TEP1

SA668100



Series of insulators suitable for use as tensioning elements with electrically active parts, such as conductors used in electrical systems and their supports. Available in two versions: one complete with terminal ring elements and one without. They are made with opposing threads, one right-hand and one left-hand, and the extension range of the two rings (maximum opening and minimum closing) is approximately 80 mm. Made of polyester or polyamide resin with added glass fibres, they ensure long-term mechanical and electrical resistance. The material is anti-hygroscopic and highly self-extinguishing.

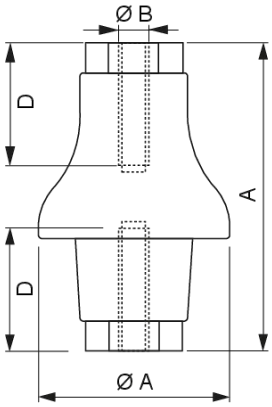
Technical specifications

Functional characteristics	
Arc resistance	> 180 s - ASTM D-495
Operating voltage	8000 AC / DC (V)
Minimum surface discharge voltage	50 AC (kV)
Minimum internal discharge voltage	40 AC (kV)
Operating conditions	
Operating temperature range	-40 ÷ 130 °C
Mechanical features	
Water absorption	0,013% - ASTM D-570
Tensile stress	2000 daN
Physical features	
Color	Red RAL-3002
Material class	Self-extinguishing, class V0 according to UL-94 standard
Overall dimensions	
Height (A)	160 mm
Other dimensions	
Dimension - D	65 mm
Diameter dimension	
Dimension Ø - A	100 mm
Dimension Ø - B	M12 mm

Vemer S.p.A. declines all responsibility for the use of the products for purposes other than those for which they are intended, as indicated in the technical documentation. Vemer S.p.A. reserves the right to make, without prior notice, such changes as may, in its sole discretion, improve the technical and functional characteristics of the products and the related production logic. The technical characteristics and images of the products indicated are given for information only and are not binding in any way, since they may be modified without prior notice.

Dimensions

Total View



Product variants

TEP2

SA669900

Reference standards

Compliance with Community Directives:

• 2014/35/UE (LVD) • 2011/65/UE e 2015/863/UE (ROHS)

is declared with reference to the following Standards:

• EN IEC 61439-1 • EN IEC 63000

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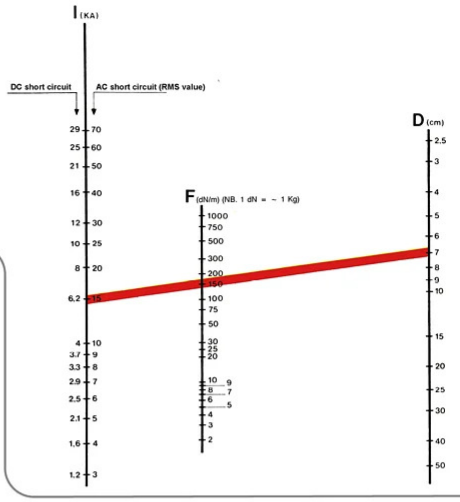
TECHNICAL GUIDE

ELECTRODYNAMIC FORCES BETWEEN CONDUCTORS

Nomogram 1

Determination of force **F** per unit length

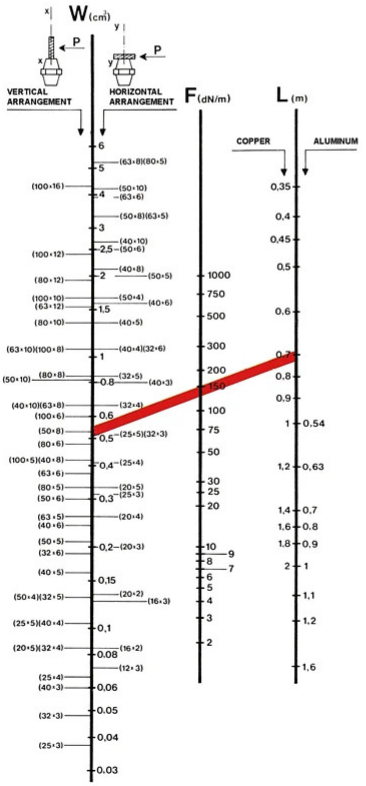
Required data: I = short-circuit current
D = distance between phases
Example: Isc = 15 kA (AC) D = 7 cm
result obtained from the nomogram: F ≅ 150 daN/m



Nomogram 2

Determinaton of distance **L** between supports

Required data: F = force per unit length
(obtained from the previous nomogram)
W = longitudinal and transverse section modulus of the busbars according to X-X oppure Y-Y respectively
(obtainable based on the dimensions and arrangement of the busbar, whether horizontal or vertical)
Example: F ≅ 150 daN/m W = 0,5 cm³
(50 x 8 vertical arrangement)
result obtained deducibile dal nomogramma: L ≅ 0,7 m



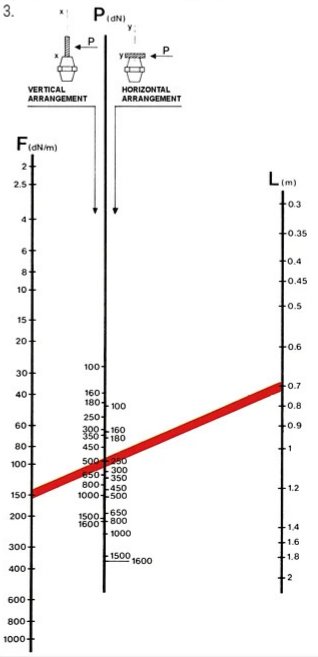
Nomogram 3

Determination of the minimum cantilever breaking load **P**

Required data: F = force per unit length
L = distance between supports (obtained from the previous nomogram)

Esempio: F ≅ 150 daN/m L ≅ 0,7 m (vertical arrangement)
result obtained from the nomogram:
P ≅ 500 daN
(for vertically arranged busbar system)

Once the value of load P is determined, the suitable insulator can be identified by checking the specific tables for each item (cantilever breaking load columns) for a value greater than or equal to the one obtained from Nomogram 3.



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