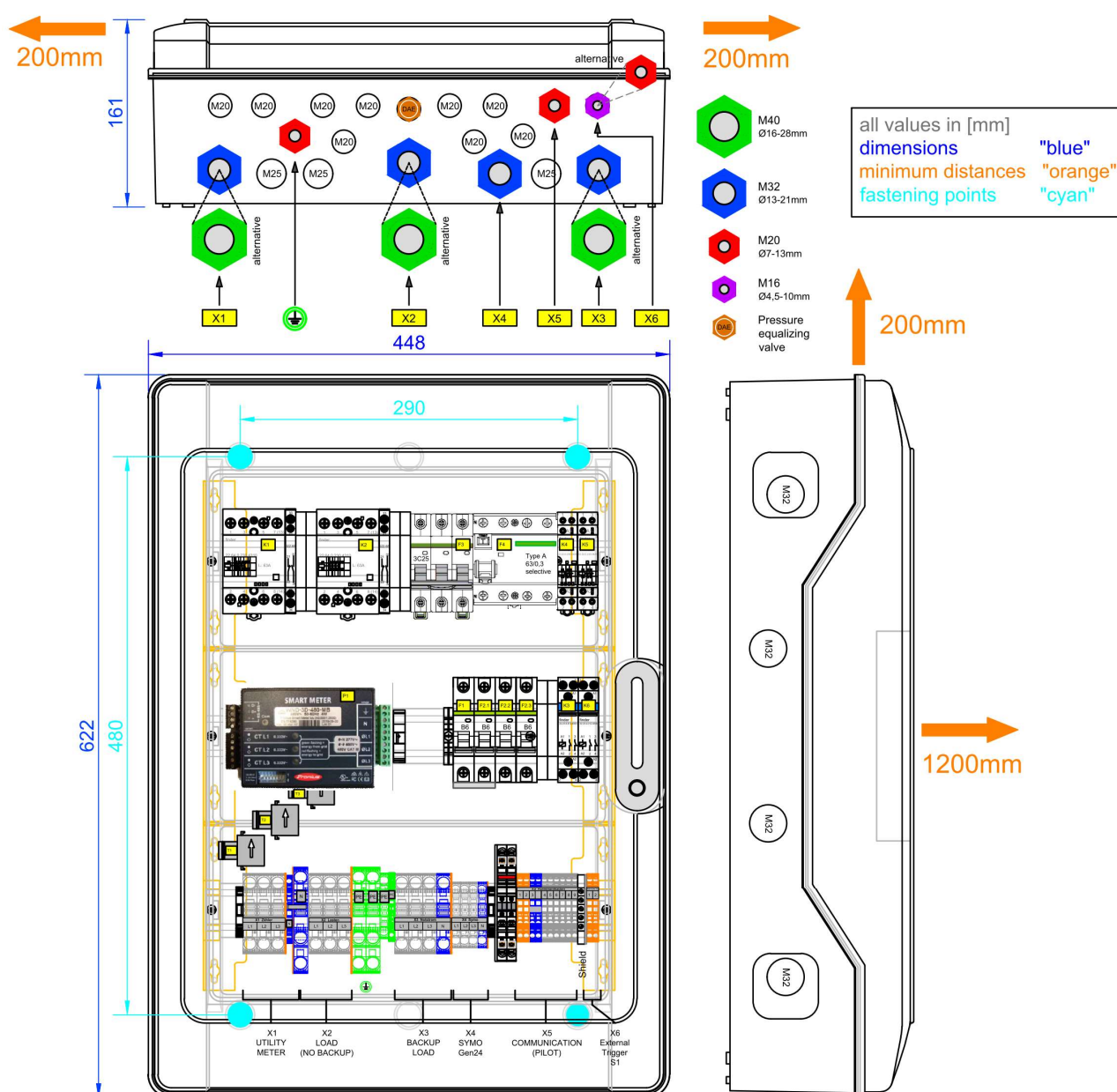


Switchover Box for the Fronius Energy Package

enwitec order number	10014305_V1.1 Three-Phase (SYMO GEN24)
Type designation	Switchover Box / Automatic transfer switch box "ITALY" 
Matchcode	<i>3PH_FRO_BBDAP_20KW_3PH_1.1_IT</i>
Application	Fronius Energy Package - Energy storage system
Battery-inverter	• Symo GEN24 PLUS (6.0/8.0/10.0)
Monitoring & Control	• Fronius Smart Meter + Current transformers are included
Grid structure	• Three-Phase -3PH- 230/400V - TT or TN-S System; NOT ANY TN-C System in the load circuits!

