

Type 2 surge protection device - VAL-MS 800/30 VF/FM - 2805402

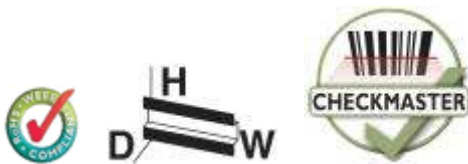
Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Surge arrester consisting of 2-channel base element with remote indication contact and protective plugs connected in series with a varistor and a gas-filled spark gap.

Product Features

- With or without floating remote indication contact
- Disconnect device on each individual plug
- Mechanical coding of all slots
- Type 2 consistent plug-in surge arresters
- Optical, mechanical status indication for the individual arresters



Key commercial data

| | |
|--------------------------------------|-----------|
| Packing unit | 1 pc |
| Weight per Piece (excluding packing) | 250.0 GRM |
| Custom tariff number | 85363010 |
| Country of origin | Germany |

Technical data

Dimensions

| | |
|------------------|---------|
| Height | 97 mm |
| Width | 35.6 mm |
| Depth | 58 mm |
| Horizontal pitch | 2 Div. |

Ambient conditions

| | |
|---------------------------------|-----------------------------------------------|
| Degree of protection | IP20 (only when all terminal points are used) |
| Ambient temperature (operation) | -40 °C ... 80 °C |

Type 2 surge protection device - VAL-MS 800/30 VF/FM - 2805402

Technical data

Ambient conditions

| | |
|-----------------------------------------|----------------------------------------|
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Altitude | ≤ 2000 m (amsl (above mean sea level)) |
| Permissible humidity (operation) | 5 % ... 95 % |
| Shock (operation) | 25g |
| Vibration (operation) | 5g |

General

| | |
|------------------------------------------|-----------------------------------------|
| Standards/specifications | IEC 61643-11 2011 |
| | EN 61643-11 2012 |
| IEC test classification | II |
| | T2 |
| EN type | T2 |
| IEC power supply system | IT (please see note below) |
| Number of ports | One |
| SPD design | Combination type |
| Mode of protection | L-PEN |
| | L-PE |
| Mounting type | DIN rail: 35 mm |
| Color | black |
| Housing material | PA 6.6 |
| | PBT |
| Pollution degree | 2 |
| Distance between live and grounded parts | 8 mm |
| Inflammability class according to UL 94 | V-0 |
| Type | DIN rail module, two-section, divisible |
| Number of positions | 2 |
| Surge protection fault message | Optical, remote indicator contact |

Additional descriptions

| | |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note | Usable in all low-voltage systems between L-N or L-PEN. Only usable in IT Systems between L-PE, if the exposed-conductive-parts (bodies) of the equipment of the low-voltage installation is connected to the earthing arrangement of the transformer substation. (interconnected earthing arrangement of the HV-transformer substation with the bodies of the LV-installation. $R_E = R_A$ accordance to IEC 60364-4-442 / VDE 0100-442 Fig. 44D / Example a) |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Protective circuit

| | |
|-------------------------|---------------------|
| Nominal voltage U_N | 400/690 V AC (TN-C) |
| | 690 V AC (IT) |
| Nominal frequency f_N | 50 Hz (60 Hz) |

Type 2 surge protection device - VAL-MS 800/30 VF/FM - 2805402

Technical data

Protective circuit

| | |
|------------------------------------------------------------------------|----------------------------------|
| Maximum continuous operating voltage U_C (L-PE) | 800 V AC |
| Maximum continuous operating voltage U_C (L-PEN) | 800 V AC |
| Rated load current I_L | 80 A |
| Residual current I_{PE} | $\leq 3 \mu\text{A}$ |
| Standby power consumption P_C | $\leq 3 \text{ mVA}$ |
| Nominal discharge current I_n (8/20) μs (L-PE) | 15 kA |
| Nominal discharge current I_n (8/20) μs (L-PEN) | 15 kA |
| Maximum discharge current I_{max} (8/20) μs (L-PE) | 30 kA |
| Maximum discharge current I_{max} (8/20) μs (L-PEN) | 30 kA |
| Short-circuit current rating I_{SCCR} | 25 kA |
| Voltage protection level U_p (L-PE) | $\leq 5 \text{ kV}$ |
| Voltage protection level U_p (L-PEN) | $\leq 5 \text{ kV}$ |
| Residual voltage U_{res} (L-PE) | $\leq 3 \text{ kV}$ (at I_n) |
| | $\leq 2.6 \text{ kV}$ (at 10 kA) |
| | $\leq 2.4 \text{ kV}$ (at 5 kA) |
| | $\leq 2.3 \text{ kV}$ (at 3 kA) |
| Residual voltage U_{res} (L-PEN) | $\leq 3 \text{ kV}$ (at I_n) |
| | $\leq 2.6 \text{ kV}$ (at 10 kA) |
| | $\leq 2.4 \text{ kV}$ (at 5 kA) |
| | $\leq 2.3 \text{ kV}$ (at 3 kA) |
| Front of wave sparkover voltage at 6 kV (1.2/50) μs (L-PE) | $\leq 5 \text{ kV}$ |
| Front of wave sparkover voltage at 6 kV (1.2/50) μs (L-PEN) | $\leq 5 \text{ kV}$ |
| TOV behavior at U_T (L-PEN) | 1550 V AC (5 s / withstand mode) |
| Response time t_A (L-PE) | $\leq 100 \text{ ns}$ |
| Response time t_A (L-PEN) | $\leq 100 \text{ ns}$ |
| Max. backup fuse with branch wiring | 100 A AC (gG) |
| Max. backup fuse with V-type through wiring | 80 A AC (gG) |

