

Type 2 surge arrester - VAL-CP-3S-350VF - 2859518

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Plug-in type 2 arrester (surge arrester) free of leakage current for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact.

Your advantages

- ✓ High continuous voltage of 350 V AC for 230/400 V AC networks with high voltage fluctuations
- ✓ With floating remote indication contact
- ✓ Mechanical coding of all slots
- ✓ Modular arrester blocks with ultra-narrow design
- ✓ Versions free of leakage current through series connection of varistor and surge arrester
- ✓ Optical, mechanical status indication for the individual arresters
- ✓ Disconnect device on each individual plug
- ✓ Type 2 consistent plug-in surge arresters



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 980542
GTIN	4017918980542

Technical data

Dimensions

Height	98.5 mm
Width	49.2 mm
Depth	70 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C

General

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Technical data

General

IEC power supply system	TT
	TN-S
Housing material	PBT
Flammability rating according to UL 94	V0
Color	gray
Standards for clearances and creepage distances	DIN VDE 0110-1
	IEC 60664-1
	IEC 61643-1
Overvoltage category	III
Degree of pollution	2
Mounting type	DIN rail: 35 mm
Type	DIN rail module, two-section, divisible
Number of positions	4
Surge protection fault message	Optical, remote indicator contact
Direction of action	3L-N & N-PE

Protective circuit

IEC test classification	II
	T2
EN type	T2
Maximum continuous operating voltage U_C (L-N)	350 V AC
Maximum continuous operating voltage U_C (N-PE)	264 V AC
U_T (TOV-proof)	350 V AC (5 s)
	1200 V AC (200 ms / N-PE)
Nominal frequency f_N	50 Hz
	60 Hz
Rated load current I_L	40 A (biconnect, 6 mm ²)
	63 A (2x 10 mm ²)
Residual current I_{PE}	$\leq 1 \mu\text{A}$ (Residual current I_{PE})
Standby power consumption P_C	$\leq 0.35 \text{ mW}$
Power consumption without load P_C	$\leq 0.35 \text{ mW}$
Max. discharge current I_{max} (8/20) μs maximum (L-N)	60 kA (all channels)
Max. discharge current I_{max} (8/20) μs maximum (N-PE)	40 kA
Nominal discharge current I_n (8/20) μs (L-N)	30 kA (all channels)
Nominal discharge current I_n (8/20) μs (N-PE)	20 kA
Front of wave sparkover voltage at 6 kV (1.2/50) μs (L-N)	$\leq 1.5 \text{ kV}$
Front of wave sparkover voltage at 6 kV (1.2/50) μs (N-PE)	$\leq 1.5 \text{ kV}$
Voltage protection level U_p (L-N)	$\leq 1.5 \text{ kV}$
Voltage protection level U_p (N-PE)	$\leq 1.5 \text{ kV}$
Residual voltage (L-N)	$\leq 1.1 \text{ kV}$ (at I_n)

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Protective circuit

	$\leq 1 \text{ kV}$ (at 5 kA)
	$\leq 0.9 \text{ kV}$ (at 3 kA)
Residual voltage (L-PE)	$\leq 1.3 \text{ kV}$ (at I_n)
	$\leq 1.1 \text{ kV}$ (at 5 kA)
	$\leq 1 \text{ kV}$ (at 3 kA)
Residual voltage (N-PE)	$\leq 0.3 \text{ kV}$ (at I_n)
	$\leq 0.25 \text{ kV}$ (at 5 kA)
	$\leq 0.2 \text{ kV}$ (at 3 kA)
Clamping voltage ringwave (L-N)	$\leq 1.3 \text{ kV}$ (category C3 20 kV/10 kA)
	$\leq 1.2 \text{ kV}$ (category C2 10 kV/5 kA)
	$\leq 1.1 \text{ kV}$ (category B3/C1 6 kV/3 kA)
Clamping voltage ringwave (L-PE)	$\leq 1.5 \text{ kV}$ (category C3 20 kV/10 kA)
	$\leq 1.5 \text{ kV}$ (category C2 10 kV/5 kA)
	$\leq 1.5 \text{ kV}$ (category B3/C1 6 kV/3 kA)
Clamping voltage ringwave (N-PE)	$\leq 1.5 \text{ kV}$ (category C3 20 kV/10 kA)
	$\leq 1.4 \text{ kV}$ (category C2 10 kV/5 kA)
	$\leq 1.2 \text{ kV}$ (category B3/C1 6 kV/3 kA)
Response time t_A (L-N)	$\leq 100 \text{ ns}$
Response time (L-PE)	$\leq 100 \text{ ns}$
Response time t_A (N-PE)	$\leq 100 \text{ ns}$
Max. backup fuse with branch wiring	125 A (gL/gG)
Max. backup fuse with V-type through wiring	40 A (gL/gG)
Short-circuit withstand capability I_P with max. backup fuse (r.m.s.)	25 kA
Follow current quenching capacity I_{fi} (N-PE)	100 A

Connection, protective circuit

Connection method	Screw connection
Connection method IN	Biconnect screw terminal block
Connection method OUT	Biconnect screw terminal block
Connection technology	Biconnect terminal block
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm
Conductor cross section flexible min.	2.5 mm ²
Conductor cross section flexible max.	16 mm ²
Conductor cross section solid min.	2.5 mm ²
Conductor cross section solid max.	25 mm ²
Conductor cross section AWG min.	12
Conductor cross section AWG max.	4

Remote indication contact

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Remote indication contact

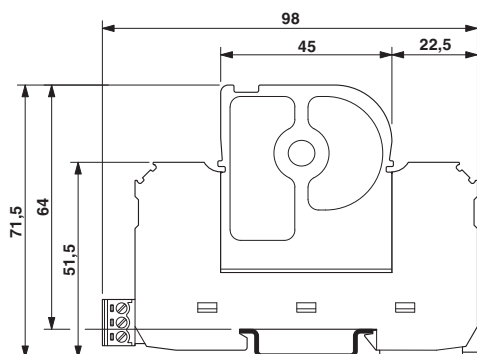
Connection name	Remote fault indicator contact
Switching function	PDT contact
Connection method	Pluggable screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section AWG min.	28
Conductor cross section AWG max.	16
Maximum operating voltage U_{max} AC	250 V AC
Maximum operating voltage U_{max} DC	125 V DC
Max. operating current I_{max}	1 A AC (inductive)
	1 A AC (ohmic)
	30 mA DC (inductive)
	200 mA DC (ohmic)
Min. permissible switching capacity	0.12 VA (12 V, 10 mA)

Standards and Regulations

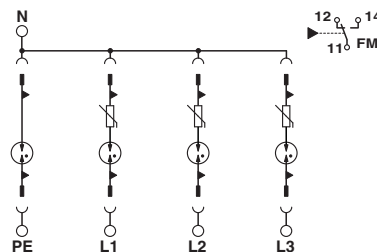
Standards/regulations	IEC 61643-1 2005
	DIN EN 61643-11 2002
	DIN EN 61643-11/A11 2007
	IEEE C62.1 / C62.34 / C62.45
	UL 1449

Drawings

Dimensional drawing



Circuit diagram



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