

## Type 1+2 protective device combination - FLT-CP-3S-350 - 2859712

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Pluggable lightning current and surge arrester combination, in acc. with typ 1+2 / Class I+II / B+C arresters. Arresters coordinated following the AEC principle, for 3-phase power supply networks with separately installed PE and N (L1, L2, L3, PE, N).

### Why buy this product

- Plugs can be checked with CHECKMASTER
- High continuous voltage of 350 V AC for 230/400 V AC networks with high voltage fluctuations
- With floating remote indication contact
- Optical, mechanical status indication for the individual arresters
- Thermal disconnect device for each individual plug



### Key Commercial Data

Packing unit	1 STK
GTIN	 4 017918 956431
GTIN	4017918956431

### Technical data

#### Dimensions

Height	95 mm
Width	142.4 mm
Depth	71.5 mm
Horizontal pitch	8 Div.

#### Ambient conditions

Degree of protection	IP20 (only when all terminal points are used)
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 %

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## Technical data

### Ambient conditions

Shock (operation)	25g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (5 - 500 Hz/2.5 h/X, Y, Z)

### General

IEC test classification	I + II
	T1 + T2
EN type	T1 + T2
IEC power supply system	TN-S
	TT
Mode of protection	L-N
	L-PE
	N-PE
Mounting type	DIN rail: 35 mm
Color	gray/blue
	black
Housing material	PBT
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	4
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 3.00
Surge protection fault message	Optical, remote indicator contact

### Protective circuit

Nominal voltage $U_N$	240/415 V AC (TN-S)
	240/415 V AC (TT)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous operating voltage $U_C$ (L-N)	350 V AC
Maximum continuous voltage $U_C$ (N-PE)	350 V AC
Rated load current $I_L$	125 A (< 55 °C)
Residual current $I_{PE}$	≤ 0.01 mA
Standby power consumption $P_C$	≤ 300 mVA
Nominal discharge current $I_n$ (8/20) μs (L-N)	25 kA
Nominal discharge current $I_n$ (8/20) μs (L-PE)	25 kA
Nominal discharge current $I_n$ (8/20) μs (N-PE)	100 kA
Impulse discharge current (10/350) μs (L-N), charge	12.5 As
Impulse discharge current (10/350) μs (L-N), specific energy	160 kJ/Ω
Impulse discharge current (10/350) μs (L-N), peak current value $I_{imp}$	25 kA
Impulse discharge current (10/350) μs (L-PE), charge	12.5 As
Impulse discharge current (10/350) μs (L-PE), specific energy	160 kJ/Ω
Impulse discharge current (10/350) μs (L-PE), peak current value $I_{imp}$	25 kA

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### Technical data

#### Protective circuit

Impulse discharge current (10/350) $\mu\text{s}$ (N-PE), charge	50 As
Impulse discharge current (10/350) $\mu\text{s}$ (N-PE), specific energy	2500 kJ/ $\Omega$
Impulse discharge current (10/350) $\mu\text{s}$ (N-PE), peak current value $I_{\text{imp}}$	100 kA
Follow current interrupt rating $I_{\text{fi}}$ (L-N)	25 kA (264 V AC)
	3 kA (350 V AC)
Follow current interrupt rating $I_{\text{fi}}$ (N-PE)	100 A (350 V AC)
Short-circuit current rating $I_{\text{SCCR}}$	25 kA (264 V AC)
	3 kA (350 V AC)
Voltage protection level $U_p$ (L-N)	$\leq 1.5$ kV
Voltage protection level $U_p$ (L-PE)	$\leq 2.2$ kV
Voltage protection level $U_p$ (N-PE)	$\leq 1.5$ kV
Residual voltage $U_{\text{res}}$ (L-N)	$\leq 1.5$ kV (at $I_n$ )
	$\leq 1.2$ kV (at 10 kA)
	$\leq 1$ kV (at 5 kA)
	$\leq 0.9$ kV (at 3 kA)
Residual voltage $U_{\text{res}}$ (L-PE)	$\leq 2.2$ kV (at $I_n$ )
	$\leq 2$ kV (at 10 kA)
	$\leq 1.8$ kV (at 5 kA)
	$\leq 1.6$ kV (at 3 kA)
Residual voltage $U_{\text{res}}$ (N-PE)	$\leq 1.5$ kV (at $I_n$ )
	$\leq 1$ kV (at 10 kA)
	$\leq 0.9$ kV (at 5 kA)
	$\leq 0.8$ kV (at 3 kA)
TOV behavior at $U_T$ (L-N)	415 V AC (5 s / withstand mode)
	457 V AC (120 min / safe failure mode)
TOV behavior at $U_T$ (N-PE)	1200 V AC (200 ms / withstand mode)
Response time $t_A$ (L-N)	$\leq 25$ ns
Response time $t_A$ (N-PE)	$\leq 100$ ns
Max. backup fuse with V-type through wiring	125 A (gG)
Max. backup fuse with branch wiring	315 A (gG)

