

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Surge protection in one-piece 6.2 mm wide DIN rail module for two floating signal wires. Tested in acc. with the protection types in Ex areas: Ex ia IIC / Ex iaD.

#### **Product Features**







#### 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

Housing material	PBT



## Technical data

#### General

Inflammability class according to UL 94	V-0
Color	black
Standards for air and creepage distances	IEC 60664-1
	EN 60079-11
Mounting type	DIN rail: 35 mm
Туре	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 <sub>N</sub>	24 V DC
Maximum continuous operating voltage U <sub>C</sub>	25 V AC
	36 V DC
Nominal current I <sub>N</sub>	500 mA (40°C)
Operating effective current I <sub>C</sub> at U <sub>C</sub>	≤ 2 μA (per path)
Residual current I <sub>PE</sub>	≤ 2 µA
Nominal discharge current I <sub>n</sub> (8/20) µs (Core-Core)	250 A
Nominal discharge current I <sub>n</sub> (8/20) µs (Core-Earth)	5 kA
	10 kA (Total)
Total surge current (8/20) µs	20 kA
Total surge current (10/350) µs	1 kA
Max. discharge current $I_{\text{max}}$ (8/20) $\mu$ s maximum (Core-Core)	250 A
Max. discharge current I <sub>max</sub> (8/20) μs maximum (Core-Earth)	10 kA
	20 kA (Total)
Nominal pulse current lan (10/1000) μs (Core-Core)	50 A
Nominal pulse current lan (10/1000) µs (Core-Earth)	50 A
	100 A (Total)
Impulse discharge current (10/350)# $\mu$ s, peak value $I_{imp}$	500 A
Output voltage limitation at 1 kV/µs (Core-Core) spike	≤ 60 V
Output voltage limitation at 1 kV/µs (Core-Earth) spike	≤ 650 V
Residual voltage at I <sub>n</sub> , (conductor-conductor)	≤ 60 V
Residual voltage with lan (10/1000)µs (conductor-conductor)	≤ 60 V
Voltage protection level U <sub>P</sub> (Core-Core)	≤ 60 V (C1 - 500 V / 250 A)
	≤ 60 V (C3 - 10 A)



## Technical data

#### Protective circuit

Voltage protection level U <sub>P</sub> (Core-Earth)	≤ 650 V (C1 - 500 V / 250 A)
	≤ 650 V (C2 - 10 kV / 5 kA)
	≤ 700 V (D1 - 500 A)
Response time tA (Core-Core)	≤ 1 ns
Response time tA (Core-Earth)	≤ 100 ns
Input attenuation aE, sym.	typ. 0.1 dB (1 MHz / 50 Ω)
	typ. 0.1 dB (450 kHz / 150 Ω)
Cut-off frequency fg (3 dB), asym. (GND) in 50 Ohm system	typ. 7.5 MHz
Cut-off frequency fg (3 dB), asym. (GND) in 100 Ohm system	typ. 2.5 MHz
Capacity	≤ 1.3 nF (per path)
Resistance in series	0 Ω
Max. required back-up fuse	500 mA
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C1 (500 V / 250 A)
	C1 (500 V / 250 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 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 mm²
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm²
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
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

## Approvals

Approvals

Approvals

UL Listed / GL

Ex Approvals

IECEx / ATEX / INMETRO

Approvals submitted

Approval details



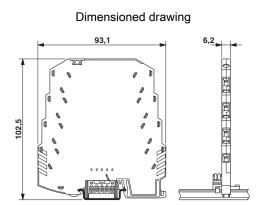
## Approvals



GL

## Drawings

# Circuit diagram OUT 7 0 8 5 0 6 3 0 4 1 0 2



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