BC CABLE CATALOG

PRODUCTS SAMPLE

CABLE FOR SOLAR ENERGY



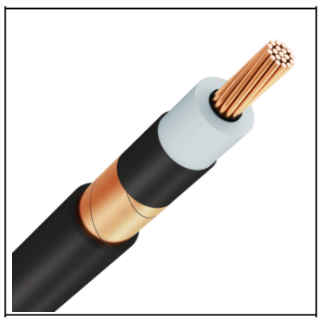
CABLE FOR CONSTRUCTION




CABLE FOR OVERHEAD TRANSMISSION LINE




CABLE FOR UNDERGROUND




Premium Solar Cable PV WIRE

Soft copper conductors, XLPE insulation, with concentric Neutral and PVC jacket in flat configuration.

APPLICATION

Power supply of low voltage circuits up to 2kV, mainly the connection of photovoltaic solar panels on roofs and solar farms where weather resistance characteristics are required.

Ideal for connection between the strings of photovoltaic solar panels as well as the connection to the combiner box (if applicable) and as the main feeder for the connection of inverter equipment responsible for transforming direct current (DC)from solar energy into alternating current (AC).

Cables suitable for installation in conduit, directly buried, in dry, humid or wet locations, and resistant to UV rays.

CHARACTERISTICS

Construction characteristics	
Conductor material	copper
Insulation	XLPE
Conductor flexibility	Class B
Dimensional characteristics	
Number of cores	2
Electrical characteristics	
Rated Voltage Uo/U (Um)	2kV
Usage characteristics	
Flame retardant	UL2556
RoHS compliant	Yes
U.V resistance	UL 2556 - Sunlight Resistance
Mechanical characteristics	
Abrasion resistance	Excellent

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CHARACTERISTIC TABLE

Name	Cross section [mm²]	Cross section [mm²]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Ampacity [A]
12AWG	3.31	1.9	6.22	61	5.457	30.0
10AWG	5.26	1.9	6.81	83	3.417	40.0
8AWG	8.37	2.16	7.83	119	2.142	55.0
6AWG	13.3	2.16	8.72	171	1.346	75.0
4AWG	21.2	2.16	9.84	249	0.847	95.0
2AWG	33.6	2.16	11.25	372	0.532	130.0
1/0 AWG	53.5	2.67	14.02	585	0.335	170.0
2/0 AWG	67.4	2.67	15.07	723	0.266	195.0
4/0 AWG	107	2.67	17.57	1105	0.167	260.0
250 Kcmil	127	3.05	19.47	1309	0.142	290.0
300 Kcmil	152	3.05	20.74	1555	0.118	320.0
350 Kcmil	177	3.05	21.9	1795	0.101	350.0
500 Kcmil	253	3.05	24.96	2504	0.071	430.0
600 Kcmil	304	3.43	27.67	3024	0.059	475.0
750 Kcmil	380	3.43	30.1	3752	0.047	535.0

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Solar Cable H1Z2Z2-K

STANDARDS

Product EN 50618; IEC 62930

APPLICATION

Power supply of low voltage 1.5 kV DC circuits, mainly the connection of photovoltaic solar panels on roofs and solar farms where weather resistance characteristics are required. Ideal for connection between the strings of photovoltaic solar panels as well as the connection to the combiner box (if applicable) and as the main feeder for the connection of inverter equipment responsible for transforming direct current (DC) from solar energy into alternating current. (AC). Cables suitable for installation in ducts, conduits, fixed and mobile installations (trackers), resistant to UV rays and resistant to extreme temperatures (-40°C to + 120°C).

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Class 5
Conductor material	Tinned annealed copper
Halogen free	IEC 60754-1, UNE-EN 50267
Insulation	XLPE
Outer sheath	XLPE
Dimensional characteristics	
Number of cores	1
Mechanical characteristics	
Jacket shrinkage	Max 2%, UNE-EN 50618/60811-503 Table 2, 1h, 120℃
Usage characteristics	
Gases toxicity	Low toxicity to IEC 60684-2
RoHS compliant	Yes
Smoke density	IEC 61034-2
U.V resistance	EN 50289-4-17 method A, 720h
Corrosive or Polluting Substances	Condition AF according to HD 60364-5-52
Flame retardant	IEC 60332-1-2
Moisture resistance	Moist heat test according to IEC 60068-2-78, 90℃, 1000 h, 85% minimum
Outdoor Use	Condition AN 3 (high solar radiation), permanent according to EN 50565-1:2014
Ozone resistance	EN 50396:2005
Resistance to acid and alkaline solutions	UNE-EN 50618/60811-404 Annex B, 7days, 23℃
Resistance to vibrations	Condition AH 3 (sever industrial conditions) acc. to HD 60364-5-52
Water proof	AD8

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CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Ampacity [A]
C. 4 mm2 H1Z2Z2 - K	4	0.7	5.62	56	5.09	55.0
C. 6 mm2 H1Z2Z2 - K	6	0.7	6.13	74	3.39	70.0
C. 10 mm2 H1Z2Z2 - K	10	0.7	7.07	115	1.95	98.0
C. 16 mm2 H1Z2Z2 - K	16	0.7	8.44	177	1.24	132.0
C. 25 mm2 H1Z2Z2 - K	25	0.9	10.31	271	0.795	176.0

STANDARDS

Product IEC 60228; IEC 60502-1

SOLAR PREMIUM CABLE

Premium Nexans Low Voltage Aluminum Power Cable meets all the requirements of the IEC 60502-1 standard. It has a 1350 aluminum conductor concentric stranded, cross-linked polyethylene (XLPE) insulation and an external jacket in polyvinyl chloride (PVC) flame retardant, resistant to heat, abrasion and humidity,resistant to solar rays in black color. Compounds free of hazardous substances (RoHS).

APPLICATION

Power supply of low voltage circuits 0.6/1(1.2)kV AC and 0.75(0.9)/1.5(1.8)kV DC,mainly the connection between inverter equipment and the feeder transformer in solar farms.

Cables suitable for installation in conduit, directly buried or exposed to sunlight.

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Class 2
Conductor material	Stranded aluminum
Insulation	XLPE
Jacket material	PVC
Dimensional characteristics	
Number of cores	1
Electrical characteristics	
Rated Voltage Uo/U (Um)	0,6/1(1,2) kV AC - 0,75(0,9)/1,5(1,8) kV DC
Mechanical characteristics	
Abrasion resistance	Excellent
Usage characteristics	
Flame retardant	IEC 60332-1-2
RoHS compliant	Yes
U.V resistance	UL 2556 - Sunlight Resistance
Water proof	AD8

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Ampacity [A]
50 mm2	50	1.0	12.31	211	0.641	135.0
70 mm2	70	1.1	14.1	285	0.443	167.0
95 mm2	95	1.1	15.97	377	0.32	197.0
120 mm2	120	1.2	17.71	462	0.253	223.0
150 mm2	150	1.4	19.71	570	0.206	251.0
185 mm2	185	1.6	21.8	701	0.164	281.0
240 mm2	240	1.7	24.51	899	0.125	324.0
300 mm2	300	1.8	27.2	1109	0.1	365.0
400 mm2	400	2.0	30.47	1400	0.078	425.0
500 mm2	500	2.2	34.11	1770	0.06	479.0
630 mm2	630	2.4	38.44	2265	0.047	543.0

THHN/THWN-2 600V RoHS WIRE

Soft copper wire, PVC insulated and outer jacket in nylon

STANDARDS

Product UL 83

National NTC 1332

APPLICATION

Used for electrical wiring in buildings, in feeder circuits, branches and secondary industrial, commercial and residential indoor networks. Special for installations in abrasive environments or environments contaminated with oil, grease, gasoline and other chemical substances.

CHARACTERISTICS

Construction characteristics	
Conductor material	Copper
Conductor flexibility	Solid
Conductor shape	Round solid
Insulation	PVC
Outer sheath	Nylon
Electrical characteristics	
Operating voltage	600 V
Usage characteristics	
Oil resistance	UL 83 - GR II
Chemical resistance	Excellent
Fire retardant	VW-1, Method 1-Vertical Tray (UL 2556)
Maximum operating temperature	90 °C
RoHS compliant	Yes

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Min. outer sheath thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]	Perm current rating in air 30°C [A]
A.14AWG	2.08	0.38	0.1	2.73	23	8.45	25	35
A.12AWG	3.31	0.38	0.1	3.15	35	5.31	30	40
A.10AWG	5.26	0.51	0.1	3.95	55	3.34	40	55
A.8AWG	8.37	0.76	0.13	5.2	90	2.1	55	80

THHN/THWN-2 600V CT RoHS CABLE

Soft copper conductor, PVC insulated and jacket in nylon

STANDARDS

Product ASTM B 3; ASTM B 8; UL 83

National NTC 1332; NTC307;NTC359

APPLICATION

Low voltage electrical energy distribution; for use in electrical wiring of buildings, feeder circuits, branches and secondary industrial, commercial and residential indoor networks. Special for installations in abrasive sites or sites contaminated with oil, grease, gasoline, and other chemical substances.

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Insulation	PVC
Outer sheath	Nylon
Conductor flexibility	Class B
Electrical characteristics	
Operating voltage	600 V
Usage characteristics	
Chemical resistance	Excellent
Oil resistance	UL 83 - GR II
Maximum operating temperature	90 °C
Overload maximum core temperature	130 °C
Short - circuit max. conductor temperature	150 °C
Fire retardant	VW-1, Method 1-Vertical Tray (UL 2556)
RoHS compliant	Yes

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Min. outer sheath thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]	Perm current rating in air 30°C [A]
C.14AWG	2.08	0.38	0.1	2.89	23	8.62	25	35
C.12AWG	3.31	0.38	0.1	3.36	35	5.43	30	40
C.10AWG	5.26	0.51	0.1	4.21	56.88	3.41	40	55
C.8AWG	8.37	0.76	0.13	5.53	92.88	2.14	55	80
C.6AWG	13.3	0.76	0.13	6.47	140.64	1.35	75	105
C.4AWG	21.15	1.02	0.15	8.23	223.35	0.534	95	140
C.2AWG	33.63	1.02	0.15	9.72	344.94	0.534	130	190
C.1/0AWG	53.51	1.27	0.18	12.03	540.17	0.335	170	260
C.2/0AWG	67.44	1.27	0.18	13.12	669.1	0.266	195	300
C.3/0AWG	85.03	1.27	0.18	14.35	836.57	0.211	225	350
C.4/0AWG	107.22	1.27	0.18	15.74	1032.96	0.167	260	405
C.250kcmil	126.68	1.52	0.2	17.86	1250.2	0.142	290	455
C.350kcmil	177.35	1.52	0.2	20.46	1711.76	0.101	350	570
C.500kcmil	253.35	1.52	0.2	23.73	2383.82	0.071	430	700

Multiconductor cable of two, three or four soft copper flexible conductors.

STANDARDS

Product UL 1277; UL 66; UL 83

APPLICATION

Light duty cable used as a service cord for connection of portable tools and extension of appliances, in open installations and portable extensions with terminals. It can be used as a control cable where electrostatic shielding is not required.
Suitable for low voltage electrical power distribution, to be installed in sumps, installation in ducts and gutters, connection of boards and wiring in industrial or commercial buildings, for direct burial with light traffic, for installations in cable trays in dry, moisture, wet environments and outdoors. It can be used as a feeder cable for submersible pumps in water.

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Flexible
Conductor material	Copper
Inner sheath	Non-hygroscopic tape
Insulation	PVC
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Crush resistance	UL 1277 (NTC 5916)
Mechanical resistance to impacts	UL 1277 (NTC 5916)
Usage characteristics	
Maximum operating temperature	90 °C
U.V resistance	UL 2556 - Sunlight Resistance
Fire retardant	Method 1 - Vertical Tray (UL 2556/9.6)
RoHS compliant	Yes
Short-circuit max. conductor temperature	150 °C

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]
2x18AWG	0.82	0.38	6.14	53.93	22.236	14
3x18AWG	0.82	0.38	6.49	64.25	22.236	14
4x18AWG	0.82	0.38	7.08	77.59	22.236	14
2x16AWG	1.31	0.38	6.8	70.37	13.974	18
3x16AWG	1.32	0.38	7.2	85.35	13.974	18
4x16AWG	1.33	0.38	7.88	104.17	13.974	18
2x14AWG	2.08	0.38	7.64	94.55	8.782	25
3x14AWG	2.08	0.38	8.11	116.6	8.782	25
4x14AWG	2.08	0.38	8.89	143.6	8.782	25
2x12AWG	3.31	0.38	8.58	128.23	5.539	30
3x12AWG	3.31	0.38	9.12	160.83	5.539	30
4x12AWG	3.31	0.38	10.03	199.86	5.539	30
2x10AWG	5.26	0.51	10.38	193.24	3.478	40
3x10AWG	5.27	0.51	11.06	244.34	3.478	40
4x10AWG	5.28	0.51	12.2	305.18	3.478	40

LOW HALOGEN CABLES LHFR-LS Cu 600V 90°C

Our Low-Halogen Cablesdo not spread fire, have low smoke emission, do not emit toxic gases, have a maximum operating temperature of 90°C and more Slidable in sizes from 14 AWG to 10 AWG.

APPLICATION

Cables for low voltage electrical energy distribution, installations in buildings, inside premises, control panels and electronic circuits. Suitable for places with a high concentration of people, where low-halogen conductors and low smoke emission are required, which in the event of a fire will not generate toxic or corrosive gases that may affect the health of people and the condition of equipment and circuits electronics. The cables can be used for installations mentioned in NTC 2050 Article 310.

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Class B
Conductor material	Soft copper
Insulation	Low Halogen Polyolefin
Dimensional characteristics	
Number of cores	1
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Abrasion resistance	Good
Usage characteristics	
Fire retardant	Method 1 - Vertical Tray (UL 2556/9.6)
Gases corrosivity	IEC 60754-1; IEC 60754-2
Gases toxicity	Low toxicity to IEC 60684-2
Maximum operating temperature	90 °C
Smoke density	Low Smoke Emission IEC 61034-2

LOW HALOGEN CABLES LHFR-LS Cu 600V 90°C

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]
14AWG	2.08	0.76	3.39	28.01	8.629	25
12AWG	3.31	0.76	3.86	40.71	5.457	30
10AWG	5.26	0.76	4.45	60.17	3.417	40
8AWG	8.37	1.14	5.77	98.64	2.142	55
6AWG	13.3	1.52	7.44	161.76	1.346	75
4AWG	21.2	1.52	8.56	240.54	0.847	95
2AWG	33.6	1.52	9.97	362.98	0.532	130
1/0AWG	53.5	2.03	13.11	584.8	0.335	170
2/0AWG	67.4	2.03	14.2	726.86	0.266	195
3/0AWG	85.03	2.03	15.43	889.61	0.211	225
4/0AWG	107.2	2.03	16.82	1107.72	0.167	260
250KCMIL	127	2.41	18.21	1315.99	0.142	290
300KCMIL	152.01	2.41	19.48	1563.6	0.118	320
350KCMIL	177.3	2.41	20.64	1805.35	0.101	350
500KCMIL	253.3	2.41	23.7	2516.82	0.071	430
750KCMIL	380	2.79	28.84	3781.95	0.047	535

LOW HALOGEN CABLES LHFR-LS AL S8000 90°C

Our Low-Halogen Cables do not spread fire, have low smoke emission, do not emit toxic gases and have a maximum operating temperature of 90°C

APPLICATION

Cables for low voltage electrical energy distribution, installations in buildings, inside premises, control panels and electronic circuits. Suitable for places with a high concentration of people, where low-halogen conductors and low smoke emission are required, which in the event of a fire will not generate toxic or corrosive gases that may affect the health of people and the condition of equipment and circuits electronics. The cables can be used for installations mentioned in NTC 2050 Article 310.

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Class B
Conductor material	Aluminum 8000 series
Insulation	Low Halogen Polyolefin
Dimensional characteristics	
Number of cores	1
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Abrasion resistance	Good
Usage characteristics	
Fire retardant	Method 1 - Vertical Tray (UL 2556/9.6)
Gases corrosivity	IEC 60754-1; IEC 60754-2
Gases toxicity	Zero toxicity to IEC 60684-2
Maximum operating temperature	90 °C
Smoke density	Low Smoke Emission IEC 61034-2

LOW HALOGEN CABLES LHFR-LS AL S8000 90°C

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]
6AWG	13.3	1.52	7.45	79.15	2.21	55
4 AWG	21.2	1.52	8.57	109.07	1.39	75
2AWG	33.6	1.52	9.97	153.86	0.875	100
1/0AWG	53.5	2.03	12.71	246.7	0.55	135
2/0 AWG	67.4	2.03	13.73	294.37	0.436	150
3/0AWG	85	2.03	14.92	353.62	0.346	175
4/0 AWG	107	2.03	16.25	426.78	0.274	205
250 kcmil	127	2.41	18.17	521.04	0.232	230
300 kcmil	152	2.41	19.44	604.23	0.194	260
350 kcmil	177	2.41	20.61	686.3	0.166	280
400 kcmil	203	2.41	21.7	767.47	0.145	305
500 kcmil	253	2.41	23.65	927.16	0.116	350

LOW HALOGEN CABLES LHFR-LS FLEX 600V 90°C

Our Low-Halogen Cables do not spread fire, have low smoke emission, do not emit toxic gases and have a maximum operating temperature of 90°C.

APPLICATION

Cables for low voltage electrical energy distribution, installations in buildings, inside premises, control panels and electronic circuits. High flexibility to facilitate its installation. Suitable for places with a high concentration of people, where low halogen conductors and low smoke emission are required, which in the event of a fire will not generate toxic or corrosive gases that may affect the health of people and the condition of equipment and circuits electronics.

