



Power Supply Systems
Class II Surge Arresters

DEHNGuard® and DEHNGuard® T
Single-pole surge arresters

Red / Line

Surge arresters for installation within the Lightning Protection Zones Concept at the boundaries from lightning protection zone 0_B – 1 and higher.
German patented design.

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 and -6/A1:1996-03

- **energy coordination** with upstream lightning current arrester, e.g. **DEHNport**, possible
- high energy capability due to powerful zinc oxide varistor
- reliable supervision due to disconnection device with dual supervision ("thermodynamic control")
- fast response
- fault indication by red indicator flag in window
- small design (modular design) in accordance with DIN 43880
- multi-function terminal for connecting conductors and busbars

Versions:

- DEHNGuard:** – single part (compact design)
- DEHNGuard T:** – two part, consisting of base and plug-in protection module
protection module can be exchanged with the distribution board cover in position or removed.

DEHNGuard ... FM and DEHNGuard T ... FM:

- with remote alarm terminal for supervisory device (floating changeover contact).

See Installation Instructions No. 1344 (DEHNGuard) and No. 1345 (DEHNGuard T) for further information on use.

See page 49 for Technical Data.

Surge arresters DEHNGuard®

Type	Article No.
DEHNGuard 75	900 604
DEHNGuard 150	900 603
DEHNGuard 275	900 600
DEHNGuard 320	900 605
DEHNGuard 440	900 607
DEHNGuard 600	900 601

Surge arresters DEHNGuard® ... FM

Versions identical to DEHNGuard, 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.

DEHNGuard 75 FM	900 624
DEHNGuard 150 FM	900 623
DEHNGuard 275 FM	900 620
DEHNGuard 320 FM	900 625
DEHNGuard 440 FM	900 627
DEHNGuard 600 FM	900 621

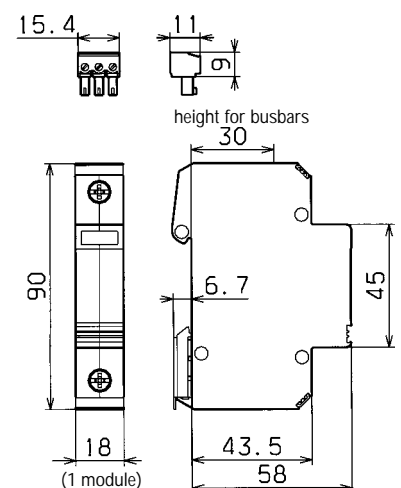
DEHNGuard®



DEHNGuard® ... FM



Dimensional drawing of DEHNGuard® ... FM





Power Supply Systems Class II Surge Arresters

Surge Arresters DEHNGuard®T

Versions identical to DEHNGuard, but two part design consisting of base and plug-in protection module (T-...).

Type	Article No.
DEHNGuard T 75	900 654
DEHNGuard T 150	900 653
DEHNGuard T 275	900 650
DEHNGuard T 320	900 652
DEHNGuard T 440	900 655
DEHNGuard T 600	900 651

Surge Arresters DEHNGuard® T ... FM

Versions identical to DEHNGuard T, 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.

DEHNGuard T 75 FM	900 684
DEHNGuard T 150 FM	900 683
DEHNGuard T 275 FM	900 680
DEHNGuard T 320 FM	900 682
DEHNGuard T 440 FM	900 685
DEHNGuard T 600 FM	900 681

Accessories:

DEHNGuard®T plug-in modules

Version suitable for single-pole surge arresters DEHNGuard T and multi-pole surge arresters Types DEHNGuard TNC / ... TNS / ... TT (only T-275).

The protection module can be exchanged without disconnection from the power supply and either without removal of the distribution board cover.

T- 75	900 674
T-150	900 673
T-275	900 670
T-320	900 672
T-440	900 675
T-600	900 671

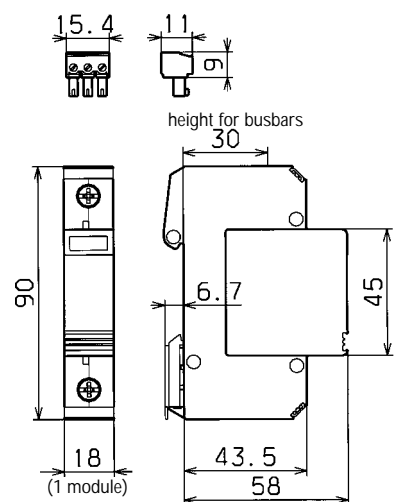
DEHNGuard® T



DEHNGuard® T ... FM



Dimensional drawing of
DEHNGuard® T ... FM



Plug-in module

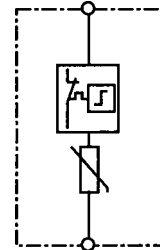




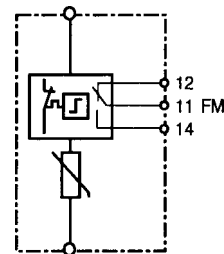
Power Supply Systems Class II Surge Arresters

Technical Data:							
Type	DEHNguard and DEHNguard T						
	75	150	275	320	440	600	
tested to	E DIN VDE 0675-6:1989-11 and -6/A1:1996-03						
rated voltage (maximum continuous operating voltage)	U_c	75 V~ 100 V~	150 V~ 200 V~	275 V~ 350 V~	320 V~ 420 V~	440 V~ 585 V~	600 V~ 600 V~
nominal discharge current (8/20)	i_{sn}	10 kA	15 kA	20 kA	15 kA		
max. discharge current (8/20)	I_{max}	40 kA					
voltage protection level at 5 kA (8/20) at i_{sn}	U_p	≤ 350 V ≤ 450 V	≤ 550 V ≤ 750 V	≤ 1 kV ≤ 1.5 kV	≤ 1250 V ≤ 1750 V	≤ 1750 V ≤ 2250 V	≤ 2.5 kV ≤ 3 kV
response time	t_A	≤ 25 ns					
backup fuse (only required if not already provided in mains)		125 A gL/gG					100 A gL/gG
short-circuit withstand capabil. with max. backup fuse		50 kA / 50 Hz			25 kA / 50 Hz		
operating temperature range	ϑ	$-40^\circ\text{C} \dots +80^\circ\text{C}$					
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		1 module, DIN 43880					
approval		KEMA, MEEI, UL (File No. E168805)					
Additional data for DEHNguard ... FM and DEHNguard T ... 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					

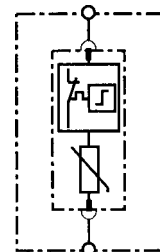
Basic circuit diagrams



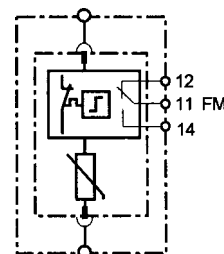
DEHNguard®



DEHNguard®... FM



DEHNguard® T



DEHNguard® T...FM