

VAL-MS 320/1+1-FM

Order number: 5792111



Surge arrester for 3-conductor power supply systems (L1, N, PE), consisting of a base element with remote indication contact and protective connectors, for mounting on NS 35.



Commercial data

Net price	Available on request / 1
EAN	4046356317795
Pcs./Pck.	1 Pcs.

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Technical data

Standards

Housing material	PBT / PA
Inflammability class acc. to UL 94	V0
Color	black
Standards for air and creepage distances	DIN EN 60664-1
	IEC 61643-1
Degree of protection	IP20
Mounting type	DIN rail 35 mm
Design	DIN rail module, two-section, divisible
Number of positions	2
Ambient temperature (operation)	-40 °C ... 80 °C
Message surge protection faulty	Optical, remote indicator contact

Direction of action	1L-N & N-PE
Width	35.60 mm
Height	65.50 mm
Length	99.00 mm
Pitch unit	2 Div.

Protective circuit

IEC category	II
EN type	T2
Nominal voltage U_N	230 V AC
Arrester rated voltage U_c	335 V AC
Arrester rated voltage U_c (L-N)	335 V AC
Arrester rated voltage U_c (N-PE)	260 V AC
Nominal frequency f_N	50 Hz (60 Hz)
Discharge current to PE at U_c	$\leq 3 \mu A$
Max. discharge surge current I_{max} (8/20) μs	40 kA
Max. discharge surge current I_{max} (8/20) μs maximum (L-N)	40 kA
Max. discharge surge current I_{max} (8/20) μs maximum (N-PE)	40 kA
Nominal discharge surge current I_n (8/20) μs (L-N)	20 kA
Nominal discharge surge current I_n (8/20) μs (N-PE)	20 kA
Lightning test current (10/350) μs , peak value I_{imp}	12 kA (N-PE)
Impulse operate voltage at 6 kV (1.2/50) μs (N-PE)	≤ 1.5 kV
Protection level U_p (L-N)	1.5 kV
Protection level U_p (N-PE)	1.5 kV
Residual voltage (L-N)	1.3 kV (at 10 kA)
	1.2 kV (at 5 kA)
	1.1 kV (at 3 kA)
Residual voltage (L-PE)	≤ 1.4 kV (at 10 kA)
	≤ 1.2 kV (at 5 kA)
	≤ 1.1 kV (at 3 kA)
Residual voltage (N-PE)	≤ 250 V (at 10 kA)
	≤ 150 V (at 5 kA)
	≤ 100 V (at 3 kA)
Clamping voltage SVR (L-N)	≤ 0.9 kV (6 kV/500 A)

Clamping voltage SVR (L-PE)	≤ 1 kV (6 kV/500 A)
Clamping voltage SVR (N-PE)	≤ 1 kV (6 kV/500 A)
Response time (L-N)	≤ 25 ns
Response time (N-PE)	≤ 100 ns
Max. required backup fuse with branch wiring	125 A (gL/gG)
Short circuit resistance I_{cc} with max. backup fuse (effective)	25 kA
Follow current quenching capacity I_f (N-PE)	100 A

Connection, protective circuit

Type of connection	Screw connection
Connection type IN	Biconnect screw terminal block
Connection type OUT	Biconnect screw terminal block
Screw thread	M5
Tightening torque, min	4.5 Nm
Stripping length	16 mm
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
Conductor cross section AWG/kcmil min.	15
Conductor cross section AWG/kcmil max	2

Remote indicator contact

Connection name	Remote fault indicator contact
Schaltfunktion_Int	PDT, 1-pos.
Type of connection	Screw connection
Screw thread	M2
Tightening torque, min	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
Conductor cross section AWG/kcmil min.	28
Conductor cross section AWG/kcmil max	16

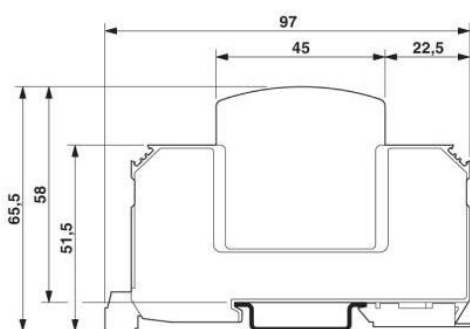
Maximum operating voltage $U_{\max. AC}$	250 V AC
Max. operating current $I_{\max}$	1.5 A (250 V AC)
	1.5 A (30 V DC)

Environmental conditions

Standards/regulations	IEC 61643-1
	DIN EN 61643-11/A11

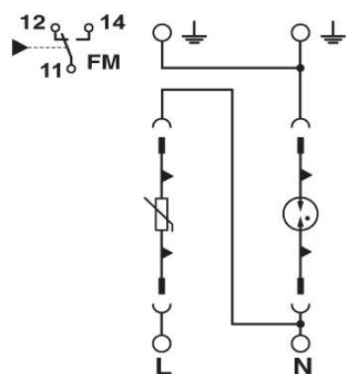
Drawings

Dimensioned drawing



Dimensioned drawing 1

Circuit diagram



Circuit diagram 1

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