

## Surge protection device - LIT 4-12 - 2804704

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>)




Surge protection in one-piece 6.2 mm wide DIN rail module for four floating signal wires.

### Why buy this product

- Complete normal mode voltage protection between all wires
- Cross-arrester bridging of the reference potential with ME 6,2 TBUS



### Key commercial data

Packing unit	10 pc
GTIN	 4 046356 462204
Weight per Piece (excluding packing)	65.34 g
Custom tariff number	85363010
Country of origin	Germany

### Technical data

#### Dimensions

Height	93 mm
Width	6.2 mm
Depth	102.5 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Degree of protection	IP20

#### General

Housing material	PBT
Inflammability class according to UL 94	V-0

# Surge protection device - LIT 4-12 - 2804704

## Technical data

### General

Color	black
Standards for air and creepage distances	IEC 60664-1
	EN 60079-11
Mounting type	DIN rail: 35 mm
Type	Rail-mountable module, one-piece
Direction of action	Line-Line & Line-Earth Ground

### Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage $U_N$	12 V DC
Maximum continuous operating voltage $U_C$	13 V AC
	18 V DC
Nominal current $I_N$	500 mA (40°C)
Operating effective current $I_C$ at $U_C$	$\leq 2 \mu\text{A}$ (per path)
Residual current $I_{PE}$	$\leq 4 \mu\text{A}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (Core-Core)	350 A
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (Core-Earth)	5 kA
	20 kA (Total)
Total surge current (8/20) $\mu\text{s}$	20 kA
Total surge current (10/350) $\mu\text{s}$	2 kA
Max. discharge current $I_{max}$ (8/20) $\mu\text{s}$ maximum (Core-Core)	350 A
Max. discharge current $I_{max}$ (8/20) $\mu\text{s}$ maximum (Core-Earth)	10 kA
	20 kA ((Total))
Nominal pulse current $I_{an}$ (10/1000) $\mu\text{s}$ (Core-Core)	70 A
Nominal pulse current $I_{an}$ (10/1000) $\mu\text{s}$ (Core-Earth)	50 A
	200 A (Total)
Impulse discharge current (10/350) $\mu\text{s}$ , peak value $I_{imp}$	500 A
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Core) spike	$\leq 50 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Earth) spike	$\leq 650 \text{ V}$
Residual voltage at $I_n$ , (conductor-conductor)	$\leq 50 \text{ V}$
Residual voltage with $I_{an}$ (10/1000) $\mu\text{s}$ (conductor-conductor)	$\leq 50 \text{ V}$
Voltage protection level $U_p$ (core-core)	$\leq 50 \text{ V}$ (C1 - 500 V / 250 A)
	$\leq 50 \text{ V}$ (C3 - 10 A)
Voltage protection level $U_p$ (core-ground)	$\leq 650 \text{ V}$ (C1 - 500 V / 250 A)
	$\leq 650 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 700 \text{ V}$ (D1 - 500 A)
Response time $t_A$ (Core-Core)	$\leq 1 \text{ ns}$

# Surge protection device - LIT 4-12 - 2804704

## Technical data

### Protective circuit

Response time tA (Core-Earth)	≤ 100 ns
Input attenuation aE, sym.	typ. 0.3 dB (1.5 MHz/50 Ω)
	typ. 0.3 dB (500 kHz / 150 Ω)
Cut-off frequency fg (3 dB), sym. in 50 Ohm system	typ. 5 MHz
Cut-off frequency fg (3 dB), sym. in 150 Ohm system	typ. 1.7 MHz
Capacity	≤ 1.5 nF (per path)
Resistance in series	0 Ω
Max. required back-up fuse	500 mA
Impulse durability (conductor-conductor)	C1 - 500 V / 250 A
	C3 - 25 A
Impulse durability (conductor-ground)	C2 - 10 kV/5 kA
	C3 (25 A)
	D1 (500 A)
Alternating current carrying capacity (conductor-ground)	5 A - 1 s

### Connection data

Connection method	Screw connection
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Screw thread	M3
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	12

### Connection, equipotential bonding

Connection method	DIN rail NS35
-------------------	---------------

### Standards and Regulations

Standards/regulations	IEC 61643-21
	DIN EN 61643-21

## Classifications

### eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130807

# Surge protection device - LIT 4-12 - 2804704

## Classifications

### eCl@ss

eCl@ss 7.0	27130807
eCl@ss 8.0	27130807

### ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

## Approvals

### Approvals

---

#### Approvals

UL Listed / GL / EAC

---

#### Ex Approvals

IECEX / ATEX / INMETRO

---

#### Approvals submitted

---

### Approval details

UL Listed
-----------

GL
----

EAC
-----

## Surge protection device - LIT 4-12 - 2804704

### Accessories

#### Accessories

##### PCB plug

Printed-circuit board connector - IMC 1,5/ 5-ST-3,81 - 1857919



Plug component, Nominal current: 8 A, Rated voltage (III/2): 160 V, Number of positions: 5, Pitch: 3.81 mm, Connection method: Screw connection, Color: green, Contact surface: Tin

---

### Terminal marking

Marker for terminal blocks - UC-TM 6 - 0818085



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 10.5 mm

---

Marker for terminal blocks - UC-TM 6 OG - 0818328



Marker for terminal blocks, Sheet, orange, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 10.5 mm

---

Marker for terminal blocks - UC-TM 6 YE - 0818331



Marker for terminal blocks, Sheet, yellow, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 10.5 mm

---

Marker for terminal blocks - UC-TM 6 BU - 0818344



Marker for terminal blocks, Sheet, blue, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 10.5 mm

---

# Surge protection device - LIT 4-12 - 2804704

## Accessories

Marker for terminal blocks - UC-TM 6 RD - 0818357



Marker for terminal blocks, Sheet, red, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 10.5 mm

Marker for terminal blocks - UC-TM 6 GN - 0818360



Marker for terminal blocks, Sheet, green, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 10.5 mm

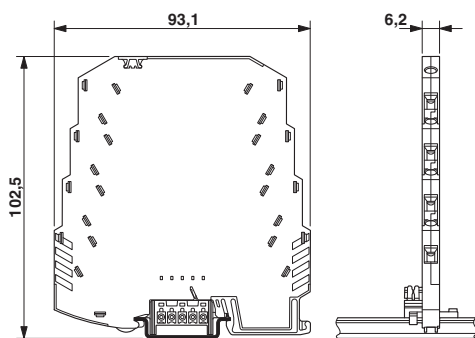
DIN rail connector - ME 6,2 TBUS-2 1,5/5-ST-3,81KMGY - 2969401



DIN rail bus connector for potential bridging of devices arranged next to one another across all modules.

## Drawings

Dimensioned drawing



Circuit diagram

