

# DATA SHEET

ITEM NO. 10019834

Mains switch box

UM-IV [3 x 14] 20kW 400V 63A 3A B - a ÜX 400V 50H

Designation	POWER Backup 63 Symo IP EN
Application	For the Fronius Symo Hybrid or Symo GEN24 system
Region	Germany, Switzerland
Network disconnection	All-pole or three-pole disconnection (initially configurable using plug-in bridges), without FRT capability
Net shape	3PH 230/400V - TN-C/TN-S or TT networks; NO TN-C network in the customer's system!
Hybrid inverter	Symo Hybrid 3.0-3-S/4.0-3-S/5.0-3-S Symo GEN24 6.0 Plus/8.0 Plus/10.0 Plus/12.0 SC
Control & Monitoring	Fronius Smart Meter IP

All values in [mm]

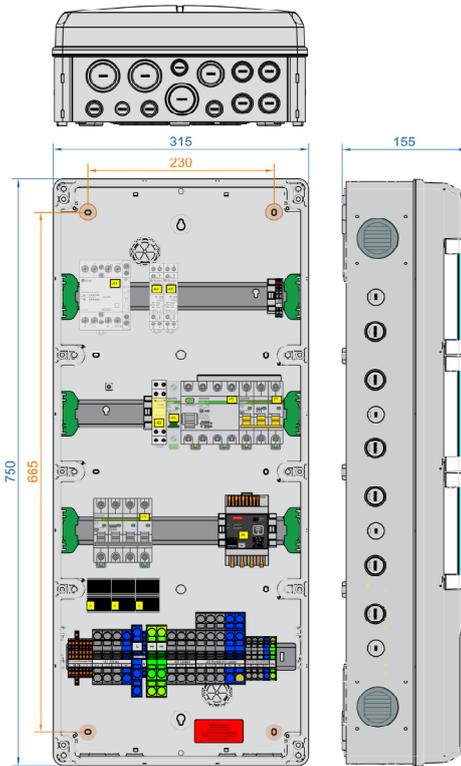
Internal arrangement and components may differ depending on the variant!

Dimensions „blue“

Fastening points „orange“

### Minimum distances

above	200
below	200
lateral	200
front	800



## SCOPE OF DELIVERY

Number	Designation	Number	Designation
1	Mains switch box	4	Cable gland M32 incl. lock nut
1	Manual	3	Cable gland M40 incl. lock nut
1	Operating instructions Fronius Smart Meter	1	Split mould insert GFD 25/01/060
1	Circuit diagram DIN A3	1 set	Jumpers (for mains isolation configuration)
1 set	Cover caps for fastening screws	1	Emergency power sticker Fronius
2	Cable gland M20 incl. lock nut	1	Warning sticker "Dangerous voltage"
1	Cable gland M25 incl. lock nut		

Status: (b)

