# Surge protection device - DT-UFB-V24/S-9-SB - 2803069

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Attachment plug with surge protection for V.24 interface. Connection: D-SUB-9 plug/socket, installation in lines

## Product Features

- Connection: 9-pos. D-SUB and 25-pos. D-SUB
- For data and handshake cables


## Key commercial data

| | |
|---|---|
| **package_quantity** | 1 |
| **GTIN** | 4046356312974 |

## Technical data

### Dimensions

| | |
|---|---|
| **Height** | 110 mm |
| **Width** | 25 mm |
| **Depth** | 63 mm |

### Ambient conditions

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

### General

| | |
|---|---|
| **Housing material** | Zinc die-cast |
| **Color** | silver/black |
| **Standards for air and creepage distances** | IEC 60664-1 |
| **Standards for air and creepage distances** | VDE 0110-1 |
| **Mounting type** | Connection-specific attachment plug and DIN rail, 35 mm |
| **Design** | Attachment plug for DIN rail mounting |
| **Number of positions** | 9 |
| **Direction of action** | Line-Line & Line-Signal Ground/Shield & Signal Ground/Shield-Earth Ground |

### Protective circuit

| | |
|---|---|
| **IEC test classification** | B2 |

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## Technical data

### Protective circuit

| | |
|---|---|
| **IEC test classification** | C1 |
| **IEC test classification** | C2 |
| **IEC test classification** | C3 |
| **VDE requirement class** | B2 |
| **VDE requirement class** | C1 |
| **VDE requirement class** | C2 |
| **VDE requirement class** | C3 |
| **Maximum continuous operating voltage $U_C$** | 15 V DC |
| **Maximum continuous operating voltage $U_C$** | 10 V AC |
| **Maximum continuous voltage $U_C$ (wire-GND)** | 15 V DC |
| **Maximum continuous voltage $U_C$ (wire-GND)** | 10 V AC |
| **Nominal current $I_N$** | ≤ 1 A (25 °C) |
| **Operating effective current $I_C$ at $U_C$** | ≤ 5 µA (per wire) |
| **Residual current $I_{PE}$** | ≤ 1 µA |
| **Nominal discharge current $I_n$ (8/20) µs (Core-Core)** | ≤ 250 A |
| **Nominal discharge current $I_n$ (8/20) µs (Core-Earth)** | ≤ 250 A |
| **Nominal discharge current $I_n$ (8/20) µs (Core-GND)** | ≤ 250 A |
| **Total surge current (8/20) µs** | 5 kA |
| **Nominal pulse current Ian (10/1000) µs (Core-Core)** | 50 A |
| **Nominal pulse current Ian (10/1000) µs (Core-Earth)** | 50 A |
| **Nominal pulse current Ian (10/1000) µs (Core-GND)** | 50 A |
| **Nominal pulse current Ian (10/700) µs (Core-Core)** | 50 A |
| **Nominal pulse current Ian (10/700) µs (Core-Earth)** | 50 A |
| **Nominal pulse current Ian (10/700) µs (Core-GND)** | 50 A |
| **Output voltage limitation at 1 kV/µs (Core-Core) static** | ≤ 50 V |
| **Output voltage limitation at 1 kV/µs (Core-GND) static** | ≤ 30 V |
| **Residual voltage at $I_n$, (conductor-conductor)** | ≤ 55 V |
| **Residual voltage at In, (conductor-GND)** | ≤ 30 V |
| **Voltage protection level $U_P$ (Core-Core)** | ≤ 55 V (B2 - 25 A) |
| **Voltage protection level $U_P$ (Core-Core)** | ≤ 55 V (C1 - 250 A) |
| **Voltage protection level $U_P$ (Core-Earth)** | ≤ 400 V (B2 - 25 A) |
| **Voltage protection level $U_P$ (Core-Earth)** | ≤ 450 V (C1 - 250 A) |
| **Voltage protection level $U_P$ (Core-GND)** | ≤ 30 V (C1 - 250 A) |
| **Voltage protection level $U_P$ (Core-GND)** | ≤ 30 V (B2 - 25 A) |
| **Response time tA (Core-Core)** | ≤ 1 ns |
| **Response time tA (Core-Earth)** | ≤ 1 ns |
| **Response time tA (Core-Earth)** | ≤ 100 ns |
| **Response time tA (Shield-Earth)** | ≤ 100 ns |
| **Input attenuation aE, sym.** | typ. 0.3 dB (≤ 700 kHz / 100 Ω) |
| **Input attenuation aE, sym.** | typ. 0.3 dB (≤ 700 kHz / 150 Ω) |

