Lightning/surge arrester type 1/2 - VAL-MS-T1/T2 335/12.5/4+0-FM - 2800644

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)

Plug-in varistor-based lightning arrester for 3-phase TN-S power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), for Lightning Protection Levels III and IV, with remote indication contact.

Product Features

- Plugs can be checked with CHECKMASTER
- With or without floating remote indication contact
- Secure hold of plugs in the event of high lightning current loads and strong vibrations thanks to new latching
- Thermal disconnect device for each individual plug
- Mechanical coding of all slots
- Optical, mechanical status indication for the individual arresters

Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	720.0 g
Custom tariff number	85363030
Country of origin	Germany

Technical data

Dimensions

Height	99 mm
Width	71.2 mm
Depth	77.5 mm
Horizontal pitch	4 Div.

Ambient conditions

Lightning/surge arrester type 1/2 - VAL-MS-T1/T2 335/12.5/4+0-FM - 2800644

Technical data

Ambient conditions

Degree of protection	IP20 (only when all terminal points are used)
Ambient temperature (operation)	-40 °C ... 80 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m (amsl (above mean sea level))
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	30g (half sinus / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	7.5g (10 ... 500 Hz / 2.5 h / X, Y, Z)

General

Standards/specifications	IEC 61643-11 2011
	EN 61643-11 2012
IEC test classification	I / II
	T1 / T2
	T1
EN type	T1 / T2
	T1
IEC power supply system	TN-S
Number of ports	One
SPD design	Voltage-limiting type
Mode of protection	L-PE
	N-PE
Mounting type	DIN rail: 35 mm
Color	jet black RAL 9005
Housing material	PA 6.6
	PBT
Degree of pollution	2
Flammability rating according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Surge protection fault message	Optical, remote indicator contact

Protective circuit

Nominal voltage U_N	240/415 V AC (TN-S)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous voltage U_C	335 V AC
Rated load current I_L	80 A
Residual current I_{PE}	≤ 3.2 mA
Standby power consumption P_C	≤ 1080 mVA

Lightning/surge arrester type 1/2 - VAL-MS-T1/T2 335/12.5/4+0-FM - 2800644

Technical data

Protective circuit

Nominal discharge current I_n (8/20) µs	12.5 kA
Maximum discharge current I_{max} (8/20) µs	50 kA
Impulse discharge current (10/350)#µs, charge	6.5 As
Impulse discharge current (10/350)#µs, specific energy	39 kJ/Ω
Impulse discharge current (10/350)#µs, peak value I_{imp}	12.5 kA
Total discharge current I_{Total} (8/20) µs	200 kA
Total discharge current I_{Total} (10/350) µs	50 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	≤ 1.2 kV
	≤ 1.6 kV (30 kA - 8/20µs)
Residual voltage U_{res}	≤ 1.2 kV (at I_n)
	≤ 1.1 kV (at 10 kA)
	≤ 1 kV (at 5 kA)
	≤ 0.9 kV (at 3 kA)
TOV behavior at U_T	415 V AC (5 s / withstand mode)
	457 V AC (120 min / safe failure mode)
Response time t_A	≤ 25 ns
Max. backup fuse with branch wiring	160 A (gG)
Max. backup fuse with V-type through wiring	80 A (gG - 16 mm²)

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
	1 A
Connection method	Screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section flexible	0.14 mm² ... 1.5 mm²
Conductor cross section solid	0.14 mm² ... 1.5 mm²
Conductor cross section AWG	28 ... 16

Connection data

Lightning/surge arrester type 1/2 - VAL-MS-T1/T2 335/12.5/4+0-FM - 2800644

Technical data

Connection data

Connection method	Screw connection
Conductor cross section flexible	1.5 mm² ... 25 mm²
Conductor cross section solid	1.5 mm² ... 35 mm²
Conductor cross section AWG	15 ... 2
Screw thread	M5
Tightening torque	4.5 Nm
Stripping length	16 mm

