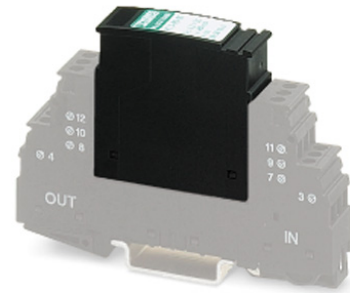


PT 3-HF-12DC-ST

Order No.: 2858043

The illustration shows the version PT 3-PB-ST




Surge protection plug for the base element, normal mode voltage coarse and fine protection for two floating signal wires and ground in IT, common mode voltage coarse protection to ground/earth. Design: 12 V DC



Commercial data	
EAN	4017918878047
Pack	10 pcs.
Customs tariff	85363090
Weight/Piece	0.02073 KG
Catalog page information	Page 76 (TT-2007)

Product notes

WEEE/RoHS-compliant since:
06/21/2006



Technical data

General	
Housing material	PA
Inflammability class acc. to UL 94	V0
Color	black
Standards for air and creepage distances	DIN VDE 0110-1 IEC 60664-1: 1992-10

Total surge current (8/20) μ s	20 kA
Ambient temperature (operation)	-40 °C ... 85 °C
Mounting type	On base element
Design	DIN rail module, two-section, divisible
Number of positions	3
Degree of protection	IP20
Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/ Shield-Earth Ground
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.10
Width	17.70 mm
Height	52.00 mm
Length	45.00 mm
Pitch unit	1 Div.
Protective circuit	
IEC category	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Nominal voltage U_N	12 V DC
Max. operating voltage U_{max}	14 V DC
Arrester rated voltage U_C	14 V DC
	9.8 V AC
Arrester rated voltage U_C (Core-Core)	14 V DC
	9.8 V AC
Arrester rated voltage U_C (Core-Earth)	14 V DC (with PT 2x2-BE)
Nominal current I_N	450 mA (45°C)
Operating effective current I_C at U_C	$\leq 5 \mu$ A
Discharge current to PE at U_C	$< 5 \mu$ A (with PT 2x2-BE)
	$< 1 \mu$ A (with PT 2x2+F-BE)
Nominal discharge surge current I_n (8/20) μ s (Core-Core)	10 kA

Nominal discharge surge current I_n (8/20) μs (Core-Earth)	10 kA
Nominal discharge surge current I_n (8/20) μs (Core-GND)	10 kA
Total surge current (8/20) μs	20 kA
Max. discharge surge current I_{max} (8/20) μs maximum (Core-Core)	10 kA
Max. discharge surge current I_{max} (8/20) μs maximum (Core-Earth)	10 kA
Nominal pulse current I_{an} (10/1000) μs (Core- Core)	67 A
Lightning test current (10/350) μs , peak value I_{imp}	2.5 kA
Output voltage limitation at 1 kV/ μs (Core-Core) spike	≤ 25 V
Output voltage limitation at 1 kV/ μs (Core-Earth) spike	≤ 25 V
	≤ 700 V (with PT 2x2+F-BE)
Output voltage limitation at 1 kV/ μs (Core-Core) static	≤ 25 V
Output voltage limitation at 1 kV/ μs (Core-Earth) static	≤ 25 V
Output voltage limitation at 1 kV/ μs (Core-GND) static	≤ 40 V (PT 2x2+F-BE)
Residual voltage at I_n , (conductor-conductor)	≤ 25 V
Residual voltage at I_n , (conductor-ground)	≤ 40 V
Residual voltage at I_n , (conductor-GND)	≤ 25 V (PT 2x2-BE)
Residual voltage with I_{an} (10/1000) μs (conductor- conductor)	≤ 25 V
Residual voltage with I_{an} (10/1000) μs (conductor- GND)	≤ 25 V
Response time t_A (Core-Core)	≤ 500 ns
Response time t_A (Core-Earth)	≤ 500 ns
Input attenuation a_E , sym.	0.2 dB (≤ 5 MHz)
Cut-off frequency f_g (3 dB), sym. in 100 Ohm system	Typ. 70 MHz
Capacity (Core-Core)	Typ. 30 pF
Resistance in series	2.2 Ω
Max. required back-up fuse	500 mA (e.g. T in acc. with IEC 127-2/III)
Connection data	
Type of connection	Screw connection (in connection with the base element)

