

DATA SHEET

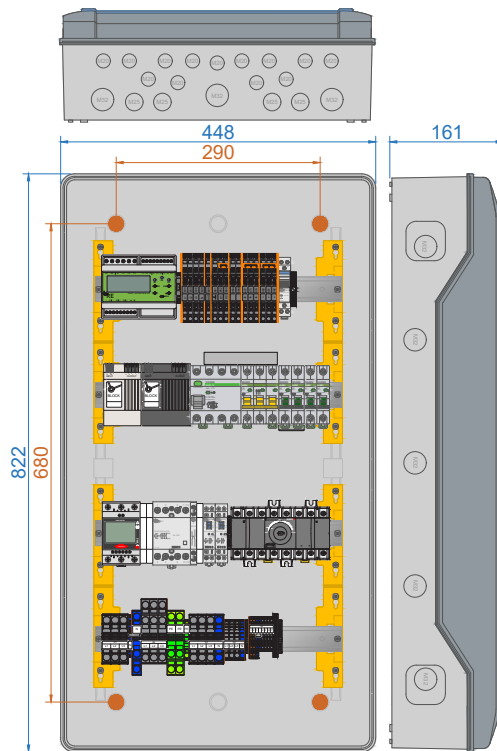
Switchover Box - Fronius SYMO GEN24 Plus - „Full Backup“

3PH_FRO_BBDAP_20KW_3PH_FRT_NA_TELE_QU

Art.Nr. 10015612

Designation	Switchover Box for Fronius SYMO GEN24 Plus - All-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 230/400V - TT oder TN-S system (TT after consultation with grid operator) , NO TN-C in customer's 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 decoupling contactor isn't enabled as a result.



All values in [mm]

Dimensions „blue“
Fastening points „orange“

Minimum distances

Top	200
bottom	400
lateral	200
front	1.200

SCOPE OF DELIVERY

Quantity	Designation	Quantity	Designation
1	Switchover Box 10015612	1 set	Cover caps (grommets) for fastening screws
3	Cable gland M40x1,5	1 set	Protective cover for Fronius Smart Meter
4	Cable gland M32x1,5	1	Warning label „dangerous voltage“
2	Cable gland M20x1,5	1	Fronius label „Backup power“
3	Enlargement adaptor from M32 to M40	1	Operating instructions Fronius Smart Meter
1	Enlargement adaptor from M25 to M32	1	Installation instructions
3	Locknut M32	1	Documentation Tele NA003-M64 (brief instruction, manufacturers' declaration, test reports etc.)
1	Locknut M25		
2	Locknut M20		