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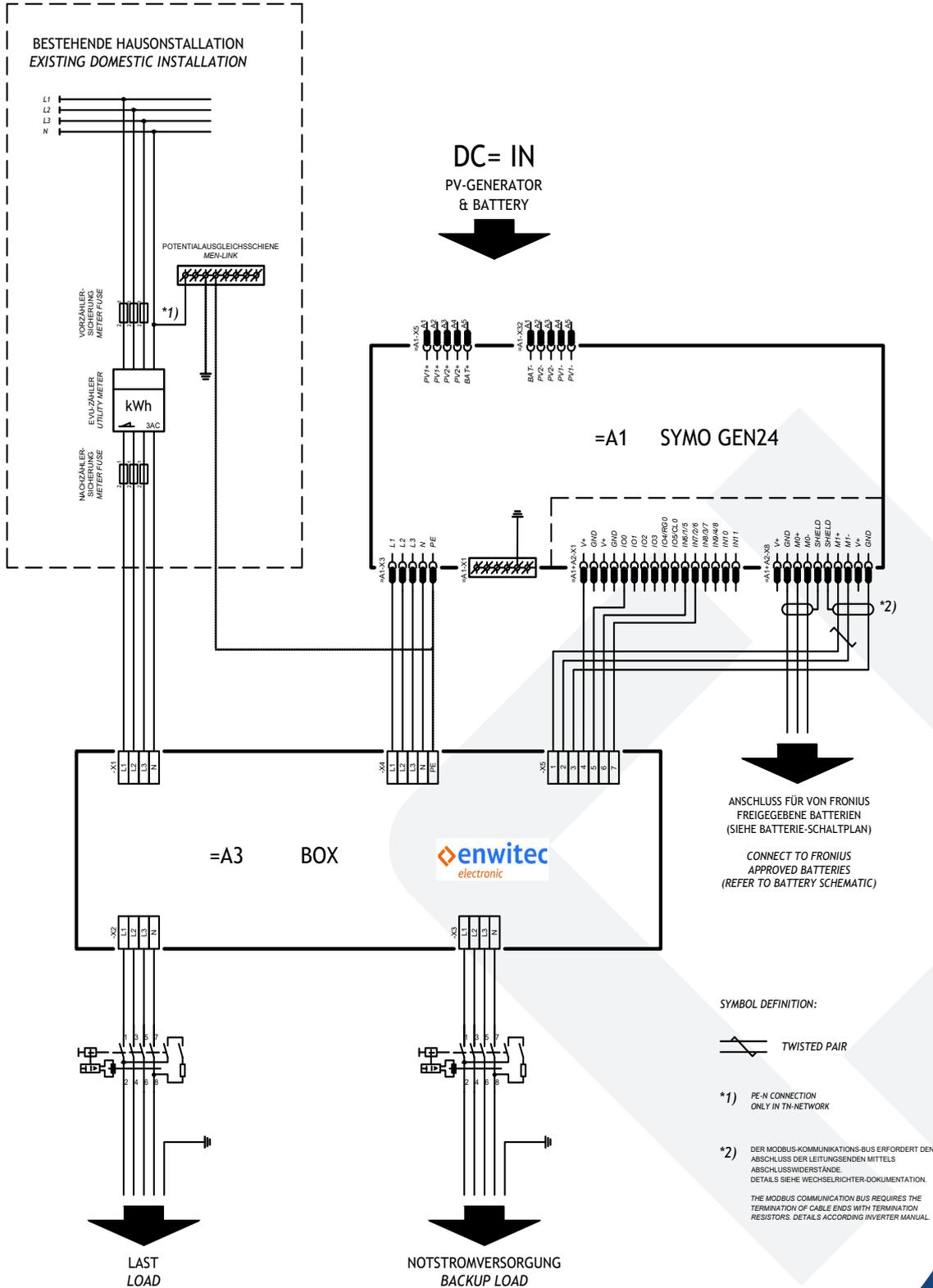
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## WIRING ENVIRONMENT VERTO PLUS



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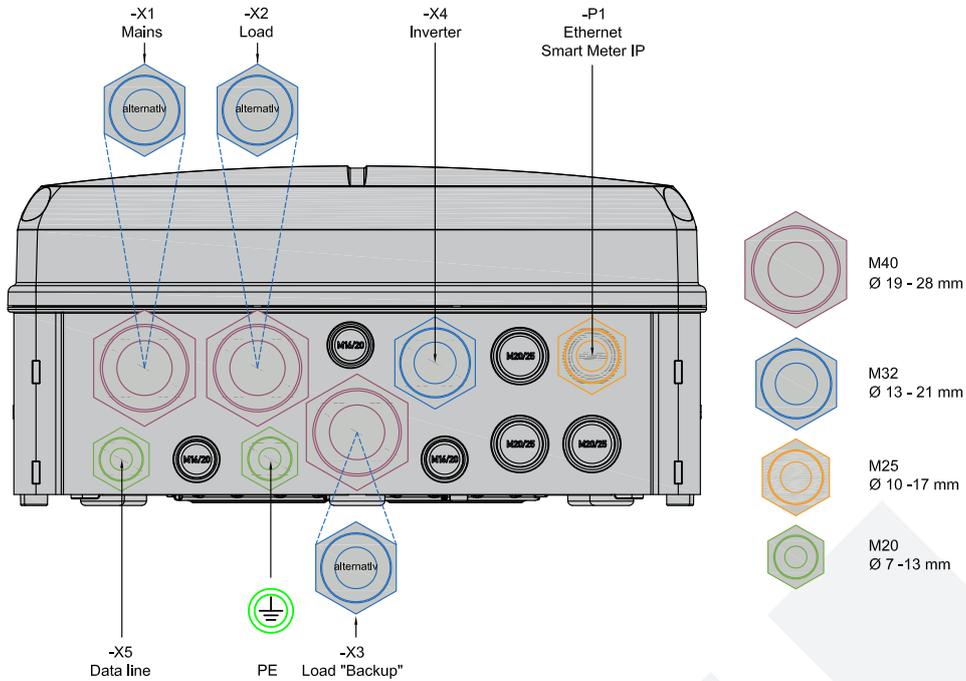
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## CABLE ENTRY AND CONNECTIONS



