Surge protection device set - PV-SET 1000 DC/AC - 2804458

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Surge protection in IP65 housing for the AC and DC sides of an inverter for single string photovoltaic systems up to 1000 V DC.

Product Features

- Plugs can be checked with CHECKMASTER
- Pre-assembled protection solutions
- Mechanical coding of all slots
- Optical, mechanical status indication for the individual arresters
- Type 2 consistent plug-in surge arresters

Key commercial data

Packing unit	1 pc
Custom tariff number	85363030
Country of origin	Germany

Technical data

Dimensions

Height	180 mm
Width	254 mm
Depth	110 mm

Ambient conditions

Degree of protection	IP65
Ambient conditions	A, B
Ambient temperature (operation)	-25 °C ... 40 °C
Altitude	max. 2000 m

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Technical data

General

Housing material	PBT / PA
Inflammability class according to UL 94	V0
Color	light grey RAL 7035
Standards for air and creepage distances	IEC 61643-1
	IEC 60664-1
	EN 61643-11
Mounting type	Surface/Wall mounting
Type	Installation housing
Number of positions	2
Surge protection fault message	Optical
Direction of action	DC: (L+)-PE & (L-)-PE & (L+)-(L-) / AC: L-N & N-PE

PV protective circuit AC side

Rated voltage U_n	230 V AC
Rated operating voltage U_e	230 V AC
Rated surge voltage resistance U_{imp}	6 kV
Rated insulation voltage U_i	250 V
Rated current I_n	80 A
Rated frequency f_n	50 Hz (60 Hz)

PV protective circuit DC side

Maximum continuous operating voltage U_{CPV}	1000 V DC
Rated surge voltage resistance U_{imp}	6 kV
Rated insulation voltage U_i	1000 V DC
Short-circuit current rating I_{SCPV}	80 A

Protective circuit

IEC test classification	II
	T2
EN type	T2
Nominal voltage U_N	230 V AC (U_N)
Maximum continuous operating voltage U_C	1000 V DC
Maximum continuous operating voltage U_C (L-N)	335 V AC
Maximum continuous operating voltage U_C (N-PE)	260 V AC
U_T (TOV-proof)	415 V AC (5 s)
U_T (TOV-safe)	1200 V AC (200 ms / N-PE)
Nominal frequency f_N	50 Hz (60 Hz)
Rated load current I_L	≤ 80 A DC

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Protective circuit

Residual current I_{PE}	≤ 1 µA (AC)
	≤ 20 µA (DC)
Standby power consumption P_C	≤ 20 mW (DC)
Max. discharge current I_{max} (8/20) µs	30 kA (DC)
	40 kA (AC)
Nominal discharge current I_n (8/20) µs	15 kA (DC)
	20 kA (AC)
Impulse discharge current (10/350)#µs, peak value I_{imp}	12 kA (N-PE)
Front of wave sparkover voltage at 6 kV (1.2/50) µs (N-PE)	≤ 1.5 kV
Voltage protection level U_p	≤ 5 kV
Voltage protection level U_p (L-N)	≤ 1.5 kV
Voltage protection level U_p (L-PE)	≤ 2 kV
Voltage protection level U_p (N-PE)	≤ 1.5 kV
Voltage protection level U_p (L+) - (L-)	≤ 5 kV
Voltage protection level U_p (L+/L-) - PE	≤ 5 kV
Residual voltage (L-N)	≤ 1.2 kV (at 5 kA)
Residual voltage (L-PE)	≤ 1.2 kV (at 5 kA)
Residual voltage (N-PE)	≤ 0.15 kV (at 5 kA)
Residual voltage (L+) - (L-)	≤ 5 kV (at 15 kA)
	≤ 4.5 kV (at 10 kA)
	≤ 4 kV (at 5 kA)
Residual voltage (L+/L-) - PE	≤ 5 kV (at 15 kA)
	≤ 4.5 kV (at 10 kA)
	≤ 4 kV (at 5 kA)
Response time	≤ 25 ns
Response time (N-PE)	≤ 100 ns
Max. backup fuse with branch wiring	≤ 125 A (gL/gG (AC side))
Max. backup fuse with V-type through wiring	≤ 80 A (gL/gG (AC side) with 16 mm²)
Short-circuit resistance I_P with max. backup fuse (effective)	25 kA (AC side)
Follow current quenching capacity If (N-PE)	100 A

Connection, protective circuit

Connection method	Screw terminal blocks
Connection type IN	Biconnect screw terminal block
Connection type OUT	Biconnect screw terminal block
Connection method	Biconnect terminal block
Screw thread	M5

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Connection, protective circuit

Tightening torque	4.5 Nm
Stripping length	16 mm
Conductor cross section stranded min.	1.5 mm²
Conductor cross section stranded max.	25 mm²
Conductor cross section solid min.	1.5 mm²
Conductor cross section solid max.	35 mm²
Conductor cross section AWG/kcmil min.	15
Conductor cross section AWG/kcmil max	2

Standards and Regulations

Standards/regulations	IEC 61643-1 2005
	EN 61643-11/A11 2007

Classifications

eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130805
eCl@ss 7.0	27130805
eCl@ss 8.0	27130805

ETIM

ETIM 2.0	EC000941
ETIM 3.0	EC000941
ETIM 4.0	EC000941
ETIM 5.0	EC000941

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

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Approvals

Approvals

Approvals

GOST

Ex Approvals

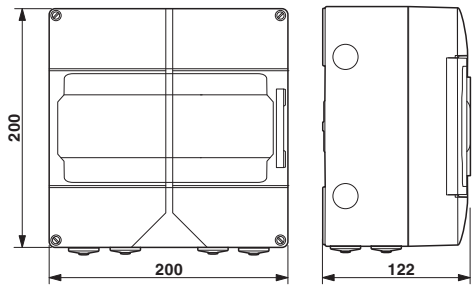
Approvals submitted

Approval details

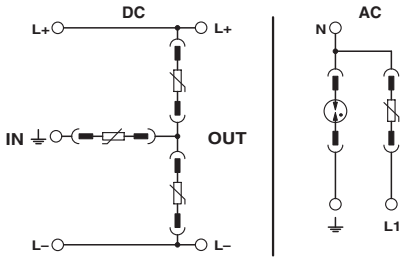
GOST

Drawings

Dimensioned drawing



Circuit diagram



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