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## Technical data

### Protective circuit

| | |
|---|---|
| **Input attenuation aE, asym.** | typ. 0.3 dB (≤ 400 kHz / 100 Ω) |
| **Input attenuation aE, asym.** | typ. 0.3 dB (≤ 400 kHz / 150 Ω) |
| **Cut-off frequency fg (3 dB), sym. in 100 Ohm system** | typ. 2.5 MHz |
| **Cut-off frequency fg (3 dB), sym. in 150 Ohm system** | typ. 2.5 MHz |
| **Cut-off frequency fg (3 dB), asym. (GND) in 100 Ohm system** | typ. 1.3 MHz |
| **Cut-off frequency fg (3 dB), asym. (GND) in 150 Ohm system** | typ. 1.3 MHz |
| **Capacity (Core-Core)** | typ. 1 nF (f=1 MHz / $V_R$= 0 V) |
| **Capacity (Core-GND)** | typ. 2 nF (f=1 MHz / $V_R$= 0 V) |
| **Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)** | B2 (1 kV/25 A) |
| **Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)** | C1 (500 V / 250 A) |
| **Surge carrying capacity in acc. with IEC 61643-21 (Core-GND)** | B2 (1 kV/25 A) |
| **Surge carrying capacity in acc. with IEC 61643-21 (Core-GND)** | C1 (500 V/250 A) |

### Connection data

| | |
|---|---|
| **Connection method** | D-SUB-9 |
| **Connection type IN** | D-SUB-9 plug |
| **Connection type OUT** | D-SUB-9 socket |

### Connection, equipotential bonding

| | |
|---|---|
| **Connection method** | Cable connection/DIN rail |

### 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 |

### 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

GOST / GOST /

Approval details

**GOST**

## accessories

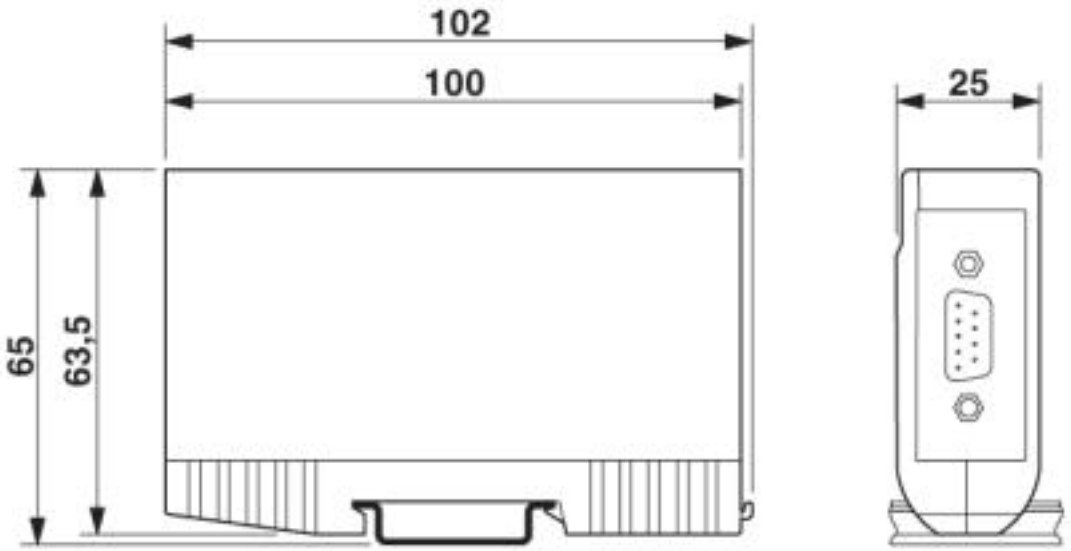
**Data cable preassembled**

VS-09-DSUB-20-LI-1,0 - 1656233

## Drawings

# Surge protection device - DT-UFB-V24/S-9-SB - 2803069

Dimensioned drawing




Circuit diagram