Bare Conductor – Overhead Lines

CIMET® CADLA



Designation:
CADLA

Conductor Material:
Aluminum Alloy

Manufacturing and Testing Standard:
IRAM 2212

However, we are also able to meet the requirements of other applicable standards or specifications.



DESCRIPTION

Bare conductor for overhead lines, consisting of helically stranded aluminum alloy wires arranged in successive layers with alternating lay directions. The outermost layer has a right-hand lay. CIMET identification is provided by a white identification thread positioned between the wire layers.

APPLICATION

For use in overhead power distribution lines in low- and medium-voltage networks, as well as in power transmission and distribution networks.

Designation / Cross-sectional Area	No. of Wires × mm	Approx. Diameter (mm)	Approx. Mass (kg/km)	Minimum Breaking Load (daN)	Max. DC Electrical Resistance (Ω/km at 20 °C)	Max. AC Electrical Resistance (Ω/km at 80 °C)	Current-Carrying Capacity (1) - A
CADLA 16 mm²	7x1,70	5,1	44	445	2,07	2,505	97
CADLA 25 mm²	7x2,15	6,5	70	712	1,30	1,573	129
CADLA 35 mm²	7x2,52	7,6	96	978	0,944	1,142	158
CADLA 50 mm²	7x3,02	9,1	137	1405	0,657	0,795	198
CADLA 50 mm²	19x1,85	9,3	141	1431	0,648	0,784	200
CADLA 70 mm²	19x2,15	10,8	190	1933	0,48	0,581	242
CADLA 95 mm²	19x2,52	12,6	261	2656	0,349	0,423	295
CADLA 120 mm²	19x2,85	14,3	334	3397	0,273	0,331	345
CADLA 120 mm²	37x2,15	15,1	370	3765	0,247	0,299	367
CADLA 150 mm²	37x2,25	15,8	406	4123	0,226	0,274	389
CADLA 185 mm²	37x2,52	17,6	509	5172	0,180	0,218	448
CADLA 240 mm²	37x2,85	20	651	6615	0,141	0,171	522

(1) Conductor temperature: 80 °C, ambient temp.: 40 °C, exposed to sunlight, wind speed: 0.6 m/s)

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Designation / Cross-sectional Area	No. of Wires × mm	Modulus of Elasticity (1) (MPa)	Coefficient of Thermal Expansion (1/°C)
CADLA 16 mm²	7x1,70	60000	23 x 10-6
CADLA 25 mm²	7x2,15	60000	23 x 10-6
CADLA 35 mm²	7x2,52	60000	23 x 10-6
CADLA 50 mm²	7x3,02	60000	23 x 10-6
CADLA 50 mm²	19x1,85	57000	23 x 10-6
CADLA 70 mm²	19x2,15	57000	23 x 10-6
CADLA 95 mm²	19x2,52	57000	23 x 10-6
CADLA 120 mm²	19x2,85	57000	23 x 10-6
CADLA 120 mm²	37x2,15	57000	23 x 10-6
CADLA 150 mm²	37x2,25	57000	23 x 10-6
CADLA 185 mm²	37x2,52	57000	23 x 10-6
CADLA 240 mm²	37x2,85	57000	23 x 10-6

(1) A tolerance of ±3,000 MPa is permitted for the modulus values. These values shall be considered applicable to conductors subjected to a tensile stress ranging from 15% to 50% of the conductor breaking strength.

PRODUCT CERTIFICATION

IRAM AR

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The components used in this conductor are potentially recyclable. Recovering and returning these materials for reuse allows them to re-enter the production cycle, providing a twofold environmental benefit: reducing waste generation and decreasing the consumption of primary metals.

"The information provided in this Technical Data Sheet is for reference purposes only and is subject to change and/or update without prior notice. Furthermore, it does not constitute a statement of suitability of our products for any specific application. Therefore, we recommend consulting a suitably qualified professional to ensure the proper detailed engineering and sizing of your project or installation."

ISO 9001 ISO 14001 ISO 45001