

Type 2 surge arrester - VAL-MS 1500DC-PV/2+V - 1033708


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Surge arrester for 2-pos. isolated 1500 V DC voltage systems, for DIN rail mounting, 3-pos. base element, three plug-in temperature-monitored protective elements, status message on each plug.



Key Commercial Data

| | |
|----------------------|---|
| Packing unit | 1 |
| GTIN |  4 055626 540351 |
| GTIN | 4055626540351 |
| Custom tariff number | 85354000 |

Technical data

Dimensions

| | |
|------------------|---------|
| Height | 89.8 mm |
| Width | 53.4 mm |
| Depth | 65.7 mm |
| Horizontal pitch | 3 Div. |

Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 (only when all terminal points are used) |
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Altitude | ≤ 3000 m (amsl (above mean sea level)) |
| Permissible humidity (operation) | 5 % ... 95 % |
| Shock (operation) | 30g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z) |
| Vibration (operation) | 5g (5-500 Hz/2.5 h/XYZ) |

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Technical data

General

| | |
|--|---|
| IEC test classification | PV II |
| | PV T2 |
| EN type | T2 |
| IEC power supply system | DC |
| SPD failure behavior | OCM (Open-circuit mode) |
| Connection configuration | Y configuration |
| Installation location | Inside |
| Accessibility | Accessible |
| Installation location of the disconnect device | Internal |
| Mode of protection | (L+) - (L-) |
| | (L+) - PE |
| | (L-) - PE |
| Mounting type | DIN rail: 35 mm |
| Color | jet black RAL 9005 |
| Housing material | PA 6.6-FR |
| | PBT-FR |
| Degree of pollution | 2 |
| Distance between live and grounded parts | 8 mm |
| Flammability rating according to UL 94 | V-0 |
| Type | DIN rail module, two-section, divisible |
| Surge protection fault message | optical |

Additional descriptions

| | |
|------|---|
| Note | The device is intended for touch proof installation in a housing. Ensure that there is a gap of at least 8 mm between the active and grounded parts in the connection area. |
|------|---|

Protective circuit DC voltage side (DC)

| | |
|--|-----------------------|
| Maximum continuous operating voltage U_{CPV} | 1500 V DC |
| Open circuit voltage U_{OCSTC} | ≤ 1250 V DC |
| Short-circuit current rating I_{SCPV} | 2000 A |
| Continuous operating current I_{CPV} | < 350 μ A |
| Rated load current I_L | 80 A |
| Residual current I_{PE} | ≤ 350 μ A DC |
| | ≤ 600 μ A AC |
| Standby power consumption P_C | ≤ 250 mVA |
| Nominal discharge current (8/20) μ s | 15 kA |
| Maximum discharge current I_{max} (8/20) μ s | 30 kA |

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Protective circuit DC voltage side (DC)

| | |
|--|-------------------------|
| Total discharge current $I_{total} (8/20) \mu s$ | 30 kA |
| Voltage protection level U_p | ≤ 5 kV |
| Residual voltage U_{res} | ≤ 5 kV (at I_n) |
| | ≤ 6 kV (at 30 kA) |
| Response time t_A | ≤ 25 ns |

Connection data

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Screw thread | M5 |
| Tightening torque | 3 Nm (1,5 mm ² ... 16 mm ²) |
| | 4.5 Nm (25 mm ² ... 35 mm ²) |
| Stripping length | 16 mm |
| Conductor cross section flexible | 1.5 mm ² ... 25 mm ² |
| Conductor cross section solid | 1.5 mm ² ... 35 mm ² |
| Conductor cross section AWG | 15 ... 2 |
| Connection method | Fork-type cable lug |
| Conductor cross section flexible | 1.5 mm ² ... 16 mm ² |

UL specifications

| | |
|---|---------------|
| SPD Type | 1CA |
| Maximum continuous operating voltage MCOV | 1500 V DC |
| Nominal voltage | 1500 V DC |
| Mode of protection | (DC+) - (DC-) |
| | (DC+) - G |
| | (DC-) - G |
| Power distribution system | DC PV |
| Voltage protection rating VPR | 4 kV |
| Nominal discharge current I_n | 10 kA |
| Short-circuit current rating (SCCR) | 50 kA |

UL connection data

| | |
|-----------------------------|-------------------------|
| Conductor cross section AWG | 10 ... 2 |
| Tightening torque | 30 lb _f -in. |

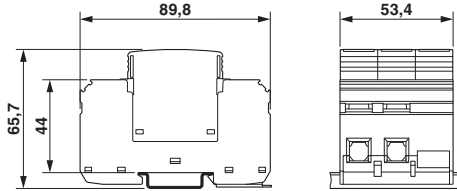
Standards and Regulations

| | |
|-----------------------|------------------|
| Standards/regulations | EN 50539-11 2013 |
|-----------------------|------------------|

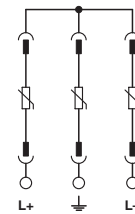
Drawings

Type 2 surge arrester - VAL-MS 1500DC-PV/2+V - 1033708

Dimensional drawing



Circuit diagram



Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 6.0 | 27130800 |
| eCl@ss 7.0 | 27130805 |
| eCl@ss 8.0 | 27130805 |
| eCl@ss 9.0 | 27130805 |

ETIM

| | |
|----------|----------|
| ETIM 5.0 | EC000941 |
| ETIM 6.0 | EC000941 |

Approvals

Approvals

Approvals

UL Recognized / KEMA-KEUR / cUL Recognized / CCA / cULus Recognized

Ex Approvals


Approval details

| | | | |
|---------------|--|---|---------------|
| UL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 330181 |
|---------------|--|---|---------------|


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|-----------|--|---|-----------|
| KEMA-KEUR | | http://www.dekra-certification.com | 71-102960 |
|-----------|--|---|-----------|

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| cUL Recognized |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 330181 |
|----------------|---|---|---------------|

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| CCA | NTR-NL 7673 |
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| cULus Recognized |  |
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