

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)



Plug-in lightning and surge arrester combination, in accordance with Type 1+2/Class I+II, for 3-phase power supply networks, with separate N and PE (L1, L2, L3, PE, N).

### Your advantages

- Directly coordinated combination of type 1 spark gap without line follow current and type 2 varistor arrester
- Particularly suitable for maximum protection of sensitive devices in harsh environments
- High continuous voltage of 350 V AC for 230/400 V AC networks with high voltage fluctuations
- ☑ Pluggable
- Optical, mechanical status indicator
- With floating remote indication contact
- ☑ Plugs can be checked with CHECKMASTER 2



### **Key Commercial Data**

Packing unit	1 pc
GTIN	4 046356 950664
GTIN	4046356950664
Weight per Piece (excluding packing)	1,186.500 g
Custom tariff number	85363030
Country of origin	Germany

### Technical data

#### **Dimensions**

Height	95.2 mm
Width	142.4 mm
Depth	74.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	8 Div.



## Technical data

## 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 %
Shock (operation)	30g (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
	T1 + T2
	T1
EN type	T1 + T2
	T1
IEC power supply system	TN-S
	TT
Mode of protection	L-N
	L-PE
	N-PE
Mounting type	DIN rail: 35 mm
Color	light grey RAL 7035
	traffic grey A RAL 7042
Housing material	PA 6.6-FR 20 % GF
	PBT-FR
Degree of pollution	2
Flammability rating according to UL 94	V-0
Туре	DIN rail module, two-section, divisible
Number of positions	4
Surge protection fault message	Optical, remote indicator contact

## Protective circuit

Nominal voltage U <sub>N</sub>	240/415 V AC (TN-S)
	240/415 V AC (TT)
Nominal frequency f <sub>N</sub>	50 Hz (60 Hz)
Maximum continuous voltage U <sub>C</sub>	350 V AC
Rated load current I <sub>L</sub>	125 A (< 55 °C)
Residual current I <sub>PE</sub>	≤ 0.01 mA
Nominal discharge current I <sub>n</sub> (8/20) μs (L-N)	25 kA
Nominal discharge current I <sub>n</sub> (8/20) µs (L-PE)	25 kA



