

Surge protection device - LIT 4X1-24 - 2804649

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Surge protection in one-piece 6.2 mm wide DIN rail module for four conductors with common reference potential.

Why buy this product

- ✓ 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	10 pc
GTIN	 4 046356 428286
Weight per Piece (excluding packing)	67.3 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	V0

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Technical data

General

Color	black
Standards for air and creepage distances	IEC 60664-1
Mounting type	DIN rail: 35 mm
Type	Rail-mountable module, one-piece
Direction of action	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}	$\leq 8 \mu\text{A}$
Nominal discharge current I_n (8/20) μs (Core-Earth)	5 kA
	20 kA ((Total))
Total surge current (8/20) μs	20 kA
Total surge current (10/350) μs	2 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Earth)	10 kA
	20 kA ((Total))
Nominal pulse current I_{an} (10/1000) μs (Core-Earth)	50 A
	200 A ((Total))
Impulse discharge current (10/350) μs , peak value I_{imp}	500 A
Output voltage limitation at 1 kV/ μs (Core-Earth) spike	$\leq 60 \text{ V}$
Residual voltage at I_n , (conductor-ground)	$\leq 50 \text{ V}$
Residual voltage with I_{an} (10/1000) μs (conductor-ground)	$\leq 60 \text{ V}$
Voltage protection level U_p (core-ground)	$\leq 60 \text{ V}$ (C1 - 500 V / 250 A)
	$\leq 95 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 60 \text{ V}$ (C3 - 10 A)
Response time t_A (Core-Earth)	$\leq 1 \text{ ns}$
Input attenuation aE , asym.	typ. 0.3 dB (1 MHz / 50 Ω)
	typ. 0.2 dB (350 kHz / 150 Ω)
Cut-off frequency f_g (3 dB), asym. (PE) in 50 Ohm system	typ. 6 MHz
Cut-off frequency f_g (3 dB), asym. (PE) in 150 Ohm system	typ. 2 MHz
Capacity	$\leq 1.3 \text{ nF}$ (per channel)
Resistance in series	3.3 Ω 20 %
Max. required back-up fuse	315 mA
Impulse durability (conductor-ground)	C2 - 10 kV/5 kA

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Technical data

Protective circuit

	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 ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	12

Connection, equipotential bonding

Connection method	DIN rail NS35
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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

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Classifications

UNSPSC

UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Approvals

Approvals

Approvals

UL Listed / GL / EAC

Ex Approvals

Approvals submitted

Approval details

UL Listed 

GL

EAC

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

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Accessories

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

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

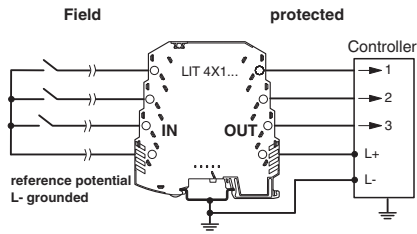


Marker for terminal blocks, Sheet, green, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 5.6 x 10.5 mm

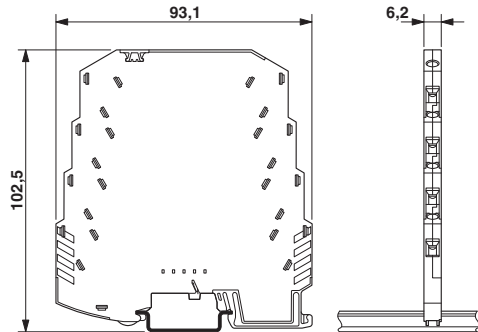
Drawings

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Application drawing



Dimensioned drawing



Circuit diagram

