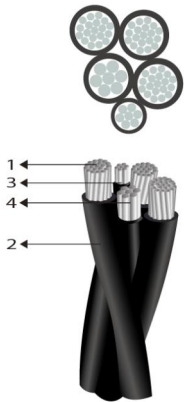


CAAI 0,6/1 kV AAAC Covered Neutral with Public Lighting

CAAI 0,6/1 kV 1x16+1x16+NA25 mm²



Nexans Ref.: P00015906-5
Country Ref.: 10037283

CONTACT

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APPLICATION

For urban and rural overhead secondary distribution networks, with voltages up to 1000 V.

STANDARDS

PRODUCT

NTP-IEC 60228; NTP 370.254; NTP 370.258; IEC 60228

TEST

IEC 60811-201; IEC 60811-401; IEC 60811-402; IEC 60811-501;
IEC 60811-502; IEC 60811-507; IEC 60811-511

CONSTRUCTION

1. Conductor: Compact Aluminium 1350, class 2.
2. Insulation: Cross linked polyethylene XLPE.
3. Public lighting: Aluminium 1350 - XLPE.
4. Insulated neutral messenger: AAAC - All Alloy Aluminium 6201 - XLPE.

MAIN CHARACTERISTICS

Decreases energy theft, cross-linked polyethylene allows more current capacity and high insulation resistance, lower inductive reactance than with bare conductors, used in overhead distribution lines. Increased safety due to its mechanical strength and toughness of the insulation. Insulators are not necessary for installation. Resistance to abrasion, weather and sunlight.

CROSS SECTION

From 16 mm² up to 150 mm².

MARKING

INDECO BY NEXANS CAAI 0,6/1 kV - (Nb. Cores x Section) + (Nb. conductors x public lighting section) + NA(Neutral messenger section) - Year - Sequential length.

PACKING

Non returnable wooden reels.

COLOUR

Black, see core identification.



Conductor flexibility
Class 2 IEC 60228



Rated Voltage U₀/U (Um)
0.6/ 1 (1.2) kV



Bending factor installed
4 (xD)



U.V resistance
Yes



Maximum operating temperature
90 °C

PRODUCT STANDARDS

NTP-IEC 60228:Conductors of insulated cables.

NTP 370.254:Cables for overhead distribution networks self-supporting XLPE insulated of rated voltages up to and including 0.6/1 kV.

NTP 370.258:Conductors with aluminum round wires stranded concentrically for overhead networks.

IEC 60228:Conductors of insulated cables.

TESTING STANDARDS

IEC 60811-201:Measurement of insulation thickness.

IEC 60811-401:Thermal ageing methods -Ageing in an air oven.

IEC 60811-402:Water absorption test.

IEC 60811-501:Test for determining the mechanical properties of insulating and sheathing.

IEC 60811-502:Shrinkage test for isolations.

IEC 60811-507:Hot elongation test for crosslinked materials.

IEC 60811-511:Measurement of hot melt index of polyethylene compounds.

CHARACTERISTICS

Construction characteristics

Conductor material	Aluminum Alloy 1350
Insulating material	XLPE
Core identification	Rib markings
Neutral messenger	AAAC - All Alloy Aluminium Conductor
Public lighting	1 x 16 mm ²
Conductor flexibility	Class 2 IEC 60228
Conductor shape	Compact stranded

Dimensional characteristics

Number of cores	1
Phase Conductor Cross Section	16 mm ²
Phase Conductor Diameter	4.6 mm
Minimum insulation thickness	1.14 mm
Minimum insulation thickness Public Lighting	1.14 mm
Neutral conductor section (when smaller)	25 mm ²
Nominal outer diameter	16.7 mm
Approximate weight	228 kg/km
Minimum insulation thickness Neutral Messenger	1.14 mm
Neutral Conductor Diameter	6.4 mm
Number of aluminium wires	7

Electrical characteristics

Max. DC resistance of the conductor at 20°C	1.91 Ohm/km
Max. linear resistance, public lighting conductor	1.91 Ohm/km

Electrical characteristics

Nominal capacitance	331.0 pF/m
Permanent current rating, phase conductor in air a 30°C	98 A
Rated Voltage U ₀ /U (U _m)	0.6/ 1 (1.2) kV
Dielectric strength	4.0 kV
Time of application Dielectric strength core to screen AC	5 min.

Usage characteristics

Bending factor when installed	4 (xD)
U.V resistance	Yes
Maximum operating temperature	90 °C
Midspan	Yes
Overload maximum core temperature	130 °C
Short-circuit max. conductor temperature	250 °C

CALCULATION OF CURRENT CONDITION OVERHEAD SECONDARY DISTRIBUTION CAAI

CALCULATION OF CURRENT CONDITION BASED ON ABNT NBR 8182

Maximum conductor temperature : 90°C.
 Ambient air temperature : 30°C.
 Speed of cross wind: Nula
 Intensity of solar radiation: 1000 W/m²
 Bundled conductors.