

Type 2 surge protection plug - VAL-MS 350 VF ST - 2856595

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surge protection connector type 2 with series connection consisting of varistor and gas-filled spark gap for VAL-MS base element, thermal monitoring, visual fault warning. Design: 350 V AC

The figure shows the VAL-MS 75 VF ST version



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	40.0 GRM
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	52.4 mm
Width	17.5 mm
Depth	55.3 mm
Horizontal pitch	1 Div.

Ambient conditions

Degree of protection	IP20
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)	25g
Vibration (operation)	5g

General

Standards/specifications	IEC 61643-11 2011
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Technical data

General

	EN 61643-11 2012
IEC test classification	II
	T2
EN type	T2
SPD design	Combination type
Mode of protection	L-PEN
	L-N
	L-PE
Mounting type	On base element
Color	black
Housing material	PA 6.6
Pollution degree	2
Inflammability class according to UL 94	V-0
Type	DIN rail module, two-section, divisible
Number of positions	1
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.12
Surge protection fault message	Optical

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)
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Protective circuit

Nominal voltage U_N	240/415 V AC (TN)
	240/415 V AC (TT)
	230 V AC (IT)
Nominal frequency f_N	50 Hz (60 Hz)
Maximum continuous operating voltage U_C	350 V AC
Residual current I_{PE}	$\leq 5 \mu A$
Standby power consumption P_C	$\leq 2 \text{ mVA}$
Nominal discharge current I_n (8/20) μs	10 kA
Maximum discharge current I_{max} (8/20) μs	20 kA
Short-circuit current rating I_{SCCR}	25 kA
Voltage protection level U_p	$\leq 1.5 \text{ kV}$
Residual voltage U_{res}	$\leq 1.2 \text{ kV}$ (at I_n)

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Protective circuit

	≤ 1.2 kV (at 10 kA)
	≤ 1.1 kV (at 5 kA)
Front of wave sparkover voltage at 6 kV (1.2/50) μ s	≤ 1.5 kV
TOV behavior at U_T	415 V AC (5 s / withstand mode)
	440 V AC (120 min / withstand mode)
Response time t_A	≤ 100 ns
Max. backup fuse with branch wiring	125 A AC (gG)

Connection data

Connection method	VALVETRAB plug-in system
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UL specifications

UL class	Type 4 SPD for Type 2 applications
Maximum continuous operating voltage MCOV (L-N)	350 V AC
Nom. voltage	350 V AC
Mode of protection	L-N
Power distribution system	1
Nominal frequency	50/60 Hz
Voltage protection rating VPR (L-N)	1.2 kV
Nominal discharge current I_n (L-N)	10 kA

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

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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

Approvals

Approvals

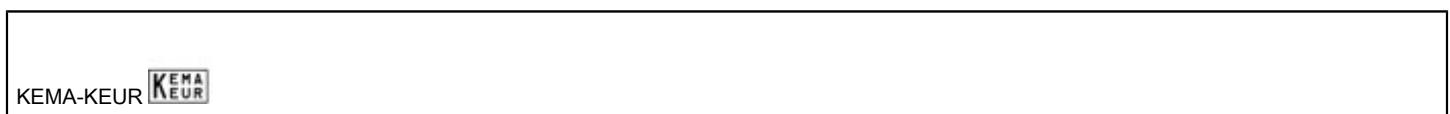
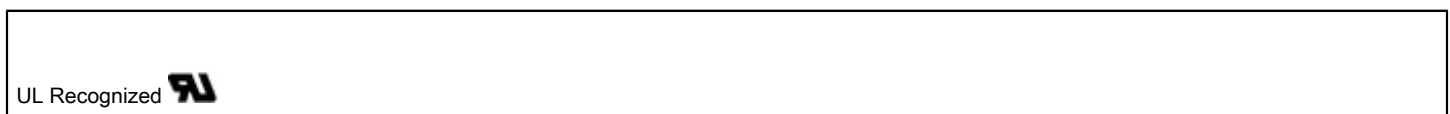
Approvals

IECEE CB Scheme / UL Recognized / KEMA-KEUR / ÖVE / cUL Recognized / GOST / CCA / KEMA-KEUR / CSA / cULus Recognized

Ex Approvals

Approvals submitted

Approval details



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Approvals

cUL Recognized

GOST

CCA

KEMA-KEUR

CSA

cULus Recognized

Drawings

Circuit diagram



Dimensioned drawing