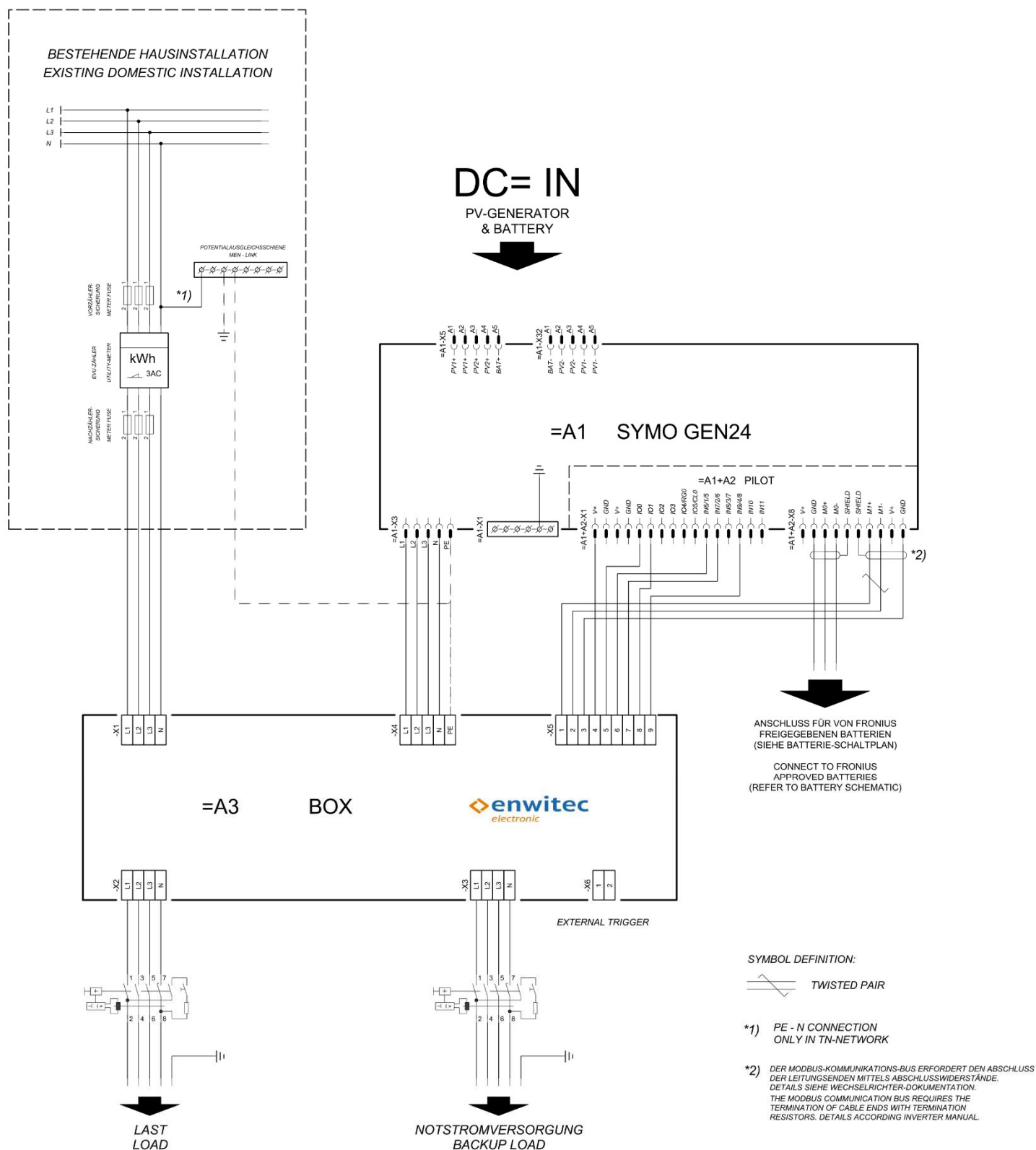


DATA SHEET

Switchover Box for the Fronius Energy Package

Circuitry overview – SYMO GEN24 Plus

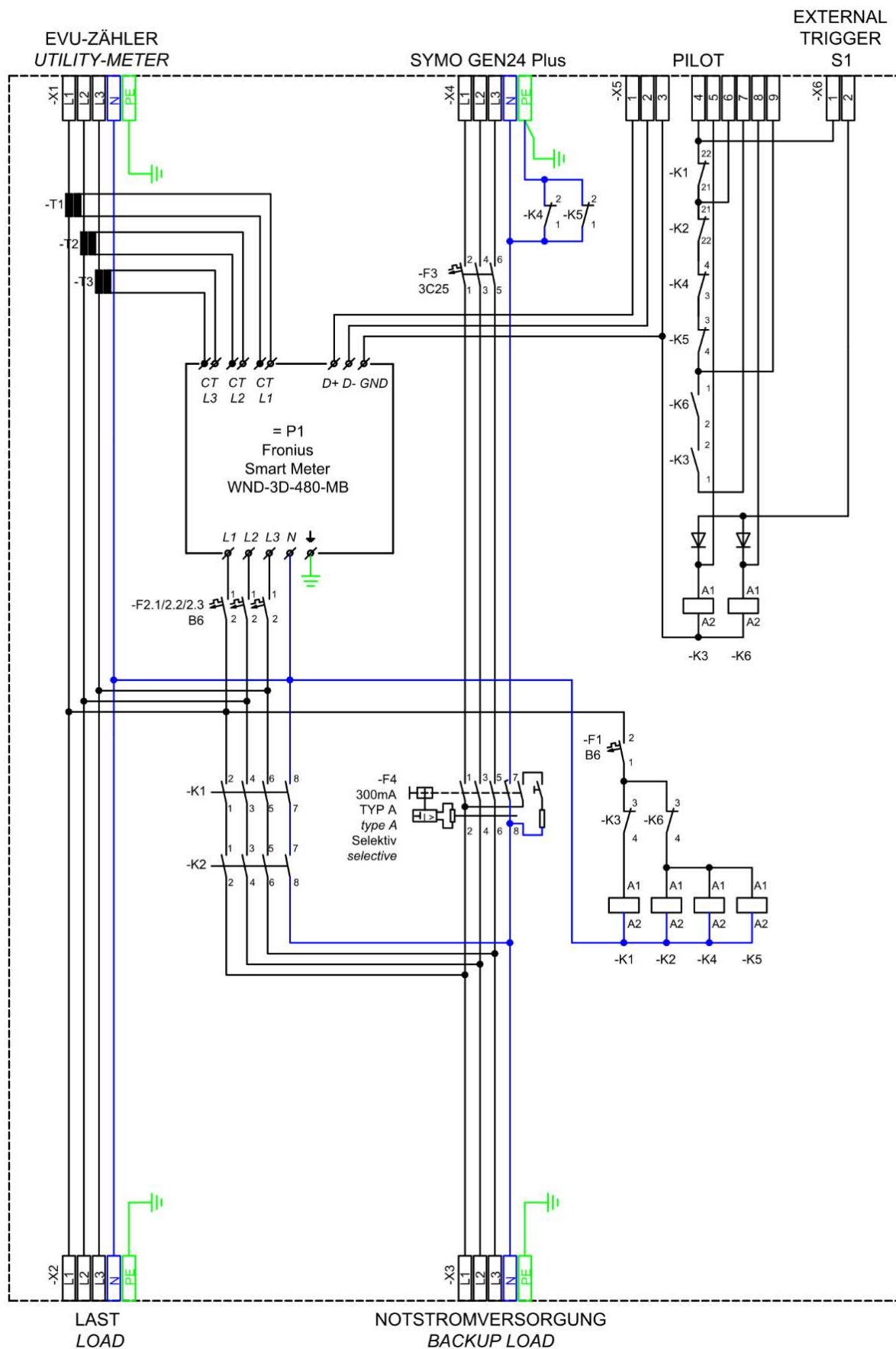
(Please refer to the original FRONIUS circuit diagram)



DATA SHEET

Switchover Box for the Fronius Energy Package

Internal wiring – Switchover Box 10014305_V1.1



Technical drawing of the top view of a container showing various connection points and their alternative configurations. The drawing includes a legend on the right side:

- M40** Ø16-28mm (Green hexagon)
- M32** Ø13-21mm (Blue hexagon)
- M20** Ø7-13mm (Red hexagon)
- M16** Ø4,5-10mm (Purple hexagon)
- Pressure equalizing valve** (Orange hexagon with 'DAE' text)

The drawing shows the following connection points and alternatives:

- X1**: M40 connection point (Green hexagon). Alternative: M25 connection point (Red hexagon).
- X2**: M40 connection point (Green hexagon). Alternative: M25 connection point (Red hexagon).
- X3**: M40 connection point (Green hexagon). Alternative: M25 connection point (Red hexagon).
- X4**: M32 connection point (Blue hexagon).
- X5**: M20 connection point (Red hexagon).
- X6**: M20 connection point (Red hexagon).

Additional details include a ground symbol (green circle with a cross) and a pressure equalizing valve (orange hexagon with 'DAE' text) located near the center of the container.

