Extract from the online catalog

Pluggable Class II arrester (surge arrester) for unearthed 1-phase current supply networks with separate N and PE (3-conductor system: L1, N, PE), with remote indication contact. Overall width 24 mm.

Order No.	2859563
Ord designation	VAL-CP-1S-350
EAN	4017918977603
Pack	1 Pcs.
Customs tariff	85363030
Catalog page information	Page 153 (NTK-2005)

Technical data

Standards

Housing material	PBT
Inflammability class acc. to UL 94	V0
Color	gray
Standards for air and creepage distances	DIN VDE 0110-1: 1997-04
Standards for air and creepage distances	IEC 60664-1: 1992-10
Standards for air and creepage distances	IEC 61643-1
Surge voltage category	III
Contamination class	2
Degree of protection	IP20
Mounting type	DIN rail 35 mm
Design	DIN rail module, two-section, divisible
Ambient temperature (operation)	-40 ° C ... 80 ° C
Message surge protection faulty	Optical, remote indicator contact
Direction of action	1L-N & N-PE

Protective circuit

IEC category	II
VDE requirement class	C
EN type	T2
Nominal voltage U_N	240 V AC (Phase conductor/N)
Nominal voltage U_N	415 V AC (Phase conductor/phase conductor)
Arrester rated voltage Uc (L-N)	350 V AC
Arrester rated voltage Uc (N-PE)	264 V AC
TOV behavior at UT (L-N)	<= 415 V (TOV-proof, 5 s)
TOV behavior at UT (N-PE)	<= 1200 V AC (TOV-safe, 200 ms)
Nominal frequency f_N	50 Hz
Nominal frequency f_N	60 Hz
Rated load current	40 A (40...63 A)
Discharge current to PE at U_C	<= 1 µA (Ground conductor current I_{PE})
Power consumption without load Pc	<= 3.5 mW
Max. discharge surge current Imax (8/20) µs maximum (L-N)	40 kA (L-N)
Max. discharge surge current Imax (8/20) µs maximum (N-PE)	40 kA (N-PE)
Nominal discharge surge current In (8/20) µs (L-N)	20 kA (L-N)
Nominal discharge surge current In (8/20) µs (N-PE)	20 kA (N-PE)
Impulse operate voltage at 6 kV (1.2/50)µs (N-PE)	<= 1.5 kV
Protection level Up (L-N)	<= 1.5 kV
Protection level Up (N-PE)	<= 1.5 kV
Residual voltage (L-N)	<= 1.4 kV (At In)
Residual voltage (L-N)	<= 1.2 kV (At 10 kA)
Residual voltage (L-N)	<= 1.1 kV (at 5 kA)
Residual voltage (L-N)	<= 1 kV (At 3 kA)
Residual voltage (L-PE)	<= 1.6 kV (At In)
Residual voltage (L-PE)	<= 1.3 kV (At 10 kA)
Residual voltage (L-PE)	<= 1.2 kV (at 5 kA)
Residual voltage (L-PE)	<= 1.1 kV (At 3 kA)
Residual voltage (N-PE)	<= 0.5 kV (At In)
Residual voltage (N-PE)	<= 0.3 kV (At 10 kA)
Residual voltage (N-PE)	<= 0.25 kV (at 5 kA)
Residual voltage (N-PE)	<= 0.2 kV (At 3 kA)
Clamping voltage SVR (L-N)	<= 0.9 kV
Clamping voltage SVR (L-PE)	<= 1.2 kV
Clamping voltage SVR (N-PE)	<= 1.2 kV
Clamping voltage ringwave (L-N)	<= 1.2 kV (Category C3 20 kV/10 kA)
Clamping voltage ringwave (L-N)	<= 1.1 kV (Category C2 10 kV/5 kA)
Clamping voltage ringwave (L-N)	<= 1 kV (Category B3/C1 6 kV/3 kA)
Clamping voltage ringwave (L-PE)	<= 1.3 kV (Category C3 20 kV/10 kA)
Clamping voltage ringwave (L-PE)	<= 1.2 kV (Category C2 10 kV/5 kA)
Clamping voltage ringwave (L-PE)	<= 1.1 kV (Category B3/C1 6 kV/3 kA)
Clamping voltage ringwave (N-PE)	<= 1.5 kV (Category C3 20 kV/10 kA)
Clamping voltage ringwave (N-PE)	<= 1.4 kV (Category C2 10 kV/5 kA)
Clamping voltage ringwave (N-PE)	<= 1.2 kV (Category B3/C1 6 kV/3 kA)
Response time (L-N)	<= 25 ns

Response time (N-PE)	<= 100 ns
Required maximum backup fuse with branch wiring	125 A (gL/gG)
Required maximum backup fuse with V-type through wiring	40 A
Short circuit resistance I_{CC} with max. backup fuse (effective)	25 kA
Short circuit current self-quenching	100 A (N-PE)

Remote indicator contact

Type of connection	Screw connection
Connection type IN	Biconnect screw terminal block
Connection type OUT	Biconnect screw terminal block
Connection system	Biconnect terminal block
Screw thread	M 5
Tightening torque, min	4.5 Nm
Stripping length	16 mm
Conductor cross section flexible min.	0.5 mm²
Conductor cross section, flexible max.	10 mm²
Conductor cross section, rigid min.	2.5 mm²
Conductor cross section, rigid max.	25 mm²
Conductor cross section AWG/kcmil min.	12
Conductor cross section AWG/kcmil max	4

Connection, protective circuit

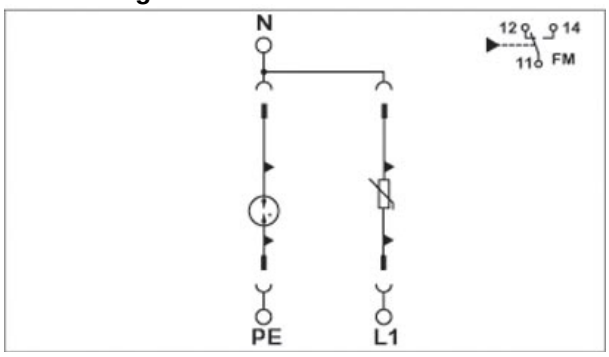
Connection name	Remote fault indicator contact
Switching function	Wechsler 1polig
Type of connection	COMBICON screw/plug connection
Screw thread	M2
Tightening torque, min	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible min.	0.14 mm²
Conductor cross section, flexible max.	1.5 mm²
Conductor cross section, rigid min.	0.14 mm²
Conductor cross section, rigid max.	1.5 mm²
Conductor cross section AWG/kcmil min.	28
Conductor cross section AWG/kcmil max	16
Maximum operating voltage $U_{max.}$ AC	250 V
Maximum operating voltage U_{max} DC	125 V
Max. operating current I_{max}	1 A AC (Inductive)
Max. operating current I_{max}	1 A AC (Ohmic)
Max. operating current I_{max}	30 mA DC (Inductive)
Max. operating current I_{max}	0.2 A DC (Ohmic)
Switching capacity min. perm.	0.12 VA (12 V, 10 mA)

Environmental conditions

Standards/regulations	IEC 61643-1:1998-02EN 61 643-11:2002-12UL 1449 ed.2IEEE C62.1; C62.45; C62.34

Drawings

Circuit diagram



Address

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Phone +49 5235 3 00
Fax +49 5235 3 1200
http://www.phoenixcontact.com
Phoenix Contact