



Reliably with each demand



NEW

ENYSTAR

Combinable enclosure system with door

- for the assembly of distribution boards up to 250 A, IP 65
- made of high-quality thermoplastic
- type-tested system (TTA) in accordance with IEC 60 439-1



Combinable enclosure system with doors



All enclosure sizes with doors




Quick assembly



Pre-assembled functional enclosures

Combinable enclosure system with door

- for indoor and outdoor installation (harsh environment and/or outdoor)
- dust-proof and protected against jetting water (IP 65)
- protection class II 
- colour: grey, RAL 7035

Doors

- all enclosure sizes with door
- transparent and opaque
- door hinge changeable
- sealable
- locking facilities: lockable, door fasteners for tool and hand operation
- operation of the devices behind the door protected with covers
- no overhangig handles

Quick assembly

- closed or open walls
- integrated gaskets
- safe connectors

Pre-assembled enclosures with electrical functions

- electrical functions in enclosures with protection covers
- EMC compliant busbar system
- N conductors with the same current carrying capacity as the phase conductors
- bus-mounted fusegear
- cable entry via flanges up to 72 mm cable diameter



As standard busbar system EMC-compliant with N/PEN conductor in the area of phase conductors and with the same current carrying capacity as the phase conductors.

	<p>Ambient conditions</p>	<p>Ambient temperature of the distribution board: - 5°C up to + 35° C, + 40° C max. Relative humidity: 50% at 40° C, 100% at 25° C</p>
	<p>Application area</p>	<p>The enclosures are suitable for the outdoor installation - harsh environment and / or outdoor. However the climatic influences and effects on the equipment are to be considered.</p>
	<p>Insulation</p>	<p>Insulated enclosures (Protection class II) </p>
	<p>Impact strength</p>	<p>Degree of protection against mechanical load IK 08 (5 Joule) in accordance with DIN EN 50 102</p>
	<p>Protection against foreign solid objects and direct contact</p>	<p>Dust-proof Degree of protection IP 65</p>
	<p>Protection against ingress of water with harmful effects</p>	<p>Protected against water jets Degree of protection IP 65</p>
	<p>Electrical parameters</p>	<p>Rated current: 250 A Rated insulation voltage: AC/DC 690 V, VDE 0110</p>
		<p>Material: Thermoplastic</p>
	<p>Burning behaviour</p>	<p>Glow wire test 960°C in accordance with IEC 60 695-2-11 flame-retardant, self-extinguishing UL Subject 94, V-2</p>
	<p>Temperature resistance</p>	<p>-40° C up to + 120° C</p>
	<p>UV resistance</p>	<p>The Material is examined and therefore qualified for outdoor installation (harsh environment and / or outdoor) during direct sun radiation</p>
	<p>Chemical resistance</p>	<p>Resistance against Acid 10% and Lye 10%, petrol and mineral oil</p>
	<p>Toxic behaviour</p>	<p>Silicone- and halogen-free</p>
	<p>Resistance to corrosion</p>	<p>Resistant against demands caused by the weather such as rain, ice and snows</p>


Dependent on the system

Dependent on material



ENYSTAR

**Combinable
enclosure system with
door and closed walls**

- for the assembly of distribution boards
up to 250 A, IP 65
- made of high-quality thermoplastic 
- type-tested system
in accordance with IEC 60 439-1 (TTA)

Combinable enclosure system with door and closed walls

- 4 box sizes:
276 x 186 mm,
276 x 366 mm,
276 x 546 mm and
546 x 366 mm
- fast and easy to assemble to larger combinations after removing flanges and closing plates



Empty enclosures



Circuit breaker boxes

Multipurpose high quality enclosure system

Wide range of accessories:
- different kind of flanges for cable entry up to 72 mm cable diameter

Enclosures usable as single enclosures with door and closed walls

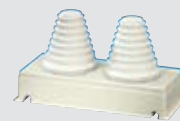
or

combinable to larger combinations in all directions after removing flanges and closing plates



Doors:
transparent or opaque
left or right hinged,
changeable

- Wide range of accessories:
- different kind of flanges for cable entry up to 72 mm cable diameter
 - DIN rails or mounting plates for equipment assembly
 - covers for installation of equipment
 - terminals