Screw fitting	To terminal strip/connection	Cable cross-section (Cu)	Cable type/conductor e.g.
 M32  M40	X1 Mains supply/Utility Meter	16(25) mm ²	NYN/NTM 4(5) x 16(25) *
 M32  M40	X2 Loads (not supported by Backup)	16(25) mm ²	NYN/NTM 5 x 16(25)
 M32  M40	X3 Backup Loads	16(25) mm ²	NYN/NTM 5 x 16(25)
 M32	X4 SYMO GEN24 PLUS	4(6) mm ²	NYN/NTM 5 x 4(6)
 M20	X5 Communication (PILOT)	≥ 0,5mm ² /≥ AWG21/1	Li2YCY* CAT6a* 4x2x0,5 4x2xAWG21/1
 M20  M16	X6 External Trigger S1	1(1,5/2,5mm ²)	NYN/NTM 3x1,5
 M20	Main equipotential bonding 	16(25) mm ²	NYN/NTM 1x16

- Li2YCY: minimum section 0,5mm²
- CAT6a: minimum section AWG21
- maximum length for data cable: 300m

DATA SHEET

Switchover Box for the Fronius Energy Package

TECHNICAL DATA

NOMINAL VALUES

Rated voltage	3PH [V]	3x230/400
Rated insulation voltage	[V]	400
Rated frequency	[Hz]	50/60
Max. prospective* short circuit current	[kA]	10
Permitted grid structure		TT/TN-S
Max. value of pre-fuses	[A]	63(gL/gG)
Grid disconnection		All pole
Max. thermal power	[kW]	20
Standby-loss ca.	[W]	18

CIRCUIT BREAKERS (MCBs)

F1	Control circuit „Grid“	1 x B6A
F2..1-3	Measuring circuit Smart Meter	3 x B6A
F3	SYMO GEN24	1 x 3C25

RESIDUAL CURRENT DEVICE (RCCB) - type "A" selective

F4	SYMO GEN24	300mA
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CONTACTORS IEC/EN61095; IEC/EN 60947-1; IEC 60947-5-1

K1/K2	"Grid disconnection" AC1/AC3 [A]	63/30
K4/K5	"Grounding device" AC1/AC3 [A]	25/10
K3/K6	"Communication" AC1 [A]	20
K1/K2/K4/K5	"Control voltage" AC[V]	230
K3/K6	"Control voltage" DC[V]	12
Hum-free		•

CONNECTIONS/TERMINALS - Max. cross section (Cu)

X1	"Mains supply/Utility meter" [mm ²]	16(25)
X2	"Loads - Not supported" [mm ²]	16(25)
X3	"Backup Load" [mm ²]	16(25)
X4	"SYMO GEN24 Plus" [mm ²]	6(10)
 X5	"Equipotential bonding" [mm ²]	16(25)
X5	"Communication/PILOT" [mm ²]	1,5(2,5)
X6	"External Trigger S1" [mm ²]	1,5(2,5)

CABLE GLANDS - Clamping range [Ø mm]

X1	„Mains supply/Utility meter“ M32/M40	13-21/16-28
X2	„Loads – Not supported“ M32/M40	13-21/16-28
X3	"Backup Load" M32/M40	13-21/16-28
X4	"SYMO GEN24 Plus" M32	13-21
 X5	"Equipotential bonding" M20	7-13
X5	"Communication/PILOT" M20	7-13
X6	„External Trigger S1“ M20/M16	7-13/4,5-10

• = met "-" = not met

GENERAL DATA

Width	[mm]	448
Height	[mm]	622
Depth	[mm]	161
Weight ca.	[kg]	15,0
Operating temperature range	[°C]	-5...+40
Temperatur - transport/storage	[°C]	-25...+55
Temporary max. 24 hours	[°C]	+70°C
Humidity - condensing allowed	•/-	-
Humidity - permitted range	[%]	5...95
Max. altitude above sea level	[m]	2000
Protection class IP (EN 60529)		65
Outdoor-application permitted	•/-	-
Installation type		Indoor area
Protection against electric shock (EN61140)		II
Cabinet - material		PC
RoHS-conformity (2011/65/EU)		•
Cabinet's colour (similar to RAL)		7035
Way of mounting		Wall
Cover		transparent
Locking system		tool-free

STANDARDS

Switching devices	EN 61439-1	•
	EN 61439-2	•
Distribution boards - operated by ordinary people (DBO)	EN 61439-3	•

SMART METER

Manufacturer	Fronius
Type	WND-3D-480-MB

MISCELLANEOUS

Customer tariff number	85371098
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* characterizes the max. uninfluenced short circuit current of the network-connecting point (mains supply)