UL specifications

SPD Type	4CA
Maximum continuous operating voltage MCOV (L-L)	670 V AC
Maximum continuous operating voltage MCOV (L-N)	670 V AC
Maximum continuous operating voltage MCOV (L-G)	335 V AC
Maximum continuous operating voltage MCOV (N-G)	335 V AC
Nom. voltage	415/240 V AC
Mode of protection	L-L
	L-N
	L-G
	N-G
Power distribution system	3Y
Nominal frequency	50/60 Hz
Measured limiting voltage MLV (L-L)	3650 V
Measured limiting voltage MLV (L-N)	3650 V
Measured limiting voltage MLV (L-G)	2630 V
Measured limiting voltage MLV (N-G)	2630 V
Nominal discharge current I_n (L-L)	20 kA
Nominal discharge current I_n (L-N)	20 kA
Nominal discharge current I_n (L-G)	20 kA
Nominal discharge current I_n (N-G)	20 kA

UL indicator/remote signaling

Operating voltage	125 V AC
Operating current	1 A
Tightening torque	4 lb_f-in.
Conductor cross section AWG	30 ... 14

UL connection data

Lightning/surge arrester type 1/2 - VAL-MS-T1/T2 335/12.5/4+0-FM - 2800644

Technical data

UL connection data

Conductor cross section AWG	10 ... 2
Tightening torque	30 lb_f-in.

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
eCl@ss 9.0	27130802

ETIM

ETIM 2.0	EC000941
ETIM 3.0	EC000941
ETIM 4.0	EC000381
ETIM 5.0	EC000381

UNSPSC

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

Approvals

Approvals

Approvals

KEMA-KEUR / ÖVE / GL / IECEE CB Scheme / UL Recognized / cUL Recognized / EAC / CCA / cULus Recognized

Lightning/surge arrester type 1/2 - VAL-MS-T1/T2 335/12.5/4+0-FM - 2800644

Approvals

Ex Approvals

Approvals submitted

Approval details

KEMA-KEUR

ÖVE

GL

IECEE CB Scheme

UL Recognized

cUL Recognized

EAC

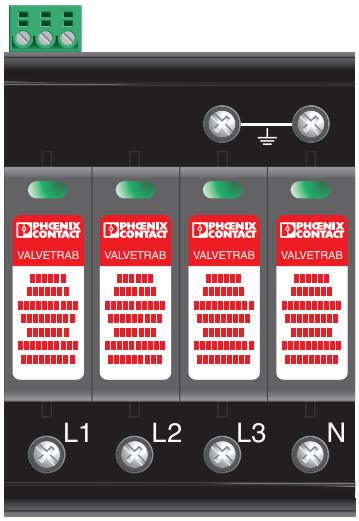
CCA

cULus Recognized

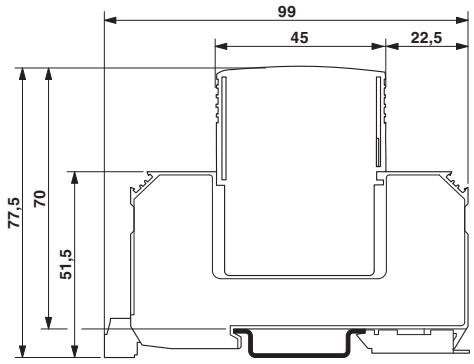
Lightning/surge arrester type 1/2 - VAL-MS-T1/T2 335/12.5/4+0-FM - 2800644

Drawings

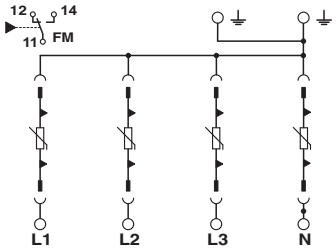
Product drawing



Dimensional drawing



Circuit diagram



Phoenix Contact 2016 © - all rights reserved
http://www.phoenixcontact.com