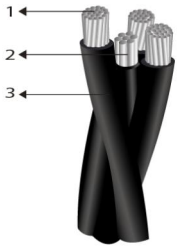
CAAI 0,6/1 kV AAAC Covered Neutral without Public Lighting

CAAI 0,6/1 kV 1x16+NA25 mm2



Nexans Ref.: P00015875-7
Country Ref.: 10037273

CONTACT

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APPLICATION

For urban and rural overhead secundary 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: Aluminium 1350, class 2.

2. Insulation: Cross linked polyethylene XLPE.

3. 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 240 mm2.

MARKING

INDECO BY NEXANS CAAI 0,6/1 kV - (Nb. cores x section) + NA (insul. neutral mesen. section) - Year - Sequential length.

PACKING

Non returnable wooden reels.

COLOUR

Black, see core identification.

Conductor flexibility	Rated Voltage Uo/U (Um)	Bending factor installed	U.V resistance	Maximum operating temperature
Class 2 IEC 60228	**0.6/ 1 (1.2) kV**	**4 (xD)**	**Yes**	**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 sheating.

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
Conductor flexibility	Class 2 IEC 60228
Conductor shape	Compact stranded
Dimensional characteristics	
Number of cores	1
Phase Conductor Cross Section	16 mm²
Phase Conductor Diameter	4.6 mm
Minimum insulation thickness	1.14 mm
Neutral conductor section (when smaller)	25 mm²
Minimum insulation thickness Neutral Messenger	1.14 mm
Nominal outer diameter	15.8 mm
Approximate weight	164 kg/km
Neutral Conductor Diameter	6.4 mm
Number of aluminium wires	7
Electrical characteristics	
Rated Voltage Uo/U (Um)	0.6/ 1 (1.2) kV
Dielectric strength	4.0 kV
Max. DC resistance of the conductor at 20°C	1.91 Ohm/km
Nominal capacitance	331.0 pF/m

Electrical characteristics	
Permanent current rating, phase conductor in air a 30°C	98 A
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
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.