

## Type 3 surge protection device - PLT-SEC-T3-120-FM-UT - 2907918

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Type 2/3 surge protection, consisting of protective plug and base element, with integrated status indicator and remote signaling for single-phase power supply networks. Nominal voltage 120 V AC/DC.

### Your advantages

- ✓ Increased service life and availability of the system, thanks to optimal protection of your industrial power supply
- ✓ 5-year warranty on your QUINT 4 power supply when installed together with PLT-SEC, see document in the download area
- ✓ Easy maintenance and testing of protective devices, thanks to pluggable connections



### Key Commercial Data

Packing unit	5 pc
GTIN	 4 0 5 5 6 2 6 2 5 7 4 4 0
GTIN	4055626257440

### Technical data

#### Dimensions

Height	93.4 mm
Width	17.7 mm
Depth	74.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	1 Div.

#### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (operating voltage remote contact ≤ 250 V) ≤ 6000 m (operating voltage remote contact ≤ 150 V)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)

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## Technical data

### Ambient conditions

Vibration (operation)	5g (5 ... 500 Hz / 2.5 h / X, Y, Z)
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### General

EN type	T2 / T3
IEC power supply system	TT
	TN-S
Number of ports	One
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
	PA 6.6-FR
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	2
Surge protection fault message	Optical, remote indicator contact

### Protective circuit

Nominal voltage $U_N$	120 V AC (TN-S)
	120 V AC (TT)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous voltage $U_C$	150 V AC
Rated load current $I_L$	26 A (at 30 °C)
Residual current $I_{PE}$	$\leq 5 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$	5 kA
Standby power consumption $P_C$	$\leq 10.6 \text{ mVA}$ (at $U_{REF}$ )
	$\leq 13.5 \text{ mVA}$ (at $U_C$ )
Reference test voltage $U_{REF}$	132 V AC
Max. discharge current $I_{max}$ (8/20) $\mu s$	10 kA
Combination wave $U_{OC}$	6 kV
Voltage protection level $U_p$ (L-N)	$\leq 0.75 \text{ kV}$ (at $U_{OC}$ )
	$\leq 0.95 \text{ kV}$ (at $I_n$ )
Voltage protection level $U_p$ (L-PE)	$\leq 0.85 \text{ kV}$
Voltage protection level $U_p$ (N-PE)	$\leq 0.85 \text{ kV}$
TOV behavior at $U_T$ (L-N)	240 V AC (5 s / withstand mode)
	240 V AC (120 min / withstand mode)
TOV behavior at $U_T$ (L-PE)	240 V AC (5 s / withstand mode)

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## Technical data

### Protective circuit

	240 V AC (120 min / withstand mode)
	1332 V AC (200 ms / safe failure mode)
TOV behavior at $U_T$ (N-PE)	1200 V AC (200 ms / safe failure mode)
Response time $t_A$ (L-N)	$\leq 25$ ns
Response time $t_A$ (L-PE)	$\leq 100$ ns
Response time $t_A$ (N-PE)	$\leq 100$ ns
Short-circuit current rating $I_{SCCR}$	10 kA AC
Max. backup fuse with branch wiring	32 A (gG / B / C)
Maximum backup fuse for through wiring	25 A (gG / B / C)

### Additional technical data

Short-circuit current rating $I_{SCCR}$	0.25 kA DC (Without additional backup fuse in the DC branch wiring)
	5 kA DC (for 20 A gG / B backup fuse)
Maximum continuous voltage $U_C$	150 V DC
Residual voltage $U_{res}$ (L-N)	$\leq 0.68$ kV (at 2 kA)
	$\leq 0.75$ kV (at 3 kA)
	$\leq 0.64$ kV (at $U_{OC} = 4$ kV)
Residual voltage $U_{res}$ (L-PE)	$\leq 0.58$ kV (at 2 kA)
	$\leq 0.65$ kV (at 3 kA)
	$\leq 0.75$ kV (at $U_{OC} = 4$ kV)
Residual voltage $U_{res}$ (N-PE)	$\leq 0.58$ kV (at 2 kA)
	$\leq 0.65$ kV (at 3 kA)
	$\leq 0.75$ kV (at $U_{OC} = 4$ kV)
Mode of protection	(DC+) - (DC-)
	(DC+/DC-) - PE
IEC test classification (in accordance with IEC 61643-21)	D1
Impulse durability (line-line)	D1 - 500 A
Impulse durability (line-earth)	D1 - 500 A
Pulse discharge current $I_{imp}$ (10/350) $\mu$ s (line-line)	0.5 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu$ s (line-earth)	0.5 kA

