

Type 2 surge arrester - VAL-CP-3C-350 - 2859547

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Plug-in surge arrester for 3-phase power supply networks with N and PE in a common conductor (4-conductor system: L1, L2, L3, PEN), with remote indication contact.

Product Features

- Plugs can be checked with CHECKMASTER
- With or without floating remote indication contact
- High continuous voltage of 350 V AC for 230/400 V AC networks with high voltage fluctuations
- Modular arrester blocks with ultra-narrow design
- Use of varistors that are free of leakage current
- Mechanical coding of all slots
- Optical, mechanical status indication for the individual arresters
- Disconnect device on each individual plug
- Type 2 consistent plug-in surge arresters



Key commercial data

package_quantity	1
GTIN	4017918960827

Technical data

Dimensions

Height	98.5 mm
Width	37.25 mm
Depth	70 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (half sinus / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5 g (10 - 500 Hz / 2.5 h / X, Y, Z)

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Technical data

General

Standards/specifications	IEC 61643-11 2011
Standards/specifications	EN 61643-11 2012
IEC test classification	II
IEC test classification	T2
EN type	T2
Number of ports	One
SPD design	Voltage-limiting type
Mode of protection	L-PEN
Mounting type	DIN rail: 35 mm
Color	gray/blue
Color	black
Housing material	PBT-FR
Pollution degree	2
Inflammability class according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	3
Surge protection fault message	Optical, remote indicator contact

Protective circuit

Nominal voltage U_N	240/415 V AC (TN-C)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous operating voltage U_C (L-PEN)	350 V AC
Rated load current I_L	40 A (Biconnect M4 fork-type cable lug 6 mm ²)
Rated load current I_L	63 A (TWIN ferrule 2 x 10 mm ²)
Nominal discharge current I_n (8/20) μ s (L-PEN)	20 kA
Maximum discharge current I_{max} (8/20) μ s (L-PEN)	40 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p (L-PEN)	≤ 1.5 kV
Residual voltage U_{res} (L-PEN)	≤ 1.5 kV (at I_n)
Residual voltage U_{res} (L-PEN)	≤ 1.3 kV (at 10 kA)
Residual voltage U_{res} (L-PEN)	≤ 1.2 kV (at 5 kA)
Residual voltage U_{res} (L-PEN)	≤ 1.1 kV (at 4 kA)
Residual voltage U_{res} (L-PEN)	≤ 1 kV (at 2 kA)
TOV behavior at U_T (L-PEN)	415 V AC (5 s / withstand mode)
TOV behavior at U_T (L-PEN)	440 V AC (120 min / safe failure mode)
Response time t_A (L-PEN)	≤ 25 ns
Max. required backup fuse with branch wiring	315 A AC (gG)
Max. required backup fuse with V-type through wiring	40 A AC (gG / Biconnect M4 fork-type cable lug, 6 mm ²)
Max. required backup fuse with V-type through wiring	63 A AC (gG / TWIN ferrule 2x 10mm ²)

Indicator/remote signaling

Connection name	Remote fault indicator contact
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Indicator/remote signaling

Switching function	PDT contact
Operating voltage	5 V AC ... 250 V AC
Operating voltage	125 V AC (UL)
Operating voltage	125 V DC (200 mA DC)
Operating current	5 mA AC ... 1 A AC
Operating current	1 A AC (UL)
Operating current	1 A DC (30 V DC)
Connection method	Pluggable screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Tightening torque	2 lb in ... 4 lb in (UL)
Stripping length	7 mm
Conductor cross section stranded min.	0.14 mm ²
Conductor cross section stranded max.	1.5 mm ²
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	1.5 mm ²
AWG conductor cross section	28 ... 16
AWG conductor cross section	30 ... 14 (UL)