Indicator/remote signaling

| | |
|--------------------|--------------------------------|
| Connection name | Remote fault indicator contact |
| Switching function | PDT contact |
| Operating voltage | 5 V AC ... 250 V AC |
| | 30 V DC |
| Operating current | 5 mA AC ... 1.5 A AC |
| | 1 A DC |
| Connection method | Screw connection |
| Screw thread | M2 |

Type 2 surge protection device - VAL-MS 800/30 VF/FM - 2805402

Technical data

Indicator/remote signaling

| | |
|---------------------------------------|----------------------|
| Tightening torque | 0.25 Nm |
| Stripping length | 7 mm |
| Conductor cross section stranded min. | 0.14 mm ² |
| Conductor cross section stranded max. | 1.5 mm ² |
| Conductor cross section solid min. | 0.14 mm ² |
| Conductor cross section solid max. | 1.5 mm ² |
| AWG conductor cross section | 28 ... 16 |

Connection data

| | |
|---------------------------------------|---------------------|
| Connection method | Screw connection |
| Conductor cross section stranded min. | 1.5 mm ² |
| Conductor cross section stranded max. | 25 mm ² |
| Conductor cross section solid min. | 1.5 mm ² |
| Conductor cross section solid max. | 35 mm ² |
| AWG conductor cross section | 15 ... 2 |
| Screw thread | M5 |
| Tightening torque | 4.5 Nm |
| Stripping length | 16 mm |

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 | 27130805 |
| eCl@ss 7.0 | 27130805 |
| eCl@ss 8.0 | 27130805 |

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC000941 |
| ETIM 3.0 | EC000941 |
| ETIM 4.0 | EC000941 |
| ETIM 5.0 | EC000941 |

UNSPSC

| | |
|-------------|----------|
| UNSPSC 6.01 | 30212010 |
|-------------|----------|

Type 2 surge protection device - VAL-MS 800/30 VF/FM - 2805402

Classifications

UNSPSC

| | |
|---------------|----------|
| UNSPSC 7.0901 | 39121610 |
| UNSPSC 11 | 39121610 |
| UNSPSC 12.01 | 39121610 |
| UNSPSC 13.2 | 39121620 |

Approvals

Approvals

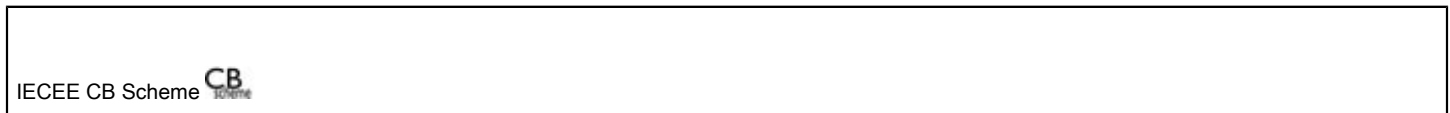
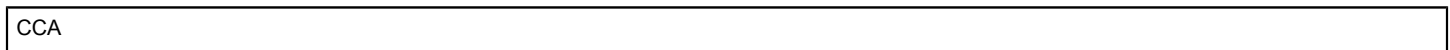
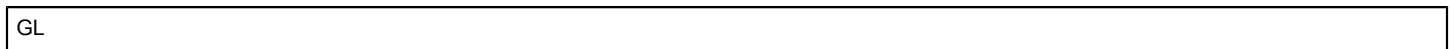
Approvals

KEMA-KEUR / ÖVE / GL / CCA / IEC EE CB Scheme / KEMA-KEUR / ÖVE

Ex Approvals

Approvals submitted

Approval details



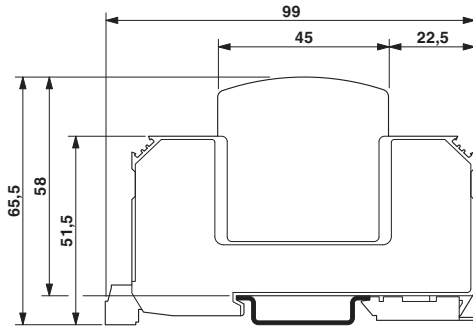
Type 2 surge protection device - VAL-MS 800/30 VF/FM - 2805402

Approvals



Drawings

Dimensioned drawing



Circuit diagram