### Indicator/remote signaling

Switching function	PDT contact
Operating voltage	250 V AC
	125 V DC (200 mA DC)
Operating current	0.5 A AC
	0.5 A DC (75 V DC)
Connection method	Screw connection
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section solid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	30 ... 12

# Type 3 surge protection device - PLT-SEC-T3-120-FM-UT - 2907918

## Technical data

### Indicator/remote signaling

Screw thread	M3
Tightening torque	0.5 Nm
Stripping length	10 mm

### Connection data

Connection method	Screw connection
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section solid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section AWG	24 ... 12
Screw thread	M3
Tightening torque	0.5 Nm
Stripping length	10 mm

### UL specifications

SPD Type	2 (Open-Type SPD)
Maximum continuous operating voltage MCOV	150 V AC
	150 V DC
Nominal voltage	150 V DC
Rated load current I <sub>L</sub>	20 A
Mode of protection	L-N
	L-G
	N-G
	(DC+) - (DC-)
	(DC+) - G
	(DC-) - G
Power distribution system	Single phase
	DC
Nominal frequency	50/60 Hz
Voltage protection rating VPR (L-N)	700 V
Voltage protection rating VPR (L-G)	700 V
Voltage protection rating VPR (N-G)	900 V
Nominal discharge current I <sub>n</sub>	5 kA
Short-circuit current rating (SCCR)	10 kA AC
	5 kA DC

### UL indicator/remote signaling

Operating voltage	250 V AC (0.5 A)
	12 V DC (4 A)
	24 V DC (2 A)
	48 V DC (1 A)
Tightening torque	5 lb <sub>f</sub> -in. ... 7 lb <sub>f</sub> -in.
Conductor cross section AWG	30 ... 12

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## Technical data

### UL connection data

Conductor cross section AWG	16 ... 12
Tightening torque	4.4 lb <sub>r</sub> -in.

### Standards and Regulations

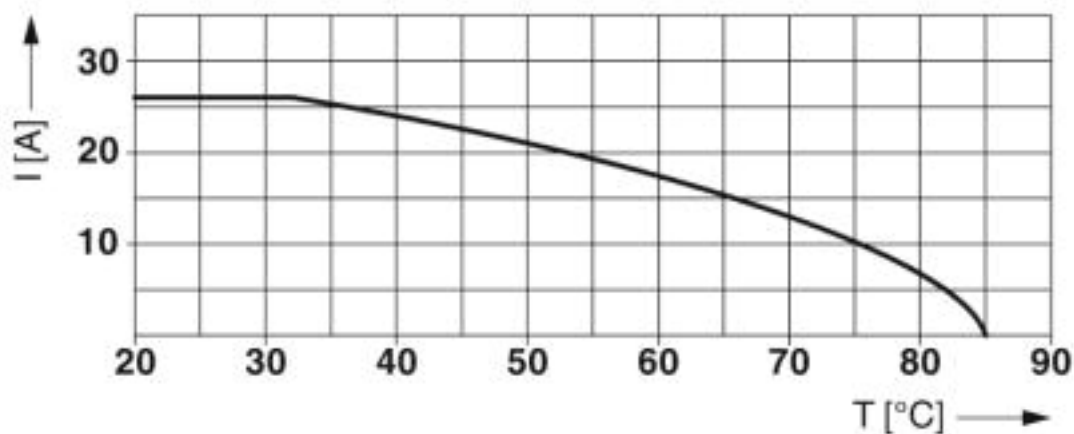
Standards/specifications	IEC 61643-11 2011
	EN 61643-11 2012