Overview product range

Combinable enclosure system with door and closed walls

Empty enclosures with doors and closed walls



FP 0101
mounting
dimensions
220x130x140 mm



FP 0121
mounting
dimensions
220x130x140 mm



FP 0211
mounting
dimensions
220x310x140 mm



FP 0231
mounting
dimensions
220x310x140 mm



FP 0311
mounting
dimensions
220x490x140 mm



FP 0331
mounting
dimensions
220x490x140 mm



FP 0411
mounting
dimensions
490x310x140 mm



FP 0431
mounting
dimensions
490x310x140 mm

Circuit breaker boxes with doors and closed walls



FP 1102
1x12x18 mm



FP 1213
2x12x18 mm



FP 1314
3x12x18 mm




FP 1414
3x17x18 mm



ENYSTAR

Combinable enclosure system with door

- for the assembly of distribution boards up to 250 A, IP 65
- made of high-quality thermoplastic 
- type-tested system
in accordance with IEC 60 439-1 (TTA)

Design fast, simply, more clever
www.ENYGUIDE.eu

Combinable enclosure system with door

- modular structure of enclosures in grid of 90 mm
- 4 enclosure sizes: 270 x 180 mm, 270 x 360 mm, 270 x 540 mm and 540 x 360 mm
- to assemble fast and simply to larger combinations

Functional enclosures:


