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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)

Why buy this product

- 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 STK
GTIN	 4 017918 108199

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
Standards for clearances and creepage distances	VDE 0110-1
	IEC 60664-1
For country-specific use in	D
Mounting type	Surface/Wall mounting

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Technical data

General

Type	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	$\leq 250 \text{ V}$
Output voltage limitation at 1 kV/ μs (Core-Earth) static	$\leq 450 \text{ V}$
Voltage protection level U_p (core-core)	$\leq 250 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 250 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 250 \text{ V}$ (B2 - 4 kV/100 A)
Voltage protection level U_p (core-ground)	$\leq 500 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 450 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 400 \text{ V}$ (B2 - 4 kV/100 A)
Response time t_A (Core-Core)	$\leq 1 \text{ ns}$

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Protective circuit

Response time tA (Core-Earth)	≤ 100 ns
Input attenuation aE, sym.	0.3 dB (≤ 1 MHz / 150 Ω)
	0.3 dB (≤ 400 kHz / 600 Ω)
Input attenuation aE, asym.	0.3 dB (≤ 400 kHz / 600 Ω)
Cut-off frequency fg (3 dB), sym. in 150 Ohm system	typ. 8 MHz
Cut-off frequency fg (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
Impulse durability (conductor-conductor)	C2 - 10 kV/5 kA
	C1 - 1 kV/500 A
	B2 - 4 kV/100 A
Impulse durability (conductor-ground)	C2 - 10 kV/5 kA
	C1 - 1 kV/500 A
	B2 - 4 kV/100 A
	D1 - 2,5 kA
Alternating current carrying capacity (conductor-ground)	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 flexible min.	0.14 mm ²
Conductor cross section flexible 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 min.	26
Conductor cross section AWG max.	16

Connection, equipotential bonding

Connection method	Screw terminal block
Stripping length	6 mm
Tightening torque, min	0.5 Nm
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	1.5 mm ²

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Technical data

Connection, equipotential bonding

Conductor cross section AWG min.	26
Conductor cross section AWG max.	16

Standards and Regulations

Standards/regulations	IEC 61643-21
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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
eCl@ss 9.0	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

Approvals

Approvals

Approvals

EAC

Ex Approvals

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Approvals

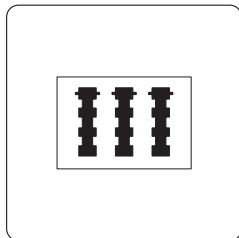
Approvals submitted

Approval details

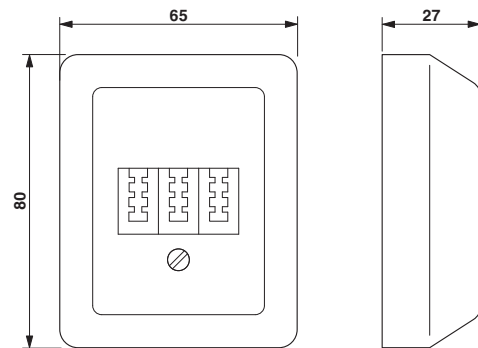
EAC

Drawings

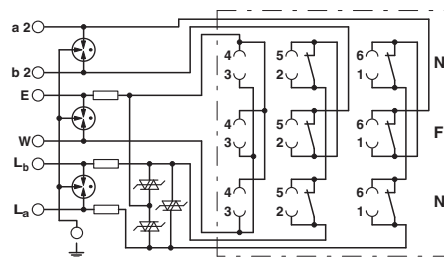
Product drawing



Dimensional drawing



Circuit diagram



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Product	Code	Reference	Product link
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