## Technical data

### Protective circuit

Nominal discharge current (10/350) μs (N-PE)         100 kA           Impulse discharge current (10/350) μs (L-N), specific energy         150 kJ/Ω           Impulse discharge current (10/350) μs (L-PE), specific energy         150 kJ/Ω           Impulse discharge current (10/350) μs (L-PE), charge         125 kA           Impulse discharge current (10/350) μs (L-PE), charge         150 kJ/Ω           Impulse discharge current (10/350) μs (L-PE), peak current value I <sub>mp</sub> 25 kA           Impulse discharge current (10/350) μs (N-PE), charge         50 As           Impulse discharge current (10/350) μs (N-PE), specific energy         100 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         100 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         100 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         100 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         100 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         100 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         100 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         100 kJ/Ω           Short (10 kJ/Q         100 kJ/Q           Follow current interrupt rating l <sub>1</sub> (N-PE)         25 kJ/Q           Short (10 kJ/Q		
Impulse discharge current (10/350) μs (L-N), peak current value I <sub>mp</sub> 25 kA           Impulse discharge current (10/350) μs (L-PE), charge         12.5 As           Impulse discharge current (10/350) μs (L-PE), peach cenery         160 kJ/Ω           Impulse discharge current (10/350) μs (L-PE), specific energy         160 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), peach current value I <sub>mp</sub> 25 kA           Impulse discharge current (10/350) μs (N-PE), specific energy         200 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         200 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         200 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         200 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         200 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         200 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         200 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         200 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         200 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         200 kJ/Ω           Impulse discharge current (10/350) μs (N-PE)         21.5 kJ/Q           10.0 kJ/Q         20.0 kJ/Q	Nominal discharge current I <sub>n</sub> (8/20) μs (N-PE)	100 kA
Impulse discharge current (10/350) μs (L-N), peak current value I <sub>rre</sub> 25 kA           Impulse discharge current (10/350) μs (L-PE), charge         12.5 As           Impulse discharge current (10/350) μs (L-PE), peak current value I <sub>rre</sub> 160 kJ/Ω           Impulse discharge current (10/350) μs (L-PE), peak current value I <sub>rre</sub> 50 As           Impulse discharge current (10/350) μs (N-PE), specific energy         2500 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         100 kA           Follow current interrupt rating I <sub>k</sub> (L-N)         25 kA (264 V AC)           Follow current interrupt rating I <sub>k</sub> (N-PE)         100 A (350 V AC)           Short-circuit current rating I <sub>SCCR</sub> 25 kA (264 V AC)           Voltage protection level U <sub>k</sub> (L-N)         41.5 kV           Voltage protection level U <sub>k</sub> (L-N)         41.5 kV           Voltage protection level U <sub>k</sub> (L-PE)         41.5 kV (at 1)           Voltage protection level U <sub>k</sub> (L-PE)         41.5 kV (at 10 kA)           Sesidual voltage U <sub>rea</sub> (L-N)         41.5 kV (at 10 kA)           Leving I <sub>k</sub> (L-PE)         41.5 kV (at 10 kA)           Sesidual voltage U <sub>rea</sub> (L-PE)         42.2 kV (at 10 kA)           Sesidual voltage U <sub>rea</sub> (N-PE)         41.8 kV (at 5 kA)           Sesidual voltage U <sub>rea</sub> (N-PE)         41.5 kV (at 10 kA)           Sesidual voltage U <sub>rea</sub>	Impulse discharge current (10/350) µs (L-N), charge	12.5 As
