



Extract from the online catalog

VAL-MS 230/3+1/FM-UD

Order No.: 2858959

The illustration shows the version VAL-MS 120/3+1/FM-UD



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2858959>

Surge voltage arrester 4-channel, for mounting on NS 35/7.5, with remote indicator contact. 230 V AC

Commercial data

GTIN (EAN)	4017918916350
sales group	J022
Pack	1 pcs.
Customs tariff	85363030
Weight/Piece	0.4061 KG

Product notes

WEEE/RoHS-compliant since:
05/11/2006



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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

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Degree of protection	IP20
Mounting type	DIN rail 35 mm
Design	DIN rail module, two-section, divisible
Number of positions	4
Ambient temperature (operation)	-40 °C ... 80 °C
Message surge protection faulty	Optical, remote indicator contact
Direction of action	3L-N & N-PE
Width	70.80 mm
Height	65.50 mm
Length	96.80 mm

Protective circuit

IEC category	II
	T2
EN type	T2
Nominal voltage U_N	230 V AC (Max. 240/415 V AC)
	400 V AC
	230 V AC ... 415 V AC
Arrester rated voltage U_C	275 V AC
Arrester rated voltage U_C (L-N)	275 V AC
Arrester rated voltage U_C (N-PE)	260 V AC
U_T (TOV-proof)	335 V AC (5 s / L-N)
	1200 V AC (200 ms / N-PE)
Nominal frequency f_N	50 Hz (60 Hz)
Discharge current to PE at U_C	$\leq 1 \mu A$
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 (L-PE)	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 (L-PE)	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)

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Impulse operate voltage at 6 kV (1.2/50)µs (N-PE)	≤ 1.5 kV
Protection level U _p (L-N)	≤ 1.35 kV
Protection level U _p (L-PE)	≤ 1.6 kV
Protection level U _p (N-PE)	≤ 1.5 kV
Residual voltage (L-N)	≤ 1.35 kV (at I _n)
	≤ 1.2 kV (at 10 kA)
	≤ 1.1 kV (at 5 kA)
	≤ 0.95 kV (at 3 kA)
Residual voltage (L-PE)	≤ 1.6 kV (at I _n)
	≤ 1.35 kV (at 10 kA)
	≤ 1.2 kV (at 5 kA)
	≤ 1 kV (at 3 kA)
Residual voltage (N-PE)	≤ 0.4 kV (at I _n)
	≤ 0.25 kV (at 10 kA)
	≤ 0.15 kV (at 5 kA)
	≤ 0.1 kV (at 3 kA)
Clamping voltage SVR (L-N)	≤ 0.9 kV (6kV - 500 A)
Clamping voltage SVR (L-PE)	≤ 1.2 kV (6kV - 500 A)
Clamping voltage SVR (N-PE)	≤ 1 kV (6kV - 500 A)
Response time (L-N)	≤ 25 ns
Response time (L-PE)	≤ 100 ns
Response time (N-PE)	≤ 100 ns
Max. required backup fuse with branch wiring	125 A (gL)
Short circuit resistance I _{cc} with max. backup fuse (effective)	25 kA
Follow current quenching capacity I _f (N-PE)	100 A (260 V)

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	4.5 Nm
Stripping length	14.5 mm
Conductor cross section stranded min.	0.5 mm ²
Conductor cross section stranded max.	25 mm ²

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Conductor cross section solid min.	0.5 mm ²
Conductor cross section solid max.	35 mm ²
Conductor cross section AWG/kcmil min.	20
Conductor cross section AWG/kcmil max	2

Remote indicator contact

Connection name	Remote fault indicator contact
Switching function	PDT contact
Type of connection	Screw connection
Screw thread	M2
Tightening torque	0.25 Nm
Stripping length	7 mm
Conductor cross section stranded min.	1.5 mm ²
Conductor cross section stranded max.	0.14 mm ²
Conductor cross section solid min.	1.5 mm ²
Conductor cross section solid max.	0.14 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
Maximum operating voltage U _{max} DC	125 V DC
Max. operating current I _{max}	0.75 A (250 V AC)
	3 A (125 V AC)
	2 A (30 V DC)
Min. permissible switching capacity	0.12 VA (12 V, 10 mA)

Environmental conditions

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

Certificates / Approvals



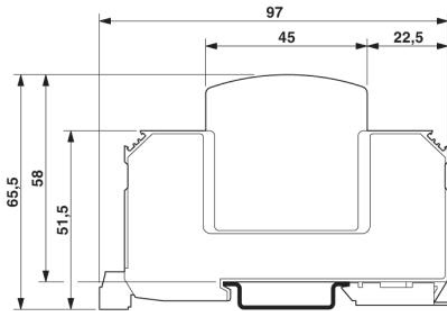
Certification

GOST, KEMA

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Diagrams/Drawings

Dimensioned drawing



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