Empty boxes



Circuit breaker boxes



KWH meter boxes



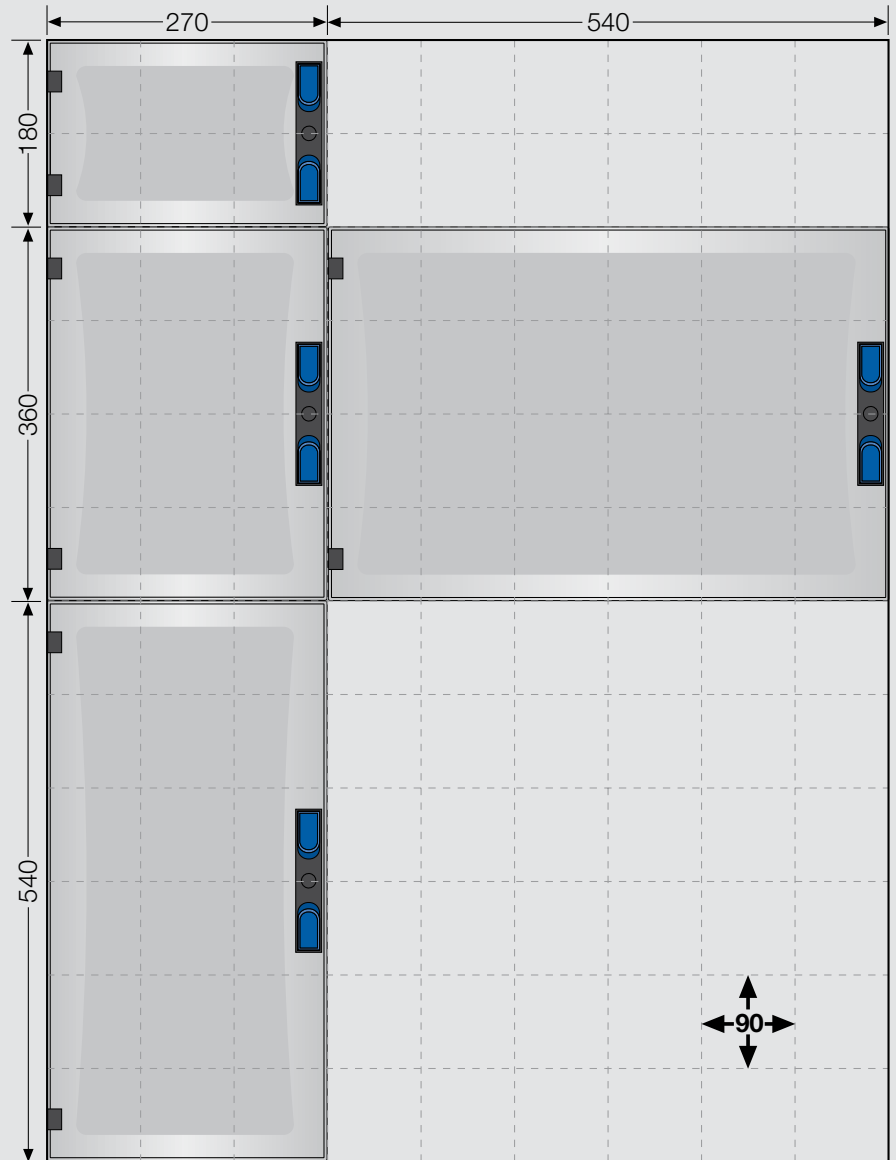
Busbar boxes



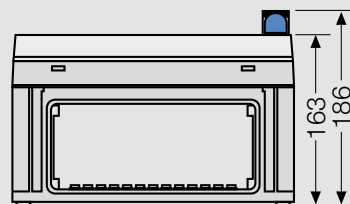
HRC fuse boxes with fuse switch disconnectors



Isolator boxes with built-in switch disconnectors and MCCB circuit-breaker boxes



(Dimensions in mm)

Uniform enclosure depth


Can be combined and extended on all sides



Different fuse gear, as DO 2 bus-mounted fuse bases or NH bus-mounted fuse switch disconnectors as well as terminals for direct busbar connection can be installed in one busbar box.

Large doors for all box sizes allow a simple accessibility of the electrical functions.



Combination of enclosures in horizontal direction.

Because of the increasing requirements flexibility is essential in the electrical installation.

ENYSTAR enclosures can be combined and arranged freely in order to adapt the system flexibly to the individual requirements in site:
 Combination next to each other or one above the other.

The same enclosures combined in vertical direction.

Empty enclosures with doors



FP 0100
mounting
dimensions
220x130x140 mm



FP 0120
mounting
dimensions
220x130x140 mm



FP 0210
mounting
dimensions
220x310x140 mm



FP 0230
mounting
dimensions
220x310x140 mm



FP 0310
mounting
dimensions
220x490x140 mm



FP 0330
mounting
dimensions
220x490x140 mm



FP 0400
mounting
dimensions
490x310x140 mm



FP 0420
mounting
dimensions
490x310x140 mm

Circuit breaker boxes with doors



FP 1101
1x12x18 mm



FP 1212
2x12x18 mm



FP 1313
3x12x18 mm



FP 1402
2x27x18 mm



FP 1211
1x12x18 mm

KWH meter boxes



FP 2211
for the installation
of 1 KWH meter



FP 2312
for the installation
of 2 KWH meters
or
1 KWH meter +
1 DIN rail



FP 2212
for the installation
of 1 electronic
consumer meter
(eHz)



FP 2213
for the installation
of 2 electronic
consumer meters
(eHz)

Empty boxes for the installation of different electrical devices either directly over attachments in the bottom or on DIN rails or mounting plates.

Circuit breaker boxes for the installation of DIN rail equipment in accordance with DIN 43 880 from 9 up to 54 modules.

KWH meter boxes for the use in unmetered area after consultation with local power supply companies. Meter boxes sealable.

Busbar boxes with doors



FP 3212
250 A, 5-pole



FP 3402
250 A, 5-pole



FP SV 25
250 A, 5-pole



FP AP 21
FP AP 41



FP BA 70



NH RT 00C
NH 00C, 125 A



ZS RS 18
D0 2, 63 A

As standard EMC compliant busbar system: with N/PEN conductor in the area of phase conductors and with the same current carrying capacity as the phase conductors.

