

PRT-PV-P-1500/20-680 - Type 2 surge arrester



1026507

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Surge protective device for space-saving PCB installation, in accordance with type 2 / CLASS II, for 2-pol isolated 1500 V DC voltage systems and for 3-phase power supply networks up to 690 V AC in combination (L1, L2, L3, PE, N), with integrated remote indication contact in each plug, status indication on the module

Your advantages

- Small-scale onboard surge protector
- Reliable remote signaling alarm contact function
- Conformance with current standards

Commercial data

Item number	1026507
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Product key	CL1471
GTIN	4055626519500
Weight per piece (including packing)	75.66 g
Weight per piece (excluding packing)	75 g
Country of origin	CN

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Technical data

Notes

General

Note	For use in all low-voltage systems between L-PEN. Only for use in IT systems between L-PE if the bodies of the equipment in the low-voltage system are connected to the grounding system of the transformer station. (common grounding of the HV transformer station and the bodies of the LV consumer's installation. $R_E = R_A$ according to IEC 60364-4-442/VDE 0100-442 Figure 44D/example a)
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Product properties

Product type	PV arrester
Product family	PRINTRAB
IEC test classification	T2
EN type	PV/T2
Installation location	Indoor
Installation location of the disconnect device	Internal
Accessibility	Accessible
Connection configuration	Y configuration
End-of-life mode	OCFM

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

Nominal frequency f_N	50 Hz (60 Hz)
Dielectric strength	< 5.8 kV DC (1 min)
	< 4.2 kV AC (1 min)

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

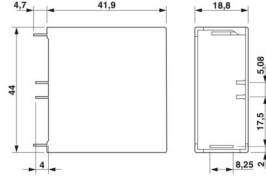
Dimensions

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Dimensional drawing	
Width	18.8 mm
Height	44 mm
Depth	41.9 mm (Without pin length)

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PBT 10 % GF / PA 6.6
Material group	I
Housing material	PBT 10 % GF/PA 6.6

Protective circuit

Nominal voltage U_N	400 V AC (TN)
	690 V AC (TN)
	500 V AC (IT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous operating voltage U_C	680 V AC (Single)
Protective conductor current I_{PE}	$\leq 20 \mu A$ (2 in series/Ucpv)
	$\leq 0.5 \text{ mA}$ (Single/UREF)
Nominal discharge current I_n (8/20) μs	20 kA
Maximum discharge current I_{max} (8/20) μs	40 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	$\leq 2.7 \text{ kV}$ (Single)
	$\leq 5.4 \text{ kV}$ (2 serial connections)
TOV behavior at U_T (L-N)	953 V AC ()
	953 V AC (120 min/failsafe mode)
Response time t_A	$\leq 25 \text{ ns}$
Max. backup fuse with branch wiring	125 A (aR)

PV protective circuit

Connection configuration	Y configuration
End-of-life mode	OCFM

Protective circuit DC voltage side (DC)

Maximum discharge current I_{max} (8/20) μs	40 kA
Response time t_A	$\leq 25 \text{ ns}$
Recommended backup fuse maximum	100 A (gG)
Insulation resistance R_{iso}	$> 5 \text{ M}\Omega$ ()

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Max. backup fuse with branch wiring	125 A (aR)
Nominal discharge current I_n (8/20) μ s	20 kA
Continuous operating current I_{CPV}	$\leq 20 \mu$ A (2 serial connections)
Maximum continuous operating voltage U_{CPV}	800 V DC (Single)
	1600 V DC (2 serial connections)
Protective conductor current I_{PE}	$\leq 20 \mu$ A (2 in series/ U_{cpv})
	≤ 0.5 mA (Single/UREF)
Voltage protection level U_p	≤ 2.7 kV (Single)
	≤ 5.4 kV (2 serial connections)

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	≤ 5000 m (Standard insulation)
	≤ 3000 m (Reinforced insulation)
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 / X, Y, Z)

