

# Type 3 surge protection device - PLT-SEC-T3-230-FM-UT



2907919

<https://www.phoenixcontact.com/pc/products/2907919>

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Type 2/3 surge protection, consisting of protective plug and base element with screw connection. For single-phase power supply network with integrated status indicator and remote signaling. Nominal voltage: 230 V AC/DC

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## Your advantages

- Surge protection family for universal use with optimum energy coordination from the lightning current arrester to the device protection
- Easy to maintain due to consistently pluggable protection modules
- Excellent level of information provided by mechanical/visual status indicator and remote indication contact
- Your preferred connection technology can be selected as both screw connection and Push-in connection are available
- Optimal additional protection of the industrial power supply for a longer service life and increased availability of the system
- 5-year warranty on your QUINT 4 power supply when installed together with PLT-SEC, see document in the download area

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## Commercial Data

Item number	2907919
Packing unit	5 pc
Minimum order quantity	1 pc
Product Key	CL14A2
Catalog Page	Page 83 (C-4-2019)
GTIN	4055626257457
Weight per Piece (including packing)	96.62 g
Weight per Piece (excluding packing)	81.16 g
Customs tariff number	85363030
Country of origin	DE

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## Technical Data

### Product properties

IEC power supply system	TT
	TN-S
Type	DIN rail module, two-section, divisible
Product type	Device protection
Number of positions	2
Surge protection fault message	Optical, remote indicator contact

### Insulation characteristics

Overvoltage category	III
Pollution degree	2
IEC test classification	II / III
	T2 / T3
EN type	T2 / T3
Number of ports	One

### Electrical properties

Connection name	Remote fault indicator contact
Switching function	Changeover 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 data

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.5 Nm
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

### Dimensions

Dimensional drawing	
Width	17.7 mm
Height	93.4 mm
Depth	74.5 mm (incl. DIN rail 7.5 mm)

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Horizontal pitch	1 Div.
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## Material specifications

Color	light grey RAL 7035
	traffic grey A RAL 7042
Flammability rating according to UL 94	V-0
CTI value of material	600
Insulating material	PA 6.6-FR 20 % GF
	PA 6.6-FR
Housing material	PA 6.6-FR 20 % GF
	PA 6.6-FR

## Protective circuit

Mode of protection	L-N
	L-PE
	N-PE
Direction of action	1L-N & N-PE
Nominal voltage $U_N$	240 V AC (TN-S)
	240 V AC (TT)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous voltage $U_C$	264 V AC
Rated load current $I_L$	26 A (at 30 °C)
Residual current $I_{PE}$	$\leq 5 \mu\text{A}$
Standby power consumption $P_C$	$\leq 26.4 \text{ mVA}$ (at $U_{REF}$ )
	$\leq 26.4 \text{ mVA}$ (at $U_C$ )
Reference test voltage $U_{REF}$	264 V AC
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$	5 kA
Maximum discharge current $I_{max}$ (8/20) $\mu\text{s}$	10 kA
Combination wave $U_{OC}$	6 kV
Voltage protection level $U_p$ (L-N)	$\leq 1.25 \text{ kV}$ (at $U_{OC}$ )
	$\leq 1.4 \text{ kV}$ (at $I_n$ )
Voltage protection level $U_p$ (L-PE)	$\leq 1.4 \text{ kV}$
Voltage protection level $U_p$ (N-PE)	$\leq 1.4 \text{ kV}$
TOV behavior at $U_T$ (L-N)	400 V AC (5 s / withstand mode)
	457 V AC (120 min / safe failure mode)
	457 V AC (5 s / withstand mode)
TOV behavior at $U_T$ (L-PE)	457 V AC (120 min / withstand mode)
	1464 V AC (200 ms / safe failure mode)
	1200 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)	$\leq 25 \text{ ns}$
Response time $t_A$ (L-PE)	$\leq 100 \text{ ns}$
Response time $t_A$ (N-PE)	$\leq 100 \text{ ns}$
Short-circuit current rating $I_{SCCR}$	10 kA AC
Max. backup fuse with branch wiring	32 A (gG / B / C)

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## 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)
Residual voltage $U_{res}$ (L-N)	$\leq 1.15$ kV (at 2 kA)
	$\leq 1.25$ kV (at 3 kA)
	$\leq 1.1$ kV (at $U_{OC} = 4$ kV)
Residual voltage $U_{res}$ (L-PE)	$\leq 1.1$ kV (at 2 kA)
	$\leq 1.1$ kV (at 3 kA)
	$\leq 1.2$ kV (at $U_{OC} = 4$ kV)
Residual voltage $U_{res}$ (N-PE)	$\leq 1.1$ kV (at 2 kA)
	$\leq 1.1$ kV (at 3 kA)
	$\leq 1.2$ kV (at $U_{OC} = 4$ kV)
Maximum continuous voltage $U_C$	275 V AC
	240 V DC
Mode of protection	(DC+) - (DC-)
	(DC+/DC-) - PE
IEC test classification (in accordance with IEC 61643-21)	D1
Impulse durability (wire-wire)	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

