

Lightning/surge arrester type 1/2 - VAL-MS-AR-T1/T2 75/FM - 2801492

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The VAL-MS-AR T1/T2 75/FM is a high-capacity SPD for Type 1 lightning as well as Type 2 switching surge currents, ideal for applications with high load currents and high surge risk. The VAL-MS BE-AR/FM base provides a disconnect that separates the field wire from the protected mode for field diagnosis and dry contacts for remote function monitoring. The base has independent input and output terminals on the same side with ground terminals on the opposite end. All terminals are high-current screw clamping for stripped or ferruled, solid or stranded wires.

Product Features

- ✓ Versions with and without floating remote indication contact
- ✓ Separate field and house wire termination.
- ✓ Tool-free field wire disconnect and test point.
- ✓ IP20 touch safe when connected.
- ✓ T1/T2 plugs provide lightning and surge current class protection.



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	170.0 GRM
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	160 mm
Width	17.7 mm
Depth	77.5 mm

Ambient conditions

Degree of protection	IP20
	IP20 (when disconnect closed)
Ambient temperature (operation)	-40 °C ... 80 °C

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Technical data

Ambient conditions

Altitude	max. 3000 m
Permissible humidity (operation)	5 % ... 95 %
Permissible humidity (storage/transport)	5 % ... 95 %
Shock (operation)	10g
Vibration (operation)	2g (0 ... 200 Hz)

General

Housing material	PA
Inflammability class according to UL 94	V0
Color	black
Total surge current (8/20) μ s	50 kA
Total surge current (10/350) μ s	15 kA
Mounting type	DIN rail mounting with additional retaining screw
Type	DIN rail module, two-section, divisible
Surge protection fault message	Optical, remote indicator contact
Direction of action	L-L / L-PE

Protective circuit

IEC test classification	I / II
	T1 / T2
EN type	T1 / T2
Nominal voltage U_N	60 V DC
Maximum continuous operating voltage U_C	75 V DC
Maximum continuous operating voltage U_C (L-N)	75 V DC
Rated load current I_L	55 A (with 6 AWG)
Max. discharge current I_{max} (8/20) μ s	50 kA
Nominal discharge current I_n (8/20) μ s	12.5 kA
Impulse discharge current (10/350) μ s charge	6.25 As
Impulse discharge current (10/350) μ s, specific energy	39.00 kJ/ Ω
Impulse discharge current (10/350) μ s, peak value I_{imp}	12.5 kA
Voltage protection level U_p	≤ 0.7 kV
Residual voltage	≤ 0.6 kV (at 5 kA)
	≤ 0.65 kV (at 10 kA)
	≤ 0.7 kV
	≤ 0.55 kV (at 3 kA)
Max. required backup fuse with branch wiring	160 A
	160 A
Short-circuit resistance I_p with max. backup fuse (effective)	500 A

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Technical data

Connection, protective circuit

AWG conductor cross section	15 ... 2 (UL)
	20 ... 6
	12 ... 4

Remote indicator contact

Connection name	Remote fault indicator contact
Switching function	PDT, 1-pos.
Connection method	Screw connection
Screw thread	M2
Tightening torque	0.25 Nm
	2 lb _f -in. ... 4 lb _f -in. (UL)
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
Conductor cross section AWG/kcmil min.	28
Conductor cross section AWG/kcmil max	16
Maximum operating voltage U _{max} AC	250 V AC
Max. operating current I _{max}	1.5 A AC (250 V AC)
	1.5 A DC (30 V DC)

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	27130802
eCl@ss 7.0	27130802
eCl@ss 8.0	27130802

ETIM

ETIM 4.0	EC001675
ETIM 5.0	EC001675

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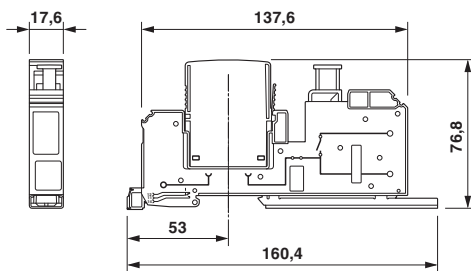
Classifications

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

Drawings

Dimensioned drawing



Circuit diagram