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Flexible
Conductor material	Copper
Insulation	Low Halogen Polyolefin
Dimensional characteristics	
Nominal insulation thickness	0.76 mm
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Abrasion resistance	Good
Usage characteristics	
Fire retardant	Method 1 - Vertical Tray (UL 2556/9.6)
Gases corrosivity	IEC 60754-1; IEC 60754-2
Gases toxicity	Low toxicity to IEC 60684-2
Maximum operating temperature	90 °C
Smoke density	Low Smoke Emission IEC 61034-2

LOW HALOGEN CABLES LHFR-LS FLEX 600V 90°C

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]
3X14AWG	2.08	0.76	9.27	8.782	142.89	25
3X12AWG	3.31	0.76	10.28	5.528	190.35	30
3X10AWG	5.26	0.76	12.4	3.478	285.31	40

LOW HALOGEN TRIPLEX CABLE LHFRLS Cu 600V 90°C

Our Low-Halogen Cables do not spread fire, have low smoke emission, do not emit toxic gases and have a maximum operating temperature of 90°C.

APPLICATION

Cables for low voltage electrical energy distribution, installations in buildings, inside premises, control panels and electronic circuits. High flexibility to facilitate its installation. Suitable for places with a high concentration of people, where low halogen conductors and low smoke emission are required, which in the event of a fire will not generate toxic or corrosive gases that may affect the health of people and the condition of equipment and circuits electronics.

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Flexible
Conductor material	Copper
Insulation	Low Halogen Polyolefin
Dimensional characteristics	
Nominal insulation thickness	0.76 mm
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Abrasion resistance	Good
Usage characteristics	
Fire retardant	Method 1 - Vertical Tray (UL 2556/9.6)
Gases corrosivity	IEC 60754-1; IEC 60754-2
Gases toxicity	Low toxicity to IEC 60684-2
Maximum operating temperature	90 °C
Smoke density	Low Smoke Emission IEC 61034-2

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]
3X14AWG	2.08	0.76	9.27	8.782	142.89	25
3X12AWG	3.31	0.76	10.28	5.528	190.35	30
3X10AWG	5.26	0.76	12.4	3.478	285.31	40

WELDING CABLES 600V TPE 105°C

Flexible soft copper conductor, with thermoplastic elastomer compound (TPE) insulation.

APPLICATION

Welding cables are used for extra-heavy duty and as power to the electrode of welding equipment, both in alternating and direct current. They are also used in continuous service applications where flexibility is required in installation and/or operation, such as in industrial installations under continuous load conditions, such as power cable extensions, power supply to mobile machinery, motors, moving parts, as a grounding conductor for equipment and substations.

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Flexible
Conductor material	Soft copper
Insulation	TPE
Dimensional characteristics	
Number of cores	1
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Abrasion resistance	Good
Mechanical resistance to impacts	UL 493
Usage characteristics	
Flame retardant	NTC 3203 N°1080, VW-1 Flame Test
Max. conductor temperature in service	105 °C
RoHS compliant	Yes

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Ampacity [A]	Ampacity 90°C [A]
6 AWG	13.3	1.52	7.94	155.25	1.38	75.0	120
4 AWG	21.2	1.52	9.11	231.5	0.865	95.0	164
2 AWG	33.6	1.52	10.72	347.34	0.549	130.0	224
1/0 AWG	53.5	2.03	13.72	551.2	0.345	170.0	306
2/0 AWG	67.4	2.03	14.92	683.33	0.276	195.0	357
3/0 AWG	85	2.03	16.25	861.92	0.219	225.0	410
4/0 AWG	107	2.03	17.72	1041.88	0.174	260.0	487

AWM FLEXIBLE CABLE 600V 105°C PVC RoHS

Flexible soft copper conductor, with polyvinyl chloride (PVC) insulation.

STANDARDS

Product UL 758

APPLICATION

AWM FLEXIBLEcables are used to connect lighting fixtures, appliance or equipment wiring, and in applications with temperatures up to 105°C.

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Flexible
Conductor material	Soft copper
Conductor shape	Bunched Wires
Insulation	PVC
Dimensional characteristics	
Nominal insulation thickness	0.76 mm
Number of cores	1
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Abrasion resistance	Good
Usage characteristics	
Max. conductor temperature in service	105 °C
RoHS compliant	Yes

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Ampacity [A]	Name	Cross section [mm²]
20 AWG	0.517	2.62	11.59	34.7	4.7	20 AWG	0.517
18 AWG	0.821	2.81	14.46	21.9	6.0	18 AWG	0.821
16 AWG	1.31	3.14	20.01	13.7	8.0	16 AWG	1.31
14 AWG	2.08	3.56	28.69	8.61	17.0	14 AWG	2.08
12 AWG	3.31	4.03	41.06	5.42	23.0	12 AWG	3.31
10 AWG	5.26	4.65	60.51	3.41	28.0	10 AWG	5.26

Flexible soft copper conductor, insulated with cross-linked compound (XLPO).

STANDARDS

Product UL 758

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Conductor flexibility	Class J
Insulation	Cross-linked polyolefin
Dimensional characteristics	
Nominal insulation thickness	0.76 mm
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Abrasion resistance	Good
Usage characteristics	
Maximum operating temperature	125 °C
RoHS compliant	Yes
Flame retardant	UL 1581 FT2; IEC 60332-1-2

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Ampacity [A]
18AWG	0.821	2.81	13.94	21.9	6.0
16AWG	1.31	3.14	19.37	13.7	8.0
14AWG	2.08	3.56	27.57	8.61	17.0
12AWG	3.31	4.03	39.52	5.42	23.0
10AWG	5.26	4.65	58.52	3.41	28.0

Flexible soft copper cable, XLPE insulation and PVC jacket.

APPLICATION

Used in industrial installations, in distribution and lighting systems. Installation in dry, wet, or submerged in water places, pipes, ducts, sumps and cable trays (CT). Monoflex Power Cables are easily handling in confined spaces, they can be easily mobilized, coiled and transported. Their flexibility characteristic means that during their installation and operation they retain their electrical and mechanical properties, guaranteeing that the conduction of electrical energy is carried out safely and reliably. They are suitable for direct burial on 8 AWG and larger on light traffic places.

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Class J
Conductor material	Flexible Copper
Conductor shape	Bunched Wires
Insulation	XLPE
Outer sheath	PVC
Dimensional characteristics	
Number of cores	1
Electrical characteristics	
Rated Voltage Uo/U (Um)	0,6/1 kV
Mechanical characteristics	
Abrasion resistance	Excellent
Usage characteristics	
Maximum operating temperature	90 °C
Overload maximum core temperature	130 °C
Short-circuit max. conductor temperature	250 °C
RoHS compliant	Yes
U.V resistance	Yes (720 hours)
Fire retardant	IEC 60332-3-24 (cat C)

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]	Perm current rating in air 30°C [A]
2 AWG	33.63	0.9	11.7	369.04	0.55	130	190
1/0 AWG	53.51	1.1	14.06	559.82	0.345	170	260
2/0 AWG	67.44	1.1	15.26	690.8	0.277	195	300
3/0 AWG	85.03	1.1	16.59	867.92	0.219	225	350
4/0 AWG	107.22	1.2	18.44	1058.93	0.174	260	405
250 KCMIL	126.68	1.4	20.42	1268.43	0.147	290	455
350 KCMIL	177.35	1.6	23.89	1750.71	0.105	350	570
500 KCMIL	253.35	1.8	28.16	2459.55	0.074	430	700

DUPLEX SPT FLEXIBLE CABLES 300V

Soft copper flexible conductor PVC insulated.

STANDARDS

National NTC 359; NTC 5521

CHARACTERISTICS

Construction characteristics	
Insulation	PVC
Conductor flexibility	Flexible
Conductor material	Copper
Conductor shape	Round, stranded
Dimensional characteristics	
Number of cores	2
Electrical characteristics	
Operating voltage	300 V
Mechanical characteristics	
Cable flexibility	Flexible
Usage characteristics	
Maximum operating temperature	60 °C
RoHS compliant	Yes

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Height [mm]	Width [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Ampacity [A]
2x20 AWG	0.517	0.51	2.1	4.24	20	34.7	7.0
2x18 AWG	0.821	0.64	2.6	5.14	29	21.9	10.0
2x16 AWG	1.31	0.64	2.9	5.8	41	13.71	13.0
2x14 AWG	2.08	0.64	3.3	6.64	59	8.61	18.0
2x12 AWG	3.31	0.64	3.8	7.64	86	5.42	25.0

CABLE MULTIFLEX TC 600V

Multiconductor cable of two, three, four or five soft copper flexible conductors.

STANDARDS

Product UL 1277; UL 66; UL 83

APPLICATION

Light duty cable used as a service cord for connection of portable tools and extension of appliances, in open installations and portable extensions with terminals. It can be used as a control cable where electrostatic shielding is not required.
Suitable for low voltage electrical power distribution, to be installed in sumps, installation in ducts and gutters, connection of boards and wiring in industrial or commercial buildings, for direct burial with light traffic, for installations in cable trays in dry, moisture, wet environments and outdoors. It can be used as a feeder cable for submersible pumps in water.

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Flexible
Conductor material	Copper
Insulation	PVC
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Crush resistance	UL 1277 (NTC 5916)
Mechanical resistance to impacts	UL 1277 (NTC 5916)
Usage characteristics	
Maximum operating temperature	90 °C
U.V resistance	UL 2556 - Sunlight Resistance
Fire retardant	Method 1 - Vertical Tray (UL 2556/9.6)
RoHS compliant	Yes
Short-circuit max. conductor temperature	150 °C

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Inner sheath thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]
2x8AWG	8.37	0.76	0.13	13.82	329.78	2.224	55
3x8AWG	8.37	0.76	0.13	14.71	413.55	2.224	55
4x8AWG	8.37	0.76	0.13	16.19	514.2	2.224	55
2x6AWG	13.3	0.76	0.13	15.82	468.33	1.408	75
3x6AWG	13.3	0.76	0.13	16.86	597.07	1.408	75
4x6AWG	13.3	0.76	0.13	18.6	748.49	1.408	75
2x4AWG	21.15	1.02	0.15	19.32	716.03	0.882	95
3x4AWG	21.15	1.02	0.15	21.41	955.4	0.882	95
4x4AWG	21.15	1.02	0.15	23.61	1196.55	0.882	95
4x2AWG	33.63	1.02	0.15	27.5	1738.1	0.56	130

CABLE XHHW-2 Cu 90°C 600 V CT

Soft tempered copper conductor, insulated in XLPE compound.

STANDARDS

Product UL 44

APPLICATION

They are suitable for installation in conduits, pipes, and cable trays according to RETIE article 20.3, paragraph J, starting at 12 AWG gauge.

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Conductor flexibility	Class B
Insulation	Cross-linked polyethylene
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Abrasion resistance	Good
Usage characteristics	
Maximum operating temperature	90 °C
Overload maximum core temperature	130 °C
Short-circuit max. conductor temperature	250 °C
RoHS compliant	Yes
U.V resistance	Yes (720 hours)
Fire retardant	Method 1 - Vertical Tray (UL 2556/9.6)

CHARACTERISTIC TABLE

Cross section [mm²]	Cond.cross sect.(AWG /KCMIL)	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]	Perm current rating in air 30°C [A]
2.08	14	0.76	3.39	31	8.629	25	35
3.31	12	0.76	3.86	38.64	5.457	30	40
5.26	10	0.76	4.45	57.65	3.417	40	55
8.37	8	1.14	5.77	93.21	2.142	55	80
13.3	6	1.14	6.66	142.72	1.346	75	105
21.2	4	1.14	7.78	217.05	0.847	95	140
33.6	2	1.14	9.19	334.94	0.532	130	190
53.5	1/0	1.4	11.85	529.77	0.335	170	260
67.4	2/0	1.4	12.94	666.48	0.266	195	300
107	4/0	1.4	15.56	1034.31	0.167	260	405
127	250	1.65	16.69	1223.9	0.142	290	455
152	300	1.65	17.96	1464.26	0.118	320	500
177	350	1.65	19.12	1699.38	0.101	350	570
253	500	1.65	22.18	2393.23	0.071	430	700
380	750	2.03	27.28	3616.68	0.047	535	885

Soft copper conductor, PVC insulated and jacket in nylon. Phases wired together.

STANDARDS

National NTC 1332; NTC 359

APPLICATION

Used for electrical wiring in buildings, in feeder circuits, branches and secondary industrial, commercial and residential indoor networks. Special for installations in abrasive environments or environments contaminated with oil, grease, gasoline and other

chemical substances.

They are suitable for installation in ducts, pipes, boards and cable trays according to RETIE article 20.3, literal J, from 12 AWG gauge and larger.

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Conductor flexibility	Class B
Insulation	Polyvinyl chloride (PVC), flame retardant (FR), resistant to heat, abrasion and humidity, resistant to sunlight (SR) in black, free of hazardous substances (RoHS).
Jacket	External cover in polyamide (nylon), resistant to gasoline and oils (GR II).
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Abrasion resistance	Good
Usage characteristics	
Operating Temperature	90°C dry and wet places
RoHS compliant	Yes

Power cables with soft copper, insulation in XLPE and PVC jacket.

STANDARDS

Product ASTM B 496; ASTM B 8; UL 1277; UL 44

APPLICATION

XHHW-2 power cables are used in industrial facilities, for low voltage electrical energy distribution. Installation in dry or wet locations, in sumps, pipelines or direct burial, in places where there is no heavy traffic. Suitable for use in tray (TC) with external cover (jacket) resistant to UV rays (SR).

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Class B
Insulation	Cross - linked polyethylene
Outer sheath	PVC
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Crush resistance	UL 1277 (NTC 5916)
Mechanical resistance to impacts	UL 1277 (NTC 5916)
Usage characteristics	
Maximum operating temperature	90 °C
Overload maximum core temperature	130 °C
Short - circuit max. conductor temperature	250 °C
RoHS compliant	Yes
Oil resistance	Yes
U.V resistance	Yes
Fire retardant	Method 1 - Vertical Tray (UL 2556/9.6)

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]
2x12 AWG	3.31	0.76	10.1	159	5.42	30
3x12 AWG	3.31	0.76	10.7	195	5.42	30
4x12 AWG	3.31	0.76	11.7	240	5.42	30
2x10 AWG	5.26	0.76	11.28	215	3.41	40
3x10 AWG	5.26	0.76	11.97	269	3.41	40
4x10AWG	5.26	0.76	13.12	333	3.41	40
2x8 AWG	8.37	1.14	14.7	356	2.144	55
3x8 AWG	8.37	1.14	15.59	443	2.144	55
4x8 AWG	8.37	1.14	17.09	547	2.144	55
2x6 AWG	13.3	1.14	16.48	494	1.348	75
3x6 AWG	13.3	1.14	17.51	627	1.348	75
4x6 AWG	13.3	1.14	19.24	783	1.348	75
3x4 AWG	21.2	1.14	19.93	900	0.848	95
4x4 AWG	21.2	1.14	22.96	1184	0.848	95
3x2AWG	33.63	1.14	23.98	1377	0.533	130
4x2 AWG	33.63	1.14	26.37	1738	0.533	130

Multi-conductor instrumentation cable made with PVC-insulated tinned copper conductors, general shielding and PVC outer jacket.

STANDARDS

Product ASTM B 33; ASTM B 8; UL 2250

APPLICATION

Instrumentation cables are used in supervision and/or control systems. Handling low-power electrical signals, for transporting information to monitors on boards and in general for control systems.

These cables are designed for use on circuits with a nominal capacity of 150 V or less and 5 A or less, in accordance with Article 727 and other applicable provisions of the Colombian Electrical Code (NTC 2050).

CHARACTERISTICS

Construction characteristics	
Conductor material	Cu tinned
Conductor shape	Round, stranded
Conductor flexibility	Class B
Insulation	PVC
Number of conductors	7
Overall screen	Aluminium polyester laminate tape + Stranded tinned annealed copper drain wire
Jacket material	PVC
Sheath colour	Grey
Dimensional characteristics	
Average insulation thickness	0.38 mm
Electrical characteristics	
Ampacity	5.0 A
Usage characteristics	
Maximum operating temperature	105 °C
U.V resistance	UL 1581 - Sunlight Resistance
Fire retardant	UL 1685
RoHS compliant	Yes

CHARACTERISTIC TABLE

Cross section [mm²]	Nb. of cores	Cond.cross sect. (AWG/KCMIL)	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Minimum repeated bending diameter [mm]	Max. DC Resist. Cond. 20°C [Ohm/km]
0.821	2	18	1.161	5.95	53.39	24	23.2
0.821	3	18	1.161	6.25	60.22	25	23.2
0.821	4	18	1.161	6.76	73.11	28	23.2
0.821	7	18	1.161	8.17	114.68	33	23.2
1.31	2	16	1.464	6.55	66.44	27	14.6
1.31	3	16	1.464	6.9	101.47	31	14.6
1.31	4	16	1.464	7.75	78.67	28	14.6

AMPACITY CONDITIONS

Values according to section 727.8 of the NEC and NTC 2050 Standard.

Cathodic Protection Cable is a stranded copper conductor insulated with a black high molecular weight polyethlene (HMWPE) compound.

STANDARDS

Product ASTM B 3; ASTM B 496; ASTM B 8; ICEA S-95-658; NTC 1099-1

APPLICATION

Suitable for direct burial for cathodic protection system for pipelines, storage tanks, pilings, well casings and other buried or water submerged metallic structures.

CHARACTERISTICS

Construction characteristics	
Conductor flexibility	Class B
Conductor material	Soft copper
Insulation	Polyethylene
Dimensional characteristics	
Nominal insulation thickness	2.79 mm
Number of cores	1
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Abrasion resistance	Good
Usage characteristics	
Max. conductor temperature in service	75 °C
RoHS compliant	Yes

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Ampacity [A]
12 AWG	3.31	2.79	8.0	73.71	5.457	25.0
10 AWG	5.26	2.79	8.59	96	3.41	35.0
8 AWG	8.37	2.79	9.13	127.59	2.142	50.0
6 AWG	13.3	2.79	10.02	180.92	1.346	65.0
4 AWG	21.2	2.79	11.14	261.03	0.847	85.0
2 AWG	33.6	2.79	12.55	385.06	0.531	115.0

Flexible soft copper conductor, with silicone rubber insulation.

