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

2749628

https://www.phoenixcontact.com/us/products/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

- Easy connection via TAE socket
- Easy installation with surface mounting
- No signal interference with adapted protective circuit

Commercial data

Item number	2749628
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL03
Product key	CL3232
GTIN	4017918108199
Weight per piece (including packing)	85 g
Weight per piece (excluding packing)	79.6 g
Customs tariff number	85363010
Country of origin	DE

Technical data

Product properties

Product type	Surge protection for information technology
Product family	DATATRAB
IEC test classification	B2
	C1
	C2
	C3
	D1
VDE requirement class	B2
	C1
	C2
	C3
	D1
Type	Socket for surface mounting
For country-specific use in	D
Surge protection fault message	none
Wire pairs per module	1

Insulation characteristics

Overvoltage category	II

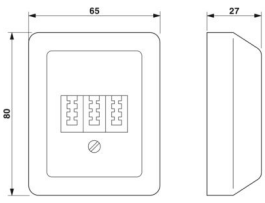
Electrical properties

Nominal voltage U_N	60 V DC

Connection data

Connection method	Screw connection & TAE 6
Screw thread	M3
Tightening torque	0.5 Nm
Conductor cross-section flexible	0.14 mm² ... 1.5 mm²
Conductor cross-section rigid	0.14 mm² ... 1.5 mm²
Conductor cross-section AWG	26 ... 16

Dimensions

Dimensional drawing	
Width	65 mm
Height	27 mm

Depth	80 mm

Material specifications

Color	cream (RAL 9001)
Housing material	ABS

Mechanical properties

Mechanical data

Open side panel	No

Protective circuit

Direction of action	Line-Line & Line-Earth Ground
Nominal voltage U_N	60 V DC
Maximum continuous operating voltage U_C	185 V DC
Rated current	450 mA (≤ 40°C)
Operating effective current I_C at U_C	≤ 10 µA
Protective conductor current I_{PE}	≤ 6 µA
Nominal discharge current I_n (8/20) µs (line-line)	5 kA
Nominal discharge current I_n (8/20) µs (line-ground)	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 Ian (10/1000) µs (line-line)	100 A
Nominal pulse current Ian (10/1000) µs (line-earth)	100 A
Nominal pulse current Ian (10/700) µs (line-line)	150 A
Nominal pulse current Ian (10/700) µs (line-earth)	150 A
Output voltage limitation at 1 kV/µs (line-line) spike	≤ 250 V
Output voltage limitation at 1 kV/µs (line-earth) spike	≤ 450 V
Output voltage limitation at 1 kV/µs (line-line) static	≤ 250 V
Output voltage limitation at 1 kV/µs (line-earth) static	≤ 450 V
Voltage protection level U_p (line-line)	≤ 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 (line-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 (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 fg (3 dB), sym. in 150 Ω system	typ. 8 MHz
Cut-off frequency fg (3 dB), sym. in 600 Ω 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 per path	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

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

VDE requirement class	B2
	C1
	C2
	C3
	D1

Standards Information technology specification

Standards/regulations	IEC 61643-21
	IEC 61643-21

Air clearances and creepage distances

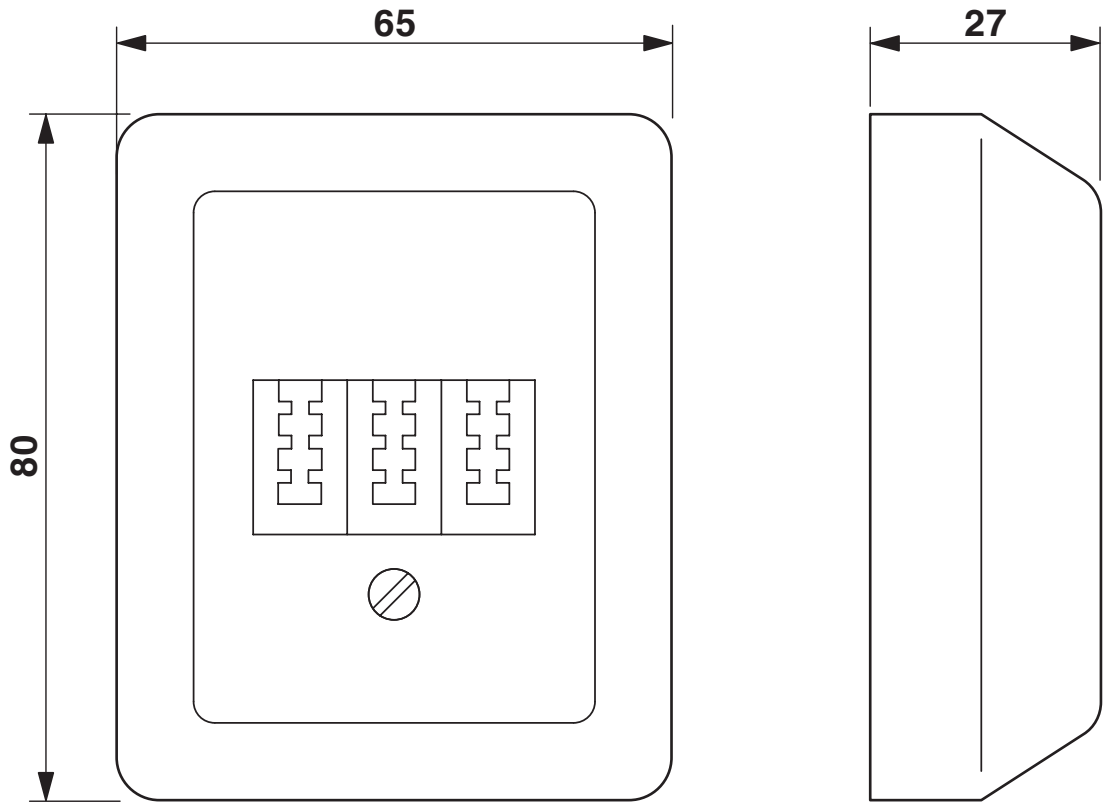
Standards/regulations	VDE 0110-1 / IEC 60664-1
Standards/specifications	DIN EN 61643-21
Note	2002
Standards/specifications	IEC 61643-21
Note	2000

