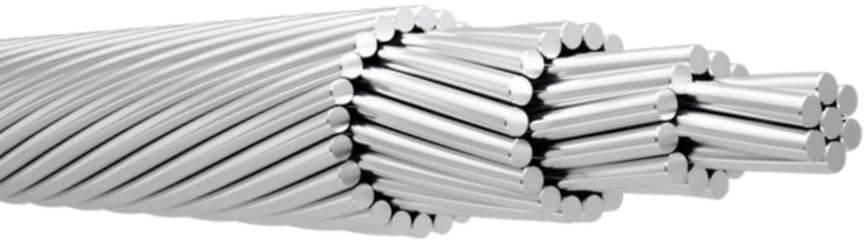
Bare Conductor – Overhead Lines

CIMET® CAD



Designation:
CAD

Conductor Material:
Hard-Drawn Aluminum

Manufacturing and Testing Standard:
IRAM 63003

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



DESCRIPTION

Bare conductor for overhead lines, consisting of hard-drawn pure aluminum wires helically stranded 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. Manufactured and tested in accordance with IRAM 63003.

APPLICATION

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

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 A (1)
CAD 10 mm²	7x1,35	4,1	27	188	2,857	3,548	78
CAD 16 mm²	7x1,70	5,1	44	290	1,802	2,238	104
CAD 25 mm²	7x2,15	6,5	70	439	1,127	1,399	139
CAD 35 mm²	7x2,52	7,6	96	570	0,820	1,018	171
CAD 50 mm²	7x3,02	9,1	137	794	0,571	0,709	215
CAD 70 mm²	19x2,15	10,8	190	1155	0,417	0,518	265
CAD 95 mm²	19x2,52	12,6	261	1498	0,304	0,377	324
CAD 120 mm²	19x2,85	14,3	334	1916	0,237	0,295	380
CAD 150 mm²	37x2,25	15,8	406	2410	0,196	0,244	431
CAD 185 mm²	37x2,52	17,6	509	2855	0,156	0,194	498
CAD 240 mm²	37x2,85	20	651	3652	0,122	0,152	584
CAD 300 mm²	61x2,52	22,7	841	4655	0,095	0,119	687
CAD 400 mm²	61x2,85	25,7	1075	5954	0,074	0,093	804
CAD 455(*) mm²	61x3,08	27,7	1270	7124	0,064	0,082	873
CAD 500 mm²	61x3,23	29,1	1381	7423	0,058	0,073	942
CAD 625 mm²	91x2,96	32,6	1732	9474	0,046	0,059	1087
CAD 800 mm²	91x3,35	36,9	2218	11779	0,036	0,047	1266
CAD 1000 mm²	91x3,74	41,1	2764	14236	0,029	0,038	1445
CAD 1265 mm²	91x4,21	46,3	3503	18039	0,023	0,031	1657

(*) In accordance with IRAM 63003, where applicable; cross-sectional area not standardized by the standard.

(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)	Modulus of Elasticity (1) (kgf/mm²)	Coefficient of Thermal Expansion (1/°C)
CAD 10 mm²	7x1,35	58840	6000	23 x 10-6
CAD 16 mm²	7x1,70	58840	6000	23 x 10-6
CAD 25 mm²	7x2,15	58840	6000	23 x 10-6
CAD 35 mm²	7x2,52	58840	6000	23 x 10-6
CAD 50 mm²	7x3,02	58840	6000	23 x 10-6
CAD 70 mm²	19x2,15	55898	5700	23 x 10-6
CAD 95 mm²	19x2,52	55898	5700	23 x 10-6
CAD 120 mm²	19x2,85	55898	5700	23 x 10-6
CAD 150 mm²	37x2,25	55898	5700	23 x 10-6
CAD 185 mm²	37x2,52	55898	5700	23 x 10-6
CAD 240 mm²	37x2,85	55898	5700	23 x 10-6
CAD 300 mm²	61x2,52	53937	5500	23 x 10-6
CAD 400 mm²	61x2,85	53937	5500	23 x 10-6
CAD 455(*) mm²	61x3,08	53937	5500	23 x 10-6
CAD 500 mm²	61x3,23	53937	5500	23 x 10-6
CAD 625 mm²	91x2,96	53937	5500	23 x 10-6
CAD 800 mm²	91x3,35	53937	5500	23 x 10-6
CAD 1000 mm²	91x3,74	53937	5500	23 x 10-6
CAD 1265 mm²	91x4,21	53937	5500	23 x 10-6

(1) A tolerance of ±3,000 MPa (±300 kgf/mm²) 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.

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."