STANDARDS

Product UL 758

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Conductor shape	Bunched Wires
Conductor flexibility	Flexible
Insulation	Silicone rubber
Dimensional characteristics	
Nominal insulation thickness	0.76 mm
Number of cores	1
Electrical characteristics	
Operating voltage	600 V
Usage characteristics	
Max. conductor temperature in service	200 °C
RoHS compliant	Yes

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Ampacity [A]
18 AWG	0.821	2.81	14.18	21.9	6.0
16 AWG	1.31	3.14	19.69	13.7	8.0
14 AWG	2.08	3.56	27.94	8.61	17.0
12 AWG	3.31	4.03	39.96	5.42	23.0
10 AWG	5.26	4.65	59.04	3.41	28.0

Aluminum conductor S8000, PVC insulation and Nylon jacket.

STANDARDS

Product ASTM B 800; ASTM B 801; UL 83

National NTC 1332; NTC 5535; NTC 5536

APPLICATION

THHN/THWN-2 cables are used for electrical wiring in buildings, in power circuits, in industrial, commercial and residential branch and secondary indoor networks. Special for installations in abrasive places or contaminated with oil, grease, gasoline and other chemical substances.

CHARACTERISTICS

Construction characteristics	
Conductor material	Aluminum 8000 series
Insulation	PVC
Outer sheath	Nylon
Conductor flexibility	Class B
Conductor shape	Compact round
Electrical characteristics	
Operating voltage	600 V
Usage characteristics	
Chemical resistance	Excellent
Oil resistance	UL 83 - GR II
Maximum operating temperature	90 °C
Overload maximum core temperature	130 °C
Short-circuit max. conductor temperature	150 °C
RoHS compliant	Yes
Fire retardant	VW-1, Method 1-Vertical Tray (UL 2556)

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. insulation thick. [mm]	Min. outer sheath thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]	Perm current rating in air 30°C [A]
6 AWG	13.3	0.76	0.13	6.23	57.97	2.21	55	85
4 AWG	21.2	1.02	0.15	7.93	93.5	1.39	75	115
2 AWG	33.6	1.02	0.15	9.33	135.48	0.875	100	150
1/0 AWG	53.5	1.27	0.18	11.63	210.5	0.55	135	205
2/0 AWG	67.4	1.27	0.18	12.65	255.02	0.436	150	235
4/0 AWG	107	1.27	0.18	15.17	379.65	0.274	205	315
250 kcmil	127	1.52	0.2	16.89	459.04	0.232	230	355
350 kcmil	177	1.52	0.2	19.33	615.38	0.166	280	445
400 kcmil	203	1.52	0.2	20.42	692.55	0.145	305	480
500 kcmil	253	1.52	0.2	22.37	845.1	0.116	350	545

CABLE RHH/RHW-2/USE-2 AA8000 90°C 600 V SR

8000 series aluminum alloy conductor, insulated in XLPE compound.

STANDARDS

Product UL 44

CHARACTERISTICS

Construction characteristics	
Conductor material	Aluminum 8000 series
Conductor flexibility	Class B
Insulation	Cross - linked compound
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Abrasion resistance	Good
Usage characteristics	
Maximum operating temperature	90 °C
Overload maximum core temperature	130 °C
Short - circuit max. conductor temperature	250 °C
RoHS compliant	Yes
U.V resistance	UL 2556 - Sunlight Resistance

CHARACTERISTIC TABLE

Cross section [mm²]	Cond.cross sect.(AWG/ KCMIL)	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]	Perm current rating in air 30°C [A]
13.3	6	1.52	7.45	65.64	2.212	55	85
21.2	4	1.52	8.57	92.67	1.39	75	115
33.6	2	1.52	9.97	133.69	0.875	100	150
53.5	1/0	2.03	12.71	214.04	0.55	135	205
67.4	2/0	2.03	13.73	258.21	0.436	150	235
107	4/0	2.03	16.25	381.75	0.274	205	315
127	250	2.41	18.17	462.76	0.232	230	355
152	300	2.41	19.44	540.64	0.193	260	395
177	350	2.41	20.61	617.74	0.166	280	445
253	500	2.41	23.65	845.01	0.116	350	545

CABLE XHHW-2 AA8000 90°C 600 V CT

8000 series aluminum alloy conductor, insulated in XLPE compound

STANDARDS

Product UL44

CHARACTERISTICS

Construction characteristics	
Conductor material	Aluminum 8000 series
Conductor shape	Compact stranded
Conductor flexibility	Class B
Insulation	Cross - linked polyethylene
Electrical characteristics	
Operating voltage	600 V
Mechanical characteristics	
Abrasion resistance	Good
Usage characteristics	
Maximum operating temperature	90 °C
Overload maximum core temperature	130 °C
Short - circuit max. conductor temperature	250 °C
RoHS compliant	Yes
U.V resistance	Yes (720 hours)
Fire retardant	Method 1 - Vertical Tray (UL 2556/9.6)

CHARACTERISTIC TABLE

Cross section [mm²]	Cond.cross sect.(AWG/ KCMIL)	Nom. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct/buried 30°C [A]	Perm current rating in air 30°C [A]
21.2	4	1.14	7.79	85.05	1.39	75	115
33.6	2	1.14	9.19	124.84	0.875	100	150
53.5	1/0	1.4	11.45	192.86	0.55	135	205
67.4	2/0	1.4	12.47	235.31	0.436	150	235
107	4/0	1.4	14.99	354.46	0.274	205	315
127	250	1.65	16.65	425.82	0.232	230	355
177	350	1.65	19.09	575.79	0.166	280	445
253	500	1.65	22.13	797.15	0.116	350	545
380	750	2.03	27.24	1193.8	0.077	435	700

Solid copper wire soft

STANDARDS

Product ASTM B 3

National NTC 359

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Conductor flexibility	Solid
Conductor shape	Single wired
Dimensional characteristics	
Number of cores	1

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Ampacity [A]
A.14AWG	2.08	18.3	8.456	65.0
A.12AWG	3.31	29.1	5.314	71.0
A.10AWG	5.26	46.3	3.346	82.0

Bare Copper Cable Meter by Meter - Marking on bare copper, Meter by Meter, to achieve a higher level of precision when cutting.

STANDARDS

Product t ASTM B 3; ASTM B 496; ASTM B 8

National NTC 307; NTC 359

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Conductor flexibility	Class B

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Conductor diam. [mm]	Ampacity [A]	Max. DC Resist. Cond. 20°C [Ohm/km]	Approx. weight [kg/km]
8 AWG	8.37	3.7	98.0	2.142	73.11
6 AWG	13.3	4.67	124.0	1.346	120.39
4 AWG	21.15	5.89	155.0	0.847	191.71
2 AWG	33.63	7.42	209.0	0.532	305
1/0 AWG	53.51	9.47	282.0	0.335	484
2/0 AWG	67.44	10.63	329.0	0.266	612
3/0 AWG	85.03	11.94	382.0	0.2111	771
4/0 AWG	107.22	13.4	66.0	0.167	943
250 Kcmil	126.7	14.62	494.0	0.142	1149
350 Kcmil	177.3	17.29	610.0	0.1011	1608
500 Kcmil	253.4	29.67	773.0	0.071	2295

SERVICE ENTRANCE CABLE Cu 600V (Trefoil Shape)

Soft copper conductors, insulation in PE and jacket in PVC.

STANDARDS

Product ASTM B 3; ASTM B 8; ICEA S-95-658; NTC 1099-1

National NTC 307; NTC 359

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Insulation	PE
Conductor flexibility	Class B
Dimensional characteristics	
Insulation thickness of neutral conductor	0.76 mm
Nominal insulation thickness	1.14 mm
Number of cores	4
Electrical characteristics	
Rated Voltage Uo/U (Um)	600 V
Mechanical characteristics	
Abrasion resistance	Good
Usage characteristics	
Weather resistance	Yes
Maximum operating temperature	75 °C
RoHS compliant	Yes
U.V resistance	Yes (720 hours)

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Neutral Cond. section [mm²]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Max.DC-resist of conc neutral/earth at 20°C [Ohm/km]	Ampacity [A]
3x8+10AWG	8.37	5.26	16.57	439.45	2.144	3.344	50.0
3x6+8AWG	13.3	8.37	18.67	634.62	1.349	2.144	65.0
3x4+6AWG	21.2	13.3	21.25	934.04	0.848	1.349	85.0

CONCENTRIC SERVICE ENTRANCE CABLE Cu 600V

Soft copper conductors, XLPE insulation, with concentric Neutral and PVC jacket.

STANDARDS

Product ICEA S-95-658; NTC 1099-1; UL 854

National NTC 4564

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Insulation	XLPE
Outer sheath	PVC
Conductor flexibility	Class B
Dimensional characteristics	
Nominal insulation thickness	1.14 mm
Electrical characteristics	
Rated Voltage Uo/U (Um)	600 V
Usage characteristics	
Weather resistance	Yes
Maximum operating temperature	90 °C
RoHS compliant	Yes
U.V resistance	UL 1581 - Sunlight Resistance

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Ampacity [A]
1x8+8AWG	8.37	9.44	211.43	2.142	55.0
2x8+8AWG	8.37	17.29	500.75	2.142	55.0
3x8+8AWG	8.37	18.18	588.97	2.142	55.0
3x6+6AWG	13.3	20.31	829.59	1.346	75.0
2x4+4AWG	21.2	22.81	1034.99	0.847	95.0

Soft copper conductors, XLPE insulation, with concentric Neutral and PVC jacket in flat configuration.

STANDARDS

Product ICEA S-95-658; NTC 1099-1; UL 854

National NTC 4564

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Insulation	XLPE
Neutral	Soft copper wires, helically applied, in alternating or oscillatory SZ configuration, forming the concentric neutra
Conductor flexibility	Class B
Overall Jacket	External cover with thermoplastic compound in polyvinyl chloride (PVC), flame retardant (FR), resistant to abrasion, heat, moisture, and sunlight resistant (SR)
Electrical characteristics	
Rated Voltage Uo/U (Um)	600 V
Usage characteristics	
Maximum operating temperature	90 °C
RoHS compliant	Yes

Cable ACSR

Conductor formed by a galvanized steel core around which are stranded one or more layers of aluminum 1350-H19 wires

STANDARDS

ASTM

APPLICATIONS

Overhead transmission lines and power distribution. Used as carrier neutral cables for aerial distribution type multiplex.

Construction Conductor

Concentric conductor composed of aluminum wires 1350-H19, helically applied over steel galvanized core.
Features Optional upon request:
- Core of galvanized steel with grease, to improve the corrosion protection provided by the zinc layer.
- ACSR/AW conductor, composed of 1350-H19 aluminum wires and an aluminum alloy-coated steel core.
For more information, contact our sales representative

Applicable Standards

- ASTM B230
- ASTM B232
- ASTM B498
- ASTM B500
- ASTM B549
- ET-AT-101

Packaging Units

Reels by 2000 m. Other packaging units available upon request.

CHARACTERISTICS Ⅰ

Name	Aluminium cross-section [mm²]	Wire section [mm²]	N° aluminium wires	Nb Steel wire	Diameter of aluminium wires [mm]	Diam. Steel Wire [mm]	Conductor diam. [mm]
4 AWG (Swan)	21.14	3.52	6	1	2.118	2.118	6.36
2 AWG (Sparrow)	33.64	5.61	6	1	2.672	2.672	8.01
1/0 AWG (Raven)	53.55	8.92	6	1	3.371	3.371	10.11
2/0 AWG (Quail)	67.4	11.23	6	1	3.782	3.782	11.35
3/0 AWG (Pigeon)	85	14.17	6	1	4.247	4.247	12.74
4/0 AWG (Penguin)	107.22	17.87	6	1	4.77	4.77	14.31
266.8 KCMIL (Partridge)	135.19	22.04	26	7	2.573	2.002	16.29
336.4 KCMIL (Linnet)	170.32	27.71	26	7	2.888	2.245	18.3
397.5 KCMIL (Brant)	201.19	26.1	24	7	3.267	2.179	19.61
397.5 KCMIL (Ibis)	201.21	32.76	26	7	3.139	2.441	19.89
477 KCMIL (Hawk)	241.51	39.34	26	7	3.439	2.675	21.79
477 KCMIL (Flicker)	241.72	31.35	24	7	3.581	2.388	21.49
556.5 KCMIL (Dove)	281.98	45.95	26	7	3.716	2.891	23.53
556.5 KCMIL (Parakeet)	282.02	36.54	24	7	3.868	2.578	23.21
605 KCMIL (Squab)	306.47	49.88	26	7	3.874	3.012	24.54
636 KCMIL (Rook)	322.29	41.76	24	7	4.135	2.756	24.81
636 KCMIL (Grosbeak)	322.33	52.46	26	7	3.973	3.089	25.16
666.6 KCMIL (Gannet)	337.76	54.97	26	7	4.067	3.162	25.75
666.6 KCMIL (Flamingo)	337.91	43.78	24	7	4.234	2.822	25.4
715.5 KCMIL (Starling)	362.62	59.04	26	7	4.214	3.277	26.68
715.5 KCMIL (Stilt)	362.77	47.0	24	7	4.387	2.924	26.31
795 KCMIL (Cuckoo)	402.86	52.19	24	7	4.623	3.081	27.74
795 KCMIL (Drake)	402.92	65.59	26	7	4.442	3.454	28.13

Name	Aluminium cross-section [mm²]	Wire section [mm²]	N° aluminium wires	Nb Steel wire	Diameter of aluminium wires [mm]	Diam. Steel Wire [mm]	Conductor diam. [mm]
900 KCMIL (Canary)	456	59.11	54	7	3.279	3.279	29.51
900 KCMIL (Ruddy)	456.01	31.54	45	7	3.592	2.395	28.74
954 KCMIL (Rail)	483.32	33.43	45	7	3.698	2.466	29.59
954 KCMIL (Cardinal)	483.38	62.66	54	7	3.376	3.376	30.38
1033.5 KCMIL (Ortolan)	523.33	36.17	45	7	3.848	2.565	30.79
1033.5 KCMIL (Curlew)	523.41	67.85	54	7	3.513	3.513	31.63
1113 KCMIL (Bluejay)	564.07	39.02	45	7	3.995	2.664	31.96
1113 KCMIL (Finch)	564.1	71.5	54	19	3.647	2.189	32.82
1192.5 KCMIL (Grackle)	604.07	76.62	54	19	3.774	2.266	33.97
1192.5 KCMIL (Bunting)	604.3	41.76	45	7	4.135	2.756	33.08
1272 KCMIL (Bittern)	644.4	44.56	45	7	4.27	2.847	34.16
1272 KCMIL (Pheasant)	644.75	81.64	54	19	3.899	2.339	35.09
1351.5 KCMIL (Martin)	684.71	86.67	54	19	4.018	2.41	36.17
1351.5 KCMIL (Dipper)	684.86	47.33	45	7	4.402	2.934	35.21
1431 KCMIL (Bobolink)	724.95	50.14	45	7	4.529	3.02	36.24
1431 KCMIL (Plover)	725.16	91.93	54	19	4.135	2.482	37.22
1510.5 KCMIL (Parrot)	764.98	96.88	54	19	4.247	2.548	38.24
1510.5 KCMIL (Nuthatch)	765.19	52.87	45	7	4.653	3.101	37.23
1590 KCMIL (Lapwing)	805.84	55.7	45	7	4.775	3.183	38.2
1590 KCMIL (Falcon)	805.86	102.12	54	19	4.359	2.616	39.23

CHARACTERISTICS Ⅱ

Name	Aluminium cross-section [mm²]	Wire section [mm²]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Minimum breaking load [kgf]	Ampacity [A]
4 AWG (Swan)	21.14	3.52	85.45	1.346	845	139.0
2 AWG (Sparrow)	33.64	5.61	136	0.846	1290	184.0
1/0 AWG (Raven)	53.55	8.92	216.5	0.532	1985	243.0
2/0 AWG (Quail)	67.4	11.23	272.5	0.422	2405	278.0
3/0 AWG (Pigeon)	85	14.17	343.6	0.335	3003	319.0
4/0 AWG (Penguin)	107.22	17.87	433.4	0.265	3787	366.0
266.8 KCMIL (Partridge)	135.19	22.04	547	0.213	5120	457.0
336.4 KCMIL (Linnet)	170.32	27.71	688.7	0.168	6400	529.0
397.5 KCMIL (Brant)	201.19	26.1	761.7	0.143	6641	584.0
397.5 KCMIL (Ibis)	201.21	32.76	813.8	0.143	7386	587.0
477 KCMIL (Hawk)	241.51	39.34	976.9	0.119	8863	659.0
477 KCMIL (Flicker)	241.72	31.35	915.1	0.119	7784	655.0
556.5 KCMIL (Dove)	281.98	45.95	1141	0.102	10248	726.0
556.5 KCMIL (Parakeet)	282.02	36.54	1067	0.102	8989	721.0
605 KCMIL (Squab)	306.47	49.88	1239	0.094	11041	765.0
636 KCMIL (Rook)	322.29	41.76	1220	0.09	10273	784.0
636 KCMIL (Grosbeak)	322.33	52.46	1303	0.089	11429	789.0
666.6 KCMIL (Gannet)	337.76	54.97	1366	0.085	11979	812.0
666.6 KCMIL (Flamingo)	337.91	43.78	1279	0.086	10768	807.0
715.5 KCMIL (Starling)	362.62	59.04	1467	0.079	12858	849.0
715.5 KCMIL (Stilt)	362.77	47.0	1373	0.08	11558	844.0
795 KCMIL (Cuckoo)	402.86	52.19	1525	0.072	12666	901.0
795 KCMIL (Drake)	402.92	65.59	1629	0.071	14287	907.0
900 KCMIL (Canary)	456	59.11	1726	0.063	14476	959.0

Name	Aluminium cross-section [mm²]	Wire section [mm²]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Minimum breaking load [kgf]	Ampacity [A]
900 KCMIL (Ruddy)	456.01	31.54	1511	0.064	11085	958.0
954 KCMIL (Rail)	483.32	33.43	1601	0.06	11750	993.0
954 KCMIL (Cardinal)	483.38	62.66	1830	0.06	15345	994.0
1033.5 KCMIL (Ortolan)	523.33	36.17	1734	0.056	12562	1042.0
1033.5 KCMIL (Curlew)	523.41	67.85	1981	0.055	16624	1044.0
1113 KCMIL (Bluejay)	564.07	39.02	1869	0.052	13528	1090.0
1113 KCMIL (Finch)	564.1	71.5	2131	0.052	17718	1093.0
1192.5 KCMIL (Grackle)	604.07	76.62	2283	0.048	18984	1140.0
1192.5 KCMIL (Bunting)	604.3	41.76	2002	0.048	14495	1137.0
1272 KCMIL (Bittern)	644.4	44.56	2135	0.045	15461	1183.0
1272 KCMIL (Pheasant)	644.75	81.64	2435	0.045	19776	1185.0
1351.5 KCMIL (Martin)	684.71	86.67	2586	0.042	21012	1230.0
1351.5 KCMIL (Dipper)	684.86	47.33	2269	0.043	16427	1227.0
1431 KCMIL (Bobolink)	724.95	50.14	2402	0.04	17393	1270.0
1431 KCMIL (Plover)	725.16	91.93	2740	0.04	22248	1274.0
1510.5 KCMIL (Parrot)	764.98	96.88	2890	0.038	23484	1316.0
1510.5 KCMIL (Nuthatch)	765.19	52.87	2535	0.038	18181	1312.0
1590 KCMIL (Lapwing)	805.84	55.7	2669	0.036	19138	1353.0
1590 KCMIL (Falcon)	805.86	102.12	3045	0.036	24720	1357.0

AMPACITY CONDITIONS

- Current capacity at ambient temperature 25°C, conductor temperature 75°C, solar emission 1kW/m², absorption and emissivity coefficients 0.5,wind speed 610 mm/sec, at sea level and at 60 Hz.