HRC fuse boxes with fuse switch disconnecter with doors



FP 4211
1xNH 00C, 125 A
3-pole, PE + N



FP 4212
2xNH 00C, 125 A
3-pole, PE + N



FP 4312
1xNH 1, 250 A
3-pole, PE + N

HRC fuse boxes with fuse switch disconnectors in accordance with IEC 60 947-3

Isolator boxes with doors



FP 5101
63 A
3-pole, PE + N



FP 5102
100 A
3-pole, PE + N



FP 5211
160 A
3-pole, PE + N



FP 5312
250 A
3-pole, PE + N

Isolator boxes with built-in switch disconnectors in accordance with IEC 60 947-3

MCCB circuit-breaker boxes with doors



FP 5216
160 A
3-pole, PE + N



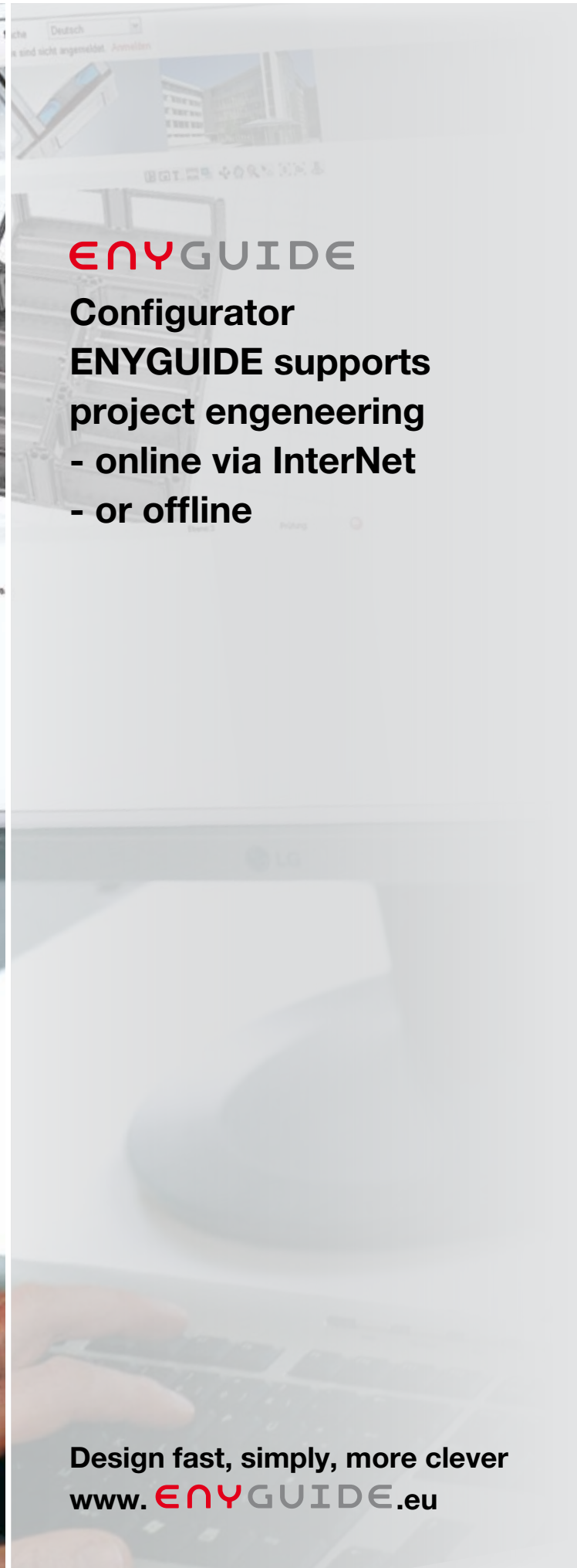
FP 5325
250 A
3-pole, PE + N

MCCB circuit-breaker boxes with circuit-breaker in accordance with IEC 60 947-2, MCCB with overload and short-circuit release



ENYSTAR

Design and project engineering



ENYGUIDE

Configurator

**ENYGUIDE supports
project engineering**

- online via InterNet

- or offline

Design fast, simply, more clever

www. ENYGUIDE.eu

Design and project engineering

Basis are the data for equipment assembly, technical data such as rated voltage and rated current as well as requirements to the system.

These are to be determined in site or for project engineering technical specifications respectively tender documents are available.

Configurator supports project engineering

- online via InterNet

- or offline

www.enyguide.eu

With the new configuration software the electrical specialist can provide himself fast and easily layouts and parts lists without any time-consuming program installation at the computer.

The professional planning aid plots the distribution board as precise 3-dimensional image for final customers and/or the user or as 2-dimensional drawing for the assembler.