Impulse discharge current (10/350) μs (L-PE), charge         12.5 As           Impulse discharge current (10/350) μs (L-PE), specific energy         160 k.//Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         25 kA           Impulse discharge current (10/350) μs (N-PE), specific energy         2500 k.//Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         2500 k.//Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         2500 k.//Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         2500 k.//Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         2500 k.//Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         2500 k.//Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         2500 k.//Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         2500 k.//Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         2500 k.//Ω           3 k A (350 V AC)         200 k (260 V AC)           Short circuit current rating l <sub>k</sub> (N-PE)         2.1.5 kV           Short circuit current rating l <sub>k</sub> (N-PE)         2.1.5 kV           Voltage protection level U <sub>k</sub> (L-PE)         2.1.5 kV           Voltage protection level U <sub>k</sub> (L-PE)         2.1.5 kV           Residual voltage U <sub>res</sub> (L-PE)	Impulse discharge current (10/350) µs (L-N), specific energy	160 kJ/Ω
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 <sub>mp</sub> 25 kA           Impulse discharge current (10/350) μs (N-PE), specific energy         250 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         250 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         100 kA           Follow current interrupt rating I <sub>11</sub> (L-N)         25 kA (264 V AC)           Short-circuit current rating I <sub>1200</sub> 25 kA (264 V AC)           Short-circuit current rating I <sub>1200</sub> 25 kA (264 V AC)           Short-circuit current rating I <sub>1200</sub> 25 kA (264 V AC)           Voltage protection level U <sub>12</sub> (L-N)         41.5 kV           Voltage protection level U <sub>12</sub> (L-N)         41.5 kV           Voltage protection level U <sub>12</sub> (L-PE)         41.5 kV           Voltage protection level U <sub>12</sub> (L-PE)         41.5 kV           Residual voltage U <sub>762</sub> (L-N)         41.5 kV (41 10 kA)           4 1.2 kV (at 10 kA)         41.5 kV (at 10 kA)           4 1.2 kV (at 10 kA)         41.8 kV (at 5 kA)           4 1.8 kV (at 10 kA)         41.8 kV (at 10 kA)           4 1.8 kV (at 10 kA)         41.8 kV (at 10 kA)           4 1.8 kV (at 10 kA)         41.6 kV (at 3 kA)           Residual	Impulse discharge current (10/350) μs (L-N), peak current value I <sub>imp</sub>	25 kA
Impulse discharge current (10/350) μs (N-PE), peak current value l <sub>imp</sub> 25 kA           Impulse discharge current (10/350) μs (N-PE), charge         50 As           Impulse discharge current (10/350) μs (N-PE), specific energy         2500 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), specific energy         100 kA           Follow current interrupt rating I <sub>6</sub> (L-N)         25 kA (264 V AC)           Follow current interrupt rating I <sub>6</sub> (N-PE)         100 A (350 V AC)           Follow current rating I <sub>50CR</sub> 25 kA (264 V AC)           Short-circuit current rating I <sub>50CR</sub> 25 kA (264 V AC)           Short-circuit current rating I <sub>50CR</sub> 25 kA (264 V AC)           Voltage protection level U <sub>3</sub> (L-N)         ≤ 1.5 kV           Voltage protection level U <sub>3</sub> (L-PE)         < 2.2 kV	Impulse discharge current (10/350) µs (L-PE), charge	12.5 As
Impulse discharge current (10/350) μs (N-PE), charge         50 As           Impulse discharge current (10/350) μs (N-PE), specific energy         2500 kJ/Ω           Impulse discharge current (10/350) μs (N-PE), peak current value I <sub>mo</sub> 100 kA           Follow current interrupt rating I <sub>s</sub> (L-N)         25 kA (264 V AC)           Follow current interrupt rating I <sub>scor</sub> 25 kA (264 V AC)           Short-circuit current rating I <sub>scor</sub> 25 kA (264 V AC)           Voltage protection level U <sub>p</sub> (L-N)         ≤ 1.5 kV           Voltage protection level U <sub>p</sub> (L-N)         ≤ 1.5 kV           Voltage protection level U <sub>p</sub> (L-PE)         ≤ 1.5 kV           Voltage protection level U <sub>p</sub> (N-PE)         ≤ 1.5 kV (at I <sub>o</sub> )           Residual voltage U <sub>res</sub> (L-N)         ≤ 1.5 kV (at I <sub>o</sub> )           L 1.5 kV (at 10 kA)         ≤ 1.2 kV (at 10 kA)           L 1.5 kV (at 10 kA)         ≤ 2.2 kV (at I <sub>o</sub> )           Residual voltage U <sub>res</sub> (L-PE)         ≤ 2.2 kV (at I <sub>o</sub> )           L 1.6 kV (at 5 kA)         ≤ 1.5 kV (at I <sub>o</sub> )           L 1.6 kV (at 3 kA)         ≤ 1.5 kV (at I <sub>o</sub> )           L 1.6 kV (at 10 kA)         ≤ 1.5 kV (at I <sub>o</sub> )           L 1.6 kV (at 3 kA)         ≤ 1.5 kV (at I <sub>o</sub> )           L 1.6 kV (at 3 kA)         ≤ 1.5 kV (at I <sub>o</sub> )           L 1.6 kV (at 10 kA)         ≤ 1.5 kV (at I <sub>o</sub> )	Impulse discharge current (10/350) µs (L-PE), specific energy	160 kJ/Ω
