

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



2907918

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

- 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

## Commercial data

|                                      |                    |
|--------------------------------------|--------------------|
| Item number                          | 2907918            |
| Packing unit                         | 5 pc               |
| Minimum order quantity               | 5 pc               |
| Sales key                            | CL19               |
| Product key                          | CL14A2             |
| Catalog page                         | Page 83 (C-4-2019) |
| GTIN                                 | 4055626257440      |
| Weight per piece (including packing) | 96.91 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

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

### Data management status

|                  |    |
|------------------|----|
| Article revision | 06 |
|------------------|----|

### 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

#### Indicator/remote signaling

|                    |                                |
|--------------------|--------------------------------|
| 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 rigid    | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross section AWG      | 24 ... 12                                   |

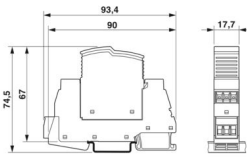
### Dimensions

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

## Material specifications

|                                        |                       |
|----------------------------------------|-----------------------|
| Color (Male connector)                 | light grey (RAL 7035) |
| Color (Base element)                   | gray (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 $U_N$                              | 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 $I_{PE}$                          | $\leq 5 \mu A$                           |
| Standby power consumption $P_C$                    | $\leq 10.60 \text{ mVA}$ (at $U_{REF}$ ) |
|                                                    | $\leq 13.50 \text{ mVA}$ (at $U_C$ )     |
| Reference test voltage $U_{REF}$                   | 132 V AC                                 |
| Nominal discharge current $I_n$ (8/20) $\mu s$     | 5 kA                                     |
| Maximum 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)      |

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|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| TOV behavior at $U_T$ (L-PE)            | 240 V AC (5 s / withstand mode)        |
|                                         | 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)                      |

## 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)                                | $\leq 0.68$ 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)                                 |
| Maximum continuous voltage $U_C$                                | 150 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)                           |

## Approvals

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## UL specifications

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

## UL indicator/remote signaling

|                      |                  |
|----------------------|------------------|
| 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 |
| Note                     | 2011         |

## EN 61643-11

|                          |             |
|--------------------------|-------------|
| Standards/specifications | EN 61643-11 |
| Note                     | 2012        |

## Mounting

|               |                 |
|---------------|-----------------|
| Mounting type | DIN rail: 35 mm |
|---------------|-----------------|

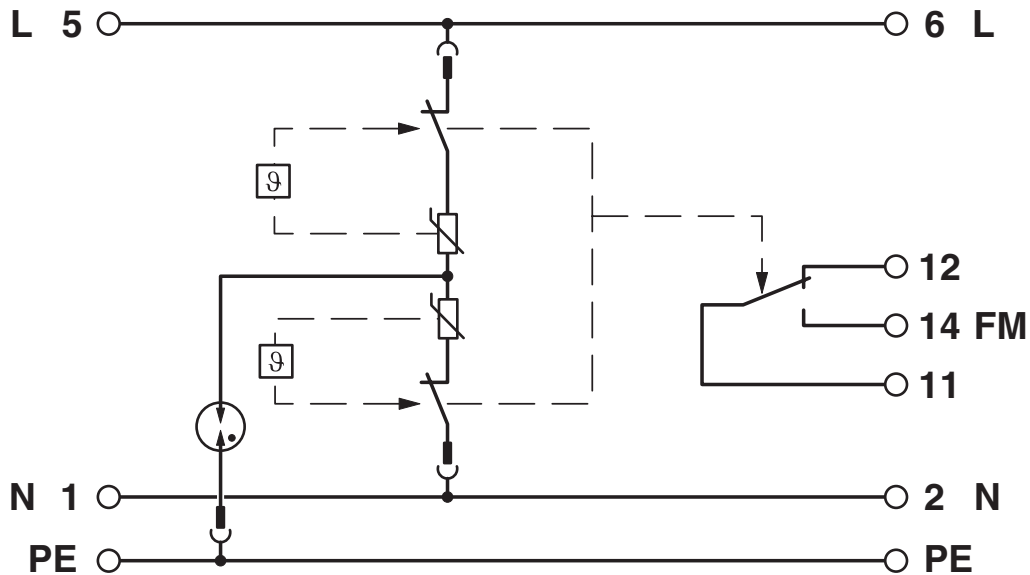
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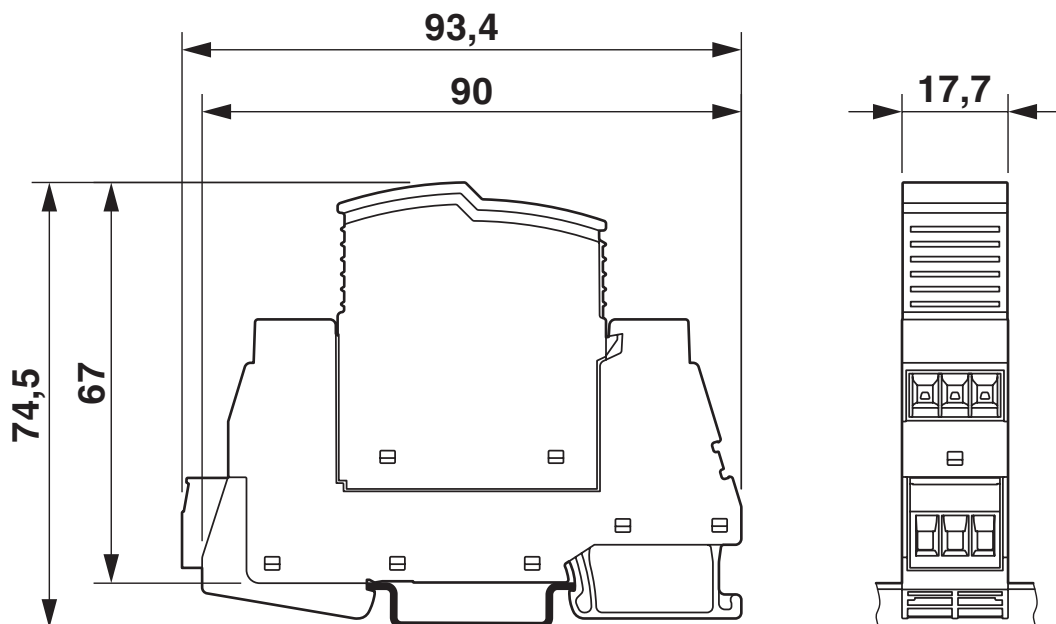
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## Drawings

