Extract from the online catalog

SFP 1-20/120AC

Order No.: 2856702

DIN rail module with device surge protection type 3 and mains suppression filter against high-frequency interference voltages. Integrated power display switches off automatically when there is a malfunction due to overload. Mounting on NS 35.

Commercial data	
EAN	4017918952648
Pack	1 pcs.
Customs tariff	85363010
Weight/Piece	0.6275 KG
Catalog page information	Page 46 (TT-2007)

Product notes

WEEE/RoHS-compliant since: 07/14/2006

Product description

Device protection with interference filter

Technical data

Standards

Housing material	ABS, V0(UL-94)
Inflammability class acc. to UL 94	V0
Color	aluminum
Standards for air and creepage distances	DIN VDE 0110-1
	IEC 60664-1: 1992-10
	IEC 61643-1
Surge voltage category	III
Pollution degree	2
Degree of protection	IP20
Design	Rail-mountable module, one-piece
Mounting type	DIN rail 35 mm
Number of positions	2
Ambient temperature (operation)	-40 °C ... 85 °C
For country-specific use in	USA, CN, BR
Direction of action	L-N & L(N)-PE
Width	112.00 mm
Height	79.00 mm
Length	93.00 mm

Protective circuit

IEC category	III
EN type	T3
Nominal voltage U_N	120 V AC
Arrester rated voltage U_C (L-N)	200 V DC
	150 V AC
Arrester rated voltage U_C (L-PE)	200 V DC
	150 V AC
Nominal frequency f_N	50 Hz
	60 Hz
Nominal current I_N	20 A (≤ 40°C)
Operating effective current I_C at U_C	≤ 10 mA
Discharge current to PE at U_C	≤ 0.5 mA
Nominal discharge surge current I_n (8/20) µs (L-N)	3 kA

Nominal discharge surge current In (8/20) µs (L-PE)	3 kA
Max. discharge surge current Imax (8/20) µs maximum (L-N)	10 kA
Max. discharge surge current Imax (8/20) µs maximum (L-PE)	10 kA
Combined surge U_{OC}	6 kV (3 kA)
Energy absorption symmetrical	170 J
Enery absorption, asymmetrical	2x 170 J
Protection level U_P (L-N)	≤ 450 V (at 6 kV/3 kA)
Protection level U_P (L-PE)	≤ 450 V (at 6 kV/3 kA)
Protection level U_P (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
Clamping voltage SVR (L-N)	≤ 400 V (at 6 kV/500 A)
Clamping voltage SVR (L-PE)	≤ 400 V (at 6 kV/500 A)
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)
Input attenuation aE, sym.	40 dB (≥ 500 kHz / 50 Ω)
Input attenuation aE, asym.	30 dB (≥ 1 MHz / 50 Ω)
Message surge protection faulty	Remote indicator contact

Non-heating apparatus connection, power supply

Connection name	Input/output
Type of connection	Screw terminal blocks
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks
Connection system	3-conductor (shielded)
Screw thread	M3
Tightening torque, min	0.5 Nm

Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	4 mm²
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	6 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	10

Remote indicator contact

Connection name	Remote fault indicator contact
Schaltfunktion_Int	PDT contact
Type of connection	Pluggable screw connection
Screw thread	M2
Tightening torque, min	0.25 Nm
Conductor cross section stranded min.	0.14 mm²
Conductor cross section stranded max.	1.5 mm²
Conductor cross section solid min.	0.14 mm²
Conductor cross section solid max.	1.5 mm²
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	300 V DC
Max. operating current I_{max}	1 A (for 48 V DC)
	1 A (for 250 V AC)
	0.25 A (For 250 V DC)
Min. permissible switching capacity	(1.00 A / 48 V DC)
	(100 mA/ 12 V AC)
Switching capacity max. perm.	(0.25 A / 250 V DC)
	(1.0 A / 48 V AC)

Connection, protective circuit

Standards/regulations	IEC 61643-1
	IEC 61643-11
	UL 1449
	UL 1283

Protective circuit, filter

Discharge resistor	≤ 390 kΩ

Clamping voltage ringwave (L-N)	100 V (category A 100 kHz 6 kV/200 A)
	195 V (category B 100 kHz 6 kV/500 A)
Clamping voltage ringwave (L-PE)	390 V (category A 100 kHz 6 kV/200 A)
	390 V (category B 100 kHz 6 kV/500 A)

Certificates / Approvals

Certification	CSA, CUL, GOST, UCSA, UL

CUL

Nominal voltage U_N	120 V
Nominal current I_N	20 A
AWG/kcmil	12-10

UL

Nominal voltage U_N	120 V
Nominal current I_N	20 A
AWG/kcmil	12-10

Drawings

Dimensioned drawing