Connection type IN	PLUGTRAB plug-in system
Connection type OUT	PLUGTRAB plug-in system
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	4 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12
Connection, protective circuit	
Standards/regulations	IEC 61643-21

Certificates / Approvals



Certification GOST

Accessories

Item	Designation	Description
Marking		
0811228	X-PEN 0,35	Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm
0811228	X-PEN 0,35	Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm
0811228	X-PEN 0,35	Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm
0814717	ZBF 15:SO/CMS	Zack strip, flat, 10-section, divisible, special printing, marking according to customer requirements
0808671	ZBF 5,LGS:FORTL.ZAHLEN	Zack strip, flat, printed horizontally: 10-section, with the numbers, 1-10, 11-20 etc. up to 991-1000, color: White
0810821	ZBF 5,LGS:GERADE ZAHLEN	Zack marker strip, flat, printed horizontally: 10-section, with even numbers, printed with the numbers: 2-20, 22-40, etc. up to 82-100
0810863	ZBF 5,LGS:UNGERADE ZAHLEN	Zack strip, flat, printed horizontally: 10-section, with odd numbers, printed with the numbers: 1-19, 21-39 etc. up to 81-99
0808697	ZBF 5,QR:FORTL.ZAHLEN	Flat Zack marker strip, printed vertically: 10-section, with the numbers 1-10, 11-20, etc. up to 151-160, color: White

0808668	ZBF 5/WH-100:UNBEDRUCKT	Zack strip, flat, unprinted: 10-section, for individual labeling with M-PEN or ZBF-T, large batch, sufficient for labeling 1000 terminal blocks, color: white
0808707	ZBF 5:SO/CMS	Zack strip, flat, 10-section, divisible, special printing, marking according to customer requirements
0808642	ZBF 5:UNBEDRUCKT	Zack strip, flat, unprinted: 10-section, for individual labeling with M-PEN or ZBF-T, sufficient for 100 terminal blocks, color: white
0800763	ZBN 18:SO/CMS	Marker labels, 5-section, special printing, labeled according to customer requirements (Please specify the required marking with order), for terminal width: 17.5 mm, color: White
2809128	ZBN 18:UNBEDRUCKT	Unprinted marker labels, strips with 5 labels for individual labeling with M-PEN or CMS system, for terminal block width: 17.5 mm, color: White

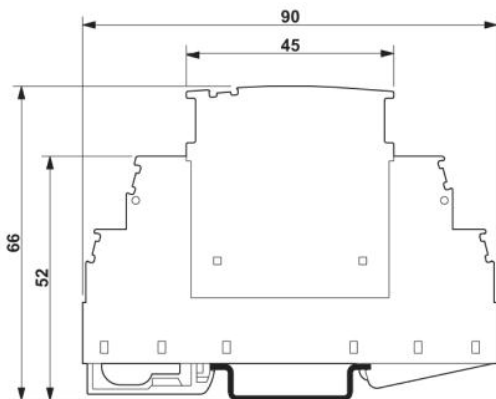
Additional products

Item	Designation	Description
Assembly		
2839295	SSA 3-6	shield fast connections for conductor diameter 3 - 6 mm. Potential connection cable: 200 mm, black
2839512	SSA 5-10	Shield fast connection for conductor diameters 5 - 10 mm. Potential connection cable: 200 mm, black

General		
2856113	PT 1X2-BE	Base element for protective plug PT with protective circuit for a 2-core floating signal circuit. Mounting on NS 35/7.5 und NS 35/15, housing width: 17.5 mm.

Drawings

Dimensioned drawing



The figure shows the complete module consisting of a base element and connector