CI052-8

SA659000



Series of insulators suitable for use as supports or spacers for electrically active parts such as busbars or conductors used in LV and MV electrical systems. Their bell-shaped profile makes them particularly suitable for environments with high humidity or suspended dust. The shape ensures a leakage path suitable for the operating voltage, facilitates moisture drainage and prevents continuous dust accumulation. 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, and can be supplied in an acid-proof version on request, particularly suitable for contaminated atmospheres. The insulators feature a female threaded insert in brass or white galvanised iron on both support sides, allowing coupling with the relevant parts via special headless screws.

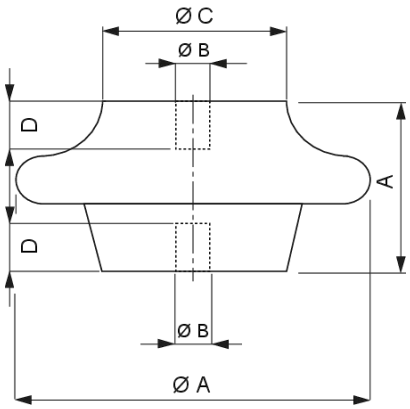
Technical specifications

Functional characteristics	
Arc resistance	> 180 s - ASTM D-495
Tracking resistance	3 W/min - ASTM D-2302
Operating voltage	5000 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	< 0,2% - ASTM D-570
Tensile stress	1950 daN
Torsional stress	10 daN
Bending stress	980 daN
Compressive stress	14700 daN
Physical features	
Color	Red RAL-3002
Material class	Self-extinguishing, class V0 according to UL-94 standard
Overall dimensions	
Height (A)	52 mm
Other dimensions	
Dimension - D	15 mm
Diameter dimension	
Dimension Ø - A	100 mm
Dimension Ø - B	M8 mm
Dimension Ø - C	52 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

View



Reference standards

Compliance with Community Directives:

• 2014/35/UE (LVD) • 2014/30/UE (EMCD) • 2011/65/UE e 2015/863/UE (ROHS)

is declared with reference to the following Standards:

• EN IEC 61439-1 • EN IEC 63000

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.

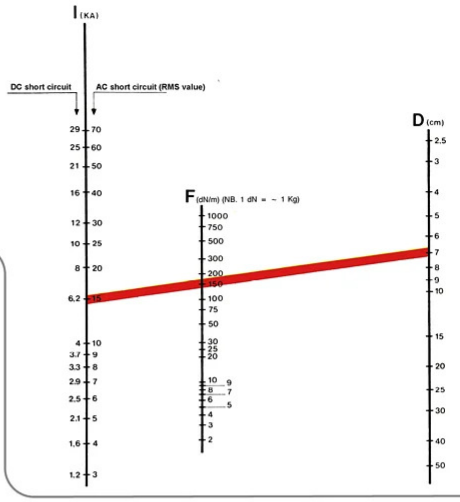
TECHNICAL GUIDE

ELECTRODYNAMIC FORCES BETWEEN CONDUCTORS

Nomogram 1

Determination of force **F** per unit length

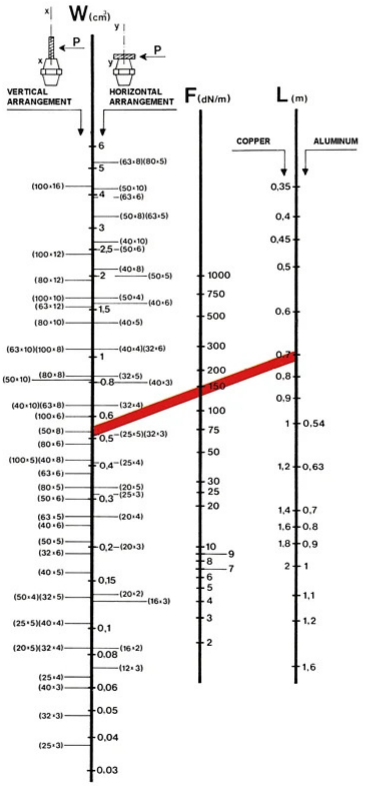
Required data: I = short-circuit current
D = distance between phases
Example: Isc = 15 kA (AC) D = 7 cm
result obtained from the nomogram: F ≅ 150 daN/m



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



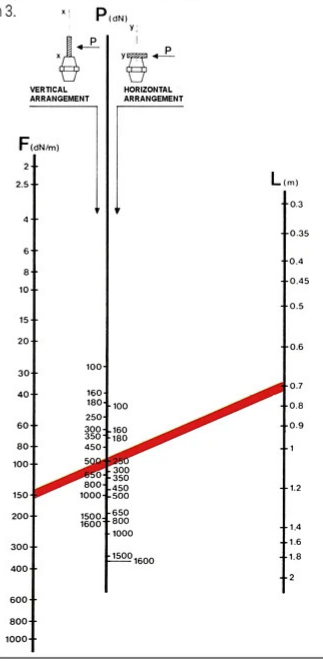
Nomogram 3

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.



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.