Impulse discharge current (10/350) μs (N-PE), specific energy  Impulse discharge current (10/350) μs (N-PE), peak current value I <sub>imp</sub> Follow current interrupt rating I <sub>s</sub> (L-N)  25 kA (264 V AC)  3 kA (350 V AC)  Short-circuit current rating I <sub>s</sub> (N-PE)  100 λ (350 V AC)  Short-circuit current rating I <sub>s</sub> (N-PE)  3 kA (350 V AC)  Short-circuit current rating I <sub>s</sub> (N-PE)  3 kA (350 V AC)  Voltage protection level U <sub>p</sub> (L-N)  Voltage protection level U <sub>p</sub> (L-PE)  2.2 kV  Voltage protection level U <sub>p</sub> (N-PE)  8 1.5 kV  Residual voltage U <sub>iss</sub> (L-N)  2.1 kV (at 10 kA)  2.1 kV (at 5 kA)  2.2 kV (at 10 kA)  2.1 kV (at 5 kA)  3 kA (350 V AC)  4 1.6 kV (at 3 kA)  Residual voltage U <sub>iss</sub> (L-PE)  3 1.7 kV (at 10 kA)  4 1.8 kV (at 10 kA)  4 1.8 kV (at 10 kA)  5 1.8 kV (at 10 kA)  4 1.9 kV (at 10 kA)  5 1.9 kV (at 10 kA)  6 1	Impulse discharge current (10/350) μs (L-PE), peak current value I <sub>imp</sub>	25 kA
Impulse discharge current (10/350) μs (N-PE), peak current value I <sub>Imp</sub>   100 kA	Impulse discharge current (10/350) µs (N-PE), charge	50 As
Follow current interrupt rating I <sub>8</sub> (L-N)  25 kA (264 V AC)  3 kA (350 V AC)  Follow current interrupt rating I <sub>8</sub> (N-PE)  100 A (350 V AC)  Short-circuit current rating I <sub>8CCR</sub> 25 kA (264 V AC)  3 kA (350 V AC)  Voltage protection level U <sub>9</sub> (L-N)  √oltage protection level U <sub>9</sub> (L-PE)  5 2.2 kV  Voltage protection level U <sub>9</sub> (N-PE)  5 1.5 kV  Residual voltage U <sub>100</sub> (N-PE)  5 1.5 kV (at I <sub>0</sub> N)  5 1.5 kV (at I <sub>0</sub> N)  5 1.5 kV (at I <sub>0</sub> N)  5 1.8 kV (at 10 kA)  5 1.8 kV (at 3 kA)  Residual voltage U <sub>100</sub> (L-PE)  5 2.2 kV (at I <sub>0</sub> NA)  5 1.8 kV (at 5 kA)  5 1.8 kV (at 10 kA)  5 1.8 kV (at 5 kA)  5 1.8 kV (at 3 kA)  Residual voltage U <sub>100</sub> (N-PE)  5 1.5 kV (at I <sub>0</sub> NA)  5 1.8 kV (at 5 kA)  5 1.8 kV (at 3 kA)  7 1.8 kV (at 10 kA)  5 1.8 kV (at 10 kA)  5 1.8 kV (at 3 kA)  7 1.8 kV (at 10 kA)  5 1.8 kV (at 3 kA)  7 1.8 kV (at 10 kA)  5 1.8 kV (at 10 kA)  5 1.8 kV (at 10 kA)  5 1.8 kV (at 10 kA)  6 1.8 kV (at 3 kA)  7 1.8 kV (at 10 kA)  5 1.8 kV (at 10 kA)  5 1.8 kV (at 10 kA)  6 1.8 kV (at 10 kA)  7 1.8 kV (at 10 kA)  8 1.8 kV (a	Impulse discharge current (10/350) µs (N-PE), specific energy	2500 kJ/Ω
3 kA (350 V AC)   Follow current interrupt rating I <sub>s</sub> (N-PE)	Impulse discharge current (10/350) µs (N-PE), peak current value l <sub>imp</sub>	100 kA
Follow current interrupt rating I <sub>8</sub> (N-PE)  Short-circuit current rating I <sub>8CCR</sub> 25 kA (264 V AC)  3 kA (350 V AC)  Voltage protection level U <sub>p</sub> (L-N)  Voltage protection level U <sub>p</sub> (L-PE)  Voltage protection level U <sub>p</sub> (N-PE)  \$1.5 kV  Voltage protection level U <sub>p</sub> (N-PE)  \$1.5 kV (at I <sub>n</sub> )  \$	Follow current interrupt rating I <sub>fi</sub> (L-N)	25 kA (264 V AC)
Short-circuit current rating I <sub>SCCR</sub> 25 kA (264 V AC)         3 kA (350 V AC)         Voltage protection level U <sub>p</sub> (L-N)       ≤ 1.5 kV         Voltage protection level U <sub>p</sub> (L-PE)       ≤ 2.2 kV         Voltage protection level U <sub>p</sub> (N-PE)       ≤ 1.5 kV         Residual voltage U <sub>res</sub> (L-N)       ≤ 1.5 kV (at I <sub>n</sub> )         ≤ 1 kV (at 10 kA)       ≤ 1 kV (at 10 kA)         ≤ 1 kV (at 10 kA)       ≤ 2.2 kV (at I <sub>n</sub> )         Residual voltage U <sub>res</sub> (L-PE)       ≤ 2.2 kV (at I <sub>n</sub> )         ≤ 2 kV (at 10 kA)       ≤ 1.8 kV (at 3 kA)         Residual voltage U <sub>res</sub> (N-PE)       ≤ 1.5 kV (at I <sub>n</sub> )         ≤ 1.6 kV (at 3 kA)       ≤ 1.8 kV (at I <sub>n</sub> )         ≤ 1.8 kV (at 10 kA)       ≤ 1.8 kV (at I <sub>n</sub> )         ≤ 1.8 kV (at I <sub>n</sub> )       ≤ 1.8 kV (at I <sub>n</sub> )         ≤ 1.8 kV (at I <sub>n</sub> )       ≤ 1.8 kV (at I <sub>n</sub> )         < 1.8 kV (at I <sub>n</sub> )       ≤ 1.8 kV (at I <sub>n</sub> )         < 1.8 kV (at I <sub>n</sub> )       ≤ 1.8 kV (at I <sub>n</sub> )         < 1.8 kV (at I <sub>n</sub> )       ≤ 1.8 kV (at I <sub>n</sub> )         < 1.8 kV (at I <sub>n</sub> )       ≤ 1.8 kV (at I <sub>n</sub> )         < 1.8 kV (at I <sub>n</sub> )       ≤ 1.8 kV (at I <sub>n</sub> )         < 1.8 kV (at I <sub>n</sub> )       ≤ 1.8 kV (at I <sub>n</sub> )         < 1.8 kV (at I <sub>n</sub> )       ≤ 1.8 kV (at I <sub>n</sub> )         < 1.8 kV (at I <sub>n</sub> )       ≤ 1.8 kV (at I <sub>n</sub> ) <td></td> <td>3 kA (350 V AC)</td>		3 kA (350 V AC)
3 kA (350 V AC)   Voltage protection level U <sub>p</sub> (L-N)	Follow current interrupt rating I <sub>fi</sub> (N-PE)	100 A (350 V AC)
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	Short-circuit current rating I <sub>SCCR</sub>	25 kA (264 V AC)
