

Art.Nr. 10015585

SWITCHOVER BOX Fronius SYMO GEN24 Plus „Full Backup“ | 3PH\_FRO\_BBD3P\_20KW\_3PH\_FRT\_NA\_TELE\_QU

enwitec electronic GmbH

Scherrwies 2 | 84329 Wurmannsquick

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Type designation	Switchover Box for Fronius SYMO GEN24 Plus - three-pole - incl. FRT, protection relay (mains protection relay) and manually operated source changeover switch*
Application	Fronius SYMO GEN24 Plus System „Full Backup“
Region	Austria
Battery inverter	Symo GEN24 6.0 Plus/8.0 Plus/10.0 Plus
Monitoring & control	Fronius Smart Meter TS65A-3 „Touchscreen“ is integrated
Grid structure	3PH 230/400 V - TN-S system, <b>NO</b> TN-C in customer's! <b>NO</b> TT system!

\* Changeover of backup loads to grid is doable, if the protection relay won't accept the mains frequency since it's feeded by a generator (utilities' emergency power system) and the grid decouplin contactor isn't enabled as a result.

All values in [mm]

Dimensions

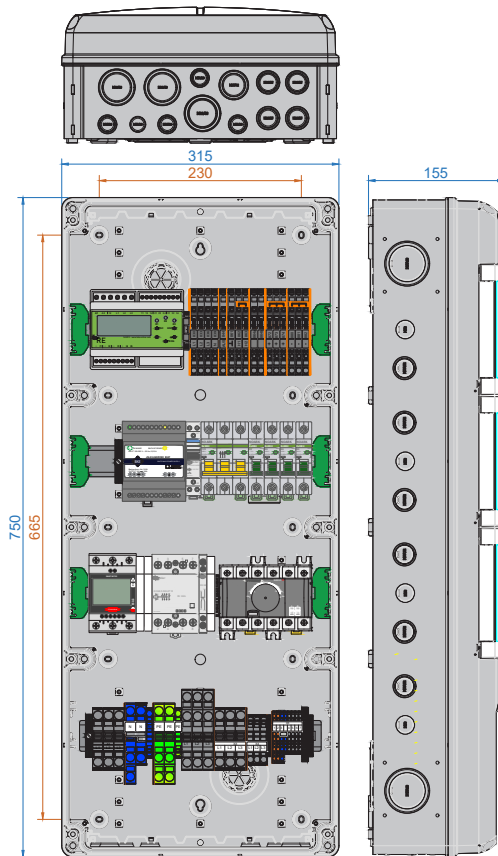
Fastening points

„blue“  
„orange“

Inner construction as well as choice of components may differ within the variants!

### Minimum distances

top	200
bottom	400
lateral	200
front	1200



## SCOPE OF DELIVERY

Quantity	Designation	Quantity	Designation
1	Installation instructions	1	Set protective cover for Fronius Smart Meter
1	Operating instructions Fronius Smart Meter	1	Set cover caps for fastening screws
1	Fronius label „Backup power“	2	Cable gland M20 incl. locknut
1	Warning label „dangerous voltage“	4	Cable gland M32 incl. locknut
1	Documentation Tele NA003-M64 (brief instruction, manufacturers declaration, test reports etc.)	3	Cable gland M40 incl. locknut