NOTE:

- The data reported here are nominal and are subject to tolerances according to standards and normal manufacturing practices.
- Other configurations not specified in this catalog may be available under special request and minimum manufacturing quantitie.

Conductor formed by aluminum 1350-H19 wires.

STANDARDS

National NTC 308; NTC 360

APPLICATIONS

AAC cables are used in overhead power transmission and distribution networks.

Construction Conductor

Concentric conductor composed of aluminum wires 1350-H19

Applicable Standards

- ASTM B230, NTC 360
- ASTM B231, NTC 308
- IEC 60228 (Applicable standard for millimeter sections).

AMPACITY CONDITIONS

- Current capacity at ambient temperature 25°C, conductor temperature 75°C, solar emission 1kW/m², absorption and emissivity coefficients 0.5,wind speed 610 mm/sec, at sea level and at 60 Hz.
- Short circuit current for one (1.0) second, at initial temperature of 75°C and final temperature of 340°C.

NOTE:

- The data reported here are nominal and are subject to tolerances according to standards and normal manufacturing practices.
- Other configurations not specified in this catalog may be available under special request and minimum manufacturing quantitie

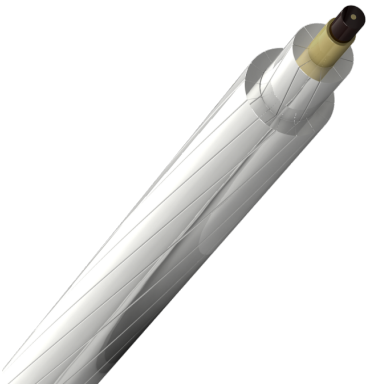
Aluminum Cables 1350-H19 (AAC)

RODUCT LIST

Name	Aluminium cross-section [mm²]	Type of cable	Conductor material	N° aluminium wires	Diameter of aluminium wires [mm]	Outer Diameter [mm]	Max. DC Resist. Cond. 20° C [Ohm/km]	Minimum breaking load [kgf]	Ampacity [A]	Short Circuit Current 1 s Max [kA]
4 AWG	21.2	Rose	Aluminum Alloy 1350-H19	7	1.96	5.88	1.387	400	138.0	2.4
2 AWG	33.6	Iris	Aluminum Alloy 1350-H19	7	2.47	7.42	0.871	613	185.0	3.9
1/0 AWG	53.5	Poppy	Aluminum Alloy 1350-H19	7	3.12	9.36	0.548	903	247.0	6.2
2/0 AWG	67.4	Aster	Aluminum Alloy 1350-H19	7	3.5	10.51	0.435	1138	286.0	7.8
3/0 AWG	85	Phlox	Aluminum Alloy 1350-H19	7	3.93	11.8	0.345	1377	330.0	9.8
4/0 AWG	107	Oxlip	Aluminum Alloy 1350-H19	7	4.42	13.25	0.273	1737	382.0	12.4
266.8 KCMIL	134.6	Daisy	Aluminum Alloy 1350-H19	7	4.96	14.88	0.217	2190	443.0	15.6

Aluminum Cables 1350-H19 (AAC)

High-conductivity aluminum conductors made in trapezoidal wires, with a hybrid carbon and glass core that allows operation at high temperatures and low SAG (HTLS).



STANDARDS

ASTM

APPLICATIONS

HVCRC cables are designed to improve the current capacity of the line, reduce sag and electrical losses and are used in overheadlines for the transmission of electrical energy. Additionally, they are an excellent alternative for transmission line repowering projects.

Construction Conductor

Conductor made of trapezoidal wires of high-conductivity annealed aluminum alloy 1350-O, stranded on a carbon and glass fiber core embedded in a high-temperature thermoset resin.

Applicable Standards

- ASTM B987
- ASTM B857
- ASTM B609

Temperature

- 180°C, Continous operating.
- 200°C, Emergency by 8760 Hours.

CHARACTERISTIC TABLE I

Name	Cross section [mm²]	Aluminium cross-section [mm²]	Cross-section of the cores [mm²]	Core diameter [mm]	Conductor diam. [mm]	Approx. weight [kg/km]	Mín. Tensile Strength Cond. [kN]
Helsinki - Pasadena (160 - 28 mm2)	180.5	152.5	28	5.9	15.65	473.8	69.0
Copenhagen - Linnet (230 - 28 mm2)	249.3	221.3	28	5.9	18.29	663.8	73.1
Reykjavik - Oriole (230 - 40 mm2)	262.8	223.1	39.7	7.1	18.82	690.8	102.5
Glasgow - Waco (240 - 47 mm2)	285.4	238.2	47.2	7.8	19.55	746.3	120.1
Casablanca - Laredo (280 - 40 mm2)	315.2	275.5	39.7	7.1	20.51	835.5	105.6
Lisbon - Hawk (320 - 40 mm2)	356.4	316.7	39.7	7.1	21.79	949.5	108.1
Oslo - Irving (320 - 60 mm2)	375.5	315.2	60.3	8.8	22.4	983.5	154.1
Amsterdam - Dove (370 - 47 mm2)	416.2	369	47.2	7.8	23.55	1107	128.0
Brussels - Grosebeak (430 - 52 mm2)	473.6	421.7	51.9	8.1	25.13	1262	141.8
Dublin - Drake (530 - 71 mm2)	596.1	524.8	71.3	9.5	28.17	1583	191.5

CHARACTERISTIC TABLE Ⅱ

Name	Cross section [mm²]	Resist. Max. 20°C [Ohm/km]	Max. Electrical Resistance. AC 50Hz 25°C [Ohm/km]	Max. Electrical Resistance AC 50Hz 75°C [Ohm/km]	Max. ElectricalResistance AC 50Hz 180°C [Ohm/km]	Max. Electrical Resistance AC 50Hz 200°C [Ohm/km]
Helsinki - Pasadena (160 - 28 mm2)	180.5	0.187	0.188	0.225	0.303	0.318
Copenhagen - Linnet (230 - 28 mm2)	249.3	0.129	0.13	0.155	0.209	0.22
Reykjavik - Oriole (230 - 40 mm2)	262.8	0.128	0.129	0.154	0.208	0.218
Glasgow - Waco (240 - 47 mm2)	285.4	0.12	0.121	0.145	0.195	0.204
Casablanca - Laredo (280 - 40 mm2)	315.2	0.104	0.104	0.125	0.168	0.177
Lisbon - Hawk (320 - 40 mm2)	356.4	0.09	0.091	0.109	0.147	0.154
Oslo - Irving (320 - 60 mm2)	375.5	0.091	0.092	0.11	0.147	0.155
Amsterdam - Dove (370 - 47 mm2)	416.2	0.077	0.079	0.094	0.126	0.132
Brussels - Grosebeak (430 - 52 mm2)	473.6	0.068	0.069	0.082	0.111	0.116
Dublin - Drake (530 - 71 mm2)	596.1	0.054	0.056	0.067	0.089	0.093

CHARACTERISTIC TABLE III

Name	Cross section [mm²]	Inductive reactance [Ohm/km]	Capacitive reactance [MOhm.km]	Ampacity 180°C [A]	Ampacity 200°C [A]
Helsinki - Pasadena (160 - 28 mm2)	180.5	0.242	0.21	826	869
Copenhagen - Linnet (230 - 28 mm2)	249.3	0.233	0.201	1044	1100
Reykjavik - Oriole (230 - 40 mm2)	262.8	0.231	0.199	1058	1114
Glasgow - Waco (240 - 47 mm2)	285.4	0.228	0.197	1106	1065
Casablanca - Laredo (280 - 40 mm2)	315.2	0.226	0.194	1207	1273
Lisbon - Hawk (320 - 40 mm2)	356.4	0.222	0.191	1319	1391
Oslo - Irving (320 - 60 mm2)	375.5	0.22	0.189	1327	1400
Amsterdam - Dove (370 - 47 mm2)	416.2	0.217	0.186	1459	1539
Brussels - Grosebeak (430 - 52 mm2)	473.6	0.213	0.183	1592	1680
Dublin - Drake (530 - 71 mm2)	596.1	0.206	0.176	1841	1945

AMPACITY CONDITIONS

Current Capacity at continous operating temperature of 180°C and 200 °C in emergency, calculated according to IEEE Standard 738-2012 under the following conditions:

- Wind 2 ft/s (0.61 m/s) with an angle of 90° .
- Emissivity Coefficient 0.6.
- Solar Absorption Coefficient 0.5.
- Ambient temperature 25°C.
- Solar radiation 93 W/ft2 (1000 W/m2).
- System Frecuency 50 Hz.

NOTE:

- The data reported here are nominal and are subject to tolerances according to standards and normal manufacturing practices.
- Other configurations not specified in this catalog may be available under special request and minimum manufacturing quantities.

Aluminum Alloy Cables 6201 T81 (AAAC)

Conductor formed by 6201 T81 Aluminum Alloy wires.

STANDARDS

Product ASTM B 398; ASTM B 399

APPLICATIONS

AAAC cables are used in overhead power transmission and distribution networks. They are also used as a supporting neutral for multiplex type overhead distribution cables.

Construction Conductor

Concentric conductor formed by 6201 T81 aluminum alloy wires.

Applicable Standards

- ASTM B398, NTC 2729
- ASTM B399, NTC 2730

Temperature

Maximum operating temperature

75 °C

AMPACITY CONDITIONS

Current capacity at ambient temperature 25°C, conductor temperature 75°C, solar emission 1kW/m², absorption and emissivity coefficients 0.5,wind speed 610 mm/sec, at sea level and at 60 Hz.

- Short circuit current for one (1.0) second, at initial temperature of 75°C and final temperature of 340°C.

NOTE:

- The data reported here are nominal and are subject to tolerances according to standards and normal manufacturing practices.
- Other configurations not specified in this catalog may be available under special request and minimum manufacturing quantitie

PRODUCTS LIST

Name	Aluminium cross-section [mm²]	Type of cable	N° aluminium wires	Diameter of aluminium wires [mm]	Outer Diameter [mm]	Max. DC Resist. Cond. 20° C [Ohm/km]	Minimum breaking load [kgf]	Ampacity [A]	Short Circuit Current 1 s Max [kA]
48.69 kcmil	24.7	Alton	7	2.12	6.36	1.383	799	143.0	2.6
77.47 kcmil	39.25	Ames	7	2.67	8.02	0.872	1272	191.0	4.2
123.3 kcmil	62.48	Azusa	7	3.37	10.11	0.547	1940	256.0	6.7
155.4 kcmil	78.74	Anaheim	7	3.78	11.35	0.435	2445	296.0	8.4
195.7 kcmil	99.2	Amherst	7	4.25	12.74	0.344	3079	342.0	10.6
246.9 kcmil	125	Alliance	7	4.77	14.31	0.273	3884	396.0	13.3
312.8 kcmil	159	Butte	19	3.26	16.3	0.215	4767	461.0	16.9
394.5 kcmil	200	Canton	19	3.66	18.3	0.171	6012	533.0	21.3
465.4 kcmil	236	Cairo	19	3.98	19.88	0.145	7093	592.0	25.1
559.5 kcmil	284	Darien	19	4.36	21.79	0.118	8527	665.0	30.2
740.8 kcmil	375	Flint	37	3.59	25.16	0.091	11047	794.0	40
927.2 kcmil	470	Greeley	37	4.02	28.15	0.073	13827	915.0	50.1

Aluminum Alloy Cables 6201 T81 (AAAC)

Conductor formed by 6201 T81

Aluminum Alloy wires.

STANDARDS

Product ASTM B 398; ASTM B 399

APPLICATIONS

AAAC cables are used in overhead power transmission and distribution networks. They are also used as a supporting neutral for multiplex type overhead distribution cables.

Construction Conductor

Concentric conductor formed by 6201 T81 aluminum alloy wires.

Applicable Standards

- ASTM B398, NTC 2729
- ASTM B399, NTC 2730

Temperature

Maximum operating temperature

75 °C

AMPACITY CONDITIONS

Current capacity at ambient temperature 25°C, conductor temperature 75°C, solar emission 1kW/m², absorption and emissivity coefficients 0.5,wind speed 610 mm/sec, at sea level and at 60 Hz.

- Short circuit current for one (1.0) second, at initial temperature of 75°C and final temperature of 340°C.

NOTE:

- The data reported here are nominal and are subject to tolerances according to standards and normal manufacturing practices.
- Other configurations not specified in this catalog may be available under special request and minimum manufacturing quantitie

PRODUCTS LIST

Name	Aluminium cross-section [mm²]	Type of cable	N° aluminium wires	Diameter of aluminium wires [mm]	Outer Diameter [mm]	Max. DC Resist. Cond. 20° C [Ohm/km]	Minimum breaking load [kgf]	Ampacity [A]	Short Circuit Current 1 s Max [kA]
48.69 kcmil	24.7	Alton	7	2.12	6.36	1.383	799	143.0	2.6
77.47 kcmil	39.25	Ames	7	2.67	8.02	0.872	1272	191.0	4.2
123.3 kcmil	62.48	Azusa	7	3.37	10.11	0.547	1940	256.0	6.7
155.4 kcmil	78.74	Anaheim	7	3.78	11.35	0.435	2445	296.0	8.4
195.7 kcmil	99.2	Amherst	7	4.25	12.74	0.344	3079	342.0	10.6
246.9 kcmil	125	Alliance	7	4.77	14.31	0.273	3884	396.0	13.3
312.8 kcmil	159	Butte	19	3.26	16.3	0.215	4767	461.0	16.9
394.5 kcmil	200	Canton	19	3.66	18.3	0.171	6012	533.0	21.3
465.4 kcmil	236	Cairo	19	3.98	19.88	0.145	7093	592.0	25.1
559.5 kcmil	284	Darien	19	4.36	21.79	0.118	8527	665.0	30.2
740.8 kcmil	375	Flint	37	3.59	25.16	0.091	11047	794.0	40
927.2 kcmil	470	Greeley	37	4.02	28.15	0.073	13827	915.0	50.1

Cable ACSS

A conductor consisting of an ultra-high strength steel core coated with Class A zinc-5% aluminum-mischmetal alloy (Zn-5Al-MM) around which one or more layers of 1350-H0 aluminum wires are twisted.

STANDARDS

Product ASTM B 856; ASTM B 857

APPLICATIONS

ACSS cables are designed to improve the current carrying capacity of the line due to its improved conductivity, very low sag at high temperature, excellent immunity to vibration fatigue and better self-damping property, they are used in overhead lines for electric power transmission and distribution. In addition, they are an excellent alternative for transmission line repowering projects.

ACSS cables are suitable for operating at high temperature without loosing the mechanical properties. Additionally they are suitable for corrosive environments due to the use of steel cores with 5% zinc-aluminum alloy coatings.

Construction Conductor

Concentric conductor composed of aluminum wires 1350-H0, helically applied over ultra- high strength steel core coated with Class A zinc-5% aluminum-mischmetal alloy (Zn-5Al- MM).

Applicable Standards

- ASTM B958
- ASTM B609
- ASTM B856
- ASTM B857

AMPACITY CONDITIONS

• Current capacity at ambient temperature 25°C, conductor temperature 200°C, solar emission 1kW/m², absorption and emissivity coefficients 0.5,wind speed 610 mm/sec, at sea level and at 60 Hz.

NOTE:

• The data reported here are nominal and are subject to tolerances according to standards and normal manufacturing practices.
• Other configurations not specified in this catalog may be available under special request and minimum manufacturing quantitie.

