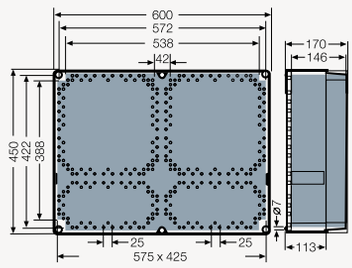
Mi 0310
Mi 0311
Mi 9310
Mi 9311



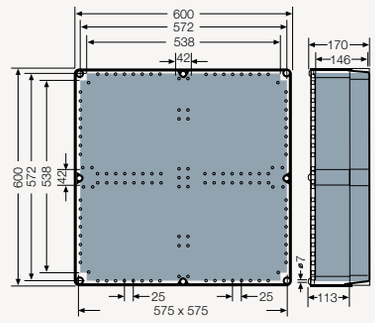
Mi 0400
Mi 0401
Mi 9400
Mi 9401



Mi 0410
Mi 0411
Mi 9410
Mi 9411



Mi 0600
Mi 0601

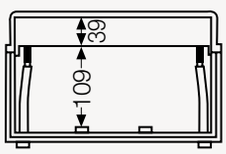


Mi 0800
Mi 0801

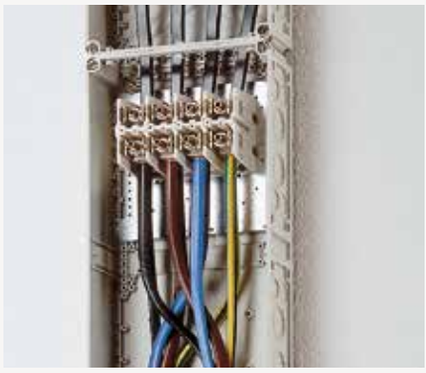
Installation of equipment in protection plates:

Pre-drill the sections at the corners, then saw away the section from the protection plate by using a piercing saw at middle to low cutting speed.

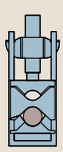
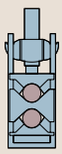
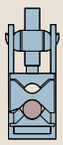
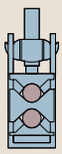
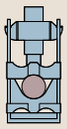
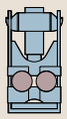
Use coarse toothed saw blades for plastics (e.g. Bosch T 101 B).



Feed-in terminals



2-5-pole, for copper and aluminum conductors, for installation in Mi empty enclosures sizes 2 to 8, complete on mounting plate, with fixing screws.

Feed terminal	Mi VE 120, 4-pole Mi VE 125, 5-pole		Mi VE 240, 4-pole Mi VE 245, 5-pole		Mi VE 302, 2-pole Mi VE 303, 3-pole Mi VE 304, 4-pole	
Rated connection capacity	150 mm²		240 mm²		300 mm²	
Current carrying capacity	250 A		400 A		630 A	
Terminal points per pole	2	4	2	4	2	4
						
Conductor type Cu/Alu sol (round) ●	16-50 mm²	16-50 mm²	25-50 mm²	25-50 mm²	–	35-70 mm²
Conductor type Cu/ aluminum s (round), f (flexible) ◉	16-150 mm²	16-70 mm²	25-240 mm²	25-120 mm²	150-300 mm²	35-185 mm²
Conductor type Cu/Alu sol (sector) ▼	50-150 mm²	50-70 mm²	50-185 mm²	50-120 mm²	150-185 mm²	95-185 mm²
Conductor type Cu s (sector)	35-150 mm²	35-70 mm²	35-240 mm²	35-120 mm²	150-240 mm²	95-185 mm²
Conductor type Alu s (sector)	50-120 mm²	35-50 mm²	95-185 mm²	50-95 mm²	150-240 mm²	95-185 mm²
Conductor type Cu strip	Mi VS 100 to Mi VS 630		Mi VS 100 to Mi VS 630		Mi VS 630	

Aluminum conductors must be prepared before connection in accordance with the relevant technical recommendations, see Technical Information Aluminum conductors.
f (flexible) only with wire end ferrule

