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## Type 3 surge protection device - PLT-SEC-T3-120-FM - 2905228

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Pluggable device protection, according to type 3/class III, for 1-phase power supply networks with separate N and PE (3-conductor system: L1, N, PE), with integrated surge-proof fuse and remote indication contact. Also suitable for DC applications.

The illustration shows version PLT-SEC-T3-230-FM

### Product Features

- Varistor-based device protection
- Can be used without separate backup fuse thanks to integrated overcurrent protection
- For 1-phase power supply units (AC/DC)
- Pluggable
- Optical status indicator via LED
- With floating remote indication contact
- Plugs can be checked with CHECKMASTER 2



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	91.6 g
Custom tariff number	85363030
Country of origin	Germany

### Technical data

#### Dimensions

Height	90 mm
Width	17.7 mm
Depth	74.5 mm
Horizontal pitch	1 Div.

#### Ambient conditions

# Type 3 surge protection device - PLT-SEC-T3-120-FM - 2905228

## Technical data

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (half sinus / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	5g (10 ... 150 Hz/20 cycles/axis/X, Y, Z)

### General

Standards/specifications	EN 61643-11 2012
IEC test classification	III
	T3
EN type	T3
Number of ports	One
SPD design	Combination type
Mode of protection	L-N
	L-PE
	N-PE
	(L+) - (L-)
	(L+/L-) - 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
Pollution degree	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 - only in use with RCD)
Nominal frequency $f_N$	50 Hz (60 Hz)
Maximum continuous voltage $U_C$	150 V AC
	150 V DC
Rated load current $I_L$	26 A (30 °C)

## Type 3 surge protection device - PLT-SEC-T3-120-FM - 2905228

### Technical data

#### Protective circuit

Residual current $I_{PE}$	$\leq 5 \mu A$
Nominal discharge current $I_n$ (8/20) $\mu s$	3 kA
Standby power consumption $P_C$	$\leq 150$ mVA (at $U_{REF}$ )
	$\leq 175$ mVA (at $U_C$ )
Reference test voltage $U_{REF}$	132 V AC
Combination wave $U_{OC}$	6 kV
Voltage protection level $U_p$ (L-N)	$\leq 0.85$ kV
Voltage protection level $U_p$ (L-PE)	$\leq 0.95$ kV
Voltage protection level $U_p$ (N-PE)	$\leq 0.95$ 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)
	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 $I_{SCCR}$	1.5 kA AC
	0.25 kA DC
Max. backup fuse with branch wiring	Not required
Maximum backup fuse for through wiring	25 A (gG / B / C)

#### Indicator/remote signaling

Connection name	Remote fault indicator contact
Switching function	N/C contact
Operating voltage	250 V AC
	125 V DC (200 mA DC)
Operating current	3 A AC
	1 A DC (30 V DC)
Connection method	Screw connection
Screw thread	M3
Tightening torque	0.8 Nm
Stripping length	8 mm
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section solid min.	0.2 mm <sup>2</sup>



## Type 3 surge protection device - PLT-SEC-T3-120-FM - 2905228

### Technical data

#### Indicator/remote signaling

Conductor cross section solid max.	4 mm <sup>2</sup>
AWG conductor cross section	24 ... 12

#### Connection data

Connection method	Screw connection
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>
AWG conductor cross section	24 ... 12 (IEC)
	24 ... 12 (UL)
Screw thread	M3
Tightening torque	0.8 Nm
Stripping length	8 mm

#### UL specifications

UL class	SPD type 4CA
Maximum continuous operating voltage MCOV	150 V AC
	150 V DC
Nominal voltage	120 V DC
Mode of protection	L-N
	L-G
	N-G
	(L+) - (L-)
	(L+) - G
	(L-) - G
Power distribution system	1
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-N)	780 V
Measured limiting voltage MLV (L-G)	760 V
Measured limiting voltage MLV (N-G)	760 V
Measured limiting voltage MLV (L+) - (L-)	780 V
Measured limiting voltage MLV (L+) - G	760 V
Measured limiting voltage MLV (L-) - G	760 V
Nominal discharge current I <sub>n</sub>	3 kA

# Type 3 surge protection device - PLT-SEC-T3-120-FM - 2905228

## Classifications

### eCl@ss

eCl@ss 5.1	27130801
eCl@ss 6.0	27130806
eCl@ss 8.0	27130803

### ETIM

ETIM 5.0	EC000942
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## Approvals

### Approvals

#### Approvals

KEMA-KEUR / CCA / UL Recognized / cUL Recognized / EAC / GL / cULus Recognized

#### Ex Approvals

UL Recognized / cUL Recognized / cULus Recognized

#### Approvals submitted

### Approval details

KEMA-KEUR

CCA

UL Recognized


cUL Recognized

EAC

## Type 3 surge protection device - PLT-SEC-T3-120-FM - 2905228

### Approvals

GL

cULus Recognized 

### Accessories

#### Accessories

#### Device marking

Label - EML (20XE)R - 0803452



Label, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK X, THERMOMARK S1.1, Mounting type: Adhesive, Lettering field: continuous x 20 mm

Label - EML (20XE)R YE - 0803453



Label, Roll, yellow, unlabeled, can be labeled with: THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK X, THERMOMARK S1.1, Mounting type: Adhesive, Lettering field: 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 - 2905234

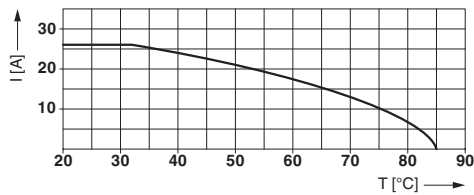


Replacement plug for type 3 device protection from the PLUGTRAB SEC T3 product range. 120 V nominal voltage.

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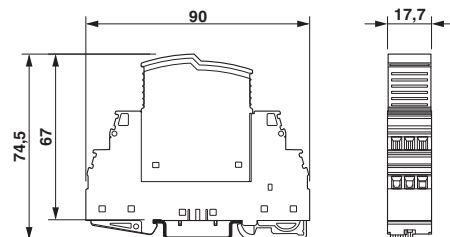
## Drawings

Diagram



Nominal current depending on ambient temperature

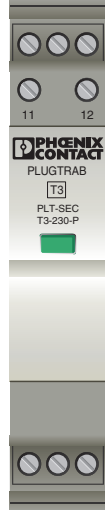
Dimensional drawing





# Type 3 surge protection device - PLT-SEC-T3-120-FM - 2905228

Product drawing



Circuit diagram