Standards and regulations

Standards/specifications	IEC 61643-11
	EN 61643-11
	IEC 61643-31
	EN 61643-31

Mounting

Mounting type	PCB mounting
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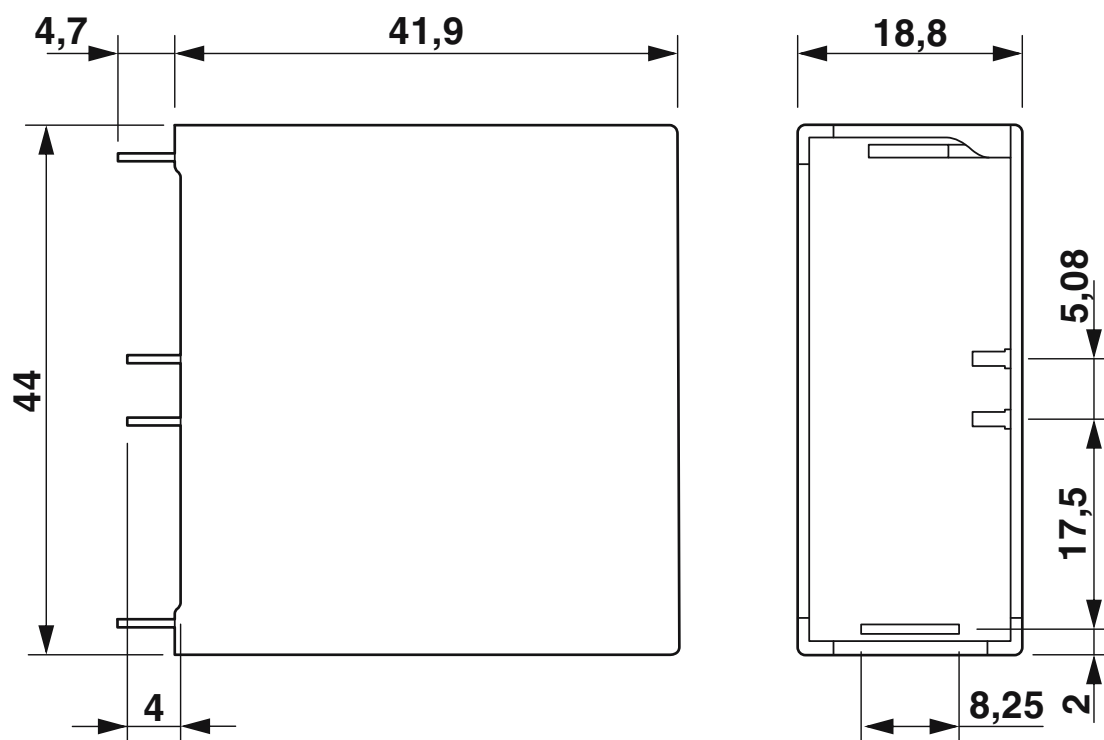


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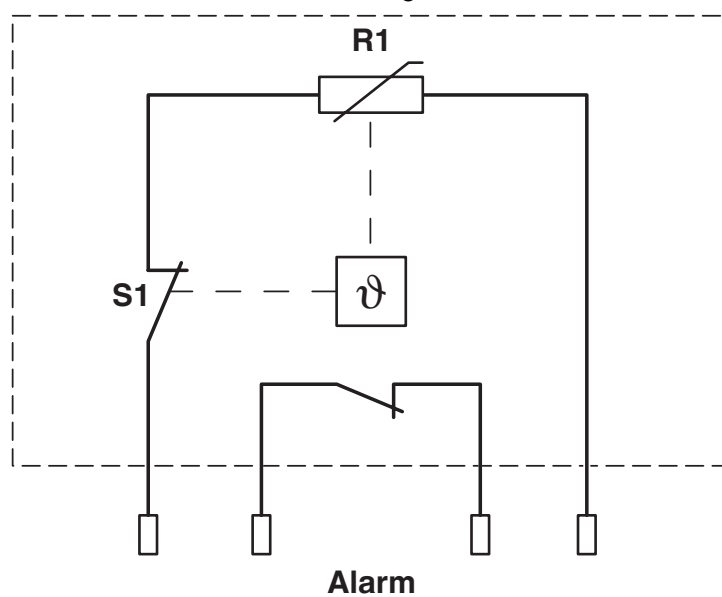
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Drawings