Mounting

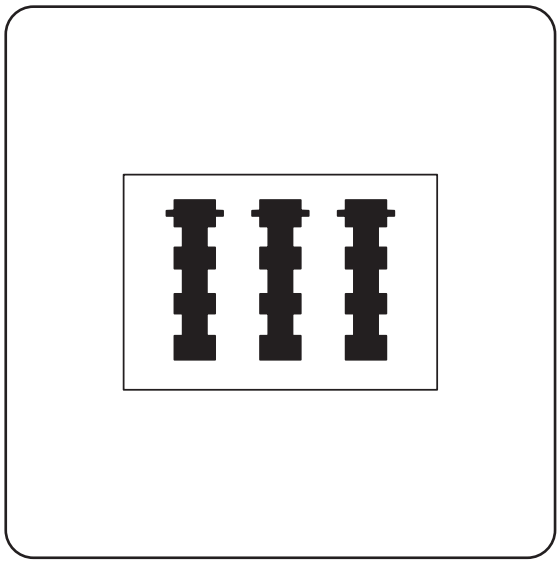
Mounting type	Surface/Panel mounting

Drawings

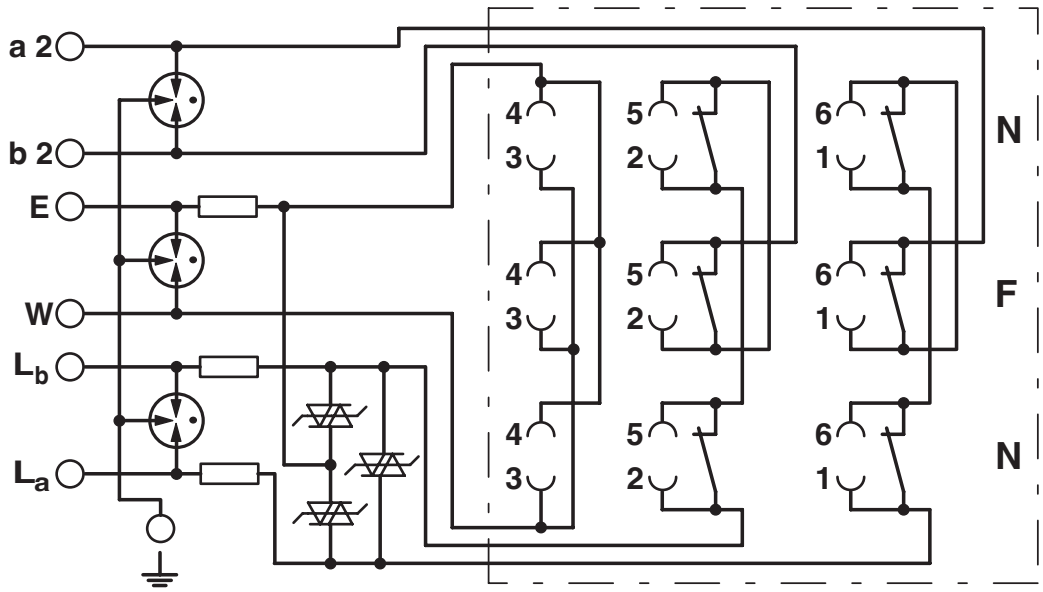
Dimensional drawing



Product drawing



Circuit diagram



Classifications

ECLASS

ECLASS-13.0	27171503
ECLASS-15.0	27171503

ETIM

ETIM 10.0	EC001466

UNSPSC

UNSPSC 21.0	39121600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(a), 6(a)-I, 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	fbbef6b3-61d3-45ae-986c-fc57e178524a

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