#### Indicator/remote signaling

Switching function	PDT contact
Operating voltage	12 V AC ... 250 V AC
	125 V DC (200 mA DC)
Operating current	10 mA AC ... 1 A AC
	1 A DC (30 V DC)
Connection method	Plug-in/screw connection via COMBICON
Screw thread	M2
Tightening torque	0.25 Nm

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### Technical data

#### Indicator/remote signaling

Stripping length	7 mm
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section solid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	28 ... 16

#### Connection data

Connection method	Screw terminal blocks
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	18 mm
Conductor cross section flexible	2.5 mm <sup>2</sup> ... 25 mm <sup>2</sup>
Conductor cross section solid	2.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Conductor cross section AWG	13 ... 2

#### UL specifications

SPD Type	4CA
Maximum continuous operating voltage MCOV (L-L)	528 V AC
Maximum continuous operating voltage MCOV (L-N)	264 V AC
Maximum continuous operating voltage MCOV (L-G)	528 V AC
Maximum continuous operating voltage MCOV (N-G)	264 V AC
Nom. voltage	240/415 V AC
Mode of protection	L-L
	L-N
	L-G
	N-G
Power distribution system	3Y
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-L)	2470 V
Measured limiting voltage MLV (L-N)	1340 V
Measured limiting voltage MLV (L-G)	1550 V
Measured limiting voltage MLV (N-G)	1080 V
Nominal discharge current I <sub>n</sub> (L-L)	20 kA
Nominal discharge current I <sub>n</sub> (L-N)	20 kA
Nominal discharge current I <sub>n</sub> (L-G)	20 kA
Nominal discharge current I <sub>n</sub> (N-G)	20 kA

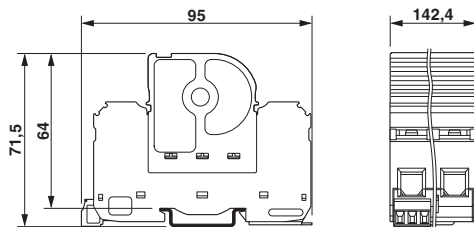
#### Environmental Product Compliance

REACH SVHC	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) 25973-55-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

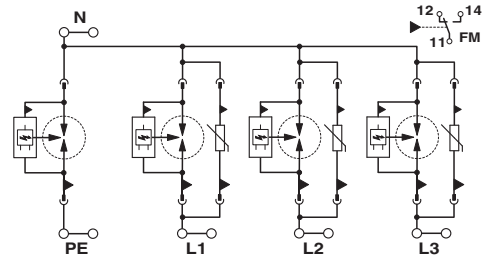
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## Drawings

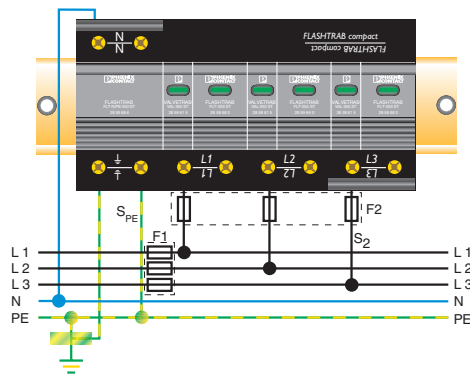
Dimensional drawing



Circuit diagram

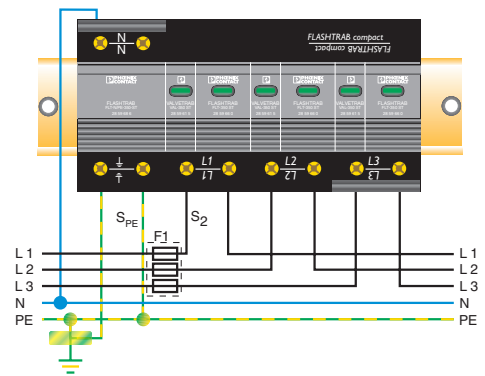


Application drawing



Connection in the line

Application drawing



V wiring connection

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