Connection data

Connection method	Screw connection
Conductor cross section stranded min.	2.5 mm ²
Conductor cross section stranded max.	16 mm ²
Conductor cross section solid min.	2.5 mm ²
Conductor cross section solid max.	25 mm ²
AWG conductor cross section	12 ... 4
AWG conductor cross section	14 ... 2 (Solid - UL)
AWG conductor cross section	14 ... 4 (Stranded - UL)
Screw thread	M5
Tightening torque	4.5 Nm
Tightening torque	40 lb in ... 50 lb in (UL)
Stripping length	16 mm

NEMA/UL protective circuit

UL class	Type 4 SPD for Type 2 applications
Maximum continuous operating voltage MCOV (L-L)	700 V AC
Maximum continuous operating voltage MCOV (L-G)	350 V AC
Nominal voltage U _N	277/480 V AC
Mode of protection	L-L
Mode of protection	L-G
Power distribution system	3Y
Nominal frequency	50/60 Hz

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NEMA/UL protective circuit

Voltage protection rating VPR (L-L)	2 kV
Voltage protection rating VPR (L-G)	1.2 kV
Nominal discharge current I _n (L-L)	20 kA
Nominal discharge current I _n (L-G)	20 kA

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

ETIM

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

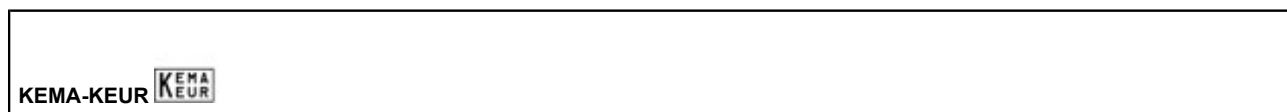
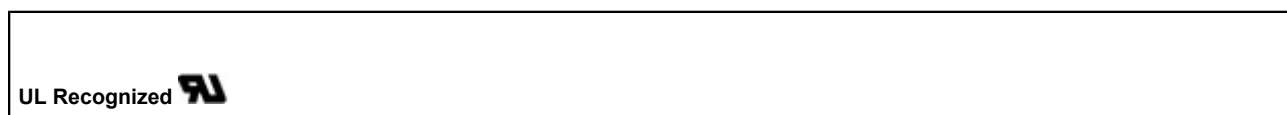
UNSPSC

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

approvals

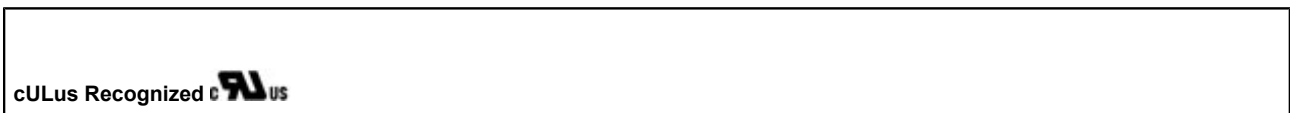
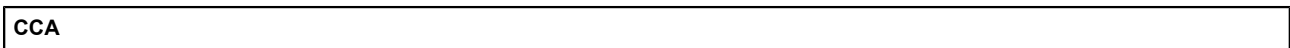
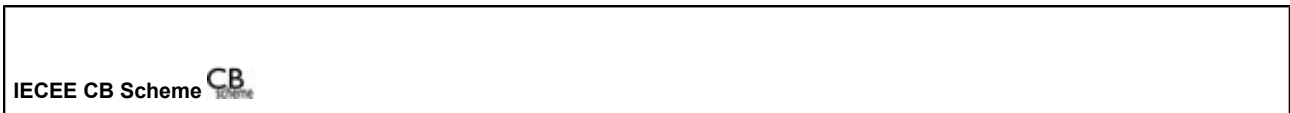
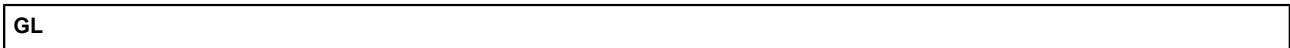
UL Recognized / KEMA-KEUR / cUL Recognized / GOST / GL / IECCEB Scheme / CCA / cULus Recognized /

