

EMC filter surge protection device - SFP 1-10/120AC - 2920670

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Device surge protection filter to limit powerful surge voltages, mounting on NS 35.

Product description

Device protection with interference filter

Why buy this product

- Can be installed in industrial environments
- Combined protective circuit for absorbing transient surge voltages and high-frequency interference voltages
- Thermal monitoring of the protective circuit
- Disconnection status signaled via floating remote indication contact



Key commercial data

Packing unit	0
Minimum order quantity	1
Catalog page	Page 230 (TT-2011)
GTIN	 4 046356 158480
Custom tariff number	85363010
Country of origin	GERMANY

Technical data

Standards

Housing material	ABS, aluminum
Inflammability class according to UL 94	V0
Color	aluminum
Standards for air and creepage distances	DIN VDE 0110-1
Standards for air and creepage distances	IEC 60664-1
Standards for air and creepage distances	IEC 61643-1
Degree of protection	IP20
Design	Rail-mountable module, one-piece
Mounting type	DIN rail: 35 mm
Number of positions	2

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Technical data

Standards

Ambient temperature (storage/transport)	-40 °C ... 85 °C
Ambient temperature (operation)	-25 °C ... 60 °C
For country-specific use in	USA, CN, BR
Direction of action	L-N & L(N)-PE
Width	112 mm
Height	93 mm
Depth	79 mm

Protective circuit

IEC category	III
IEC category	T3
EN type	T3
Nominal voltage UN	120 V AC
Arrester rated voltage UC (L-N)	150 V AC
Arrester rated voltage UC (L-PE)	150 V AC
Nominal frequency fN	50 Hz
Nominal frequency fN	60 Hz
Nominal current IN	10 A (62°C)
Operating effective current IC at UC	≤ 10 mA
Ground conductor current IPE	≤ 0.5 mA
Nominal discharge surge current In (8/20) μs (L-N)	3 kA
Nominal discharge surge current In (8/20) μs (L-PE)	3 kA
Max. discharge surge current I _{max} (8/20) μs maximum (L-N)	10 kA
Max. discharge surge current I _{max} (8/20) μs maximum (L-PE)	10 kA
Combined surge UOC	6 kV (3 kA)
Energy absorption symmetrical	170 J
Energy absorption, asymmetrical	2x 170 J
Protection level UP (L-N)	≤ 450 V (at 6 kV/3 kA)
Protection level UP (L-PE)	≤ 450 V (at 6 kV/3 kA)
Protection level UP (N-PE)	≤ 450 V (at 6 kV/3 kA)
Residual voltage at In, (L-N)	≤ 450 V
Residual voltage at In, (L-PE)	≤ 450 V
Residual voltage at In, (N-PE)	≤ 450 V
Response time tA (L-N)	≤ 25 ns
Response time tA (L-PE)	≤ 25 ns
Response time tA (N-PE)	≤ 25 ns
Inductivity in series	2x 1 mH ±30 % (with current compensation)
Capacity (L-N)	2 μF ±10 % (X2, FOW X2-250V)
Capacity (L-PE)	2.2 nF ±20 % (Y, FOW X2-250V)
Capacity (L-PEN)	2.2 nF ±20 % (Y, FOW X2-250V)
Max. required back-up fuse	20 A (gL / gG)
Max. required back-up fuse	20 A (MCB, > 125 V, AIC: 14 kA)
Input attenuation aE, sym.	Typ. 40 dB (≥ 500 kHz / 50 Ω)

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Protective circuit

Input attenuation aE, asym.	Typ. 30 dB (≥ 1 MHz / 50 Ω)
Message: Surge protection fault	Remote indicator contact

Non-heating apparatus connection, power supply

Connection name	Input/output
Connection method	Screw terminal blocks
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Connection method	3-conductor (shielded)
Screw thread	M3
Stripping length	8 mm
Conductor cross section stranded min.	4 mm ²
Conductor cross section stranded max.	4 mm ²
Conductor cross section solid min.	4 mm ²
Conductor cross section solid max.	6 mm ²
Conductor cross section AWG/kcmil min.	12
Conductor cross section AWG/kcmil max	10

Remote indicator contact

Connection name	Remote fault indicator contact
Switching function	PDT contact
Connection method	Pluggable screw connection
Screw thread	M2
Tightening torque	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 A (250 V AC)
Max. operating current I _{max}	0.25 A (250 V DC)
Max. operating current I _{max}	1 A (48 V DC)

Connection, protective circuit

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

Protective circuit, filter

Discharge resistor	≤ 390 k Ω
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Classifications

eclass

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130806
eCl@ss 7.0	27130806

etim

ETIM 2.0	EC000942
ETIM 3.0	EC000942
ETIM 4.0	EC000942
ETIM 5.0	EC000942

unspsc

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

Approvals

Approvals

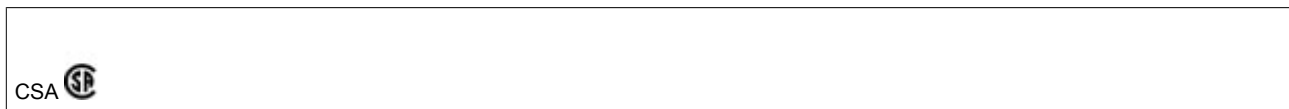
Approvals

CSA / UL Recognized / cUL Recognized / GOST / CSAus / cULus Recognized

Ex Approvals

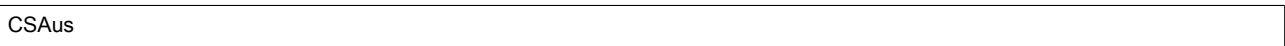
Approvals submitted

Approval details



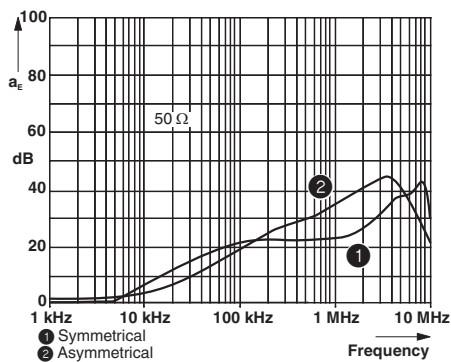
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Approvals

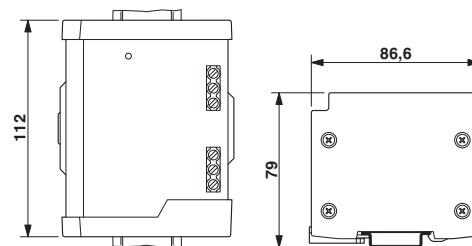


Drawings

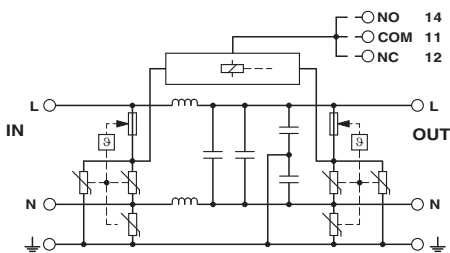
Diagram



Dimensioned drawing




Circuit diagram



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