The user can choose via several layers between the projection of assemblies, covers and doors.

ENYGUIDE figures out independently the necessary accessories like the number of wall separators or closing plates for enclosure walls.

Configurator homepage

Start directly with the project of ENYSTAR distribution boards or use the advantages of registration:

- personal project management
- user administration
- on demand the Hensel specialist can examine your project or take over your project data for the further processing.

Check list

1. Place of assembly industrial

Building: _____

Degree of protection: IP 54 IP 65

Mounting area: Width: max. 1.50 m

Height: max. 1.20 m

Depth: max. 0.50 m

Conditions of installation:

in the locked electrical operating room

in the workshops in corridors

freely accessible (by unauthorized people operable)

2. Type of distribution board

ENYSTAR distribution board ...

wall-mounted floor-mounted

3. Power supply data

Power supply system:

TT (L1/L2/L3/N) TN (L1/L2/L3/PE/N)

Rated current of incoming supply: 160 A

Technical specifications:

Insulated, type-tested switchgear assembly (TTA) built-up of combinable enclosures with door

as wall-mounted assembly

largest permissible dimensions:

H/W/D in mm: 1200x1500x500

Enclosure bases with door made or thermoplastic.

Burning behaviour in accordance with IEC 60 695-2-11 Glow wire test 960°C, halogen-free.

Colour: grey, RAL 7035 transparent, lockable doors.

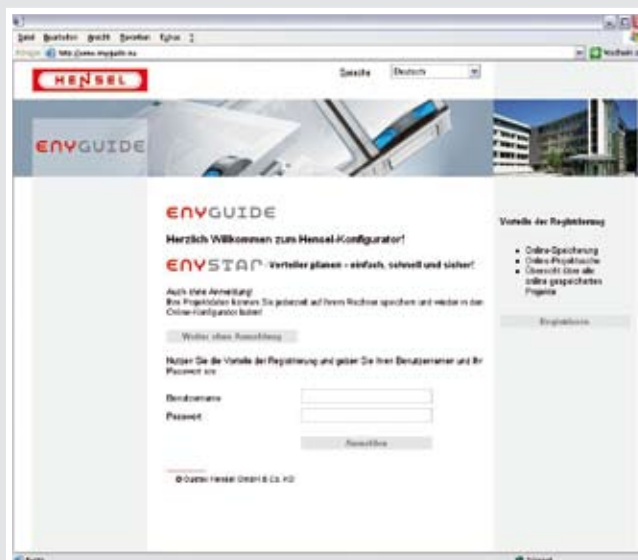
Incoming cables from the floor

...

Comfortable project engineering fast and easily with the planning aid configurator



The CONFIGURATOR is a professional planning aid, with which the electrical specialist can provide himself fast and easily layouts and parts lists without any time-consuming program installation at the computer.



Comfortable project engineering of ENYSTAR distribution boards with the configurator ENYGUIDE

Selection of the enclosures with electrical functions and equipment

Simply and fast positioning of the enclosures and components on the drawing page



Selection of accessories for installation and wiring

- bus-mounted fusegear
- busbar connectors
- terminals for direct busbar connection
- covers
- DIN rails
- mounting plates
- PE and N terminals
- wiring and terminals



Specification of accessory

- flanges for cable entry
- if necessary locking device for doors
- wall fixtures
- partition walls



Comfortable project engineering of ENYSTAR distribution boards with the configurator ENYGUIDE

Connection of enclosures and closing of the remaining enclosure walls

A test function determines the required accessories with the configurator independently such as the number of wall separators and closing plates for enclosure walls.



Creating an layout

fast and simply with the product configurator as 3-dimensional image for acquisition at your customer

or

as 2-dimensional drawing of the layers enclosures with equipment, covers and doors for the assembler.