### 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

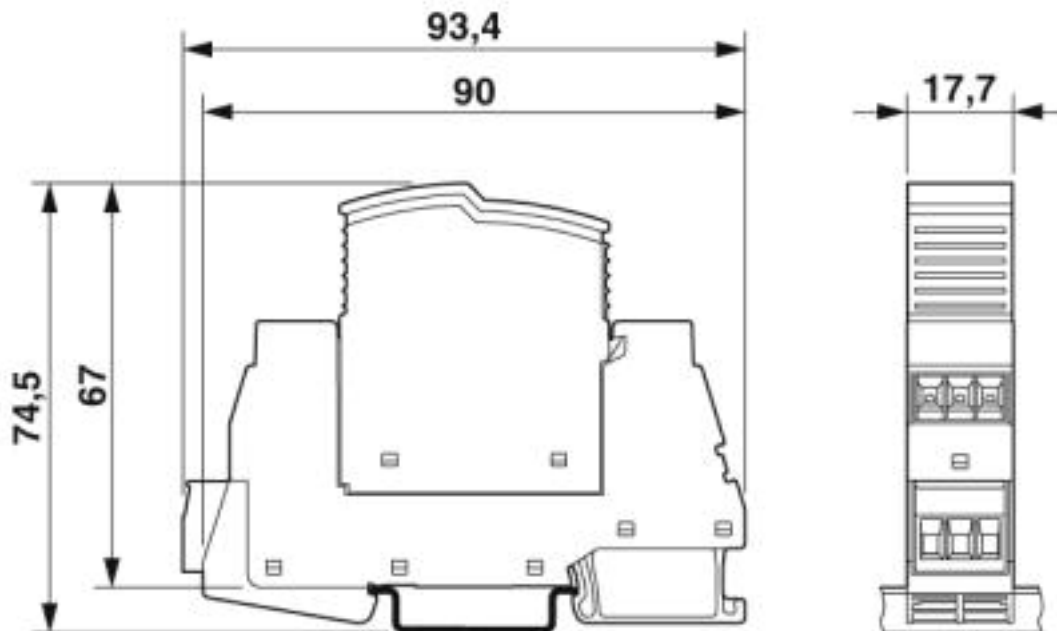
Diagram



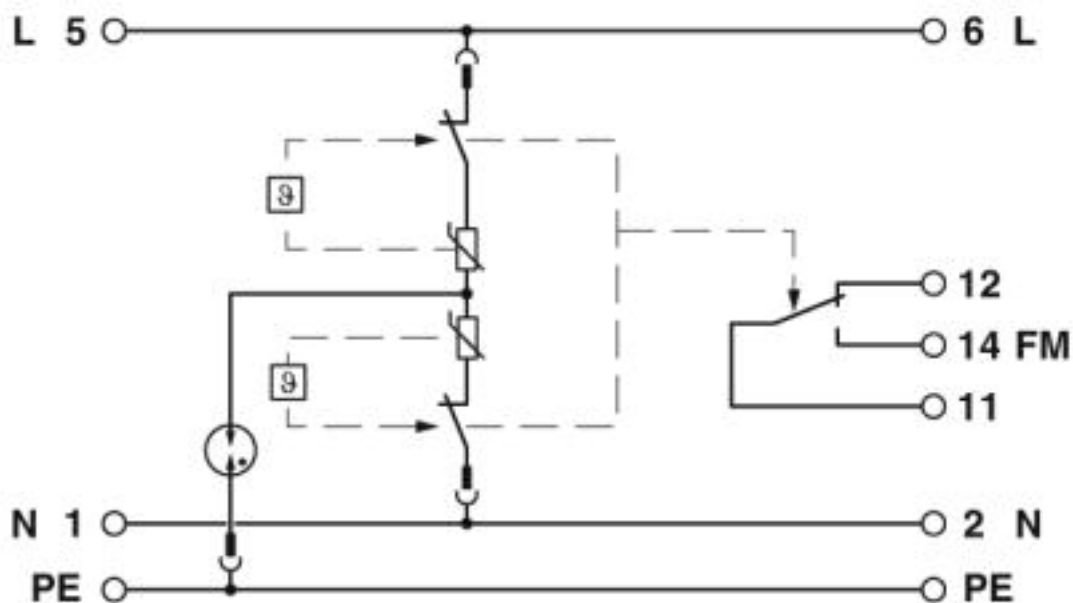
Nominal current depending on ambient temperature

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Dimensional drawing



Circuit diagram



## Classifications

eCl@ss

eCl@ss 10.0.1	27130806
eCl@ss 6.0	27130800
eCl@ss 7.0	27130806

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## Classifications

### eCl@ss

eCl@ss 8.0	27130806
eCl@ss 9.0	27130806

### ETIM

ETIM 5.0	EC000942
ETIM 6.0	EC000942
ETIM 7.0	EC000942

## Approvals

### Approvals

#### Approvals

DNV GL / CCA / UL Listed / KEMA-KEUR / IECCEB Scheme / cUL Listed / EAC / CSA / cULus Listed

#### Ex Approvals

UL Recognized / cUL Recognized / cULus Recognized

### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE00002U7
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CCA			NTR-NL 7676
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UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 330181
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KEMA-KEUR		<a href="http://www.dekra-certification.com">http://www.dekra-certification.com</a>	71-103027
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IECCEB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	NL-51083
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 330181
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## Approvals

EAC			RU C- DE.A*30.B01561
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CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	70194378
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cULus Listed			
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## 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

#### 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

#### Marker pen



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### Accessories

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

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### Spare parts

Type 3 surge protection plug - PLT-SEC-T3-120-P-UT/PT - 2907922



Replacement plug for type 2/3 surge protection from the PLT-SEC-...-UT/PT product series. Nominal voltage 120 V.

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Type 3 surge protection base element - PLT-SEC-T3-BE-FM-UT - 2907924



Base element for protective plugs from the PLT-SEC-...-UT/PT product series with remote indication contact.

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