Status: July 2023

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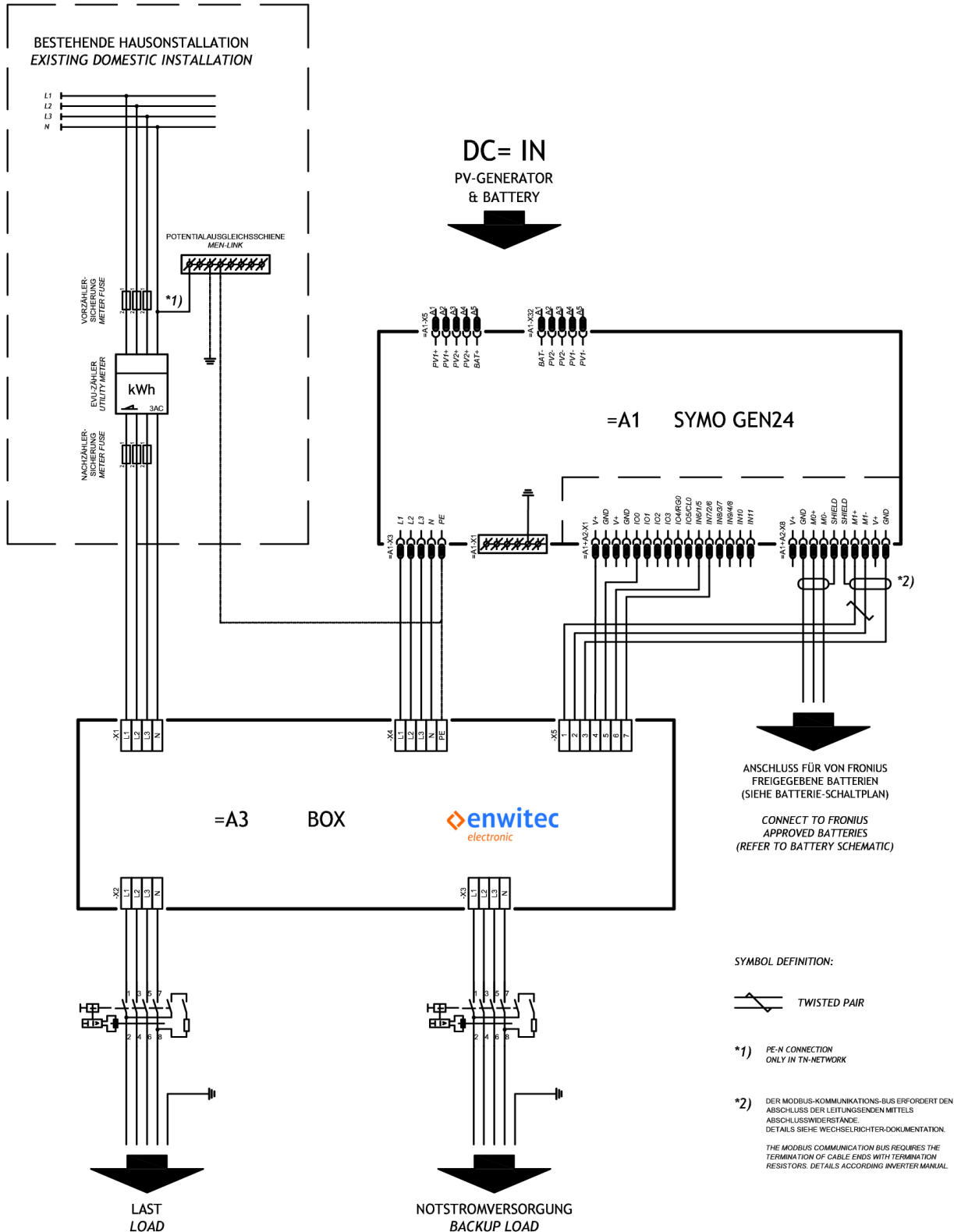
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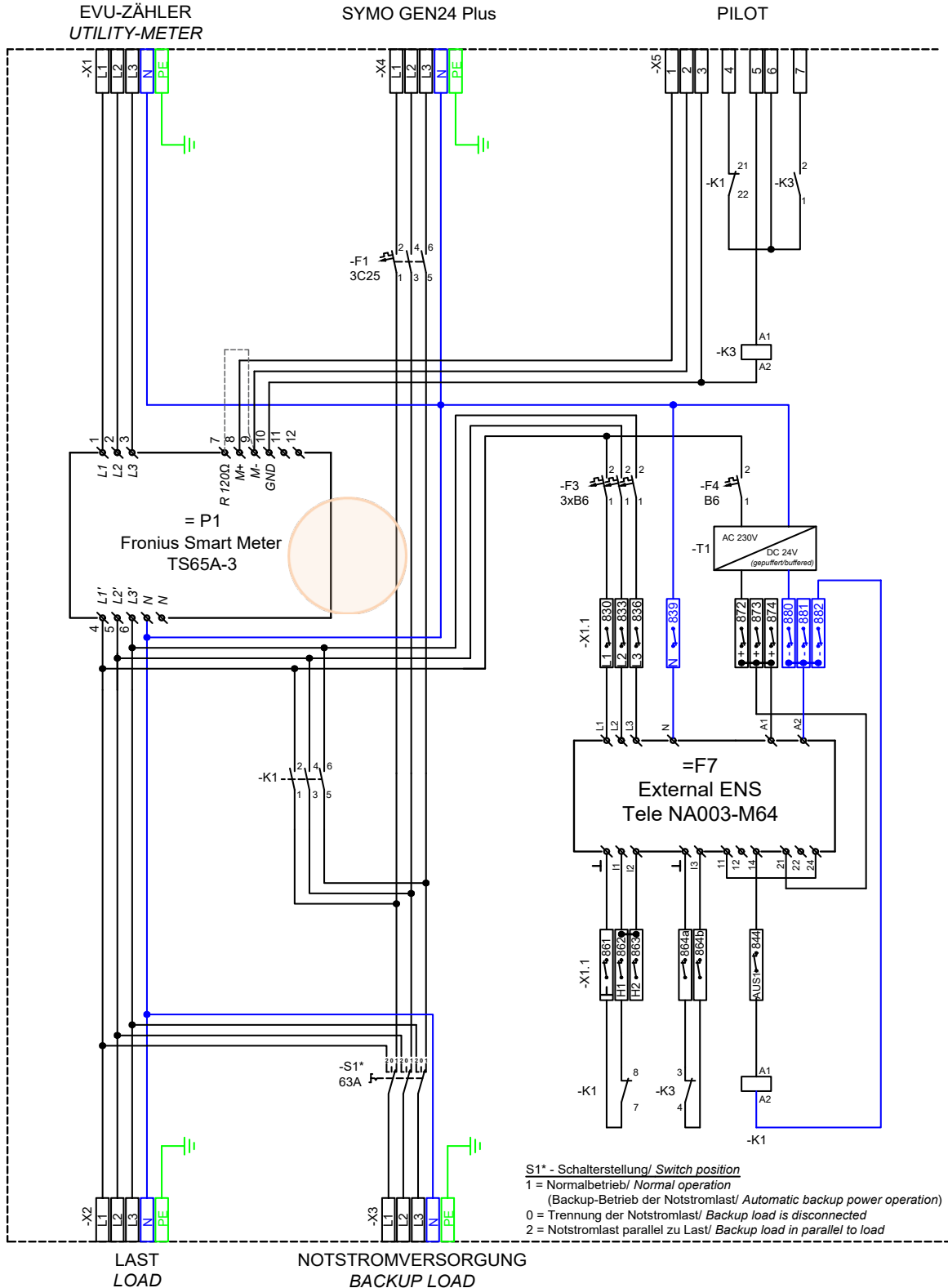
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INTERCONNECTION ENVIRONMENT - SYMO GEN24 PLUS



