

## Surge protection device - LIT 2X2-24 - 2804623

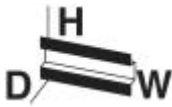
Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://download.phoenixcontact.com>)



Surge protection in the one-piece 6.2 mm DIN rail module for two floating signal circuits in 2-wire technology. Tested according to the protection types in Ex areas Ex ia IIC/Ex iaD. HART-compatible.

### Product Features

- ✓ Can be used in binary, analog, and intrinsically safe circuits
- ✓ Protection of up to four signal wires over a design width of 6.2 mm



### Key commercial data

Packing unit	1 1
Weight per Piece (excluding packing)	44.0 GRM
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
------------------	-----

## Surge protection device - LIT 2X2-24 - 2804623

### Technical data

#### General

Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	IEC 60664-1
	EN 60079-11
Mounting type	DIN rail: 35 mm
Design	Rail-mountable module, one-piece
Direction of action	Line-Line & Line-Earth Ground

#### Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage $U_N$	24 V DC
Maximum continuous operating voltage $U_C$	25 V AC
	36 V DC
Nominal current $I_N$	350 mA (40°C)
Operating effective current $I_C$ at $U_C$	$\leq 2 \mu\text{A}$
Residual current $I_{PE}$	$\leq 4 \mu\text{A}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (Core-Core)	5 kA
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)	10 kA
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)	50 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	$\leq 60 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (Core-Earth) spike	$\leq 650 \text{ V}$
Residual voltage at $I_n$ , (conductor-conductor)	$\leq 70 \text{ V}$
Residual voltage with $I_{an}$ (10/1000) $\mu\text{s}$ (conductor-conductor)	$\leq 50 \text{ V}$
Voltage protection level $U_p$ (Core-Core)	$\leq 70 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 50 \text{ V}$ (C3 - 10 A)

## Surge protection device - LIT 2X2-24 - 2804623

### Technical data

#### Protective circuit

	$\leq 80 \text{ V (D1 - 500 A)}$
Voltage protection level $U_p$ (Core-Earth)	$\leq 650 \text{ V (C1 - 500 V / 250 A)}$
	$\leq 700 \text{ V (C2 - 10 kV / 5 kA)}$
	$\leq 700 \text{ V (D1 - 500 A)}$
Response time $t_A$ (Core-Core)	$\leq 1 \text{ ns}$
Response time $t_A$ (Core-Earth)	$\leq 100 \text{ ns}$
Input attenuation $a_E$ , sym.	typ. $0.7 \text{ dB (1 MHz / 50 } \Omega)$
	typ. $0.3 \text{ dB (350 kHz / 150 } \Omega)$
Cut-off frequency $f_g$ (3 dB), sym. in 50 Ohm system	typ. $6 \text{ MHz}$
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	typ. $2 \text{ MHz}$
Capacity	$\leq 1.3 \text{ nF (per channel)}$
Resistance in series	$3.3 \Omega \text{ } 20 \%$
Max. required back-up fuse	$315 \text{ mA}$
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C2 (10 kV/5 kA)
	C3 (25 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
	C3 (25 A)
	D1 (500 A)
Alternating current carrying capacity in acc. with IEC 61643-21 (Core-Earth)	$5 \text{ A - 1 s}$

#### Connection data

Connection method	Screw connection
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Screw thread	M3
Tightening torque	$0.8 \text{ Nm}$
Stripping length	$8 \text{ mm}$
Conductor cross section stranded min.	$0.2 \text{ mm}^2$
Conductor cross section stranded max.	$2.5 \text{ mm}^2$
Conductor cross section solid min.	$0.14 \text{ mm}^2$
Conductor cross section solid max.	$2.5 \text{ mm}^2$
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

# Surge protection device - LIT 2X2-24 - 2804623

## Technical data

### 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
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

---

#### Ex Approvals

IECEX / ATEX

---

## Surge protection device - LIT 2X2-24 - 2804623

### Approvals

Approvals submitted

---

#### Approval details



### Accessories

#### Accessories

#### 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

---

## Surge protection device - LIT 2X2-24 - 2804623

### Accessories

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

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

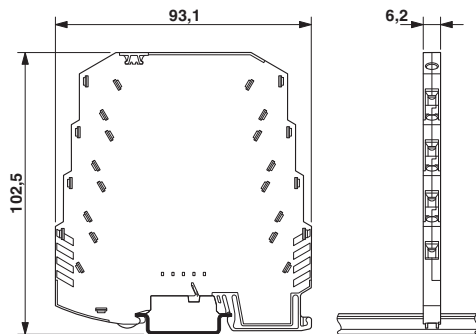
Marker for terminal blocks - UC-TM 6 GN - 0818360



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

### Drawings

Dimensioned drawing



Circuit diagram

