

Surge protection plug - CTM 2X1-180DC-GS - 2838636

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LSA-PLUS protective plug (COMTRAB CTM) with coarse surge protection for 2 signal wires from analog and digital telecommunications interfaces (up to 44 Mbps). Nominal voltage: 180 V DC

Product Features

- The CTM 10-MAG surge protection magazine can be freely fitted with various protective plugs
- Can be used in LSA-PLUS disconnect and control strips or CT-TERMIBLOCK
- Typical installation locations include marshalling distributors
- Space-saving LSA-PLUS connection technology
- Modular compact protection for high-density networks



Key Commercial Data

| | |
|--------------------------------------|----------|
| Packing unit | 1 pc |
| Weight per Piece (excluding packing) | 7.79 g |
| Custom tariff number | 85363010 |
| Country of origin | Germany |

Technical data

Dimensions

| | |
|--------|---------|
| Height | 21 mm |
| Width | 9.5 mm |
| Depth | 53.5 mm |

Ambient conditions

| | |
|---------------------------------|------------------|
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Degree of protection | IP20 |

General

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Technical data

General

| | |
|--|--|
| Housing material | PA |
| Flammability rating according to UL 94 | V0 |
| Color | black |
| Standards for clearances and creepage distances | DIN VDE 0110-1 |
| | IEC 60664-1 |
| Overvoltage category | II |
| Degree of pollution | 2 |
| Mounting type | On CT-TERMIBLOCK and LSA-PLUS disconnect strip |
| Type | LSA-PLUS module |
| Direction of action | Line-Line & Line-Earth Ground |
| Arrester can be tested with CHECKMASTER from software version: | From SW rev. 2.12 |
| Near-end crosstalk attenuation aN between adjacent articles | 70 dB (up to 1 MHz 100 Ω system) |
| | 50 dB (up to 10 MHz 100 Ω system) |
| | 30 dB (up to 100 MHz, 100 Ω system) |
| Transmission speed | 44 MBit/s |

Protective circuit

| | |
|--|----------------|
| IEC test classification | A2 |
| | B1 |
| | B2 |
| | B3 |
| | C1 |
| | C2 |
| | C3 |
| | D1 |
| | D2 |
| VDE requirement class | A2 |
| | B1 |
| | B2 |
| | B3 |
| | C1 |
| | C2 |
| | C3 |
| | D1 |
| | D2 |
| Nominal voltage U_N | 180 V DC |
| Maximum continuous voltage U_C | ± 180 V DC |
| Maximum continuous voltage U_C (wire-ground) | ± 180 V DC |

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Technical data

Protective circuit

| | |
|--|--|
| Nominal current I_N | 1.5 A (25 °C) |
| Operating effective current I_C at U_C | $\leq 2 \mu A$ |
| Residual current I_{PE} | $\leq 2 \mu A$ |
| Nominal discharge current I_n (8/20) μs (Core-Earth) | 5 kA |
| Total surge current (8/20) μs | 10 kA |
| Total surge current (10/350) μs | 2.5 kA |
| Max. discharge current I_{max} (8/20) μs maximum (Core-Earth) | 10 kA (in total) |
| Nominal pulse current I_{an} (10/1000) μs (Core-Earth) | 200 A |
| Impulse discharge current (10/350) μs , peak value I_{imp} | 1 kA |
| Output voltage limitation at 1 kV/ μs (Core-Earth) spike | $\leq 800 V$ |
| Output voltage limitation at 1 kV/ μs (Core-Earth) static | $\leq 800 V$ |
| Residual voltage at I_n (conductor-ground) | $\leq 70 V$ |
| Residual voltage with I_{an} (10/1000) μs (conductor-ground) | $\leq 28 V$ |
| Voltage protection level U_p (core-ground) | $\leq 900 V$ (C2 - 10 kV/5 kA, spike) |
| | $\leq 70 V$ (C2 - 10 kV/5 kA, static) |
| | $\leq 1 kV$ (C3, 7.5 kV/100 A, spike) |
| | $\leq 30 V$ (C3, 7.5 kV/100 A, static) |
| Response time t_A (Core-Earth) | $\leq 100 ns$ |
| Input attenuation a_E , asym. | 0.1 dB ($\leq 10 MHz$) |
| | 0.2 dB ($\leq 60 MHz$) |
| | 0.5 dB ($\leq 100 MHz$) |
| Cut-off frequency f_g (3 dB), asym. (PE) in 100 Ohm system | $> 100 MHz$ |
| Capacity (Core-Earth) | 5 pF ($f=1 MHz / V_R=0 V$) |
| Impulse durability (conductor-ground) | C2 - 4 kV/2 kA |
| | C3 - 100 A |
| | B2 - 4 kV/100 A |
| | D1 - 1 kA |
| Alternating current carrying capacity (conductor-ground) | 5 A - 1 s |