Aluminum Conductors Aluminum-Alloy Reinforced (ACAR)

Conductor formed by 1350 H19 Aluminum wires and 6201 T81 Aluminum Alloy wires.

STANDARDS

Product ASTM B 230; ASTM B 398

APPLICATIONS

ACAR cables are used in overhead power transmission and distribution networks. Their good breaking load-to-weight ratio makes ACAR cables suitable for long-span transmission systems.

Construction Conductor

1350 H19 aluminum wires stranded over a concentric conductor of 6201 T81 aluminum alloy wires.

Most ACAR cable constructions have a 6201 aluminum alloy core; in some configurations, the 6201 aluminum alloy wires are arranged in layers, combined with 1350 H19 aluminum wires.

Applicable Standards

- ASTM B398, NTC 2729
- ASTM B230, NTC 360
- ASTM B524, NTC 6065

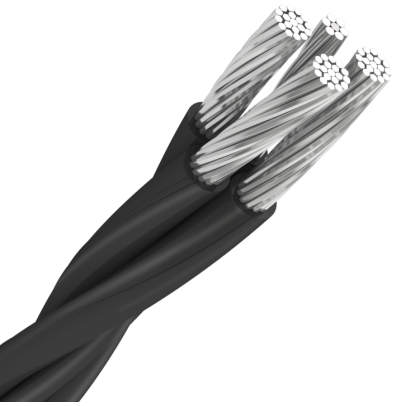
Aluminum Conductors Aluminum-Alloy Reinforced (ACAR)

PRODUCTS LIST

Name	Aluminium cross-section [mm²]	N° aluminium wires	Diameter of aluminium wires [mm]	N° aluminium alloy 6201 wires	Diameter of aluminium alloy 6201 wires [mm]	Outer Diameter [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20° C [Ohm/km]	Minimum breaking load [kgf]	Ampacity [A]	Short Circuit Current 1 s Max [kA]
250 kcmil (12/7)	127	12	2.91	7	2.91	14.57	349	0.245	2813	417.0	14.7
300 kcmil (12/7)	152	12	3.19	7	3.19	15.96	419	0.203	3344	468.0	17.6
350 kcmil (12/7)	177	12	3.45	7	3.45	17.24	488	0.174	3817	515.0	20.5
400 kcmil (12/7)	203	12	3.69	7	3.69	18.43	558	0.153	4320	560.0	23.5
500 kcmil (12/7)	253	12	4.12	7	4.12	20.6	698	0.122	5345	645.0	29.3
650 kcmil (18/19)	329	18	3.37	19	3.37	23.57	906	0.096	7537	755.0	38.1
750 kcmil (18/19)	380	18	3.62	19	3.62	25.31	1046	0.083	8634	826.0	44
850 kcmil (18/19)	431	18	3.85	19	3.85	26.95	1185	0.073	9714	894.0	49.8
950 kcmil (18/19)	481	18	4.07	19	4.07	28.49	1324	0.066	10858	959.0	55.7

CONTACT
admin@cbccable.com
www.cbccable.com

SELF SUPPORTED MULTIPLEX CABLES (Insulated ACSR Neutral)



Phase conductors in Aluminum 1350 H-19 (AAC), concentric stranded. Insulation in cross-linked polyethylene XLPE, phase conductors twisted together on an insulated ACSR messenger neutral.

STANDARDS

Product ASTM B 232; ICEA S-76-474

National NTC 309; NTC 5346

APPLICATIONS

SELF SUPPORTED MULTIPLEX CABLES are used in aerial secondary distribution systems, in public lighting or in temporary construction installations, connection with the transformer to the point of derivation for the user or connection with the distribution box.

Construction Conductor

Phase Conductor

Aluminum 1350-H19 hard tempering, concentric stranded.

Neutral Conductorr

Aluminum support conductor with Steel Core (ACSR), concentric stranded.

Insulation

Composed of cross-linked polyethylene XLPE, resistant to UV rays.

Applicable Standards

- NTC 5346, ICEA S-76-474.
- NTC 4334, ASTM B-400.
- NTC 309, ASTM B-232.

SELF SUPPORTED MULTIPLEX CABLES (Insulated ACSR Neutral)

CHARACTERISTICS TABLE I

Name	Cross section [mm²]	Nb. of cores	Phase Conductor Conductor cross-section (AWG)	Nom. insulation thick. [mm]	Neutral Conductor cross-section (AWG)	Neutral.Cond. Insulat.Thickness [mm]	Nom. outer diam. [mm]	weight [kg/km] Approx.
2x4+4 AWG	21.2	3	4 AWG	1.14	4 AWG	0.76	16.87	276.93
3x4+4 AWG	21.2	4	4 AWG	1.14	4 AWG	0.76	21.39	360.61
1x2+2 AWG	33.6	2	2 AWG	1.14	2 AWG	1.14	19.59	304.02
2x2+2 AWG	33.6	3	2 AWG	1.14	2 AWG	1.14	20.87	428.31
3x2+2 AWG	33.6	4	2 AWG	1.14	2 AWG	1.14	25.62	552.59
1x1/0+1/0 AWG	53.5	2	1/0 AWG	1.52	1/0 AWG	1.52	24.95	487.14
2x1/0+1/0 AWG	53.5	3	1/0 AWG	1.52	1/0 AWG	1.52	26.58	685.25
3x1/0+1/0 AWG	53.5	4	1/0 AWG	1.52	1/0 AWG	1.52	32.58	840.32
2x2/0+2/0 AWG	67.4	3	2/0 AWG	1.52	2/0 AWG	1.52	29.02	883.37
3x2/0+2/0 AWG	67.4	4	2/0 AWG	1.52	2/0 AWG	1.52	35.53	1082.61
2x4/0+4/0 AWG	107	3	4/0 AWG	1.52	4/0 AWG	1.52	34.84	1275.64
3x4/0+4/0 AWG	107	4	4/0 AWG	1.52	4/0 AWG	1.52	42.54	1641.67

SELF SUPPORTED MULTIPLEX CABLES (Insulated ACSR Neutral)

CHARACTERISTICS TABLE Ⅱ

Name	Cross section [mm²]	Nb. of cores	Phase Conductor Conductor cross-section (AWG)	Neutral Conductor cross-section (AWG)	Ampacity [A]	Rated breaking load [kgf]	Max. DC Resist. Cond. 20°C [Ohm/km]
2x4+4 AWG							
3x4+4 AWG	21.2	3	4 AWG	4 AWG	91.0	844	1.387
1x2+2 AWG	21.2	4	4 AWG	4 AWG	91.0	844	1.387
2x2+2 AWG	33.6	2	2 AWG	2 AWG	123.0	1294	0.874
3x2+2 AWG	33.6	3	2 AWG	2 AWG	123.0	1294	0.874
1x1/0+1/0 AWG	33.6	4	2 AWG	2 AWG	123.0	1294	0.874
2x1/0+1/0 AWG	53.5	2	1/0 AWG	1/0 AWG	167.0	1988	0.55
3x1/0+1/0 AWG	53.5	3	1/0 AWG	1/0 AWG	167.0	1988	0.55
2x2/0+2/0 AWG	53.5	4	1/0 AWG	1/0 AWG	167.0	1988	0.55
3x2/0+2/0 AWG	67.4	3	2/0 AWG	2/0 AWG	193.0	2406	0.437
2x4/0+4/0 AWG	67.4	4	2/0 AWG	2/0 AWG	193.0	2406	0.437
3x4/0+4/0 AWG	107	3	4/0 AWG	4/0 AWG	262.0	3790	0.274
	107	4	4/0 AWG	4/0 AWG	262.0	3790	0.274

SELF SUPPORTED MULTIPLEX CABLES (Bare ACSR Neutral)

Phase conductors in Aluminum 1350 H-19 (AAC), concentric stranded. Insulation in cross-linked polyethylene XLPE, phase conductors twisted together on an insulated ACSR messenger neutral.

STANDARDS

Product ASTM B 232; ICEA S-76-474 National NTC 309; NTC 5346

APPLICATIONS

SELF SUPPORTED MULTIPLEX CABLES are used in aerial secondary distribution systems, in public lighting or in temporary construction installations, connection with the transformer to the point of derivation for the user or connection with the distribution box.

Construction Conductor

Phase Conductor

Aluminum 1350-H19 hard tempering, concentric stranded.

Neutral Conductorr

Aluminum support conductor with steel core(ACSR), concentric stranded

.

Insulation

Composed of cross-linked polyethylene XLPE, resistant to UV rays.

Applicable Standards

- NTC 5346, ICEA S-76-474.
- NTC 4334, ASTM B-400.
- NTC 309, ASTM B-232.

SELF SUPPORTED MULTIPLEX CABLES (Bare ACSR Neutral)

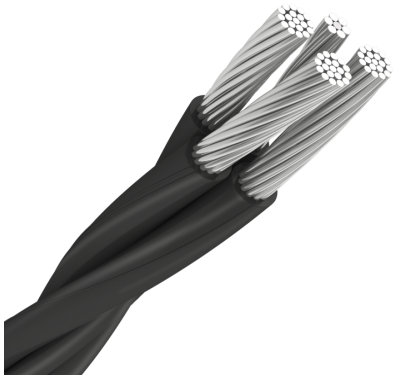
CHARACTERISTIC TABLE I

Name	Cross section [mm²]	Nb. of cores	Phase Conductor Conductor cross-section (AWG)	Nom. insulation thick. [mm]	Neutral Conductor cross-section (AWG)	Nom. outer diam. [mm]	Approx. weight [kg/km]
1x4+4 AWG	21.2	2	4 AWG	1.14	4 AWG	14.14	170.55
2x4+4 AWG	21.2	3	4 AWG	1.14	4 AWG	15.86	254.24
3x4+4 AWG	21.2	4	4 AWG	1.14	4 AWG	20.72	337.92
3x2+2 AWG	33.6	4	2 AWG	1.14	2 AWG	24.71	511
3x1/0+1/0 AWG	53.5	4	1/0 AWG	1.52	1/0 AWG	31.36	814.16
3x4/0+4/0 AWG	107	4	4/0 AWG	1.52	4/0 AWG	41.37	1538.38

CHARACTERISTIC TABLE II

Name	Cross section [mm²]	Nb. of cores	Phase Conductor Conductor cross-section (AWG)	Neutral Conductor cross-section (AWG)	Ampacity [A]	Rated breaking load [kgf]	Max. DC Resist. Cond. 20°C [Ohm/km]
1x4+4 AWG	21.2	2	4 AWG	4 AWG	91.0	844	1.387
2x4+4 AWG	21.2	3	4 AWG	4 AWG	91.0	844	1.387
3x4+4 AWG	21.2	4	4 AWG	4 AWG	91.0	844	1.387
3x2+2 AWG	33.6	4	2 AWG	2 AWG	123.0	1294	0.874
3x1/0+1/0 AWG	53.5	4	1/0 AWG	1/0 AWG	167.0	1988	0.55
3x4/0+4/0 AWG	107	4	4/0 AWG	4/0 AWG	262.0	3790	0.274

SELF SUPPORTED MULTIPLEX CABLES (Insulated AAAC Neutral)



Phase conductors in Aluminum 1350 H-19 (AAC), concentric stranded. Insulation in cross-linked polyethylene XLPE, phase conductors twisted together on an insulated AAAC messenger neutral.

STANDARDS

Product ASTM B 399; ICEA S-76-474 National NTC 5346

APPLICATIONS

SELF SUPPORTED MULTIPLEX CABLES are used in aerial secondary distribution systems, in public lighting or in temporary construction installations, connection with the transformer to the point of derivation for the user or connection with the distribution box.

Construction Conductor

Phase Conductor

Aluminum 1350-H19 hard tempering, concentric stranded.

Neutral Conductorr

Aluminum alloy 6201-T81 (AAAC) support conductor, concentric stranded

.

Insulation

Composed of cross-linked polyethylene XLPE, resistant to UV rays.

Applicable Standards

- NTC 5346, ICEA S-76-474.
- NTC 4334, ASTM B-400.
- NTC 2730, ASTM B-399.

SELF SUPPORTED MULTIPLEX CABLES (Insulated AAAC Neutral)

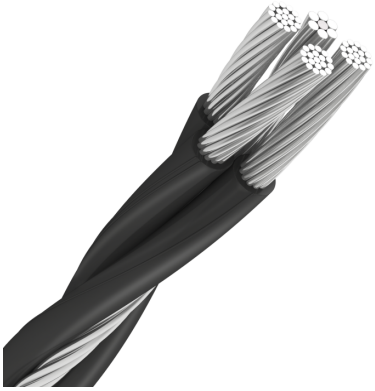
CHARACTERISTIC TABLE I

Name	Cross section [mm²]	Nb. of cores	Phase Conductor Conductor cross-section (AWG)	Nom. insulation thick. [mm]	Neutral Conductor cross-section (AWG)	Neutral.Cond. Insulat.Thickness [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]
3x4+48.69	21.2	4	4 AWG	1.14	48.69 kcmil	1.14	21.67	352.11
2x2+77.47	33.6	3	2 AWG	1.14	77.47 kcmil	1.14	20.87	399.43
3x1/0+123.3	53.5	4	1/0 AWG	1.52	123.3 kcmil	1.52	32.58	837.55
2x2/0+155.4	67.4	3	2/0 AWG	1.52	155.4 kcmil	1.52	29.04	782.53
3x2/0+155.4	67.4	4	2/0 AWG	1.52	155.4 kcmil	1.52	35.53	1024.81
3x3/0+195.7	85	4	3/0 AWG	1.52	195.7 kcmil	1.52	38.83	1257.86
2x4/0+246.9	107	3	4/0 AWG	1.52	246.9 kcmil	1.52	34.84	1183.49
3x4/0+246.9	107	4	4/0 AWG	1.52	246.9 kcmil	1.52	42.54	1549.53

CHARACTERISTIC TABLE II

Name	Cross section [mm²]	Nb. of cores	Phase Conductor Conductor cross-section (AWG)	Neutral Conductor cross-section (AWG)	Ampacity [A]	Rated breaking load [kgf]	Max. DC Resist. Cond. 20°C [Ohm/km]
3x4+48.69	21.2	4	4 AWG	48.69 kcmil	91.0	799	1.387
2x2+77.47	33.6	3	2 AWG	77.47 kcmil	123.0	1265	0.874
3x1/0+123.3	53.5	4	1/0 AWG	123.3 kcmil	167.0	1929	0.55
2x2/0+155.4	67.4	3	2/0 AWG	155.4 kcmil	193.0	2429	0.437
3x2/0+155.4	67.4	4	2/0 AWG	155.4 kcmil	193.0	2429	0.437
3x3/0+195.7	85	4	3/0 AWG	195.7 kcmil	224.0	3061	0.345
2x4/0+246.9	107	3	4/0 AWG	246.9 kcmil	262.0	3857	0.274
3x4/0+246.9	107	4	4/0 AWG	246.9 kcmil	262.0	3857	0.274

SELF SUPPORTED MULTIPLEX CABLES (Bare AAAC Neutral)



Phase conductors in Aluminum 1350 H-19 (AAC), concentric stranded. Insulation in cross-linked polyethylene XLPE, phase conductors twisted together on a bare neutral messenger type AAAC.

STANDARDS

Product ASTM B 399; ICEA S-76-474 National NTC 5346

APPLICATIONS

SELF SUPPORTED MULTIPLEX CABLES are used in aerial secondary distribution systems, in public lighting or in temporary construction installations, connection with the transformer to the point of derivation for the user or connection with the distribution box..

Construction Conductor

Phase Conductor

Aluminum 1350-H19 hard tempering, concentric stranded.

Neutral Conductorr

Aluminum alloy 6201-T81 (AAAC) support conductor, concentric stranded.

.

Insulation

Composed of cross-linked polyethylene XLPE, resistant to UV rays.

Applicable Standards

- NTC 5346, ICEA S-76-474.
- NTC 4334, ASTM B-400.
- NTC 2730, ASTM B-399.

SELF SUPPORTED MULTIPLEX CABLES (Bare AAAC Neutral)

CHARACTERISTIC TABLE I

Name	Cross section [mm²]	Nb. of cores	Phase Conductor Conductor cross-section (AWG)	Nom. insulation thick. [mm]	Neutral Conductor cross-section (AWG)	Nom. outer diam. [mm]	Approx. weight [kg/km]
3x4+48.69	21.2	4	4 AWG	1.14	48.69 kcmil	22.72	319.73
2x2+77.47	33.6	3	2 AWG	1.14	77.47 kcmil	18.98	357.84
3x1/0+123.3	53.5	4	1/0 AWG	1.52	123.3 kcmil	31.37	768.25
2x2/0+155.4	67.4	3	2/0 AWG	1.52	155.4 kcmil	26.43	703.68
3x2/0+155.4	67.4	4	2/0 AWG	1.52	155.4 kcmil	34.33	945.97
2x4/0+246.9	107	3	4/0 AWG	1.52	246.9 kcmil	32.07	1080.2
3x4/0+246.9	107	4	4/0 AWG	1.52	246.9 kcmil	41.37	1446.24

CHARACTERISTIC TABLE II

Name	Cross section [mm²]	Nb. of cores	Phase Conductor Conductor cross-section (AWG)	Neutral Conductor cross-section (AWG)	Ampacity [A]	Rated breaking load [kgf]	Max. DC Resist. Cond. 20°C [Ohm/km]
3x4+48.69	21.2	4	4 AWG	48.69 kcmil	91.0	799	1.386
2x2+77.47	33.6	3	2 AWG	77.47 kcmil	123.0	1265	0.874
3x1/0+123.3	53.5	4	1/0 AWG	123.3 kcmil	167.0	1929	0.548
2x2/0+155.4	67.4	3	2/0 AWG	155.4 kcmil	193.0	2429	0.435
3x2/0+155.4	67.4	4	2/0 AWG	155.4 kcmil	193.0	2429	0.435
2x4/0+246.9	107	3	4/0 AWG	246.9 kcmil	262.0	3857	0.274
3x4/0+246.9	107	4	4/0 AWG	246.9 kcmil	262.0	3857	0.274

COVERED OVERHEAD CABLES (Tree Wire) 3C - ACSR Conductor

ACSR conductor with XLPE semiconductor layer, XLPE inner layer and XLPE-TK external layer with tracking and weather resistant.

