

PRT-PV-1000 - Type 2 surge arrester



2908900

<https://www.phoenixcontact.com/us/products/2908900>

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Integrated onboard lightning arrester in accordance with Type 2/Class II for MPPT protection of single and multiple circuits

Commercial data

Item number	2908900
Packing unit	10 pc
Minimum order quantity	1 pc
Product key	CL134D
GTIN	4055626354804
Weight per piece (including packing)	77.12 g
Weight per piece (excluding packing)	77.12 g
Country of origin	CN

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Technical data

Product properties

EN type	T2
Type	PCB onboard surge protector
Distance between live and grounded parts	8.2 mm
Product type	PV arrester
Product family	PRINTRAB
Installation location	Interior
Installation location of the disconnect device	Internal
Accessibility	Accessible
SPD failure behavior	OCM

Insulation characteristics

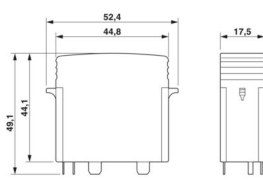
Overvoltage category	II
Pollution degree	2

Electrical properties

Indicator/remote signaling

Connection name	NC/NO
Switching function	normal/deterioration
Operating voltage	30 V AC
	30 V DC
Operating current	1 A AC
	1 A DC

Dimensions

Dimensional drawing	
Width	17.5 mm
Height	52.4 mm
Depth	49 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA 6.6-FR
Material group	I
Housing material	PA 6.6-FR

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Protective circuit

Residual current I_{PE}	$\leq 100 \mu\text{A}$
Standby power consumption P_C	$\leq 125.00 \text{ mVA}$
Nominal discharge current I_n (8/20) μs	20 kA
Maximum discharge current I_{max} (8/20) μs	40 kA
Total discharge current I_{total} (8/20) μs	40 kA
Voltage protection level U_p	$\leq 1.9 \text{ kV}$ (single item)
	$\leq 3.75 \text{ kV}$ (2 serial connections)
Residual voltage U_{res}	$\leq 1.9 \text{ kV}$ (at I_n)
	$\leq 2.4 \text{ kV}$ (at 40 kA)
Response time t_A	$\leq 25 \text{ ns}$

Protective circuit DC voltage side (DC)

Open circuit voltage U_{OCSTC}	$\leq 485 \text{ V DC}$ (single item)
	$\leq 970 \text{ V DC}$ (2 serial connections)
Maximum discharge current I_{max} (8/20) μs	40 kA
Response time t_A	$\leq 25 \text{ ns}$
Total discharge current I_{total} (8/20) μs	40 kA
Insulation resistance R_{iso}	$> 5 \text{ G}\Omega$ (at 500 V DC)
Nominal discharge current I_n (8/20) μs	20 kA
Continuous operating current I_{CPV}	$< 100 \mu\text{A}$
Maximum continuous operating voltage U_{CPV}	585 V DC (single item)
	1170 V DC (2 serial connections)
Short-circuit current rating I_{SCPV}	2000 A
Residual voltage U_{res}	$\leq 1.9 \text{ kV}$ (at I_n)
	$\leq 2.4 \text{ kV}$ (at 40 kA)
Residual current I_{PE}	$\leq 100 \mu\text{A}$
Voltage protection level U_p	$\leq 1.9 \text{ kV}$ (single item)
	$\leq 3.75 \text{ kV}$ (2 serial connections)
Standby power consumption P_C	$\leq 125.00 \text{ mVA}$

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP00
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	$\leq 5000 \text{ m}$ (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	25g (Half-sine / 11 ms / 3x $\pm X$, $\pm Y$, $\pm Z$)
Vibration (operation)	5g (10-500 Hz/2.5 h/XYZ)

Approvals

UL specifications

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Maximum continuous operating voltage MCOV	585 V DC (Ld-Ld)
Nominal discharge current I_n	20 kA
Mode of protection	Ld-Ld
Nominal voltage	485 V DC
Measured limiting voltage MLV	1900 V
SPD Type	4CA

Standards and regulations

Standards/specifications	EN 50539-11
Note	2013
Standards/specifications	NB/T 32004/GF 026: 2013

Mounting

Mounting type	PCB mounting
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Classifications

ECLASS

ECLASS-11.0	27130805
ECLASS-13.0	27171402

ETIM

ETIM 9.0	EC000941
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UNSPSC

UNSPSC 21.0	39121600
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Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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