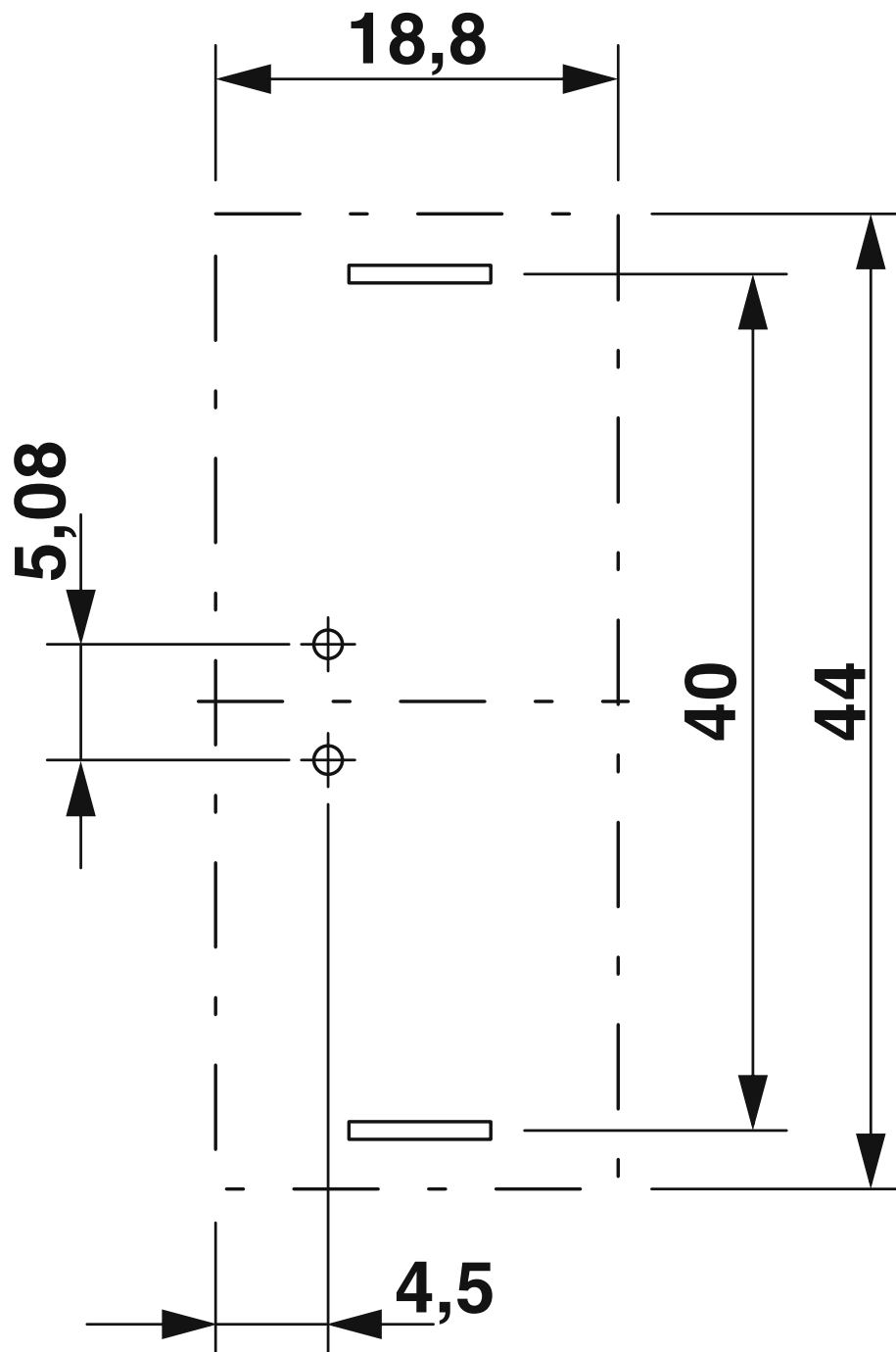
Dimensional drawing



Circuit diagram



Drilling plan/solder pad geometry



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Classifications

ECLASS

ECLASS-13.0	27171402
ECLASS-15.0	27171402

ETIM

ETIM 9.0	EC000941
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UNSPSC

UNSPSC 21.0	39121600
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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