Voltage protection level U <sub>p</sub> (L-PE)       ≤ 2.2 kV         Voltage protection level U <sub>p</sub> (N-PE)       ≤ 1.5 kV         Residual voltage U <sub>res</sub> (L-N)       ≤ 1.5 kV (at 10 kA)         ≤ 1 kV (at 5 kA)       ≤ 0.9 kV (at 3 kA)         Residual voltage U <sub>res</sub> (L-PE)       ≤ 2.2 kV (at 1 <sub>n</sub> )         ≤ 2 kV (at 10 kA)       ≤ 1.8 kV (at 5 kA)         ≤ 1.8 kV (at 5 kA)       ≤ 1.8 kV (at 10 kA)         ≤ 1.5 kV (at 1 <sub>n</sub> )       ≤ 1.5 kV (at 1 <sub>n</sub> )         ≤ 1.6 kV (at 3 kA)       ≤ 1.5 kV (at 1 <sub>n</sub> )         ≤ 1 kV (at 10 kA)       ≤ 0.9 kV (at 5 kA)         ≤ 0.9 kV (at 3 kA)       ≤ 0.8 kV (at 3 kA)         TOV behavior at U <sub>T</sub> (L-N)       415 V AC (5 s / withstand mode)         TOV behavior at U <sub>T</sub> (N-PE)       1200 V AC (200 ms / withstand mode)         Response time t <sub>A</sub> (L-P)       ≤ 100 ns         Response time t <sub>A</sub> (N-PE)       ≤ 100 ns         Max. backup fuse with V-type through wiring       125 A (gG)		3 kA (350 V AC)
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	Voltage protection level U <sub>p</sub> (L-N)	≤ 1.5 kV
Residual voltage U <sub>res</sub> (L-N)       ≤ 1.5 kV (at 1₀ kA)         ≤ 1.2 kV (at 10 kA)       ≤ 1 kV (at 5 kA)         Residual voltage U <sub>res</sub> (L-PE)       ≤ 2.2 kV (at 1₀ kA)         ≤ 2 kV (at 10 kA)       ≤ 1.8 kV (at 5 kA)         ≤ 1.8 kV (at 3 kA)       ≤ 1.6 kV (at 3 kA)         Residual voltage U <sub>res</sub> (N-PE)       ≤ 1.5 kV (at 1₀ kA)         ≤ 1 kV (at 10 kA)       ≤ 1 kV (at 3 kA)         TOV behavior at U <sub>T</sub> (L-N)       ≤ 1 kV (at 3 kA)         TOV behavior at U <sub>T</sub> (L-N)       ≤ 15 kV (20 min / safe failure mode)         TOV behavior at U <sub>T</sub> (N-PE)       1200 V AC (200 ms / withstand mode)         Response time t <sub>A</sub> (L-P)       ≤ 100 ns         Response time t <sub>A</sub> (N-PE)       ≤ 100 ns         Max. backup fuse with V-type through wiring       125 A (gG)	Voltage protection level U <sub>p</sub> (L-PE)	≤ 2.2 kV
≤ 1.2 kV (at 10 kA)     ≤ 1 kV (at 5 kA)     ≤ 0.9 kV (at 3 kA)     Residual voltage U <sub>res</sub> (L-PE)     ≤ 2 kV (at 1 <sub>n</sub> )     ≤ 2 kV (at 1 <sub>n</sub> )     ≤ 2 kV (at 10 kA)     ≤ 1.8 kV (at 5 kA)     ≤ 1.8 kV (at 5 kA)     ≤ 1.6 kV (at 3 kA)     Residual voltage U <sub>res</sub> (N-PE)     ≤ 1.5 kV (at 1 <sub>n</sub> )     ≤ 1 kV (at 10 kA)     ≤ 1 kV (at 10 kA)     ≤ 0.9 kV (at 5 kA)     ≤ 0.8 kV (at 3 kA)     TOV behavior at U <sub>T</sub> (L-N)     415 V AC (5 s / withstand mode)     TOV behavior at U <sub>T</sub> (N-PE)     1200 V AC (200 ms / withstand mode)     Response time t <sub>A</sub> (L-N)     ≤ 25 ns     Response time t <sub>A</sub> (N-PE)     ≤ 100 ns     Max. backup fuse with V-type through wiring     125 A (gG)	Voltage protection level U <sub>p</sub> (N-PE)	≤ 1.5 kV
S   kV (at 5 kA)	Residual voltage U <sub>res</sub> (L-N)	$\leq$ 1.5 kV (at I <sub>n</sub> )
$ \begin{array}{c} \leq 0.9 \ \text{kV} \ (\text{at 3 kA}) \\ \\ \text{Residual voltage U}_{\text{res}} \ (\text{L-PE}) \\ \\ \leq 2 \ \text{kV} \ (\text{at 10 kA}) \\ \\ \leq 1.8 \ \text{kV} \ (\text{at 5 kA}) \\ \\ \\ \leq 1.6 \ \text{kV} \ (\text{at 3 kA}) \\ \\ \text{Residual voltage U}_{\text{res}} \ (\text{N-PE}) \\ \\ \leq 1.5 \ \text{kV} \ (\text{at 10 kA}) \\ \\ \leq 1.8 \ \text{kV} \ (\text{at 10 kA}) \\ \\ \leq 1.6 \ \text{kV} \ (\text{at 3 kA}) \\ \\ \text{Residual voltage U}_{\text{res}} \ (\text{N-PE}) \\ \\ \leq 1.8 \ \text{kV} \ (\text{at 10 kA}) \\ \\ \leq 0.9 \ \text{kV} \ (\text{at 5 kA}) \\ \\ \leq 0.9 \ \text{kV} \ (\text{at 5 kA}) \\ \\ \\ \leq 0.8 \ \text{kV} \ (\text{at 3 kA}) \\ \\ \text{TOV behavior at U}_{\text{T}} \ (\text{L-N}) \\ \\ \text{415 V AC} \ (5 \ \text{s / withstand mode}) \\ \\ \text{457 V AC} \ (120 \ \text{min / safe failure mode}) \\ \\ \text{TOV behavior at U}_{\text{T}} \ (\text{N-PE}) \\ \\ \text{Response time t}_{\text{A}} \ (\text{L-N}) \\ \\ \text{Response time t}_{\text{A}} \ (\text{L-PE}) \\ \\ \leq 100 \ \text{ns} \\ \\ \text{Response time t}_{\text{A}} \ (\text{N-PE}) \\ \\ \leq 100 \ \text{ns} \\ \\ \text{Max. backup fuse with V-type through wiring} \\ \end{array}$		≤ 1.2 kV (at 10 kA)
Residual voltage $U_{res}$ (L-PE) $\leq 2.2 \text{ kV } (\text{at I}_n)$ $\leq 2 \text{ kV } (\text{at I0 kA})$ $\leq 1.8 \text{ kV } (\text{at 5 kA})$ $\leq 1.8 \text{ kV } (\text{at 5 kA})$ $\leq 1.6 \text{ kV } (\text{at 3 kA})$ Residual voltage $U_{res}$ (N-PE) $\leq 1.5 \text{ kV } (\text{at I}_n)$ $\leq 1 \text{ kV } (\text{at 10 kA})$ $\leq 0.9 \text{ kV } (\text{at 5 kA})$ $\leq 0.9 \text{ kV } (\text{at 5 kA})$ $\leq 0.8 \text{ kV } (\text{at 3 kA})$ TOV behavior at $U_T$ (L-N) $\leq 1.5 \text{ kV } (\text{at 10 kA})$ $\leq 0.8 \text{ kV } (\text{at 3 kA})$ $\leq 0.8 $		≤ 1 kV (at 5 kA)