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	$\leq 2000$ m (operating voltage remote contact $\leq 250$ V)
	$\leq 6000$ m (operating voltage remote contact $\leq 150$ V)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (Half-sine / 11 ms / 3x $\pm$ X, $\pm$ Y, $\pm$ Z)
Vibration (operation)	5g (5 ... 500 Hz / 2.5 h / X, Y, Z)

## Approval data

### UL specifications

Mode of protection	L-N
	L-G
	N-G
	(DC+) - (DC-)
	(DC+) - G
	(DC-) - G
Nominal voltage	240 V DC

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Rated load current $I_L$	20 A
Power distribution system	Single phase
	DC
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	1150 V
Measured limiting voltage MLV (L-G)	1180 V
Measured limiting voltage MLV (N-G)	1180 V
SPD Type	4CA
AC operating voltage	250 V AC (0.5 A)
DC operating voltage	12 V DC (4 A)
	24 V DC (2 A)
	48 V DC (1 A)

## UL connection data

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

## Standards and regulations

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

## Mounting

Mounting type	DIN rail: 35 mm
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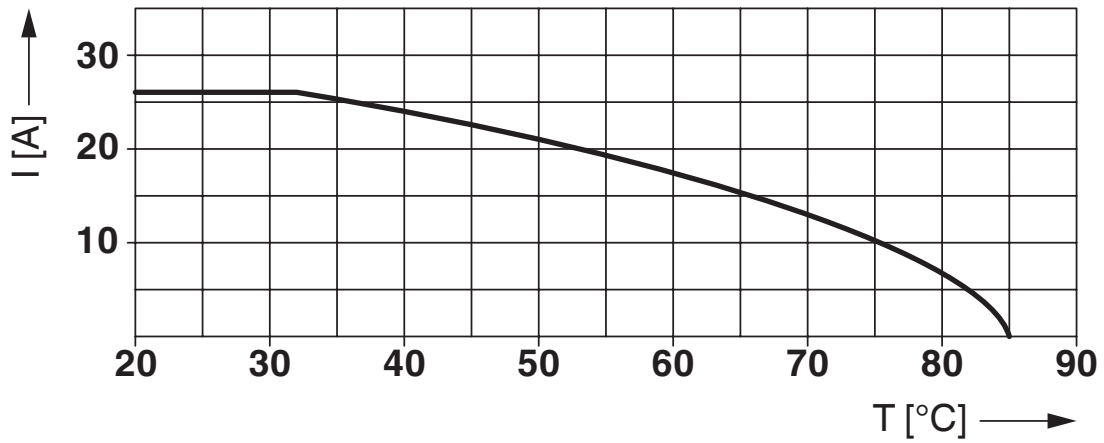


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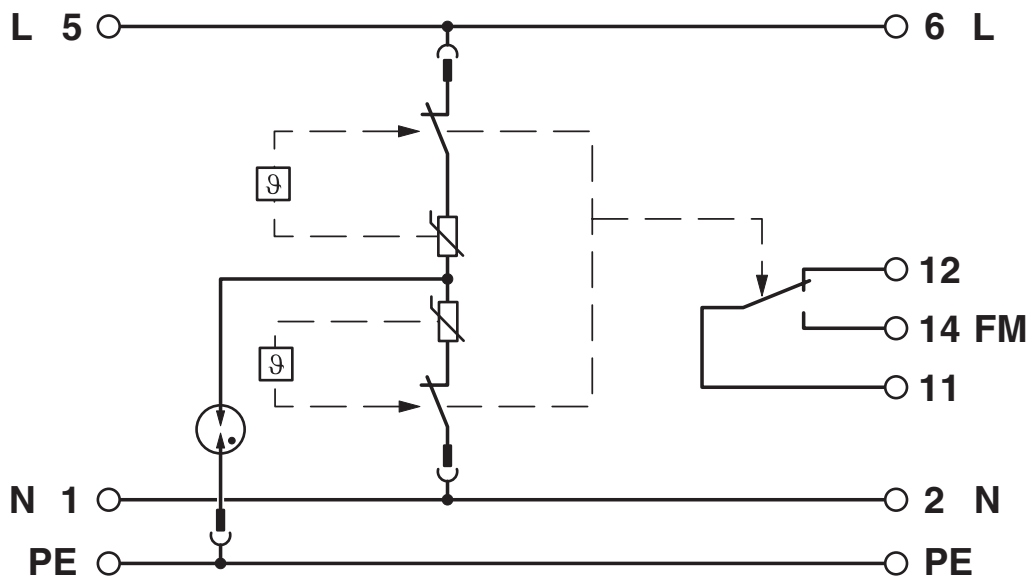
## Drawings