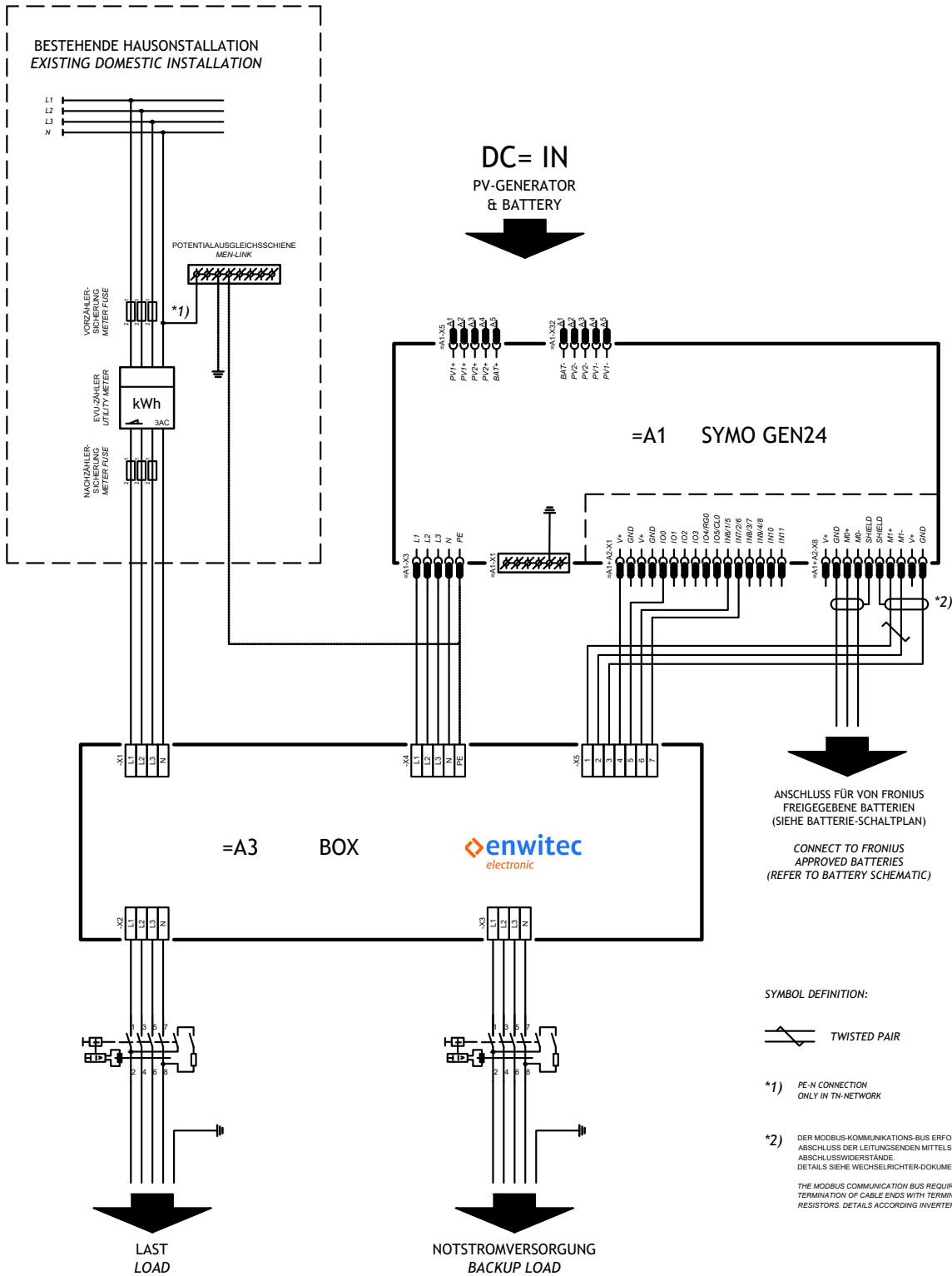
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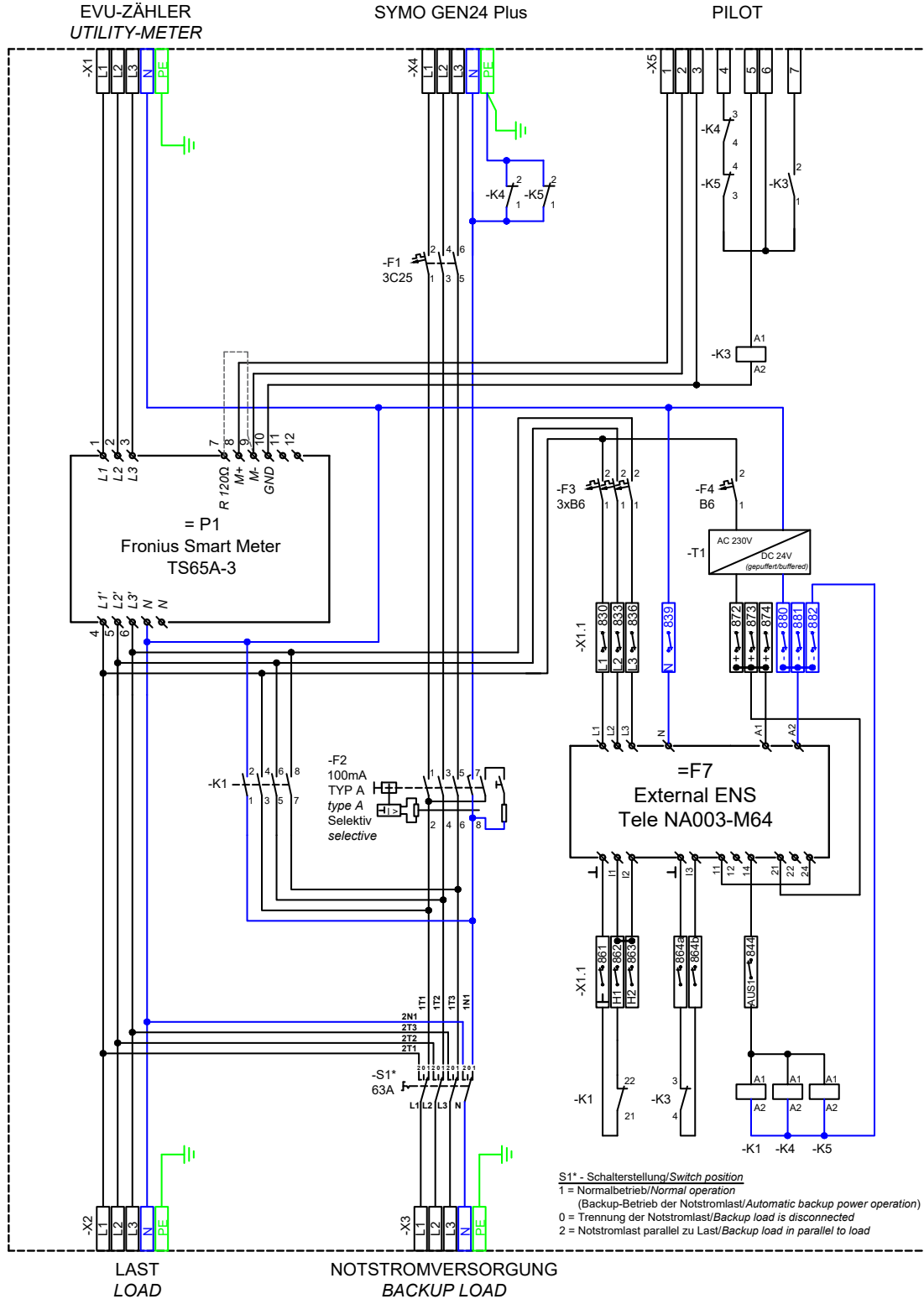