Cable gland	Terminal strip	Clamping range [mm]	Wire type Copper	max. cross-section [mm <sup>2</sup> ]	Stripping length [mm]
M40	-X1 - Mains	19 - 28	solid	16	18 - 20
			finely stranded	25	
			finely stranded with ferrule	16	
M40	-X2 - Load	19 - 28	solid	16	18 - 20
			finely stranded with ferrule	16	
M40	-X3 - Load "Backup"	19 - 28	solid	16	18 - 20
			finely stranded	25	
			finely stranded with ferrule	16	
M32	-X4 - Fronius inverter	13 - 21	solid	10	13 - 15
		finely stranded	10		
		finely stranded with ferrule	6		
M25	-P1 - Ethernet Fronius Smart Meter IP	split seal insert for RF45 plug	according to Fronius specifications		
M20	-X5 - Data line	7 - 13	solid	2.5	9 - 11
			finely stranded	2.5	
			finely stranded with ferrule	1.5	
M20	PE - Potential equalisation	7 - 13	solid	16	18 - 20
			finely stranded	25	
			finely stranded with ferrule	16	

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## TECHNICAL DATA

NOMINAL VALUES		• applicable / - not applicable
Rated voltage	[V]	3PH - 230/400
Rated insulation voltage	[V]	400
Operating frequency	[Hz]	50 +/- 5%
Rated short-time current resistance $I_{cw}$	[N/A]	10
Permissible mesh shape		TN-C / S / TT / TN-S
Network disconnection		all-pole or three-pole
Max. mains-side backup fuse	[A]	63
Max. thermal throughput $t_a = 35^\circ\text{C}$	[kW]	20
Standby losses, approx.	[W]	12

CIRCUIT BREAKERS AND RESIDUAL CURRENT CIRCUIT BREAKERS		
F1	Verto Plus	MCB[A] 3C25
F2	Verto Plus	RCD[A] Type A - selective, 63/0.1
F3	„Mains“ control circuit	MCB [A] B6
F4	Voltage measurement Smart meter	MCB [A] 4C16

PROTECTIVE DEVICE (IEC/EN 61095; IEC/EN60947-1; IEC 60947-5-1)		
K1	Mains disconnection	AC1 [A] 63
K4/K5	Earthing device	AC1 [A] 25
K3	Communication	AC1 [A] 10
K1/K4/K5	Control voltage	[V] 230
K3	Control voltage	[V] 12
Hum-free		•

ENERGY METER	
Manufacturer	Fronius
Type	IP

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## TECHNICAL DATA

CURRENT TRANSFORMER		• applicable / - not applicable
Accuracy class		1
Primary current	[A]	100

CONFIGURATION OF POWER DISCONNECTION BY MEANS OF PLUG-IN BRIDGES (included in delivery)		
<b>THREE-POLE</b>		
X1 - plugged between N-N'	16(25) mm <sup>2</sup>	
X6 - not plugged in	1.5(2.5) mm <sup>2</sup>	
<b>ALLPOLE</b>		
X3 - plugged between N-N'	16(25) mm <sup>2</sup>	
X6 - plugged between 1-2	1.5(2.5) mm <sup>2</sup>	

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## TECHNICAL DATA

GENERAL		• applicable / - not applicable
Dimensions WxHxD (without screw connections)	[mm]	315 x 750 x 155
Weight, approx.	[kg]	10 <sup>±</sup>
Operating temperature range	[°C]	-5...+35
Temperature - Transport/Storage (24 hours at 70°C)	[°C]	-25...+55
Humidity - condensation permitted		-
Humidity - permissible range	[%]	5...60
Degree of contamination		2
max. installation height above sea level	[m]	2000
Protection class IP (EN 60529)		30
Suitability for outdoor use (protected area)		-
Installation type		Interior
Protection class (EN 61140)		II
Housing material		Polycarbonate
RoHS compliant (2011/65/EU)		•
Housing colour		Similar to RAL 7035
Lid		Transparent
Type of installation		Wall mounting
Closure type		Without tools

MISCELLANEOUS	
Tariff number	85371098

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