$ \leq 2 \text{ kV (at 10 kA)} $ $ \leq 1.8 \text{ kV (at 5 kA)} $ $ \leq 1.6 \text{ kV (at 3 kA)} $ $ \text{Residual voltage } U_{\text{res}} \text{ (N-PE)} \qquad \leq 1.5 \text{ kV (at } 1_0 \text{ kA)} $ $ \leq 1 \text{ kV (at 10 kA)} $ $ \leq 0.9 \text{ kV (at 5 kA)} $ $ \leq 0.9 \text{ kV (at 3 kA)} $ $ \text{TOV behavior at } U_T \text{ (L-N)} \qquad \qquad 415 \text{ V AC (5 s / withstand mode)} $ $ \text{TOV behavior at } U_T \text{ (N-PE)} \qquad \qquad 1200 \text{ V AC (200 ms / withstand mode)} $ $ \text{Response time } t_A \text{ (L-N)} \qquad \leq 25 \text{ ns} $ $ \text{Response time } t_A \text{ (L-PE)} \qquad \leq 100 \text{ ns} $ $ \text{Response time } t_A \text{ (N-PE)} \qquad \leq 100 \text{ ns} $ $ \text{Max. backup fuse with V-type through wiring} \qquad 125 \text{ A (gG)} $		≤ 0.9 kV (at 3 kA)
$ \leq 1.8 \text{ kV } (\text{at } 5 \text{ kA}) $ $ \leq 1.6 \text{ kV } (\text{at } 3 \text{ kA}) $ $ \leq 1.5 \text{ kV } (\text{at } 1_n) $ $ \leq 1 \text{ kV } (\text{at } 10 \text{ kA}) $ $ \leq 0.9 \text{ kV } (\text{at } 5 \text{ kA}) $ $ \leq 0.9 \text{ kV } (\text{at } 5 \text{ kA}) $ $ \leq 0.9 \text{ kV } (\text{at } 5 \text{ kA}) $ $ \leq 0.9 \text{ kV } (\text{at } 3 \text{ kA}) $ $ \leq 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.8 \text{ kV } (\text{at } 3 \text{ kA}) $ $ = 0.9 \text{ kV } (\text{at } 3 \text{ kA}) $	Residual voltage U <sub>res</sub> (L-PE)	$\leq$ 2.2 kV (at I <sub>n</sub> )
$ \leq 1.6 \text{ kV (at 3 kA)} $ Residual voltage $U_{res}$ (N-PE) $ \leq 1.5 \text{ kV (at I}_n) $ $ \leq 1 \text{ kV (at 10 kA)} $ $ \leq 0.9 \text{ kV (at 5 kA)} $ $ \leq 0.8 \text{ kV (at 3 kA)} $ TOV behavior at $U_T$ (L-N) $ \qquad \qquad 415 \text{ V AC (5 s / withstand mode)} $ $ \qquad \qquad \qquad 457 \text{ V AC (120 min / safe failure mode)} $ TOV behavior at $U_T$ (N-PE) $ \qquad \qquad 1200 \text{ V AC (200 ms / withstand mode)} $ Response time $t_A$ (L-N) $ \leq 25 \text{ ns} $ Response time $t_A$ (L-PE) $ \leq 100 \text{ ns} $ Response time $t_A$ (N-PE) $ \leq 100 \text{ ns} $ Response time $t_A$ (N-PE) $ \leq 100 \text{ ns} $ Response with V-type through wiring $ \qquad 125 \text{ A (gG)} $		≤ 2 kV (at 10 kA)
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		≤ 1.8 kV (at 5 kA)
$ \leq 1 \text{ kV (at 10 kA)} $ $ \leq 0.9 \text{ kV (at 5 kA)} $ $ \leq 0.8 \text{ kV (at 3 kA)} $ $ \leq 0.8 \text{ kV (at 3 kA)} $ $ TOV \text{ behavior at U}_T \text{ (L-N)} \qquad \qquad 415 \text{ V AC (5 s / withstand mode)} $ $ 457 \text{ V AC (120 min / safe failure mode)} $ $ TOV \text{ behavior at U}_T \text{ (N-PE)} \qquad \qquad 1200 \text{ V AC (200 ms / withstand mode)} $ $ Response \text{ time } t_A \text{ (L-N)} \qquad \qquad \leq 25 \text{ ns} $ $ Response \text{ time } t_A \text{ (L-PE)} \qquad \qquad \leq 100 \text{ ns} $ $ Response \text{ time } t_A \text{ (N-PE)} \qquad \qquad \leq 100 \text{ ns} $ $ Max. \text{ backup fuse with V-type through wiring} \qquad 125 \text{ A (gG)} $		≤ 1.6 kV (at 3 kA)
$ \leq 0.9 \text{ kV (at 5 kA)} $ $ \leq 0.8 \text{ kV (at 3 kA)} $ $ \text{TOV behavior at U}_{\text{T}} \text{ (L-N)} \qquad \qquad 415 \text{ V AC (5 s / withstand mode)} $ $ \text{TOV behavior at U}_{\text{T}} \text{ (N-PE)} \qquad \qquad 1200 \text{ V AC (200 ms / withstand mode)} $ $ \text{Response time t}_{\text{A}} \text{ (L-N)} \qquad \qquad \leq 25 \text{ ns} $ $ \text{Response time t}_{\text{A}} \text{ (L-PE)} \qquad \qquad \leq 100 \text{ ns} $ $ \text{Response time t}_{\text{A}} \text{ (N-PE)} \qquad \qquad \leq 100 \text{ ns} $ $ \text{Max. backup fuse with V-type through wiring} \qquad 125 \text{ A (gG)} $	Residual voltage U <sub>res</sub> (N-PE)	$\leq 1.5 \text{ kV (at I}_{\text{n}})$
$ \leq 0.8 \text{ kV (at 3 kA)} $ $ \qquad \qquad \qquad \leq 0.8 \text{ kV (at 3 kA)} $ $ \qquad \qquad$		≤ 1 kV (at 10 kA)
		≤ 0.9 kV (at 5 kA)
		≤ 0.8 kV (at 3 kA)
$ \begin{array}{lll} \text{TOV behavior at $U_T$ (N-PE)} & 1200 \text{ V AC } (200 \text{ ms / withstand mode}) \\ \text{Response time $t_A$ (L-N)} & \leq 25 \text{ ns} \\ \text{Response time $t_A$ (L-PE)} & \leq 100 \text{ ns} \\ \text{Response time $t_A$ (N-PE)} & \leq 100 \text{ ns} \\ \text{Max. backup fuse with V-type through wiring} & 125 \text{ A } (gG) \\ \end{array} $	TOV behavior at U <sub>T</sub> (L-N)	415 V AC (5 s / withstand mode)
		457 V AC (120 min / safe failure mode)
	TOV behavior at U <sub>T</sub> (N-PE)	1200 V AC (200 ms / withstand mode)
Response time $t_A$ (N-PE) $\leq$ 100 ns  Max. backup fuse with V-type through wiring 125 A (gG)	Response time t <sub>A</sub> (L-N)	≤ 25 ns
Max. backup fuse with V-type through wiring  125 A (gG)	Response time t <sub>A</sub> (L-PE)	≤ 100 ns
	Response time t <sub>A</sub> (N-PE)	≤ 100 ns
Max. backup fuse with branch wiring 315 A (gG)	Max. backup fuse with V-type through wiring	125 A (gG)
	Max. backup fuse with branch wiring	315 A (gG)