STANDARDS

Product ASTM B 232 National NTC 5909

APPLICATIONS

COVERED OVERHEAD CABLES 3C (3 layers) are used as power distribution lines in wooded areas . They offer greater reliability of operation and compatibility with the environment.

Construction Conductor

Conductor

Aluminum Conductor with Steel Core (ACSR), concentric stranded with moisture migration blocking.

Layer 1

Extruded conductor shielding in semiconductive Cross-linked Polyethylene (XLPE).

Layer 2

Extruded Cross-linked Polyethylene insulation compound (XLPE)

Layer 3

Extruded Cross-linked Polyethylene covering compound with abrasion, tracking and weather resistance (XLPE-TK)

Applicable Standards

- NTC 5909
- ASTM B232
- ASTM B401

COVERED OVERHEAD CABLES (Tree Wire) 3C - ACSR Conductor

CHARACTERISTIC TABLE

Name	Ope. volt. [kV]	N° aluminium wires	Nb Steel wire	Av. insul. thickness [mm]	Average sheath thickness [mm]	Outer Diameter [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm. current rating open air [A]
2AWG	15	6	1	1.91	1.91	16.94	301	0.846	190
1/0AWG	15	6	1	1.91	1.91	18.97	427.52	0.532	249
2/0AWG	15	6	1	1.91	1.91	20.17	485	0.422	285
4/0AWG	15	6	1	1.91	1.91	23.04	691	0.265	368
266.8kcmil	15	18	1	1.91	1.91	24.16	761	0.216	464
1/0AWG	35	6	1	4.45	3.18	26.57	681.1	0.532	249
2/0AWG	35	6	1	4.45	3.18	27.77	745	0.422	285
4/0AWG	35	6	1	4.45	3.18	30.64	982	0.265	368
266.8kcmil	35	18	1	4.45	3.18	31.76	994	0.216	464
266.8kcmil	46	18	1	5.7	4.45	36.9	1332	0.216	464

COVERED OVERHEAD CABLES (Tree Wire) 2C - ACSR Conductor

ACSR conductor with XLPE semiconductor layer and XLPE-TK external layer with tracking and weather resistant.

STANDARDS

Product ASTM B 232 National NTC 5909

APPLICATIONS

COVERED OVERHEAD CABLES 2C (2 layers) are used as power distribution lines in wooded areas . They offer greater reliability of operation and compatibility with the environment.

Construction Conductor

Conductor

Aluminum Conductor with Steel Core (ACSR), concentric stranded with moisture migration blocking.

Layer 1

Conductor shielding in semiconductor cross-linked polyethylene (XLPE).

Layer 2

Cross-linked polyethylene compound (XLPE-TK) with abrasion, tracking and weather resistant.

Applicable Standards

- NTC 5909
- ASTM B232
- ASTM B401

COVERED OVERHEAD CABLES (Tree Wire) 2C - ACSR Conductor

CHARACTERISTIC TABLE

Name	Ope. volt. [kV]	N° aluminium wires	Nb Steel wire	Average sheath thickness [mm]	Outer Diameter [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm. current rating open air [A]
2AWG	15	6	1	3.0	14.73	262.2	0.846	190
1/0AWG	15	6	1	3.0	16.65	365.85	0.532	249
2/0AWG	15	6	1	3.0	17.78	436	0.422	285
4/0AWG	15	6	1	3.0	20.49	630.55	0.265	368

COVERED OVERHEAD CABLES (Tree Wire) 3C - AAAC Conductor

AAAC conductor with XLPE semiconductor layer, XLPE inner layer and XLPE-TK external layer with tracking and weather resistance.

STANDARDS

Product ASTM B 398; ASTM B 399 National NTC 5909

APPLICATIONS

COVERED OVERHEAD CABLES (Tree Wire) 3C (3 layers) are used as power transmission and distribution lines in wooded areas . They offer greater reliability of operation and compatibility with the environment.

Construction Conductor

Conductor

Aluminum Alloy 6201-T81 Conductor (AAAC), concentric stranded.

Layer 1

Extruded conductor shielding in semiconductive Cross-linked Polyethylene (XLPE).

Layer 2

Extruded Cross-linked Polyethylene insulation compound (XLPE)

Layer 3

Extruded Cross-linked Polyethylene covering compound with abrasion, tracking and weather resistance (XLPE-TK).

Applicable Standards

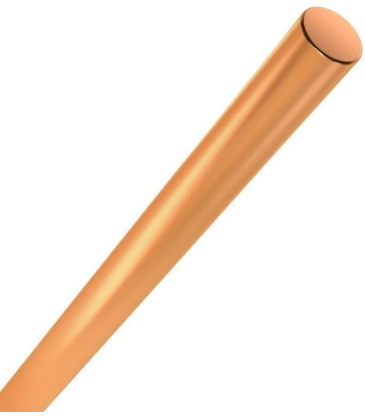
- ASTM B398
- ASTM B399
- NTC 5909

COVERED OVERHEAD CABLES (Tree Wire) 3C - AAAC Conductor

CHARACTERISTIC TABLE

Name	Ope. volt. [kV]	N° aluminium wires	Av. insul. thickness [mm]	Average sheath thickness [mm]	Outer Diameter [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm. current rating open air [A]
123.3 kcmil	15	7	1.91	1.91	18.97	379.71	0.547	262
155.4 kcmil	15	7	1.91	1.91	20.17	443.75	0.435	303
246.9 kcmil	15	7	1.91	1.91	23.04	618.74	0.273	406
312.8 kcmil	15	19	1.91	1.91	24.97	734.57	0.215	473
394.5 kcmil	15	19	1.91	1.91	26.91	880.02	0.171	547
559.5 kcmil	15	19	1.91	1.91	30.3	1166.56	0.12	682
123.3 kcmil	35	7	4.45	3.18	26.57	633.29	0.547	262
155.4 kcmil	35	7	4.45	3.18	27.77	710.65	0.435	303
246.9 kcmil	35	7	4.45	3.18	30.64	917.49	0.273	406
312.8 kcmil	35	19	4.45	3.18	32.57	1054.74	0.215	473
394.5 kcmil	35	19	4.45	3.18	34.51	1221.72	0.171	547
559.5 kcmil	35	19	4.45	3.18	37.9	1545.89	0.12	682

BARE COPPER WIRE



Solid copper wire soft

STANDARDS

Product ASTM B 3 National NTC 359

APPLICATIONS

Transmission and distribution of electrical energy, in aerial installation and for grounding systems.

Construction Conductor

Conductor

Bare copper wire soft .

Optional

Hard temper and Medium temper bare copper wire.

Applicable Standards

• NTC 359,ASTM B3,ASTM B1,ASTM B2.

BARE COPPER WIRE

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Ampacity [A]
A.14AWG	2.08	18.3	8.456	65.0
A.12AWG	3.31	29.1	5.314	71.0
A.10AWG	5.26	46.3	3.346	82.0

CONTACT
admin@cbccable.com
www.cbccable.com

Bare Copper Coated Steel Cables and Wires (CCS)

Bare concentric-lay-stranded conductors made from bare round copper-clad steel wires.

STANDARDS

CCS cables and wires are used in power distribution networks for the construction of grounding systems or general use for electrical purposes.

APPLICATIONS

Transmission and distribution of electrical energy, in aerial installation and for grounding systems.

Construction Conductor

Cables composed of copper-clad steel wires with high and extra-high strength and conductivities of 30% and 40%.

Applicable Standards

- ASTM B228
- ET-TD-ME01-29

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Nb Steel wire	Bare wire diameter [mm]	Outer Diameter [mm]	Approx. weight [kg/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Minimum breaking load [kgf]
3x12 AWG	9.921	3	2.052	4.22	65.4	4.555	747
7x12 AWG	23.167	7	2.052	6.16	194.71	1.956	1686
7x7 AWG	73.847	7	3.665	11	608.5	0.613	5575
19x5 AWG	318.789	19	4.622	23.11	3677.55	0.143	22108

BARE COPPER CABLE Meter by Meter

Bare Copper Cable Meter by Meter - Marking on bare copper, Meter by Meter, to achieve a higher level of precision when cutting.

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STANDARDS

Product ASTM B 3; ASTM B 496; ASTM B 8 National NTC 307; NTC 359

APPLICATIONS

Transmission and distribution of electrical energy, in aerial installation and for grounding systems.

Construction Conductor

Conductor

Soft bare copper conductor, concentric stranded.

Applicable Standards

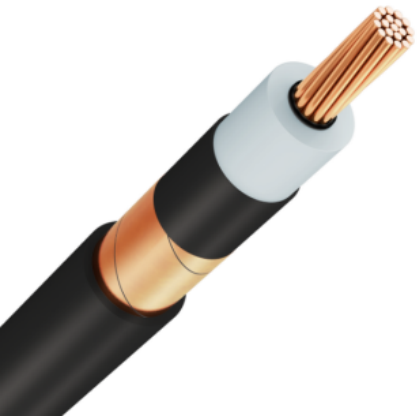
ASTM B1, NTC 1744, ASTM B2, NTC 1745, ASTM B3, NTC 359, ASTM B8, NTC 307,ASTM B496,ASTM B787.

IEC 60228 (Applicable standard for millimeter sections class 2 and class 5)

CHARACTERISTIC TABLE

Name	Cross section [mm²]	Conductor diam. [mm]	Ampacity [A]	Max. DC Resist. Cond. 20°C [Ohm/km]	Approx. weight [kg/km]
8 AWG	8.37	3.7	98.0	2.142	73.11
6 AWG	13.3	4.67	124.0	1.346	120.39
4 AWG	21.15	5.89	155.0	0.847	191.71
2 AWG	33.63	7.42	209.0	0.532	305
1/0 AWG	53.51	9.47	282.0	0.335	484
2/0 AWG	67.44	10.63	329.0	0.266	612
3/0 AWG	85.03	11.94	382.0	0.2111	771
4/0 AWG	107.22	13.4	66.0	0.167	943
250 Kcmil	126.7	14.62	494.0	0.142	1149
350 Kcmil	177.3	17.29	610.0	0.1011	1608
500 Kcmil	253.4	29.67	773.0	0.071	2295

Medium Voltage Copper 90°C XLPE 15kV 100 PC PVC



Single Medium Voltage Cables, XLPE Insulated and PVC Jacket.

STANDARDS

Product ASTM B 496; ASTM B 8; ICEA S-93-639; UL 1072

APPLICATIONS

Medium Voltage single corecables are used in energy distribution networks, as feeders for transformers in substations, industrial facilities and urbanizations. They are suitable for installations in dry or wet locations, outdoors and in underground ducts.

Construction Conductor

1. Conductor: Plain annealed Copper, compact class B stranding.

2. Conductor screen: Extruded semiconductive compound.

3. Insulation: Cross-linked Polyethylene (XLPE).

4. Insulation screen: Strippable semiconductive compund. These last three components extruded in CV (continuous vulcanization) of tripleextrusion in the dry curing process.

5. Screen: : Made up of copper tape.

6. Outer jacket: PVC compound, flame retardant, resistant to heat, abrasion and humidity, resistant to sunlight (SR), black color.

Applicable Standards

ICEA S-93-639, NTC 2186-2, NEMA WC 74.

Operating Temperature

90 °C.

Operating Voltage

15 kV.

Medium Voltage Copper 90°C XLPE 15kV 100% PC PVC

DIMENSIONAL DATA

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
	33.6	2 AWG	7	6.81	21.58	700	2	259
	53.5	1/0 AWG	19	8.52	24.05	963	4	289
	67.4	2/0 AWG	19	9.57	25.1	1121	5	301
	85	3/0 AWG	19	10.75	26.28	1313	6	315
	107	4/0 AWG	19	12.1	27.6	1551	7	331
	127	250 KCMIL	37	13.25	28.78	1755	9	345
	177	350 KCMIL	37	15.68	31.21	2285	12	375
	253	500 KCMIL	37	18.74	34.27	3048	17	411

ELECTRICAL DATA I

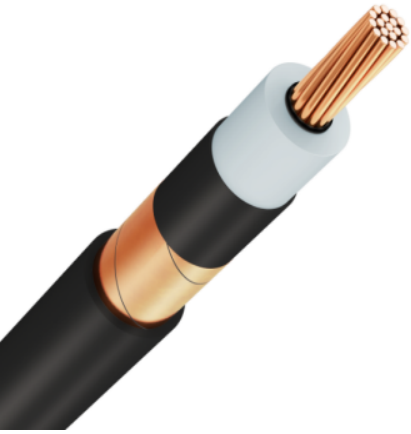
	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/duct 20°C - trefoil [A]
	33.6	2 AWG	0.531	0.68	195	155
	53.5	1/0 AWG	0.335	0.428	260	200
	67.4	2/0 AWG	0.266	0.34	300	230
	85	3/0 AWG	0.21	0.269	345	260
	107	4/0 AWG	0.167	0.214	400	295
	127	250 KCMIL	0.142	0.181	445	325
	177	350 KCMIL	0.101	0.13	550	390
	253	500 KCMIL	0.071	0.092	685	465

Medium Voltage Copper 90°C XLPE 15kV 100% PC PVC

ELECTRICAL DATA II

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
	33.6	2 AWG	174.0	0.163	0.181
	53.5	1/0 AWG	200.0	0.151	0.169
	67.4	2/0 AWG	216.0	0.146	0.163
	85	3/0 AWG	234.0	0.141	0.158
	107	4/0 AWG	254.0	0.136	0.153
	127	250 KCMIL	271.0	0.127	0.145
	177	350 KCMIL	308.0	0.124	0.141
	253	500 KCMIL	353.0	0.118	0.135

Medium Voltage Copper 90°C XLPE 15kV 133% PC PVC



Single Medium Voltage Cables, XLPE Insulated and PVC Jacket.

STANDARDS

Product ASTM B 496; ASTM B 8; ICEA S-93-639; UL 1072

APPLICATIONS

Medium Voltage single corecables are used in energy distribution networks, as feeders for transformers in substations, industrial facilities and urbanizations. They are suitable for installations in dry or wet locations, outdoors and in underground ducts.

Construction Conductor

1. Conductor: Plain annealed Copper, compact class B stranding.

2. Conductor screen: Extruded semiconductive compound.

3. Insulation: Cross-linked Polyethylene (XLPE).

4. Insulation screen: Strippable semiconductive compund.

These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.

5. Screen: Made up of copper tape.

6. Outer jacket: PVC compound, flame retardant, resistant to heat, abrasion and humidity, resistant to sunlight (SR), black color.

Applicable Standards

ICEA S-93-639, NTC 2186-2, NEMA WC 74.

Operating Temperature

90 °C.

Operating Voltage

15 kV.

Medium Voltage Copper 90°C XLPE 15kV 133% PC PVC

DIMENSIONAL DATA

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
	33.6	2 AWG	7	6.81	24.72	830.47	2	297
	53.5	1/0 AWG	19	8.52	26.43	1063.11	4	317
	67.4	2/0 AWG	19	9.57	27.48	1224.62	5	330
	85	3/0 AWG	19	10.75	28.66	1420.73	6	344
	107	4/0 AWG	19	12.1	29.98	1662.89	7	360
	127	250 KCMIL	37	13.25	31.16	1870.47	9	374
	177	350 KCMIL	37	15.68	33.59	2409.11	12	403
	253	500 KCMIL	37	18.74	36.65	3182.52	17	440

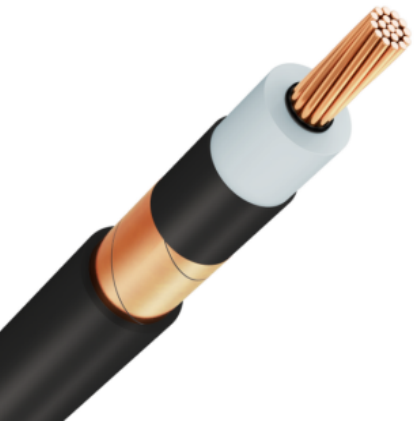
ELECTRICAL DATA I

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/duct 20°C - trefoil [A]
	33.6	2 AWG	0.531	0.68	195	155
	53.5	1/0 AWG	0.335	0.428	260	200
	67.4	2/0 AWG	0.266	0.34	300	230
	85	3/0 AWG	0.21	0.269	345	260
	107	4/0 AWG	0.167	0.214	400	295
	127	250 KCMIL	0.142	0.181	445	325
	177	350 KCMIL	0.101	0.13	550	390
	253	500 KCMIL	0.071	0.092	685	465

ELECTRICAL DATA II

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
	33.6	2 AWG	147.0	0.174	0.191
	53.5	1/0 AWG	168.0	0.159	0.176
	67.4	2/0 AWG	181.0	0.153	0.17
	85	3/0 AWG	195.0	0.147	0.165
	107	4/0 AWG	211.0	0.142	0.159
	127	250 KCMIL	225.0	0.137	0.154
	177	350 KCMIL	253.0	0.13	0.147
	253	500 KCMIL	289.0	0.123	0.14

Medium Voltage Copper 90°C XLPE 15kV 133% PC PVC



Single Medium Voltage Cables, XLPE Insulated and PVC Jacket.

STANDARDS

Product ASTM B 496; ASTM B 8; ICEA S-93-639; UL 1072

APPLICATIONS

Medium Voltage single corecables are used in energy distribution networks, as feeders for transformers in substations, industrial facilities and urbanizations. They are suitable for installations in dry or wet locations, outdoors and in underground ducts.

