

# LIT 4X1-24

Order No.: 2804649




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



## Commercial data

GTIN (EAN)	 4 046356 428286
sales group	J342
Pack	10 pcs.
Customs tariff	85363010
Catalog page information	Page 97 (TT-2009)

## Product notes

WEEE/RoHS-compliant since:  
06/24/2008



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## Technical data

### General

Housing material	PBT
Inflammability class acc. to UL 94	V0
Color	black

Standards for air and creepage distances	IEC 60664-1
Total surge current (8/20) $\mu$ s	20 kA
Total surge current (10/350) $\mu$ s	2 kA
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Mounting type	DIN rail: 35 mm
Design	Rail-mountable module, one-piece
Degree of protection	IP20
Direction of action	Line-Earth Ground
Width	6.20 mm
Height	102.50 mm
Length	93.00 mm
<b>Protective circuit</b>	
IEC category	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 $U_C$	$\leq 2 \mu$ A
Ground conductor current $I_{PE}$	$\leq 8 \mu$ A
Nominal discharge surge current $I_n$ (8/20) $\mu$ s (Core-Earth)	5 kA
	20 kA ((Total))
Total surge current (8/20) $\mu$ s	20 kA
Max. discharge surge current $I_{max}$ (8/20) $\mu$ s maximum (Core-Earth)	10 kA
	20 kA ((Total))
Nominal pulse current $I_{an}$ (10/1000) $\mu$ s (Core-Earth)	50 A
	200 A ((Total))
Lightning test current (10/350) $\mu$ s, peak value $I_{imp}$	500 A
Output voltage limitation at 1 kV/ $\mu$ s (Core-Earth) spike	$\leq 60$ V

Residual voltage at $I_n$ , (conductor-ground)	$\leq 50 \text{ V}$
Residual voltage with $I_{an}$ (10/1000) $\mu\text{s}$ (conductor-ground)	$\leq 60 \text{ V}$
Protection level $U_p$ (Core-Earth)	$\leq 60 \text{ V}$ (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 $\Omega$ )
	Typ. 0.2 dB (350 kHz / 150 $\Omega$ )
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 $\Omega$ 20 %
Max. required back-up fuse	315 mA
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 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
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**Connection, protective circuit**

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

**Certificates / Approvals**



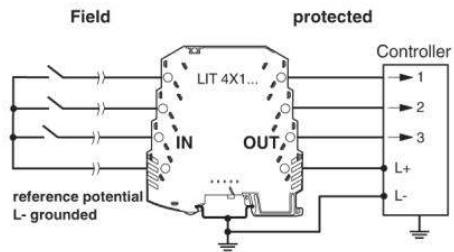
Certification UL Listed

**Accessories**

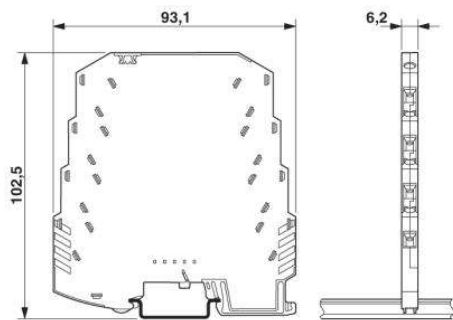
Item	Designation	Description
<b>Marking</b>		
0818085	UC-TM 6	UniCard materials for labeling terminal blocks with a marker groove,80-section, can be labeled with BLUEMARK X1 and CMS-P1-PLOTTER, color: white
0818344	UC-TM 6 BU	UniCard materials for labeling terminal blocks with a marker groove,80-section, can be labeled with BLUEMARK X1 and CMS-P1-PLOTTER, color: blue
0818360	UC-TM 6 GN	UniCard materials for labeling terminal blocks with a marker groove,80-section, can be labeled with BLUEMARK X1 and CMS-P1-PLOTTER, color: green
0818328	UC-TM 6 OG	UniCard materials for labeling terminal blocks with a marker groove,80-section, can be labeled with BLUEMARK X1 and CMS-P1-PLOTTER, color: orange
0818357	UC-TM 6 RD	UniCard materials for labeling terminal blocks with a marker groove,80-section, can be labeled with BLUEMARK X1 and CMS-P1-PLOTTER, color: red
0818331	UC-TM 6 YE	UniCard materials for labeling terminal blocks with a marker groove,80-section, can be labeled with BLUEMARK X1 and CMS-P1-PLOTTER, color: yellow

## Diagrams/Drawings

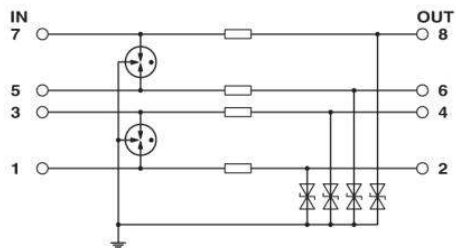
### Application drawing



### Dimensioned drawing



### Circuit diagram



**Address**

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