FIXCONNECT®-plug-in terminal

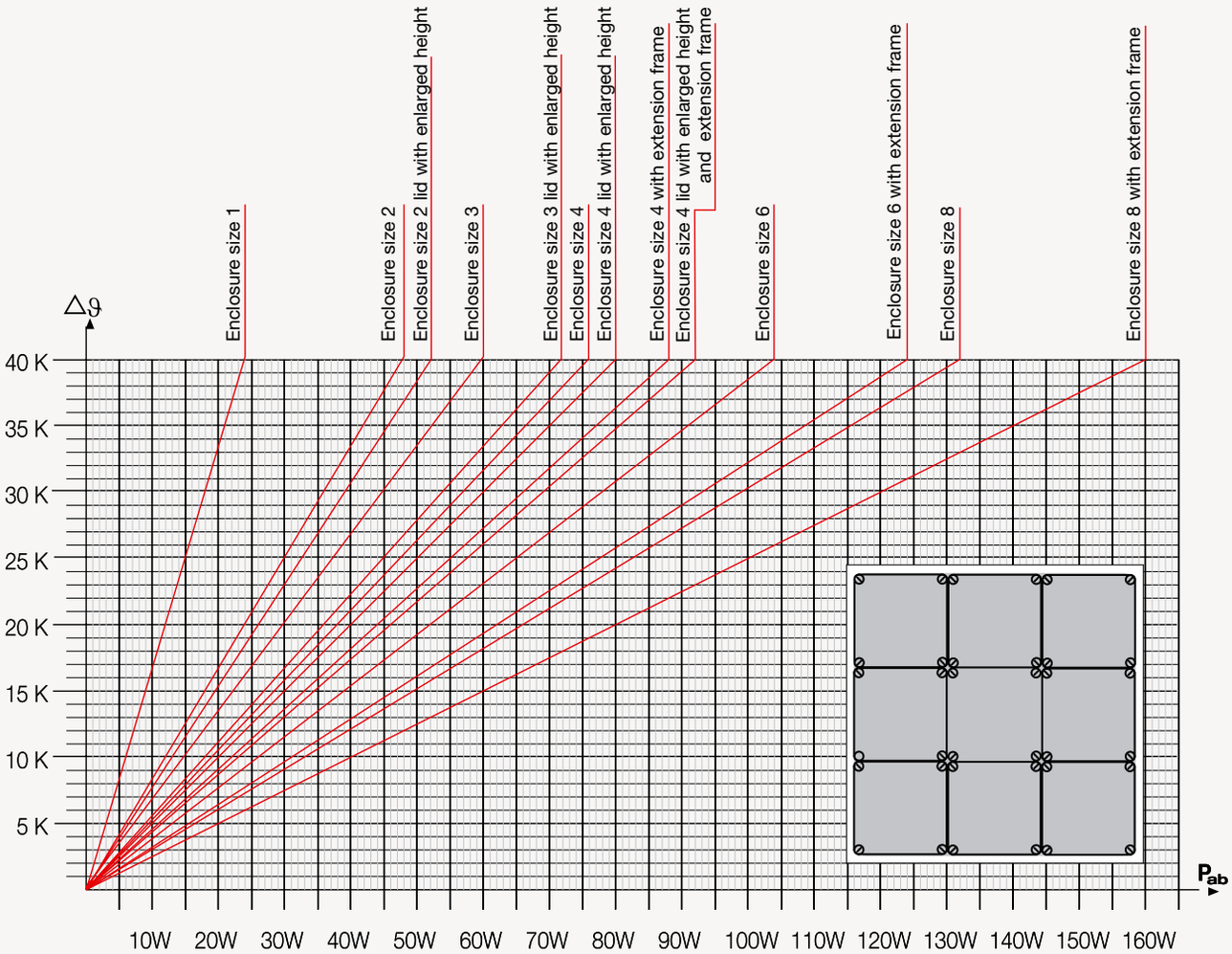
Rated connecting capacity of PE and N terminals for copper conductors

Current carrying capacity of the N rail: 75 A



Clamping unit	Corresponding cross-sections / copper			
	max. number	number from - to max.	max. number	number from - to max.
Screw-type terminal 25 mm² Tightening torque 2 Nm 	1 1 1 3 3 4 4	25 mm², s 16 mm², s 10 mm², sol 6 mm², sol 4 mm², sol 2.5 mm², sol 1.5 mm², sol Tested as connecting terminal for several conductors of the same cross-sections for using in **one circuit**	1 1 1 1 1 1 1	25 mm², f 16 mm², f 10 mm², f 6 mm², f 4 mm², f 2.5 mm², f 1.5 mm², f
Plug-in terminal 4 mm² 	1	1.5 - 4 mm², sol	1	1.5 - 4 mm², f Without end ferrule; clamping unit has to be opened with a tool when conductor is inserted.

Temperature rise (ΔJ) with Mi-Distribution boards by power dissipation of electrical devices



Mi distribution boards **Boxes size**	**Dimensions (WxHxD) in mm**	**Rated power dissipation P_v in watts per Kelvin assembled boxes**
Boxes size 1	300 x 150 x 170	0.6
Boxes size 2	300 x 300 x 170	1.2
Boxes size 2, lid with enlarged depth	300 x 300 x 214	1.3
Boxes size 3	300 x 450 x 170	1.5
Boxes size 3, lid with enlarged depth	300 x 450 x 214	1.8
Boxes size 4	300 x 600 x 170	1.9
Boxes size 4, lid with enlarged depth	300 x 600 x 214	2.0
Boxes size 4, with extension frame	300 x 600 x 255	2.2
Boxes size 4, lid with enlarged depth and extension frame	300 x 600 x 299	2.3
Boxes size 6	450 x 600 x 170	2.6
Boxes size 6, with extension frame	450 x 600 x 255	3.1
Boxes size 8	600 x 600 x 170	3.3
Boxes size 8, with extension frame	600 x 600 x 255	4.0

Note!

The maximally permissible operating temperature inside the boxes (ϑ_{imax}) is determined by:

1. Maximally permissible ambient temperature of the installed electrical devices (please consider data of the equipment manufacturers)
2. Category temperature of the internal wiring and the inserted cables
3. Temperature resistance of the boxes materials and the cable entries etc.

Example: calculation of the maximum rated power dissipation (P_v)	
Maximally permissible operating temperature inside the boxes(s) (ϑ_{imax}):	e.g. 55° C
Ambient temperature of the boxes(s):	ϑ_U = 25° C
Maximally permissible heating up inside the boxes:	$\Delta\vartheta = \vartheta_{imax} - \vartheta_U$ = 55° C - 25° C = 30 K
Maximum permissible power dissipation of the installed equipment inclusive wiring in accordance with diagram:	Boxes size 3 (450 x 300 x 170 mm): P_v = 45 W

Example: calculation of the operating temperature inside the boxes (ϑ_i)	
Ambient temperature of the boxes(s):	ϑ_U = 25° C
Rated power dissipation of the installed electrical equipment (P_V):	P_{ab} = 30 W
Heating up inside the boxes in accordance with diagram over:	$\Delta\vartheta$ = 20 K
Boxes size 3 (450 x 300 x 170 mm):	$\vartheta_i = \vartheta_U + \Delta\vartheta$ = 25° C + 20 K = 45 C