

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.

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
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Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	64.0 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

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Technical data

General

Housing material	PBT
Inflammability class according to UL 94	V0
Color	black
Standards for clearances 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 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 a_E , asym.	typ. 0.3 dB (1 MHz / 50 Ω)
	typ. 0.2 dB (350 kHz / 150 Ω)

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Protective circuit

Cut-off frequency fg (3 dB), asym. (PE) in 50 Ohm system	typ. 6 MHz
Cut-off frequency fg (3 dB), asym. (PE) in 150 Ohm system	typ. 2 MHz
Capacity	≤ 1.3 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
	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 flexible min.	0.2 mm ²
Conductor cross section flexible 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

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Classifications

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 / EAC

Ex Approvals

Approvals submitted

Approval details

UL Listed 

GL

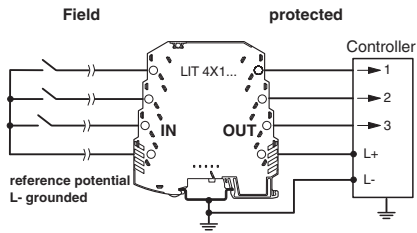
EAC

EAC

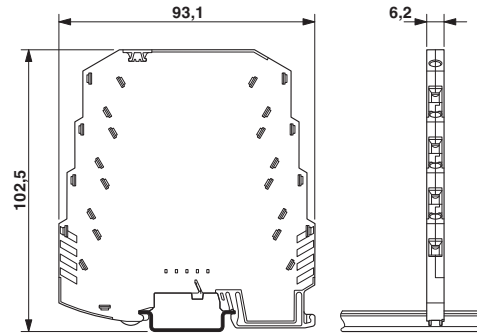
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Drawings

Application drawing



Dimensional drawing



Circuit diagram