Automatically creating of parts list and order list according to the layout

Firma:
Projektierer:
Straße/Haus-Nr.:
PLZ/Ort:
Tel.:
Fax:
E-Mail:

Kunde:
Firma:
Ansprechpartner:
Straße/Haus-Nr.:
PLZ/Ort:
Tel.:

Projekt:
Nr.: 1
Projektname: 1 Projekt1
Projektschrift: PLZ/Ort:

Druckdatum: 03.03.2008

Stückliste

ausgewählte Verteilungen: Verteilung1

Nr.	Gehäusenummer	Typ	Menge	Bezeichnung	Gewicht	Montagezeit
1	1.0	FP 0420	1	Leergehäuse mit nicht durchsichtiger Tür, Türverschluss mit Werkzeuggestaltung, Gehäusegröße 4, 540x360x186 mm	0,00	0,00
2	1.01	FP DS	1	Distanzstück (2 Stück)	0,00	0,00
3	1.02	FP FG	2	Anbauflansch für Gehäusewand 2 (270 mm), mit integrierter Einsteckkabelblenden 17 x 6-13 mm, 2 x 9-17 mm, 2 x 9-23 mm, 1 x 11-30 mm	0,00	0,00
4	1.03	FP TS 54	1	Tragschiene 486 mm	0,00	0,00
5	1.04	FP VP 36 2	2	Verschlussplatte für Gehäusewand 3 (360 mm)	0,00	0,00
6	2.0	FP 1313	1	Automatengehäuse mit transparenter Tür, Türverschluss mit Handbetätigung, Gehäusegröße 3, 36 Teilungseinheiten, 3 x 12 x 18 mm	0,00	0,00
7	2.01	FP VP 27 3	3	Verschlussplatte für Gehäusewand 2 (270 mm)	0,00	0,00
8	2.02	FP WT 1	1	Wandteiler	0,00	0,00
9	3.0	FP 3212	1	Sammelschienegehäuse mit transparenter Tür, Türverschluss mit Werkzeuggestaltung, Gehäusegröße 2, mit Sammelschiensystem 250 A, 5-polig	0,00	0,00
10	3.01	FP AP 21	1	Abdeckung für kontaktierbare Sicherungsgeräte, Gehäusegröße 2, Ausschnitt Höhe: 160 x Breite: 216 mm	0,00	0,00
11	3.02	FP VP 36 1	1	Verschlussplatte für Gehäusewand 3 (360 mm)	0,00	0,00
12	3.03	FP WT 1	1	Wandteiler	0,00	0,00
Summe:					0,00	0,00

Nr.	Gehäusenummer	Typ	Menge	Bezeichnung	Gewicht	Montagezeit
13	3.04	KS 16 F	6	Sammelschiene-Direktanschlussklemme 1,5-16 mm²	0,00	0,00
14	3.05	KS 35 F	5	Sammelschiene-Direktanschlussklemme 4-35 mm²	0,00	0,00
15	3.06	ZS RS	3	DD-Relaisicherungselement, 3-polig, 63 A	0,00	0,00
16	4.0	FP 5102	1	Lasttrennschaltergehäuse mit transparenter Tür, Türverschluss mit Handbetätigung, Gehäusegröße 1, mit 1 x 100 A, 3-polig, PE- und N-Klemme	0,00	0,00
17	4.01	FP FM	1	Anbauflansch für Gehäusewand 2 (270 mm), mit Vorpflügen 2 x M 20, 2 x M 25/32, 2 x M 32/40/50, 1 x M 40/50/83	0,00	0,00
18	4.02	FP VP 18 1	1	Verschlussplatte für Gehäusewand 1 (180 mm)	0,00	0,00
Summe:					0,00	0,00



Unlimited applications!

NEW

Hensel ENYSTAR is the first combinable enclosure system with large doors for all enclosure sizes for the fast and simple assembly of distribution boards up to 250 A, IP 65. Four enclosures made of high-quality thermoplastic can be joined together in any combination to form a system that meets on-site requirements. Open side walls, integrated gaskets and safe connections form a rigid assembly, which offers you almost unlimited application options for electrical installation.

www.enystar.eu

Gustav Hensel GmbH & Co. KG
Industrial Electrical Power Distribution Systems

Altenhundem
Gustav-Hensel-Straße 6
D-57368 Lennestadt, Germany
Phone: +49 2723/609-0
Fax: +49 2723/60052
E-mail: info@hensel-electric.de
www.hensel-electric.de

ENYSTAR
The universal and quick-build enclosure system