Connection data

| | |
|---------------------|--|
| Connection method | can be plugged into COMTRAB-TERMI BLOCK and LSA-PLUS disconnect and switching strips |
| Connection type IN | COMTRAB plug-in system |
| Connection type OUT | COMTRAB plug-in system |
| Connection method | LSA-PLUS |

Connection, equipotential bonding

| | |
|-------------------|----------------|
| Connection method | Spring contact |
|-------------------|----------------|

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Technical data

Standards and Regulations

| | |
|-----------------------|--------------|
| Standards/regulations | IEC 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 |
| eCl@ss 9.0 | 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 / EAC / EAC

Ex Approvals

Surge protection plug - CTM 2X1-180DC-GS - 2838636

Approvals

Approvals submitted

Approval details

UL Listed 

EAC

EAC

Accessories

Required add-on products

Disconnect strip - CT 10-TL - 2765356



LSA-PLUS disconnect strip to hold the CTM and CT 10 protection modules. Version: 10 double conductors, dimension A: 124 mm.

Grounding rail - CT 1-10-ES - 2765547



Ground rail for CTM protective plug when used in combination with LSA-PLUS disconnect strip. Version: 10 double conductors

Screw termination block - CT-TERMIBLOCK 10 DA - 0441711



Screw termination block with disconnect contacts for accommodating protective plugs CT and CTM. Use in MCR and telecommunications systems. Design: 10 double wires

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Accessories

Magazine - CTM 10-MAG - 2838610



Magazine with a grounding rail to accommodate up to 10 LSA-PLUS protective plugs (COMTRAB CTM), to insert in CT-TERMIBLOCK or LSA-PLUS disconnect strip

Additional products

Mounting clip - CT 10-MB/ 3 - 2765372



Mounting clip, for holding 3 disconnect or ground wire strips. Version: 10 double conductors, dimensions: A 104.5 mm, B 65 mm.

Mounting clip - CT 10-MB/10 - 2765385



Mounting clip, for holding 10 disconnect or ground wire strips. Version: 10 double conductors, dimensions: A 104.5 mm, dimensions B 245.5 mm

Cable feed-through sleeve - CT-KDT - 2765518



Cable bush for assembly troughs, for protection of the lines guided through the laminated frame

Short-circuit connector - CTM EST - 2838649



LSA-PLUS grounding plug (COMTRAB CTM) to short-circuit and ground potentials in CT-TERMIBLOCK... and disconnect strip CT 10...

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Accessories

Shield connection - SSA 3-6 - 2839295



shield fast connections for conductor diameter 3 - 6 mm. Potential connection cable: 200 mm, black

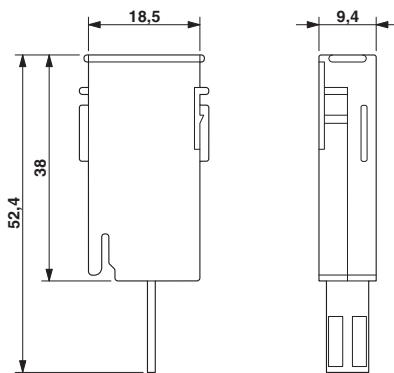
Shield connection - SSA 5-10 - 2839512



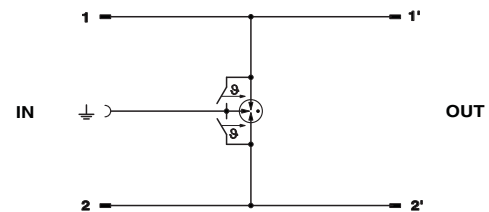
Shield fast connection for conductor diameters 5 - 10 mm. Potential connection cable: 200 mm, black

Drawings

Dimensional drawing



Circuit diagram



Mouser Electronics

Authorized Distributor

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