


PV-SET 1000 DC/AC

Order No.: 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.



Commercial data	
GTIN (EAN)	 4 046356 317849
sales group	J062
Pack	1 pcs.
Customs tariff	85363030
Catalog page information	Page 64 (TT-2011)

Product notes

WEEE/RoHS-compliant since:
09/21/2007



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Technical data**Standards**

Housing material	PBT / PA
Inflammability class acc. to UL 94	V0
Color	Light gray RAL 7035

Standards for air and creepage distances	IEC 61643-1
	IEC 60664-1: 1992-10
	EN 61643-11
Degree of protection	IP65
Mounting type	Surface/Wall mounting
Design	Installation housing
Number of positions	2
Ambient conditions	A, B
Ambient temperature (operation)	-25 °C ... 40 °C
Altitude	max. 2000 m
Message: Surge protection fault	Optical
Direction of action	DC: (L+)-PE & (L-)-PE & (L+)-(L-) / AC: L-N & N-PE
Width	254.00 mm
Height	110.00 mm
Length	180.00 mm

Protective circuit

IEC category	II
	T2
EN type	T2
Nominal voltage U_N	230 V AC (U_N)
Arrester rated voltage U_C	1000 V DC
Arrester rated voltage U_C (L-N)	335 V AC
Arrester rated 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)
Nominal load current I_L	≤ 80 A DC
Ground conductor current I_{PE}	≤ 1 μ A (AC)
	≤ 20 μ A (DC)
Standby power consumption P_c	≤ 20 mW (DC)
Max. discharge surge current I_{max} (8/20) μ s	30 kA (DC)
	40 kA (AC)
Nominal discharge surge current I_n (8/20) μ s	15 kA (DC)
	20 kA (AC)
Lightning test current (10/350) μ s, peak value I_{imp}	12 kA (N-PE)

Impulse operate voltage at 6 kV (1.2/50) μ s (N-PE)	≤ 1.5 kV
Protection level U_p (L-N)	≤ 1.5 kV
Protection level U_p (L-PE)	≤ 2 kV
Protection level U_p (N-PE)	≤ 1.5 kV
Protection level U_p (L+) - (L-)	≤ 5 kV
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)
Clamping voltage SVR (L-N)	≤ 0.9 kV
Clamping voltage SVR (L-PE)	≤ 1 kV
Clamping voltage SVR (N-PE)	≤ 1 kV
Response time	≤ 25 ns
Response time (N-PE)	≤ 100 ns
Max. required backup fuse with branch wiring	≤ 125 A (gL/gG (AC side))
Max. required backup fuse with V-type through wiring	≤ 80 A (gL/gG (AC side) with 16 mm ²)
Short-circuit resistance I_p with max. backup fuse (effective)	25 kA (AC side)
Follow current quenching capacity I_f (N-PE)	100 A

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

Rated operating voltage U_{CPV}	1000 V DC
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Rated surge voltage resistance U_{imp}	6 kV
Rated insulation voltage U_i	1000 V DC
Rated current I_{SCWPV}	80 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
Tightening torque	4.5 Nm
Stripping length	16 mm
Conductor cross section stranded min.	1.5 mm ²
Conductor cross section stranded max.	25 mm ²
Conductor cross section solid min.	1.5 mm ²
Conductor cross section solid max.	35 mm ²
Conductor cross section AWG/kcmil min.	15
Conductor cross section AWG/kcmil max	2

Standards

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

Certificates / Approvals

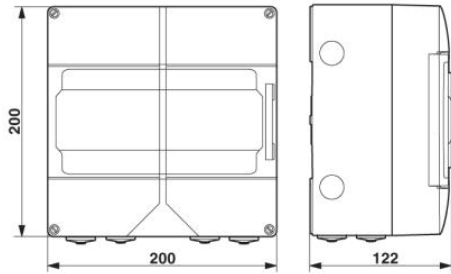


Certification

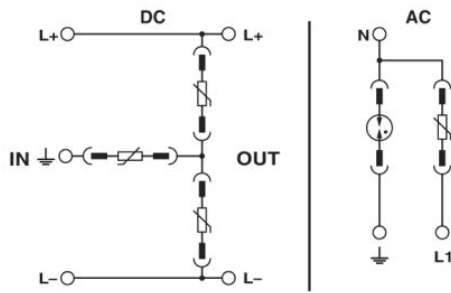
GOST

Diagrams/Drawings

Dimensioned drawing



Circuit diagram



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