Approval details



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approvals



accessories

Terminal marking

ZBF 12:UNBEDRUCKT - 0809735



ZBFM 5/WH:UNBEDRUCKT - 0803595



Marker pen

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accessories

X-PEN 0,35 - 0811228



Bridge

MPB SET VAL-CP-3S - 2880684



accessories

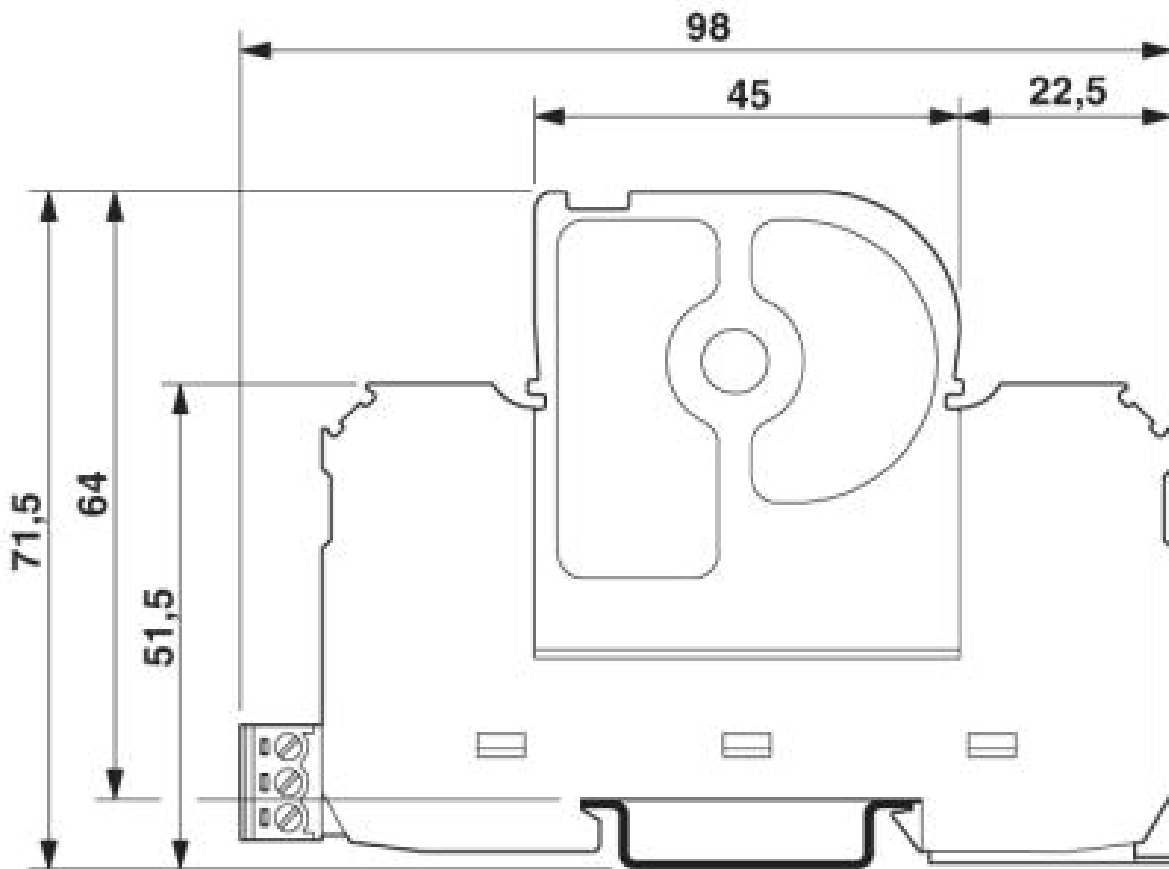
ZBF 12:SO/CMS - 0810038



Drawings

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Dimensioned drawing



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Circuit diagram

