

Surge protection device - TAE-TRAB FM-NFN-AP - 2749628

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TAE outlet box (NFN) for surface mounting with surge protection for analog and digital telecommunications interfaces (VDSL up to 50 Mbps)

Product Features

- For surface mounting
- Three TAE6 slots
- Suitable for DSL (ADSL2+)
- Main areas of application: phone terminals, answering machines, modems, and fax machines
- For two N-coded and one F-coded termination device



Key commercial data

Packing unit	1 PCE
Weight per Piece (excluding packing)	1000.0 GRM
Custom tariff number	85363010
Country of origin	Germany

Technical data

Dimensions

Height	27 mm
Width	65 mm
Depth	80 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Degree of protection	IP20

General

Housing material	ABS
Color	cream white

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Technical data

General

Standards for air and creepage distances	VDE 0110-1
	IEC 60664-1
For country-specific use in	D
Mounting type	Surface/Wall mounting
Design	Socket for surface mounting
Direction of action	Line-Line & Line-Earth Ground

Protective circuit

IEC test classification	B2
	C1
	C2
	C3
	D1
VDE requirement class	B2
	C1
	C2
	C3
	D1
Nominal voltage U_N	60 V DC
Maximum continuous voltage U_C (wire-wire)	185 V DC
Maximum continuous voltage U_C (wire-ground)	185 V DC
Nominal current I_N	450 mA ($\leq 40^\circ\text{C}$)
Operating effective current I_C at U_C	$\leq 10 \mu\text{A}$
Residual current I_{PE}	$\leq 6 \mu\text{A}$
Nominal discharge current I_n (8/20) μs (Core-Core)	5 kA
Nominal discharge current I_n (8/20) μs (Core-Earth)	5 kA
Total surge current (8/20) μs	10 kA
Total surge current (10/350) μs	5 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Core)	5 kA
Max. discharge current I_{max} (8/20) μs maximum (Core-Earth)	5 kA
Nominal pulse current I_{an} (10/1000) μs (Core-Core)	100 A
Nominal pulse current I_{an} (10/1000) μs (Core-Earth)	100 A
Nominal pulse current I_{an} (10/700) μs (Core-Core)	150 A
Nominal pulse current I_{an} (10/700) μs (Core-Earth)	150 A
Output voltage limitation at 1 kV/ μs (Core-Core) spike	$\leq 250 \text{ V}$
Output voltage limitation at 1 kV/ μs (Core-Earth) spike	$\leq 450 \text{ V}$
Output voltage limitation at 1 kV/ μs (Core-Core) static	$\leq 250 \text{ V}$

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Protective circuit

Output voltage limitation at 1 kV/ μ s (Core-Earth) static	≤ 450 V
Voltage protection level U_p (Core-Core)	≤ 250 V (C2 - 10 kV / 5 kA)
	≤ 250 V (C1 - 1 kV/500 A)
	≤ 250 V (B2 - 4 kV/100 A)
Voltage protection level U_p (Core-Earth)	≤ 500 V (C2 - 10 kV / 5 kA)
	≤ 450 V (C1 - 1 kV/500 A)
	≤ 400 V (B2 - 4 kV/100 A)
Response time t_A (Core-Core)	≤ 1 ns
Response time t_A (Core-Earth)	≤ 100 ns
Input attenuation a_E , sym.	0.3 dB (≤ 1 MHz / 150 Ω)
	0.3 dB (≤ 400 kHz / 600 Ω)
Input attenuation a_E , asym.	0.3 dB (≤ 400 kHz / 600 Ω)
Cut-off frequency f_g (3 dB), sym. in 150 Ohm system	typ. 8 MHz
Cut-off frequency f_g (3 dB), sym. in 600 Ohm system	typ. 2 MHz
Capacity (Core-Core)	typ. 200 pF (f = 1 MHz / VR = 0 V)
Capacity (Core-Earth)	typ. 15 pF (f = 1 MHz / VR = 0 V)
Resistance in series	2.2 Ω 10 %
Short-circuit current self-quenching	150 mA
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C2 (10 kV/5 kA)
	C1 (1 kV / 500 A)
	B2 (4 kV / 100 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
	C1 (1 kV / 500 A)
	B2 (4 kV / 100 A)
	D1 (2.5 kA)
Alternating current carrying capacity in acc. with IEC 61643-21 (Core-Earth)	5 A - 1 s

Connection data

Connection method	Screw connection & TAE 6
Connection type IN	Screw terminal blocks
Connection type OUT	3x TAE-NFN
Connection method	Screw connection
Screw thread	M3
Tightening torque	0.5 Nm
Stripping length	6 mm
Conductor cross section stranded min.	0.14 mm ²
Conductor cross section stranded max.	1.5 mm ²

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Connection data

Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	16

Connection, equipotential bonding

Connection method	Screw terminal block
Stripping length	6 mm
Tightening torque, min	0.5 Nm
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.	26

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	27130807
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807

ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

UNSPSC

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

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Approvals

Approvals

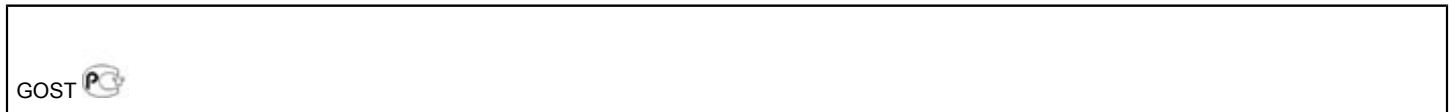
Approvals

GOST

Ex Approvals

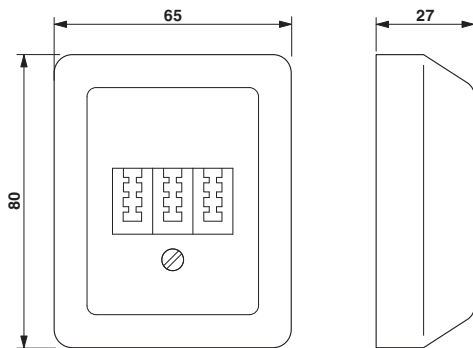
Approvals submitted

Approval details



Drawings

Dimensioned drawing



Circuit diagram

