CI010-12

SA651700



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

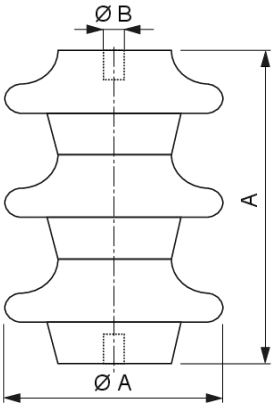
Functional characteristics	
Arc resistance	> 180 s - ASTM D-495
Tracking resistance	3 W/min - ASTM D-2302
Operating voltage	10000 AC / DC (V)
Maximum operating voltage	12000 V
Rated withstand voltage at 50 Hz for 1 min	38 kV
Rated impulse withstand voltage	75 kV
Operating conditions	
Operating temperature range	-40 ÷ 130 °C
Mechanical features	
Water absorption	< 0,2% - ASTM D-570
Physical features	
Color	Red RAL-3002
Material class	Self-extinguishing, class V0 according to UL-94 standard
No. of elements	2
Overall dimensions	
Height (A)	104 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.

Revision date: 2026-02-02

Dimensions

View



Product variants

CI006-12
SA649100

CI015-12
SA653300

CI020-12
SA655800

CI030-12
SA657400

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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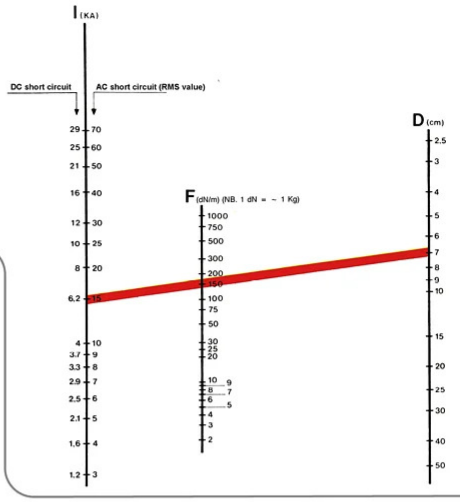
TECHNICAL GUIDE

ELECTRODYNAMIC FORCES BETWEEN CONDUCTORS

Nomogram 1

Determination of force **F** per unit length

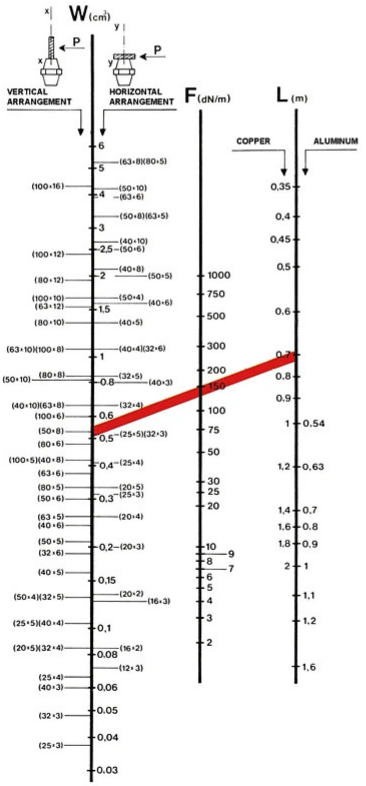
Required data: I = short-circuit current
D = distance between phases
Example: Isc = 15 kA (AC) D = 7 cm
result obtained from the nomogram: F ≅ 150 daN/m



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



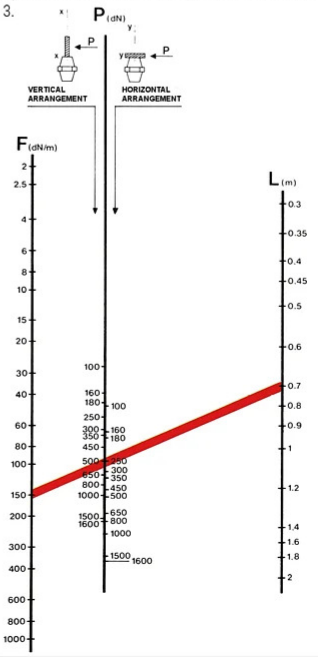
Nomogram 3

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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