## Technical data

## Additional technical data

Maximum discharge current I<sub>max</sub> (8/20) μs

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
Stripping length	7 mm
Conductor cross section flexible	0.14 mm² 1.5 mm²
Conductor cross section solid	0.14 mm² 1.5 mm²

100 kA

#### Connection data

Conductor cross section AWG

Connection method	Screw connection
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	18 mm
Conductor cross section flexible	2.5 mm² 35 mm²
Conductor cross section solid	2.5 mm² 35 mm²
Conductor cross section AWG	13 2
Connection method	Fork-type cable lug
Conductor cross section flexible	1.5 mm² 16 mm²

28 ... 16

### UL specifications

SPD Type	2CA
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)	264 V AC
Maximum continuous operating voltage MCOV (N-G)	350 V AC
Nom. voltage	240/415 V AC
Rated load current I <sub>L</sub>	50 A
Mode of protection	L-L
	L-N
	L-G
	N-G
Power distribution system	Wye
Nominal frequency	50/60 Hz



## Technical data

### **UL** specifications

Voltage protection rating VPR (L-L)	2000 V
Voltage protection rating VPR (L-N)	1200 V
Voltage protection rating VPR (L-G)	1500 V
Voltage protection rating VPR (N-G)	1200 V
Nominal discharge current I <sub>n</sub>	20 kA
Short-circuit current rating (SCCR)	50 kA

## UL indicator/remote signaling

Operating voltage	125 V AC
Operating current	1 A AC
Tightening torque	4 lb <sub>r</sub> in.
Conductor cross section AWG	30 14

### UL connection data

Conductor cross section AWG	3 2
Tightening torque	40 lb <sub>f</sub> -in.

## Standards and Regulations

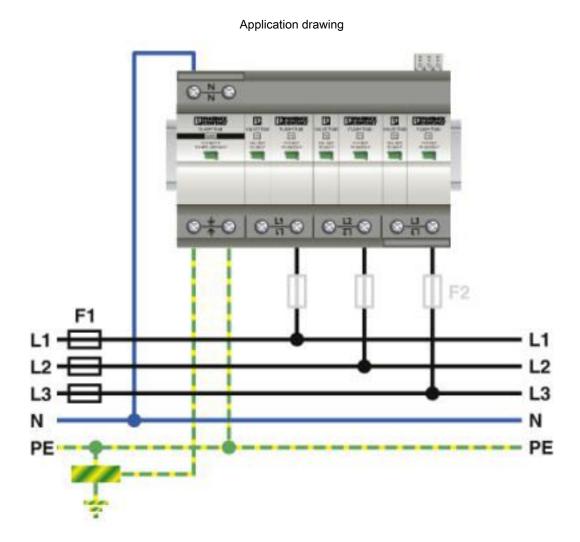
Standards/regulations	IEC 61643-11 2011
	EN 61643-11 2012