Construction Conductor

.1. Conductor: Plain annealed Copper, compact class B stranding.

2. Conductor screen: Extruded semiconductive compound.

3. Insulation: Cross-linked Polyethylene (XLPE).

4. Insulation screen: Strippable semiconductive compund.

These last three components extruded in CV (continuous vulcanization) of

tripleextrusion in the dry curing process.

5. Screen: : Made up of copper tape.

6. Outer jacket: PVC compound, flame retardant, resistant to heat, abrasion and

humidity, resistant to sunlight (SR), black color.

Applicable Standards

ICEA S-93-639, NTC 2186-2, NEMA WC 74.

Operating Temperature

90 °C.

Operating Voltage

35 kV.

Medium Voltage Copper 90°C XLPE 15kV 133% PC PVC

DIMENSIONAL DATA

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
	53.5	1/0 AWG	19	8.52	36.47	1639.6	4	438
	67.4	2/0 AWG	19	9.57	37.52	1818.49	5	450
	85	3/0 AWG	19	10.75	38.7	2034.14	6	464
	107	4/0 AWG	19	12.07	40.02	2298.17	7	480
	127	250 KCMIL	37	13.25	41.2	2525.29	9	494
	177	350 KCMIL	37	15.68	43.63	3104.17	12	524
	253	500 KCMIL	37	18.74	48.21	4087.44	17	579

ELECTRICAL DATA I

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/duct 20°C - trefoil [A]
	53.5	1/0 AWG	0.335	0.428	260	200
	67.4	2/0 AWG	0.266	0.34	300	230
	85	3/0 AWG	0.21	0.269	345	260
	107	4/0 AWG	0.167	0.214	395	295
	127	250 KCMIL	0.142	0.181	440	325
	177	350 KCMIL	0.101	0.13	545	390
	253	500 KCMIL	0.071	0.092	680	465

ELECTRICAL DATA II

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
	53.5	1/0 AWG	111.325	0.183	0.2
	67.4	2/0 AWG	118.43	0.176	0.194
	85	3/0 AWG	126.322	0.17	0.187
	107	4/0 AWG	135.052	0.164	0.181
	127	250 KCMIL	142.787	0.158	0.175
	177	350 KCMIL	158.55	0.149	0.167
	253	500 KCMIL	178.167	0.143	0.161

Medium Voltage Copper 90°C XLPE 15 kV 133% N=1/3 PVC

Medium Voltage Copper Power Cable meets all the requirements of the ICEA S-94-649 Standard.

STANDARDS

Product ASTM B 3; ASTM B 496; ICEA S-94-649

APPLICATIONS

Medium Voltage single core cables are used in electrical energy distribution networks as feeders for transformers in substations, industrial facilities and urbanizations. They are suitable for installations in dry or wet locations, outdoors, underground ducts or directly buried in earth.

Construction Conductor

1. Conductor: Plain annealed Copper, compact class B stranding.

2. Conductor screen: Extruded semiconductive compound.

3. Insulation: Cross-linked Polyethylene (XLPE).

4. Insulation screen: Strippable semiconductive compund.

These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.

5. Concentric Neutral: Made up of round copper wires with a total cross section equal to one third of phase conductor section (N=1/3), with a non hygroscopic separator tape over the wires.

6. Outer jacket: PVC compound, flame retardant, resistant to heat, abrasion and humidity, resistant to sunlight (SR), black color.

Applicable Standards

ICEA S-94-649, NTC 2186-1.

Operating Temperature

90 °C.

Operating Voltage

15 kV.

Medium Voltage Copper 90°C XLPE 15 kV 133% N=1/3 PVC

DIMENSIONAL DATA

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
	33.6	2 AWG	7	6.81	27.56	937.65	2	331
	53.5	1/0 AWG	19	8.52	29.27	1228.94	4	352
	67.4	2/0 AWG	19	9.57	30.32	1437.8	5	364
	85	3/0 AWG	19	10.75	31.5	1681.08	6	378
	107	4/0 AWG	19	12.07	33.5	2008.74	7	402
	127	250 KCMIL	37	13.25	35.18	2302.33	9	423
	177	350 KCMIL	37	15.68	38.45	2994.2	12	462
	253	500 KCMIL	37	18.74	42.59	4054.45	17	512

ELECTRICAL DATA I

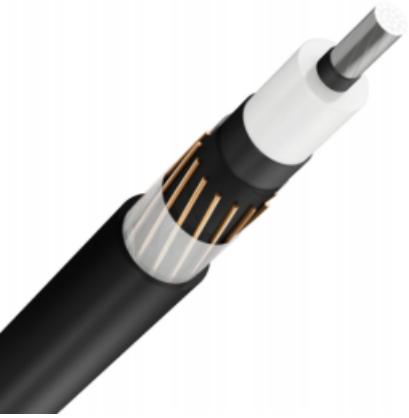
	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/duct 20°C - trefoil [A]
	33.6	2 AWG	0.531	0.68	195	155
	53.5	1/0 AWG	0.335	0.428	260	200
	67.4	2/0 AWG	0.266	0.34	300	230
	85	3/0 AWG	0.21	0.269	345	260
	107	4/0 AWG	0.167	0.214	400	295
	127	250 KCMIL	0.142	0.181	445	325
	177	350 KCMIL	0.101	0.13	550	390
	253	500 KCMIL	0.071	0.092	685	465

Medium Voltage Copper 90°C XLPE 15 kV 133% N=1/3 PVC

ELECTRICAL DATA II

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
	33.6	2 AWG	147.0	0.182	0.199
	53.5	1/0 AWG	168.0	0.166	0.184
	67.4	2/0 AWG	181.0	0.16	0.178
	85	3/0 AWG	195.0	0.154	0.172
	107	4/0 AWG	211.0	0.15	0.168
	127	250 KCMIL	225.0	0.146	0.163
	177	350 KCMIL	254.0	0.14	0.157
	253	500 KCMIL	290.0	0.134	0.151

Medium Voltage Copper 90°C XLPE 15 kV 133% N=1/3 PVC



Premium Nexans Medium Voltage Aluminum Power Cable meets all the requirements of the ICEA S-94-649 Standard.

STANDARDS

Product ASTM B 230; ICEA S-94-649

PREMIUM SOLAR CABLE

Premium Medium Voltage Aluminum Power Cable meets all the requirements of the ICEA S-94-649 Standard. It has a 1350 aluminum conductor, concentric stranded with humidity blocking, cross-linked polyethylene (XLPE-TR) insulation, concentric neutral in copper wires, water blocking tapes before and after the neutral wires, Polyethylene jacket, resistant to heat, abrasion and humidity, resistant to solar rays. Compounds free of hazardous substances (RoHS)

APPLICATION AND FEATURES

Power supply of 15kV Medium Voltage circuits at 133% insulation level, mainly the connection between the feeder transformer and the electrical distribution network. Cables suitable for installation in outdoors exposed to sunlight, underground ducts, directly buried, in dry or wet locations.
Main features:

• Directly buried installation, according to ICEA S-94-649 standard.
Resistance to solar rays, complying with the test defined in the ICEA S-94-649 standard, exposure to 720 hours.

• Cable designed to be permanently submerged in water according to the condition AD8, according to the test procedure of the NBR 14039 standard.

Construction Conductor

1. Conductor: Compacted Aluminum, class B with moisture blocking.

2. Internal semi-conductor: Extruded compound.

3. Insulation: Cross-linked polyethylene XLPE-TR.

4. External semi-conductor: Peelable extruded compound.

These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.

5. Concentric Neutral: Made up of copper wires N=1/3, with water blocking tapes before and after the wires.

6. Outer jacket: LDPE compound resistant to heat, abrasion and humidity, resistant to solar rays (SR), black color.

Medium Voltage Copper 90°C XLPE 15 kV 133% N=1/3 PVC

Applicable Standards

ICEA S-94-649, NTC 2186-1.

Operating Temperature

90 °C.

Operating Voltage

15 kV.

DIMENSIONAL DATA

Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
33.6	2 AWG	7	6.81	29.18	640.97	2	351
53.5	1/0 AWG	19	8.52	30.89	779.4	3	371
67.4	2/0 AWG	19	9.57	31.94	872.18	4	384
85	3/0 AWG	19	10.75	33.12	991.03	4	398
107	4/0 AWG	19	12.1	34.44	1126.7	6	414
127	250 KCMIL	37	13.25	36.12	1278.8	7	434
177	350 KCMIL	37	15.68	39.23	1600.6	9	471
253	500 KCMIL	37	18.74	42.29	2037.73	13	508

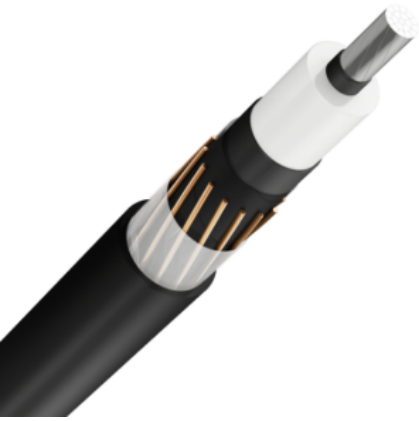
ELECTRICAL DATA I

Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/ duct 20°C - trefoil [A]
33.6	2 AWG	0.874	1.118	150	120
53.5	1/0 AWG	0.55	0.703	200	155
67.4	2/0 AWG	0.437	0.558	235	175
85	3/0 AWG	0.345	0.443	270	200
107	4/0 AWG	0.274	0.351	310	230
127	250 KCMIL	0.233	0.297	345	250
177	350 KCMIL	0.165	0.213	430	305
253	500 KCMIL	0.116	0.149	535	370

ELECTRICAL DATA II

Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
33.6	2 AWG	147.0	0.186	0.204
53.5	1/0 AWG	168.0	0.17	0.188
67.4	2/0 AWG	181.0	0.164	0.181
85	3/0 AWG	195.0	0.158	0.175
107	4/0 AWG	211.0	0.152	0.17
127	250 KCMIL	225.0	0.148	0.165
177	350 KCMIL	253.0	0.141	0.159
253	500 KCMIL	289.0	0.134	0.151

Cable Premium Potencia Media Tensión Aluminio XLPE-TR/PE 18/30kV N=16mm2 (-2OL)



Premium Medium Voltage Aluminum Power Cable meets all the requirements of the IEC 60502-2 Standard

STANDARDS

Product IEC 60228 Class 2 ; IEC 60502-2

PREMIUM SOLAR CABLE

Premium Medium Voltage Aluminum Power Cable meets all the requirements of the IEC 60502-2Standard. It has a 1350 aluminum conductor, concentric stranded with humidity blocking, cross-linked polyethylene insulation (XLPE-TR), concentric neutral in copper wires, water blocking tapes before and after the neutral wires, polyethylene jacket, resistant to heat, solar rays, abrasion and humidity. Compounds free of hazardous substances (RoHS).

APPLICATION AND FEATURES

Power supply of 18/30(36) kV Medium Voltage circuits, mainly the connection between the feeder transformer and the electrical distribution network. Cables suitable for installation in outdoors exposed to sunlight, underground ducts, directly buried, in dry or wet locations.

Main features:
- Directly buried installation, according to IEC 60502-2 standard.
- Sunlight resistance, according to ICEA S-93-639 standard.
- Cable designed to be permanently submerged in water according to the condition AD8, according to the test procedure of the NBR 14039 standard.

Construction Conductor

1. Conductor: Compacted Aluminum, class B with moisture blocking.
2. Internal semi-conductor:Extruded compound.
3. Insulation:Cross-linked polyethylene XLPE-TR (Tree retardant).
4. External semi-conductor:Peelable extruded compound.

These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.

5. Concentric Neutral:Made up of copper wires N=16mm2, with water blocking tapes before and after the wires.
6. Outer jacket:LDPE compound resistant to heat, abrasion and humidity, resistant to solar rays (SR), black color.

Cable Premium Potencia Media Tensión Aluminio XLPE-TR/PE 18/30kV N=16mm2 (-2OL)

DIMENSIONAL DATA

Name	Cross section [mm²]	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
240 mm2	240	37	18.25	43.21	1766.5	12	519
300 mm2	300	61	20.58	45.54	2006.7	15	547
400 mm2	400	61	23.57	48.39	2330.5	20	581
630 mm2	630	61	29.98	55.42	3262.3	32	666

ELECTRICAL DATA I

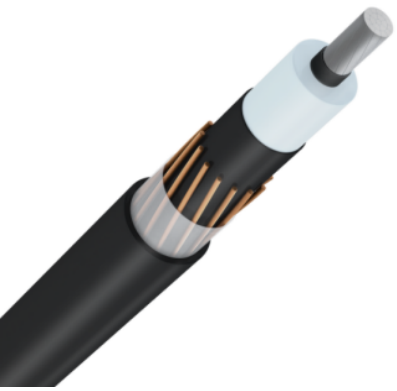
Name	Cross section [mm²]	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90° C [Ohm/km]	Perm current rating in air 30°C [A]	Perm. Current buried/ duct 20°C - trefoil [A]
240 mm2	240	0.124	0.163	502	367
300 mm2	300	0.099	0.131	577	414
400 mm2	400	0.077	0.102	673	470
630 mm2	630	0.046	0.063	889	596

Cable Premium Potencia Media Tensión Aluminio XLPE-TR/PE 18/30kV N=16mm2 (-2OL)

ELECTRICAL DATA II

Name	Cross section [mm²]	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
240 mm2	240	228.2	0.137	0.155
300 mm2	300	249.1	0.132	0.149
400 mm2	400	273.1	0.127	0.144
630 mm2	630	332.7	0.118	0.136

Cable Premium Potencia Media Tensión Aluminio XLPE-TR/PE 35kV 133% N=1/3



Premium Medium Voltage Aluminum Power Cable meets all the requirements of the ICEA S-94-649 Standard

STANDARDS

Product ASTM B 230; ICEA S-94-649

PREMIUM SOLAR CABLE

Premium Medium Voltage Aluminum Power Cable meets all the requirements of the ICEA S-94-649 Standard. It has a 1350 aluminum conductor, concentric stranded with humidity blocking, cross-linked polyethylene (XLPE-TR) insulation, concentric neutral in copper wires, water blocking tapes before and after the neutral wires, Polyethylene jacket, resistant to heat, abrasion and humidity, resistant to solar rays. Compounds free of hazardous substances (RoHS).

APPLICATION AND FEATURES

Power supply of 35kV Medium Voltage circuits at 133% insulation level, mainly the connection between the feeder transformer and the electrical distribution network. Cables suitable for installation in outdoors exposed to sunlight, underground ducts, directly buried, in dry or wet locations.

Main features:
• Directly buried installation, according to ICEA S-94-649 standard.
Resistance to solar rays, complying with the test defined in the ICEA S-94-649 standard, exposure to 720 hours.
•
Cable designed to be permanently submerged in water according to the condition AD8, according to the test procedure of the NBR 14039 standard

Construction Conductor

1. Conductor: Compacted Aluminum, class B with moisture blocking.
2. Internal semi-conductor:Extruded compound.
3. Insulation:Cross-linked polyethylene XLPE-TR (Tree retardant).
4. External semi-conductor:Peelable extruded compound.
These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.
5. Concentric Neutral:Made up of copper wires N=1/3, with water blocking tapes before and after the wires.
6. Outer jacket:LDPE compound resistant to heat, abrasion and humidity, resistant to solar rays (SR), black color.

Cable Premium Potencia Media Tensión Aluminio XLPE-TR/PE 35kV 133% N=1/3

Applicable Standards

ICEA S-94-649, NTC 2186-1.

Operating Temperature

90 °C.

Operating Voltage

35 kV.

DIMENSIONAL DATA

Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
53.5	1/0 AWG	19	8.52	41.24	1274.5	3	495
67.4	2/0 AWG	19	9.57	42.29	1383.19	4	508
85	3/0 AWG	19	10.75	43.47	1519.89	4	522
107	4/0 AWG	19	12.1	44.79	1675.55	6	538
127	250 KCMIL	37	13.25	47.49	1920.68	7	570
177	350 KCMIL	37	15.68	50.6	2283.94	9	608
253	500 KCMIL	37	18.74	54.46	2841.33	13	654
380	750 KCMIL	61	23.1	59.86	3676.3	20	719

ELECTRICAL DATA I

Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/ duct 20°C - trefoil [A]
53.5	1/0 AWG	0.55	0.703	200	155
67.4	2/0 AWG	0.437	0.558	235	175
85	3/0 AWG	0.345	0.443	270	200
107	4/0 AWG	0.274	0.351	310	230
127	250 KCMIL	0.233	0.297	345	250
177	350 KCMIL	0.165	0.213	430	305
253	500 KCMIL	0.116	0.149	535	370
380	750 KCMIL	0.08	0.1	685	455

ELECTRICAL DATA II

Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
53.5	1/0 AWG	111.0	0.192	0.209
67.4	2/0 AWG	118.0	0.185	0.203
85	3/0 AWG	126.0	0.179	0.196
107	4/0 AWG	135.0	0.172	0.189
127	250 KCMIL	142.0	0.168	0.186
177	350 KCMIL	158.0	0.16	0.178
253	500 KCMIL	178.0	0.153	0.17
380	750 KCMIL	207.0	0.144	0.161

Medium Voltage Aluminum 90°C XLPE 15kV 100% PC PVC

Single Medium Voltage Cables, XLPE Insulated and PVC Jacket.

STANDARDS

Product ASTM B 230; ICEA S-93-639; UL 1072

APPLICATION AND FEATURES

Medium Votage single cables are used in electrical energy distribution networks, as feeders for transformers in substations, industrial facilities and urbanizations. They are suitable for installations in dry or wet locations, outdoors and in underground ducts.

