



NEW

Power Supply Systems
Class II Surge Arresters

DEHNgard® TNC / ... TNS / ... TT
Multi-pole surge arresters

Red / Line

Surge arresters for installation within the Lightning Protection Zones Concept at the boundaries from lightning protection zone $O_B - 1$ and higher.

For protection of low-voltage installations against surges
(in overvoltage category III in accordance with DIN VDE 0110-1:1997-04).
Class II arresters in accordance with E DIN VDE 0675-6:1989-11, -6/A1:1996-03 and -6/A2:1996-10.

- readily wired, complete unit for standard types of mains consisting of base and plug-in protection module
- **energy coordination** with upstream lightning current arrester, e.g. **DEHnbloc**, possible
- high energy capability due to powerful zinc oxide varistor or zinc oxide varistor/spark gap (DEHNgard TT...)
- reliable supervision due to disconnection device with dual supervision ("thermodynamic control")
- fault indication by red indicator flag in window
- multi-function terminal for connecting conductors and busbars

Versions:

- DEHNgard TNC 230/400:** complete circuit for TN-C-systems
- DEHNgard TNS 230/400:** complete circuit for TN(C)-S-systems
- DEHNgard TT 230/400:** complete circuit for TT- and TN-S-systems

DEHNgard ... FM: with remote alarm terminal for supervisory device (floating changeover contact)

See Installation Instructions No. 1335 for further information on use.

See page 46 for Technical Data.

Surge arresters DEHNgard® ...

Type	Article No.
DEHNgard TNC 230/400	900 510
DEHNgard TNS 230/400	900 530
DEHNgard TT 230/400	900 520

Surge arresters DEHNgard® ... FM

Versions identical to DEHNgard TNC / ... TNS / ... TT, but with additional three-pole terminal set for connecting the remote alarm facility.

On responding of the supervisory device (disconnection of the faulty arrester from the mains due to an overload), the remote alarm terminal is connected via a floating changeover contact.

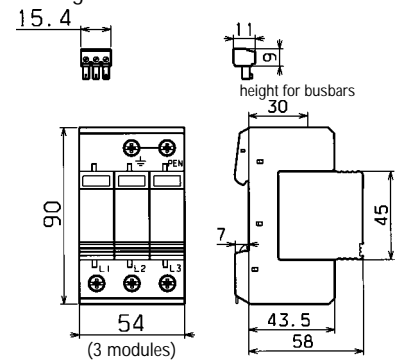
Plug-in terminal for easy installation of the remote alarm facility.

DEHNgard TNC 230/400 FM	900 540
DEHNgard TNS 230/400 FM	900 560
DEHNgard TT 230/400 FM	900 550

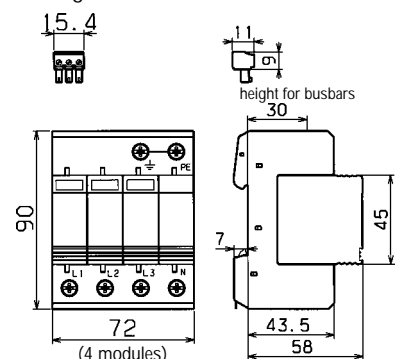
DEHNgard® TT 230/400 FM



Dimensional drawing of DEHNgard® TNC 230/400 FM



Dimensional drawing of DEHNgard® TT 230/400 FM



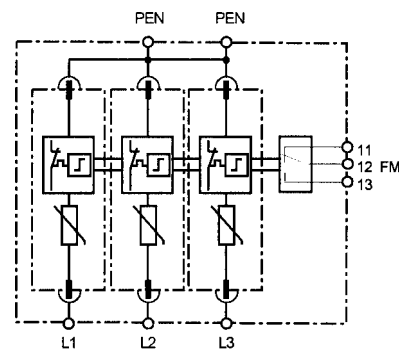


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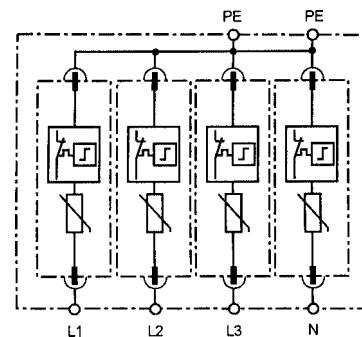
Power Supply Systems Class II Surge Arresters

Technical Data:		DEHNguard ... 230/400			
Type		TNC	TNS	TT	
				L-N	N-PE
tested to		E DIN VDE 0675-6:1989-11, -6/A1:1996-03 and -6/A2: 1996-10			
nominal voltage	U_N	230/400 V / 50 Hz			
rated voltage (maximum continuous operating voltage)	U_c	275 V~		255 V/50 Hz	
nominal discharge current (8/20)	i_{sn}	20 kA			
maximum discharge current (8/20)	I_{max}	40 kA		—	
follow current exting. capability at U_c	I_f	—		200 A	
lightning impulse current (10/350)	I_{imp}	—		12 kA	
voltage protection level at 5 kA (8/20) at i_{sn}	U_p	≤ 1 kV ≤ 1.5 kV		—	
lightn. imp. sparkover volt. 1.2/50		—		≤ 1.5 kV	
response time	t_A	25 ns		100 ns	
backup fuse (only required if not already provided in mains)		125 A gL/gG		—	
short-circuit withstand capability with max. backup fuse		50 kA / 50 Hz		—	
operating temperature range	ϑ	- 40° C ... + 80° C			
cross-sectional areas		min. 1.5 mm ² single-/fine-stranded max. 35 mm ² multi-stranded/25 mm ² fine-stranded			
mounting on		35 mm DIN-rail in accordance with EN 50022			
enclosure material		red thermoplastic			
degree of protection		IP 20			
installation width		3 modules	4 modules, DIN 43880		
Additional data for DEHNguard ... FM					
remote alarm contacts type		floating changeover contact			
contact rating	U_N/I_N	AC: 250 V / 0.5 A DC: 250 V / 0.1 A 125 V / 0.2 A 75 V / 0.5 A			
cross-sectional areas of remote alarm terminals		max. 1.5 mm ² single-/fine-stranded			
Accessories:					
DEHNguard® plug-in modules					
Version suitable for multi-pole surge arresters Types DEHNguard TNC / ... TNS / ... TT and single-pole surge arresters Types DEHNguard T and DEHNgap C/T.					
The protection module can be exchanged interrupting the power supply and either without removal of the distribution board cover.					
Type				Art. No.	
T-275 (varistor-type module for TNC/TNS/TT 230/400 (FM) and DEHNguard T 275)				900 670	
T-C (N-PE spark gap-type module for TT 230/400 (FM) and DEHNgap C/T)				900 134	

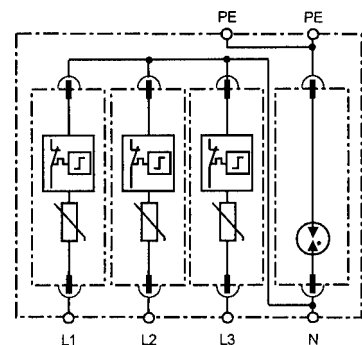
Basic circuit diagrams of DEHNguard® TNC 230/400 FM



DEHNguard® TNS 230/400



DEHNguard® TT 230/400



Plug-in modules

T-275

T-C