INTERNAL CIRCUITRY

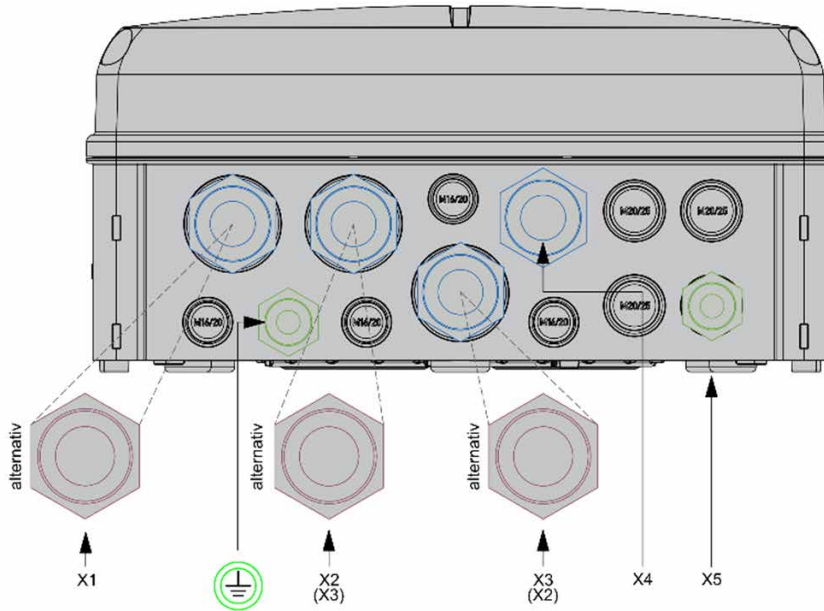


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## CABLE ENTRY



Cable gland	Terminal block	Clamping range [mm]	Wire type	Cross section [mm <sup>2</sup> ]	Stripping length [mm]
M32 M40	X1 – Grid	19 - 25 16 - 28	solid /stranded fine stranded fine stranded + wire end ferrule	16 25 16	18 - 20
M32 M40	X2 – Load „Standard“	19 - 25 16 - 28	solid /stranded fine stranded fine stranded + wire end ferrule	16 25 16	18 - 20
M32 M40	X3 – Load „Backup“	19 - 25 16 - 28	solid /stranded fine stranded fine stranded + wire end ferrule	16 25 16	18 - 20
M32	X4 – Symo GEN24 Plus	19 - 25	solid /stranded fine stranded fine stranded + wire end ferrule	10 10 6	13 - 15
M20	X5 – Data cable	6 - 13	solid /stranded fine stranded fine stranded + wire end ferrule	2,5 2,5 1,5	10 - 12
M20	PE – equipotential bonding rail	6 - 13	solid /stranded fine stranded fine stranded + wire end ferrule	16 25 16	18 - 20