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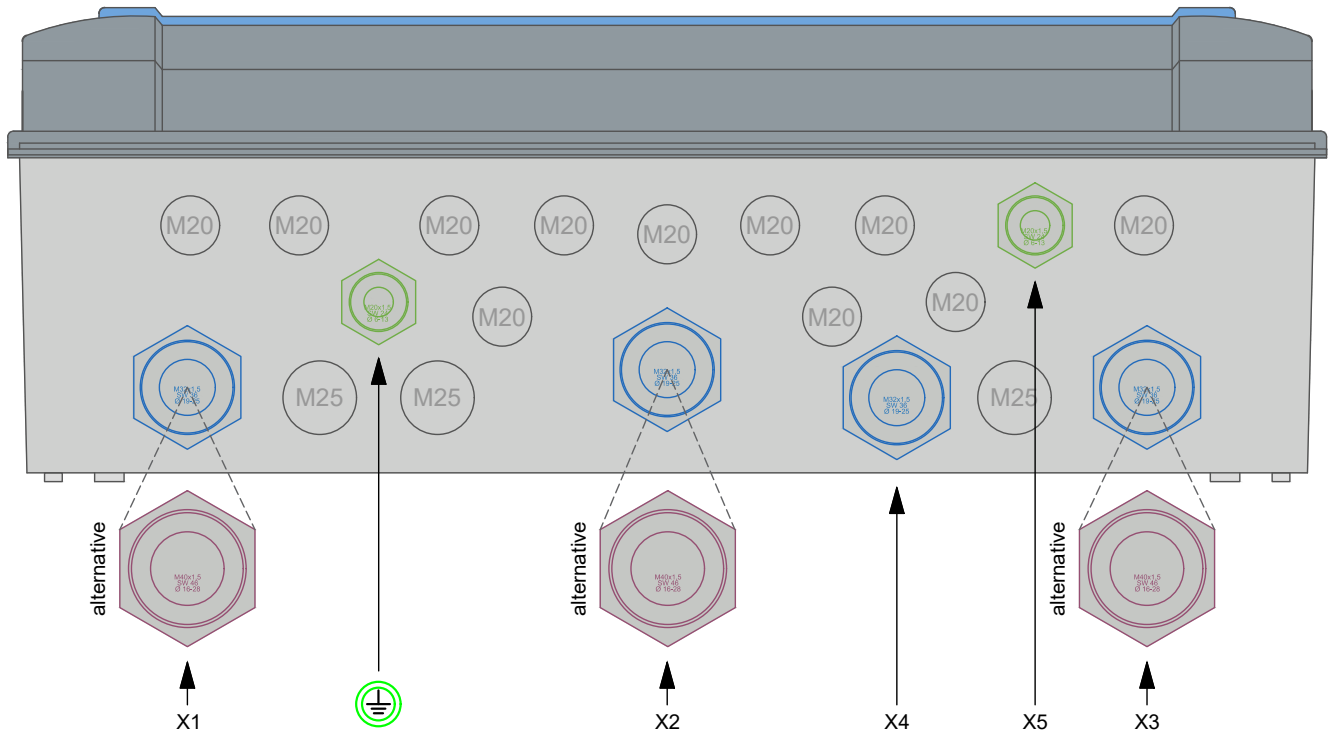
INTERCONNECTION ENVIRONMENT - SYMO GEN24 PLUS



