

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, on short paths (< 300 m) up to 100 Mbps)

Your advantages

- ✓ 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 pc
GTIN	 4 017918 108199
GTIN	4017918108199

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

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Technical data

General

For country-specific use in	D
Mounting type	Surface/Wall mounting
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	185 V DC
Rated current	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 (line-line)	5 kA
Nominal discharge current I_n (8/20) μs (line-earth)	5 kA
Total discharge current I_{total} (8/20) μs	10 kA
Total discharge current I_{total} (10/350) μs	5 kA
Max. discharge current I_{max} (8/20) μs maximum (line-line)	5 kA
Max. discharge current I_{max} (8/20) μs maximum (line-earth)	5 kA
Nominal pulse current I_{an} (10/1000) μs (line-line)	100 A
Nominal pulse current I_{an} (10/1000) μs (line-earth)	100 A
Nominal pulse current I_{an} (10/700) μs (line-line)	150 A
Nominal pulse current I_{an} (10/700) μs (line-earth)	150 A
Output voltage limitation at 1 kV/ μs (line-line) spike	$\leq 250 \text{ V}$
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 450 \text{ V}$
Output voltage limitation at 1 kV/ μs (line-line) static	$\leq 250 \text{ V}$
Output voltage limitation at 1 kV/ μs (line-earth) static	$\leq 450 \text{ V}$
Voltage protection level U_p (line-line)	$\leq 250 \text{ V}$ (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 (line-earth)	$\leq 500 \text{ V}$ (C2 - 10 kV / 5 kA)
	$\leq 450 \text{ V}$ (C1 - 1 kV/500 A)
	$\leq 400 \text{ V}$ (B2 - 4 kV / 100 A)

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Protective circuit

Response time t_A (line-line)	≤ 1 ns
Response time t_A (line-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 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 (line-line)	typ. 200 pF ($f = 1$ MHz / $V_R = 0$ V)
Capacity (line-earth)	typ. 15 pF ($f = 1$ MHz / $V_R = 0$ V)
Resistance in series	2.2 Ω 10 %
Short-circuit current self-quenching	150 mA
Surge protection fault message	none
Impulse durability (line-line)	C2 - 10 kV/5 kA
	C1 - 1 kV/500 A
	B2 - 4 kV/100 A
Impulse durability (line-earth)	C2 - 10 kV/5 kA
	C1 - 1 kV/500 A
	B2 - 4 kV/100 A
	D1 - 2.5 kA
Alternating current carrying capacity (line-earth)	5 A - 1 s

Connection data

Connection method	Screw connection & TAE 6
Connection method IN	Screw terminal blocks
Connection method OUT	3x TAE-NFN
Connection technology	Screw connection
Screw thread	M3
Tightening torque	0.5 Nm
Stripping length	6 mm
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross section solid	0.14 mm ² ... 1.5 mm ²
Conductor cross section AWG	26 ... 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
Conductor cross section AWG min.	26

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Technical data

Connection, equipotential bonding

Conductor cross section AWG max.	16
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Standards and Regulations

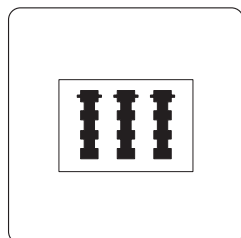
Standards/regulations	IEC 61643-21
Standards/specifications	DIN EN 61643-21 2002
	IEC 61643-21 2000

Environmental Product Compliance

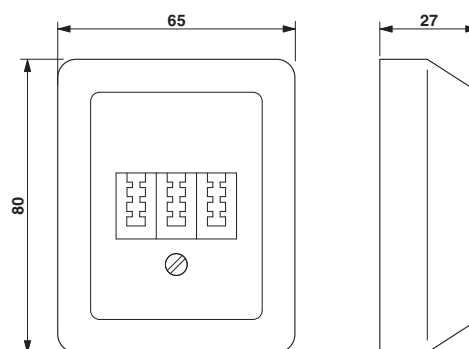
REACH SVHC	Lead 7439-92-1
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Drawings

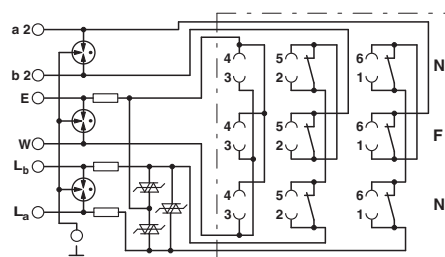
Product drawing



Dimensional drawing



Circuit diagram



Approvals

Approvals

Approvals

EAC

Ex Approvals

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Approvals

Approval details

EAC		RU C- DE.A*30.B01561
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