Circuit diagram



Dimensional drawing



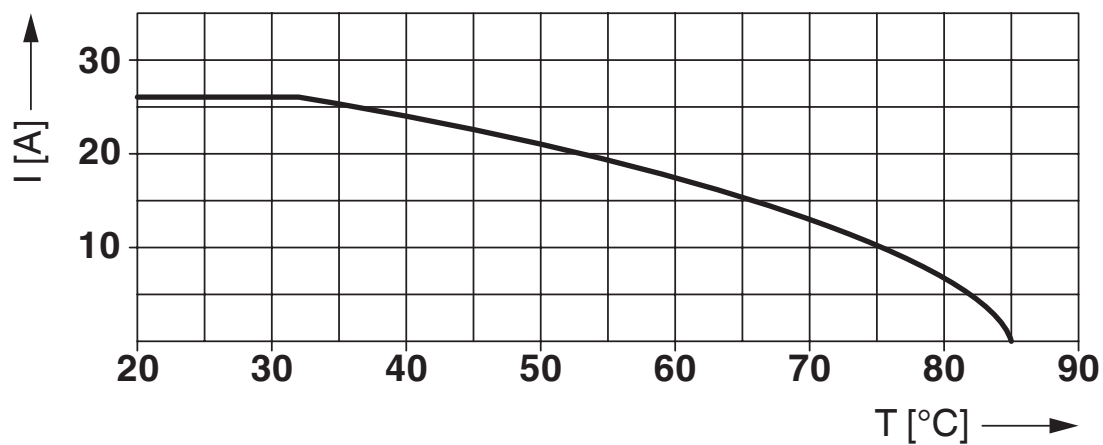
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Diagram



Nominal current depending on ambient temperature

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2907918>



**IECEE CB Scheme**

Approval ID: NL-51083



**EAC**

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

**CCA**

Approval ID: NTR-NL 7676



**KEMA-KEUR**

Approval ID: 71-103027



**UL Listed**

Approval ID: FILE E 330181



**CSA**

Approval ID: 13631



**cUL Listed**

Approval ID: FILE E 330181

**UAE-RoHS**

Approval ID: 23-10-88891

**DNV**

Approval ID: TAE00002U7



**cUL Recognized**

Approval ID: FILE E 340736



**UL Recognized**

Approval ID: FILE E 340736



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**cULus Listed**

**cULus Recognized**

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27130806 |
| ECLASS-13.0 | 27171203 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000942 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121600 |
|-------------|----------|

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## Environmental product compliance

|                                         |                                          |
|-----------------------------------------|------------------------------------------|
| EU RoHS                                 |                                          |
| Fulfills EU RoHS substance requirements | Yes, No exemptions                       |
| China RoHS                              |                                          |
| Environment friendly use period (EFUP)  | EFUP-E                                   |
|                                         | No hazardous substances above the limits |
| EU REACH SVHC                           |                                          |
| REACH candidate substance (CAS No.)     | No substance above 0.1 wt%               |

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## Accessories

### CLIPFIX 35 - End bracket

3022218

<https://www.phoenixcontact.com/us/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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### EML (20XE)R - Label

0803452

<https://www.phoenixcontact.com/us/products/0803452>



Label, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, mounting type: adhesive, lettering field size: continuous x 20 mm, Number of individual labels: 1

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<https://www.phoenixcontact.com/us/products/2907918>

## EML (20XE)R YE - Label

0803453

<https://www.phoenixcontact.com/us/products/0803453>



Label, Roll, yellow, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, lettering field size: continuous x 20 mm, Number of individual labels: 1

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## X-PEN 0,35 - Marker pen

0811228

<https://www.phoenixcontact.com/us/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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## SZS 0,6X3,5 VDE - Screwdriver

1212602

<https://www.phoenixcontact.com/us/products/1212602>



Screwdriver, slot-headed, VDE insulated, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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

2907922

<https://www.phoenixcontact.com/us/products/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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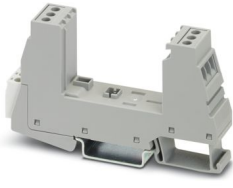
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## PLT-SEC-T3-BE-FM-UT - Type 3 surge protection base element

2907924

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

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



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