INTERNAL CIRCUITRY



CABLE ENTRY AND CONNECTION



Cable gland	Terminal block	Clamping range ca. [mm]	Type of litz wire	max. cross section [mm ²]	Stripping length [mm]
<div style="display: flex; gap: 5px;"> <div style="width: 15px; height: 15px; background-color: #0070C0; border: 1px solid #0070C0;"></div> M32 <div style="width: 15px; height: 15px; background-color: #800040; border: 1px solid #800040;"></div> M40 </div>	X1 – Grid	19 - 25 16 - 28	solid /stranded fine stranded fine stranded + wire end ferrule	16 25 16	18 - 20
<div style="display: flex; gap: 5px;"> <div style="width: 15px; height: 15px; background-color: #0070C0; border: 1px solid #0070C0;"></div> M32 <div style="width: 15px; height: 15px; background-color: #800040; border: 1px solid #800040;"></div> M40 </div>	X2 – Load „Standard“	19 - 25 16 - 28	solid /stranded fine stranded fine stranded + wire end ferrule	16 25 16	18 - 20
<div style="display: flex; gap: 5px;"> <div style="width: 15px; height: 15px; background-color: #0070C0; border: 1px solid #0070C0;"></div> M32 <div style="width: 15px; height: 15px; background-color: #800040; border: 1px solid #800040;"></div> M40 </div>	X3 – Load „Backup“	19 - 25 16 - 28	solid /stranded fine stranded fine stranded + wire end ferrule	16 25 16	18 - 20
<div style="display: flex; gap: 5px;"> <div style="width: 15px; height: 15px; background-color: #0070C0; border: 1px solid #0070C0;"></div> M32 </div>	X4 – Symo GEN24 Plus	19 - 25	solid /stranded fine stranded fine stranded + wire end ferrule	10 10 6	13 - 15
<div style="display: flex; gap: 5px;"> <div style="width: 15px; height: 15px; background-color: #70AD47; border: 1px solid #70AD47;"></div> M20 </div>	X5 – Data cable	6 - 13	solid /stranded fine stranded fine stranded + wire end ferrule	2,5 2,5 1,5	10 - 12
<div style="display: flex; gap: 5px;"> <div style="width: 15px; height: 15px; background-color: #70AD47; border: 1px solid #70AD47;"></div> M20 </div>	PE – equipotential bonding rail	6 - 13	solid /stranded fine stranded fine stranded + wire end ferrule	16 25 16	18 - 20

TECHNICAL DATA

• applicable / - not applicable

NOMINAL VALUES

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		TT ⁺⁺ / TN-S
Grid disconnection		all-pole
Max. grid-side pickup fuse (gL/gG)	[A]	63
Max. thermal throughput power	t _a = 40°C t _a = 25°C [kW]	20 30 [#]
Standby-lost, ca.	[W]	12

CIRCUIT BREAKERS AND RESIDUAL CURRENT CIRCUIT BREAKERS

F1	Symo GEN24 Plus	MCB [A]	3C25
F2	Symo GEN24 Plus	RCD [A]	type A - selective 63/0,1
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
K4/K5	Earthing device	AC1 [A]	25
K3	Communication	AC1 [A]	20
K1/K4/K5	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

MANUALLY OPERATED SOURCE CHANGEOVER SWITCH (S1)

Operational current AC21	AC [A]	63
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GENERAL DATA

Dimensions WxHxD VAR1 (without cable glands)	[mm]	448x822x161
Weight, ca.	[kg]	13,5
Operation temperature range t _a	[°C]	-5 ... +40
Temperatur-transport/storage (24 h. 70°C)	[°C]	-25 ... +55
Humidity – condensing allowed	•/-	-
Humidity – permitted range	[%]	5...95
Max. altitude above sea level	[m]	2000
Protection class IP (EN 60529)	t _a = 40°C t _a = 25°C	IP 65 IP 44 [#]
Outdoor suitability (protected area)	•/-	-
Installation type		Indoor
Protection against electric shock (EN 61140)		II
Enclosure material		Polycarbonate
RoHS-conformity (2011/65/EU)	•/-	•
Colour of enclosure		similar RAL7035
Cover		transparent
Mounting method		wall mounting
Locking system		tool-free
MISCELLANEOUS		
Customs tariff number		85371098

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

* 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.

++ Only in consultation with grid operator

EC DECLARATION OF CONFORMITY

The product, designation: 3PH_FRO_BBDAP_20KW_3PH_FRT_NA_TELE_QU

article number: 10015612

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
Restrictions 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