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## GENERAL DATA

### NOMINAL VALUES

• applicable / - not applicable

Rated voltage		[V]	3PH - 230/400
Rated insulation voltage		[V]	400
Operating frequency		[Hz]	50/60+/-5%
Max. prospective short circuit current		[kA]	10
Permitted grid structure			TN-S
Grid disconnection			three-pole
Max. grid-side pickup fuse (gL/gG)		[A]	63
Max. thermal throughput power	ta = 40°C ta = 25°C	[kW]	20 30 <sup>#</sup>
Standby-loss, ca.		[W]	8

### CIRCUIT BREAKERS

F1	Symo GEN24 Plus	MCB [A]	3C25
F3	Measuring circuit	MCB [A]	3 x B6
F4	Power supply T1	MCB [A]	B6

### CONTACTORS (IEC/EN 61095; IEC/EN60947-1; IEC 60947-5-1)

K1	Grid disconnection	AC1 [A]	63
K3	Communication	AC1 [A]	20
K1	Control voltage	[VDC]	24
K3	Control voltage	[VDC]	12
Hum-free		•/-	•

### ENERGY METER

Manufacturer	Fronius
Type	TS65A-3

### MAINS PROTECTION RELAY

Manufacturer	Tele
Type	NA003-M64
Presetting (Standard)	OVE TOR R25 NS ASYNC
Test-disconnect terminal blocks	•/-
Power supply (buffered)	[VDC] 24

\* Is the maximum, unaffected continuous short-circuit current of the mains connection.

# When operating the switchover box with 30KW max. thermal throughput power, the use of 2 x ventilation valves is required (diagonal air flow – positioning bottom left and top right e.g.; knockouts are available)  
Protection class is being reduced to IP44.

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## TECNICAL DATA

### MANUALLY OPERATED SOURCE CHANGEOVER SWITCH (S1)

• zutreffend / - nicht zutreffend

Operational current AC21	AC [A]	63
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### GENERAL DATA

Dimensions W x H x D (without cable glands)	[mm]	315 x 750 x 155
Weight, ca.	[kg]	12
Operating temperature range t <sub>a</sub>	[°C]	-5...+40
Temperature - transport/storage (24 h. 70°C)	[°C]	-25...+55
Humidity - condensing allowed	•/-	-
Humidity - permitted range	[%]	5...95
Max. altitude above sea level N.N.	[m]	2000
Protection class IP (EN 60529) ta = 40°C ta = 25°C	IP	65 44 <sup>#</sup>
outdoor-application permitted	•/-	-
Installation type		indoor
Protection against electric shock (EN 61140)		II
Case material		polycarbonate
RoHS-conformity (2011/65/EU)	•/-	•
Case colour		similar RAL 7035
Cover		transparent
Mounting method		wall mounting
Locking system		without tool

### MISCELLANEOUS

Customs tariff number	85371098
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### ACCESSORY (not included in scope of delivery)

# Set of ventilation valves – order number	10017652 (enwitec)
Consisting of:	
2 x Ventilation valve – order number	036579 (LeGrand)
2 x Reduction adaptor	M40/M32
2 x Locknut	M40

<sup>#</sup> When operating the switchover box with 30KW max. thermal throughput power, the use of 2 x ventilation valves is required (diagonal air flow – positioning bottom left and top right e.g.; knockouts are available)  
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## EC DECLARATION OF CONFORMITY

The product, designation: **3PH\_FRO\_BBD3P\_20KW\_3PH\_FRT\_NA\_TELE\_QU**

article number: **10015585**

manufacturer: **enwitec electronic GmbH  
Scherrwies 2  
84329 Rogglfing**

description: **Switchover Box for Fronius system Symo GEN24 Plus - „Full Backup“**

to which this declaration relates, is in conformity to the following standards or normative documents:

EN 61439-1	Low-voltage switchgear and controlgear assemblies
EN 61439-2	Power switchgear and controlgear assemblies
EN 61439-3	Distribution boards intended to be operated by Ordinary persons (DBO)

and is in accordance with the provisions of the following EC-directives:

**Low-voltage directive 2014/35/EU**

**Restriction of Hazardous Substances Directive 2011/65/EU (RoHS)**

Year of affixing CE-marking: **2021**

Date of issue: **17.11.2020**

enwitec electronic GmbH



Name / Signature

Johann Wimmer  
CEO