Diagram



Nominal current depending on ambient temperature

Circuit diagram



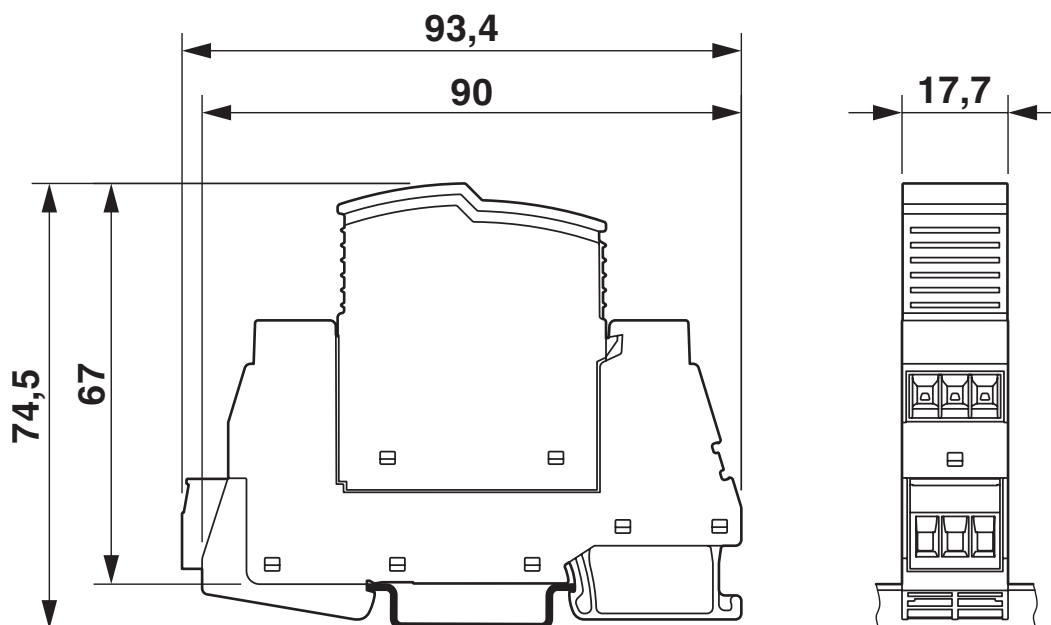
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Dimensional drawing





# Type 3 surge protection device - PLT-SEC-T3-230-FM-UT



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## Approvals



**cUL Recognized**  
Approval ID: FILE E 330181



**UL Recognized**  
Approval ID: FILE E 330181



**IECEE CB Scheme**  
Approval ID: NL-51083



**EAC**  
Approval ID: RU C-DE.\*09.B.00169

**CCA**

Approval ID: NTR-NL 7676

Nominal Voltage  $U_N$

Nominal Current  $I_N$

Cross Section AWG

Cross Section  $\text{mm}^2$

-

-



**KEMA-KEUR**  
Approval ID: 71-103027



**DNV GL**  
Approval ID: TAE00002U7

Nominal Voltage  $U_N$

Nominal Current  $I_N$

Cross Section AWG

Cross Section  $\text{mm}^2$

-

-



**CSA**  
Approval ID: 70194378



**cUL Recognized**  
Approval ID: FILE E 340736

Nominal Voltage  $U_N$

Nominal Current  $I_N$

Cross Section AWG

Cross Section  $\text{mm}^2$

-

-



**UL Recognized**  
Approval ID: FILE E 340736

Nominal Voltage  $U_N$

Nominal Current  $I_N$

Cross Section AWG

Cross Section  $\text{mm}^2$

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**cULus Recognized**

**cULus Recognized**

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## Classifications

### ECLASS

ECLASS-9.0	27130806
ECLASS-10.0.1	27130806
ECLASS-11.0	27130806

### ETIM

ETIM 8.0	EC000942
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### UNSPSC

UNSPSC 21.0	39121600
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## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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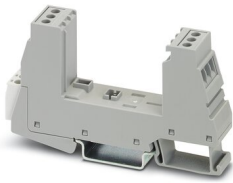
## Accessories

### Type 3 surge protection base element

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

<https://www.phoenixcontact.com/pc/products/2907924>

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



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### Type 3 surge protection plug

Type 3 surge protection plug - PLT-SEC-T3-230-P-UT/PT - 2907923

<https://www.phoenixcontact.com/pc/products/2907923>

Replacement plug for type 2/3 surge protection from the PLT-SEC-...-UT/PT product series. Nominal voltage 230 V.



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## Marker pen

Marker pen - X-PEN 0,35 - 0811228

<https://www.phoenixcontact.com/pc/products/0811228>



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

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## End clamp

End clamp - CLIPFIX 35 - 3022218

<https://www.phoenixcontact.com/pc/products/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

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## Label

Label - EML (20XE)R - 0803452

<https://www.phoenixcontact.com/pc/products/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

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## Label

Label - EML (20XE)R YE - 0803453

<https://www.phoenixcontact.com/pc/products/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

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