## **Environmental Product Compliance**

REACh SVHC	Lead 7439-92-1		
China RoHS	Environmentally Friendly Use Period = 50 years		
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"		

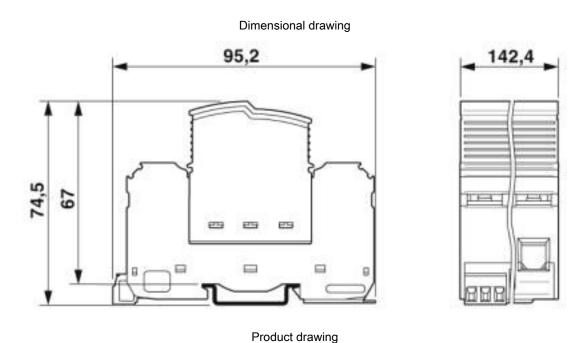
## **Drawings**





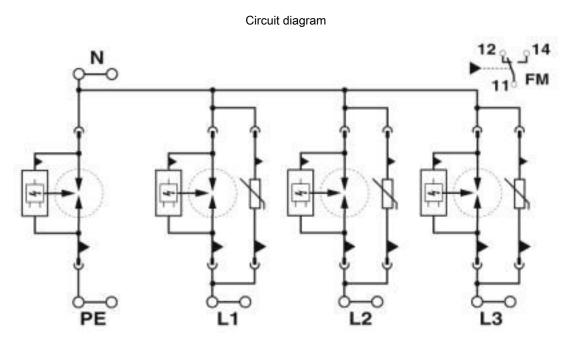


Type 1+2 protective device combination - FLT-SEC-T1+T2-3S-350/25-FM - 2905470









## Classifications

## eCl@ss

eCl@ss 10.0.1	27130808
eCl@ss 4.0	27140200
eCl@ss 4.1	27140200
eCl@ss 5.0	27140200
eCl@ss 5.1	27140200
eCl@ss 6.0	27130800
eCl@ss 7.0	27130808
eCl@ss 8.0	27130808
eCl@ss 9.0	27130808

## **ETIM**

ETIM 5.0	EC001457
ETIM 6.0	EC001457
ETIM 7.0	EC001457

## **UNSPSC**

UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620



Approvals					
Approvals					
Approvals GL / CCA / UL Recognized / KEMA-KEUR / cUL Recognized / IECEE CB Scheme / EAC / cULus Recognized					
Ex Approvals					
Approval details					
GL	(GL)	https://approvalfinder.dnvgl.com/	13946-15 HH		
CCA			NTR-NL 7736		
UL Recognized	<i>7</i> .1	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 330181		
KEMA-KEUR	Kema	http://www.dekra-certification.com	71-106983		
cUL Recognized	. <b>A</b>	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 330181		
IECEE CB Scheme	<b>CB</b> scheme	http://www.iecee.org/	NL-58252		
EAC	ERC		RU C- DE.*09.B.00169		
cULus Recognized	c <b>911</b> us				



#### Accessories

Accessories

Device marking

Label - EML (20XE)R - 0803452



Label, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: adhesive, lettering field size: continuous x 20#mm

#### Label - EML (20XE)R YE - 0803453



Label, Roll, yellow, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: adhesive, lettering field size: continuous x 20#mm

#### Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

#### Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

#### End block

#### End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray



#### Accessories

Labeled device marker

Marker for terminal blocks - ZBN 18,LGS:L1-N,ERDE - 2749576



Marker for terminal blocks, Strip, white, labeled, horizontal: L1, L2, L3, N, GND, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

Marker for terminal blocks - ZBN 18,LGS:ERDE - 2749589



Marker for terminal blocks, Strip, white, labeled, horizontal: Grounding symbol, mounting type: snap into tall marker groove, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

#### Marker pen

Marker pen - X-PEN 0,35 - 0811228



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

#### Terminal marking

Flat zack marker sheet - ZBFM 5/WH:UNBEDRUCKT - 0803595



Flat zack marker sheet, Sheet, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into flat marker groove, for terminal block width: 5.2 mm, lettering field size: 5 x 4.5 mm, Number of individual labels: 120

#### Spare parts

Type 1/2 surge protection plug - FLT-SEC-T1-350/25-P - 2905471



Replacement plug for lightning and surge arresters from the FLASHTRAB SEC product range, for L-N and L-PEN paths.



### Accessories

Type 2 surge protection plug - VAL-SEC-T2-350-P - 2905346



Replacement plug for surge arresters from the VALVETRAB SEC product range for L-N and L-PEN paths.

Type 1 surge protection plug - FLT-SEC-P-T1-N/PE-350/100-P - 2905473



Replacement plug for lightning current arresters from the FLASHTRAB SEC product range, for the N-PE path.

Phoenix Contact 2020 @ - all rights reserved http://www.phoenixcontact.com