Construction Conductor

1. Conductor: Compacted Aluminum, class B with moisture blocking.
2. Internal semi-conductor:Extruded compound.
3. Insulation:Cross-linked polyethylene XLPE-TR (Tree retardant).
4. External semi-conductor:Peelable extruded compound.
These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.
5. Concentric Neutral:Made up of copper wires N=1/3, with water blocking tapes before and after the wires.
6. Outer jacket:LDPE compound resistant to heat, abrasion and humidity, resistant to solar rays (SR), black color.

Applicable Standards

ICEA S-93-639, NTC 2186-2, NEMA WC 74.

Operating Temperature

90 °C.

Operating Voltage

15 kV.

Medium Voltage Aluminum 90°C XLPE 15kV 100% PC PVC

DIMENSIONAL DATA

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
	33.6	2 AWG	7	6.81	21.58	494.66	2	259
	53.5	1/0 AWG	19	8.52	24.05	633.49	3	289
	67.4	2/0 AWG	19	9.57	25.1	701.86	4	302
	85	3/0 AWG	19	10.75	26.28	784.01	5	316
	107	4/0 AWG	19	12.1	27.6	882.9	6	332
	127	250 KCMIL	37	13.25	28.78	969.4	7	346
	177	350 KCMIL	37	15.68	31.21	1178.27	9	375
	253	500 KCMIL	37	18.74	34.27	1474.99	13	412

ELECTRICAL DATA I

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/duct 20°C - trefoil [A]
	33.6	2 AWG	0.874	1.118	150	120
	53.5	1/0 AWG	0.55	0.703	200	155
	67.4	2/0 AWG	0.437	0.558	235	175
	85	3/0 AWG	0.345	0.443	270	200
	107	4/0 AWG	0.274	0.351	310	230
	127	250 KCMIL	0.233	0.297	345	250
	177	350 KCMIL	0.165	0.213	430	305
	253	500 KCMIL	0.116	0.149	535	370

Medium Voltage Aluminum 90°C XLPE 15kV 100% PC PVC

ELECTRICAL DATA II

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
	33.6	2 AWG	174.0	0.163	0.181
	53.5	1/0 AWG	200.0	0.151	0.169
	67.4	2/0 AWG	216.0	0.146	0.163
	85	3/0 AWG	234.0	0.141	0.158
	107	4/0 AWG	254.0	0.136	0.153
	127	250 KCMIL	271.0	0.131	0.148
	177	350 KCMIL	308.0	0.124	0.141
	253	500 KCMIL	353.0	0.118	0.135

Medium Voltage Aluminum 90°C XLPE 15kV 133% PC PVC

Single Medium Voltage Cables, XLPE Insulated and PVC Jacket.

STANDARDS

Product ASTM B 230; ICEA S-93-639; UL 1072

APPLICATION AND FEATURES

Medium Votage single cables are used in electrical energy distribution networks, as feeders for transformers in substations, industrial facilities and urbanizations. They are suitable for installations in dry or wet locations, outdoors and in underground ducts.

Construction Conductor

1. Conductor: Compacted Aluminum, class B with moisture blocking.
2. Internal semi-conductor:Extruded compound.
3. Insulation:Cross-linked polyethylene XLPE-TR (Tree retardant).
4. External semi-conductor:Peelable extruded compound.

These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.

5. Concentric Neutral:Made up of copper wires N=1/3, with water blocking tapes before and after the wires.
6. Outer jacket:LDPE compound resistant to heat, abrasion and humidity, resistant to solar rays (SR), black color.

Applicable Standards

ICEA S-93-639, NTC 2186-2, NEMA WC 74.

Operating Temperature

90 °C.

Operating Voltage

15 kV.

Medium Voltage Aluminum 90°C XLPE 15kV 133% PC PVC

DIMENSIONAL DATA

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
	33.6	2 AWG	7	6.81	24.72	625.52	2	297
	53.5	1/0 AWG	19	8.52	26.43	733.39	3	317
	67.4	2/0 AWG	19	9.57	27.48	805.37	4	330
	85	3/0 AWG	19	10.75	28.66	891.59	5	344
	107	4/0 AWG	19	12.1	29.98	995.02	6	360
	127	250 KCMIL	37	13.25	31.16	1085.57	7	374
	177	350 KCMIL	37	15.68	33.59	1302.81	9	403
	253	500 KCMIL	37	18.74	36.65	1610.04	13	440

ELECTRICAL DATA I

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/duct 20°C - trefoil [A]
	33.6	2 AWG	0.874	1.118	150	120
	53.5	1/0 AWG	0.55	0.703	200	155
	67.4	2/0 AWG	0.437	0.558	235	175
	85	3/0 AWG	0.345	0.443	270	200
	107	4/0 AWG	0.274	0.351	310	230
	127	250 KCMIL	0.233	0.297	345	250
	177	350 KCMIL	0.165	0.213	430	305
	253	500 KCMIL	0.116	0.149	535	370

ELECTRICAL DATA II

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
	33.6	2 AWG	147.0	0.174	0.191
	53.5	1/0 AWG	168.0	0.158	0.176
	67.4	2/0 AWG	181.0	0.153	0.17
	85	3/0 AWG	195.0	0.147	0.165
	107	4/0 AWG	211.0	0.142	0.159
	127	250 KCMIL	225.0	0.137	0.154
	177	350 KCMIL	254.0	0.13	0.147
	253	500 KCMIL	290.0	0.123	0.14

Medium Voltage Aluminum 90°C XLPE 35kV 133% PC PVC

Single Medium Voltage Cables, XLPE Insulated and PVC Jacket.

STANDARDS

Product ASTM B 230; ICEA S-93-639; UL 1072

APPLICATION AND FEATURES

Medium Voltage single cables are used in electrical energy distribution networks, as feeders for transformers in substations industrial facilities and urbanizations. They are suitable for installations in dry or wet locations, outdoors and in underground ducts.

Construction Conductor

1. Conductor: Aluminum, compacted class B stranding.
2. Conductor screen: Extruded semiconductive compound.
3. Insulation: Cross-linked polyethylene (XLPE).
4. Insulation screen: Strippable semiconductive compound.
These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.
5. Screen: Made up of copper tape.
6. Outer jacket: PVC compound, flame retardant, resistant to heat, abrasion and humidity, resistant to sunlight (SR), black color.

Applicable Standards

ICEA S-93-639, NTC 2186-2, NEMA WC 74.

Operating Temperature

90 °C.

Operating Voltage

15 kV.

Medium Voltage Aluminum 90°C XLPE 35kV 133% PC PVC

DIMENSIONAL DATA

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
	33.6	2 AWG	7	6.81	24.72	1994.42	2	297
	53.5	1/0 AWG	19	8.52	36.47	1307.22	3	438
	67.4	2/0 AWG	19	9.57	37.52	1396.47	4	450
	85	3/0 AWG	19	10.75	38.7	1502.1	5	464
	107	4/0 AWG	19	12.1	40.02	1627.25	6	480
	127	250 KCMIL	37	13.25	41.2	1737.21	7	494
	177	350 KCMIL	37	15.68	43.63	1994.42	9	524
	253	500 KCMIL	37	18.74	48.21	2511.19	13	579

ELECTRICAL DATA I

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/duct 20°C - trefoil [A]
	33.6	2 AWG	0.874	1.118	150	120
	53.5	1/0 AWG	0.55	0.703	200	155
	67.4	2/0 AWG	0.437	0.558	230	175
	85	3/0 AWG	0.345	0.443	270	200
	107	4/0 AWG	0.274	0.351	310	230
	127	250 KCMIL	0.233	0.297	345	250
	177	350 KCMIL	0.165	0.213	430	305
	253	500 KCMIL	0.116	0.149	530	370

Medium Voltage Aluminum 90°C XLPE 35kV 133% PC PVC

ELECTRICAL DATA II

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
	33.6	2 AWG	147.0	0.174	0.191
	53.5	1/0 AWG	111.0	0.183	0.2
	67.4	2/0 AWG	118.0	0.176	0.194
	85	3/0 AWG	126.0	0.17	0.187
	107	4/0 AWG	135.0	0.164	0.181
	127	250 KCMIL	143.0	0.158	0.175
	177	350 KCMIL	159.0	0.149	0.167
	253	500 KCMIL	178.0	0.143	0.161

Medium Voltage Aluminum 90°C XLPE 15 kV 100% N=1/3 PVC

Medium Voltage Aluminum Power Cable meets all the requirements of the ICEA S-94-649 Standard.

STANDARDS

Product ASTM B 230; ICEA S-94-649

APPLICATION AND FEATURES

Medium Voltage single core cables are used in electrical energy distribution networks, as feeders for transformers in substations, industrial facilities and urbanizations. They are suitable for installations in dry or wet locations, outdoors, underground ducts or directly buried in earth.

Construction Conductor

1. Conductor: Aluminum, compacted class B stranding..
2. Conductor screen: Extruded semiconductive compound.
3. Insulation: Cross-linked Polyethylene (XLPE).
4. Insulation screen: Strippable semiconductive compund.
These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.
5. Concentric Neutral: Made up of round copper wires with a total cross section equal to one third of phase conductor section (N=1/3), with a non hygroscopic separator tape over the wires.
6. Outer jacket: PVC compound, flame retardant, resistant to heat, abrasion and humidity, resistant to sunlight (SR), black color

Applicable Standards

ICEA S-94-649, NTC 2186-1.

Operating Temperature

90 °C.

Operating Voltage

15 kV.

Medium Voltage Aluminum 90°C XLPE 15 kV 100% N=1/3 PVC

DIMENSIONAL DATA

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
	33.6	2 AWG	7	6.81	25.08	598.48	3	301
	53.5	1/0 AWG	19	8.52	26.89	738.73	3	323
	67.4	2/0 AWG	19	9.57	27.94	829.92	4	336
	85	3/0 AWG	19	10.75	29.12	946.91	5	350
	107	4/0 AWG	19	12.07	30.44	1080.42	6	366
	127	250 KCMIL	37	13.25	31.62	1201.74	7	380
	177	350 KCMIL	37	15.68	35.23	1548.06	9	423
	253	500 KCMIL	37	18.74	38.29	1978.91	13	460

ELECTRICAL DATA I

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/duct 20°C - trefoil [A]
	33.6	2 AWG	0.874	1.118	150	120
	53.5	1/0 AWG	0.55	0.703	200	155
	67.4	2/0 AWG	0.437	0.558	235	175
	85	3/0 AWG	0.345	0.443	270	200
	107	4/0 AWG	0.274	0.351	310	230
	127	250 KCMIL	0.233	0.297	345	250
	177	350 KCMIL	0.165	0.213	430	305
	253	500 KCMIL	0.116	0.149	535	370

Medium Voltage Aluminum 90°C XLPE 15 kV 100% N=1/3 PVC

ELECTRICAL DATA II

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
	33.6	2 AWG	174.0	0.175	0.192
	53.5	1/0 AWG	200.0	0.16	0.177
	67.4	2/0 AWG	216.0	0.154	0.171
	85	3/0 AWG	234.0	0.148	0.166
	107	4/0 AWG	254.0	0.143	0.16
	127	250 KCMIL	272.0	0.138	0.155
	177	350 KCMIL	308.0	0.133	0.151
	253	500 KCMIL	354.0	0.126	0.143

Medium Voltage Aluminum 90°C XLPE 15 kV 133% N=1/3 PVC

Medium Voltage Aluminum Power Cable meets all the requirements of the ICEA S-94-649 Standard.

STANDARDS

Product ASTM B 230; ICEA S-94-649

APPLICATION AND FEATURES

Medium Voltage single core cables are used in electrical energy distribution networks, as feeders for transformers in substations, industrial facilities and urbanizations. They are suitable for installations in dry or wet locations, outdoors, underground ducts or directly buried in earth.

Construction Conductor

1. Conductor: Aluminum, compacted class B stranding..
2. Conductor screen: Extruded semiconductive compound.
3. Insulation: Cross-linked Polyethylene (XLPE).
4. Insulation screen: Strippable semiconductive compund.

These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.

5. Concentric Neutral: Made up of round copper wires with a total cross section equal to one third of phase conductor section (N=1/3), with a non hygroscopic separator tape over the wires.
6. Outer jacket: PVC compound, flame retardant, resistant to heat, abrasion and humidity, resistant to sunlight (SR), black color.

Applicable Standards

ICEA S-94-649, NTC 2186-1.

Operating Temperature

90 °C.

Operating Voltage

15 kV.

Medium Voltage Aluminum 90°C XLPE 15 kV 133% N=1/3 PVC

DIMENSIONAL DATA

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
	33.6	2 AWG	7	6.81	27.56	693.17	3	331
	53.5	1/0 AWG	19	8.52	29.27	835.08	3	352
	67.4	2/0 AWG	19	9.57	30.32	929.88	4	364
	85	3/0 AWG	19	10.75	31.5	1050.92	5	378
	107	4/0 AWG	19	12.07	32.82	1188.97	6	394
	127	250 KCMIL	37	13.25	34.5	1343.7	7	414
	177	350 KCMIL	37	15.68	37.61	1671.18	9	452
	253	500 KCMIL	37	18.74	40.67	2112.55	13	489

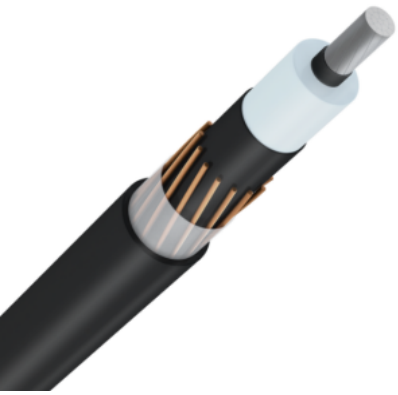
ELECTRICAL DATA I

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/duct 20°C - trefoil [A]
	33.6	2 AWG	0.874	1.118	150	120
	53.5	1/0 AWG	0.55	0.703	200	155
	67.4	2/0 AWG	0.437	0.558	235	175
	85	3/0 AWG	0.345	0.443	270	200
	107	4/0 AWG	0.274	0.351	310	230
	127	250 KCMIL	0.233	0.297	345	250
	177	350 KCMIL	0.165	0.213	430	305
	253	500 KCMIL	0.116	0.149	535	370

ELECTRICAL DATA II

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
	33.6	2 AWG	147.0	0.182	0.199
	53.5	1/0 AWG	168.0	0.166	0.184
	67.4	2/0 AWG	181.0	0.16	0.178
	85	3/0 AWG	195.0	0.154	0.172
	107	4/0 AWG	211.0	0.149	0.166
	127	250 KCMIL	225.0	0.144	0.162
	177	350 KCMIL	254.0	0.138	0.156
	253	500 KCMIL	290.0	0.131	0.148

Medium Voltage Aluminum 90°C XLPE 35 kV 100% N=1/3 PVC



Medium Voltage Aluminum Power Cable meets all the requirements of the ICEA S-94-649 Standard.

STANDARDS

Product ASTM B 230; ICEA S-94-649

APPLICATION AND FEATURES

Medium Voltage single core cables are used in electrical energy distribution networks, as feeders for transformers in substations, industrial facilities and urbanizations. They are suitable for installations in dry or wet locations, outdoors, underground ducts or directly buried in earth.

Construction Conductor

1. Conductor: Aluminum, compacted class B stranding..
2. Conductor screen: Extruded semiconductive compound.
3. Insulation: Cross-linked Polyethylene (XLPE).
4. Insulation screen: Strippable semiconductive compund.
These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.
5. Concentric Neutral: Made up of round copper wires with a total cross section equal to one third of phase conductor section (N=1/3), with a non hygroscopic separator tape over the wires.
6. Outer jacket: PVC compound, flame retardant, resistant to heat, abrasion and humidity, resistant to sunlight (SR), black color.

Applicable Standards

ICEA S-94-649, NTC 2186-1.

Operating Temperature

90 °C.

Operating Voltage

35 kV.

Medium Voltage Aluminum 90°C XLPE 35 kV 100% N=1/3 PVC

DIMENSIONAL DATA

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
	53.5	1/0 AWG	19	8.52	35.89	1150.96	3	431
	67.4	2/0 AWG	19	9.57	36.94	1256	4	444
	85	3/0 AWG	19	10.75	38.12	1388.55	5	458
	107	4/0 AWG	19	12.07	39.44	1539.46	6	474
	127	250 KCMIL	37	13.25	40.62	1676.34	7	488
	177	350 KCMIL	37	15.68	43.73	2025.31	9	525
	253	500 KCMIL	37	18.74	48.31	2652.93	13	580

ELECTRICAL DATA I

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/duct 20°C - trefoil [A]
	53.5	1/0 AWG	0.55	0.703	200	155
	67.4	2/0 AWG	0.437	0.558	230	175
	85	3/0 AWG	0.345	0.443	270	200
	107	4/0 AWG	0.274	0.351	310	230
	127	250 KCMIL	0.233	0.297	345	250
	177	350 KCMIL	0.165	0.213	430	305
	253	500 KCMIL	0.116	0.149	530	370

Medium Voltage Aluminum 90°C XLPE 35 kV 100% N=1/3 PVC

ELECTRICAL DATA II

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
	53.5	1/0 AWG	126.0	0.182	0.199
	67.4	2/0 AWG	134.0	0.175	0.192
	85	3/0 AWG	143.0	0.169	0.186
	107	4/0 AWG	154.0	0.162	0.18
	127	250 KCMIL	163.0	0.157	0.174
	177	350 KCMIL	182.0	0.149	0.167
	253	500 KCMIL	206.0	0.144	0.161

Medium Voltage Aluminum 90°C XLPE 35 kV 133% N=1/3 PVC

Medium Voltage Aluminum Power Cable meets all the requirements of the ICEA S-94-649 Standard.

STANDARDS

Product ASTM B 230; ICEA S-94-649

APPLICATION AND FEATURES

Medium Voltage single core cables are used in electrical energy distribution networks, as feeders for transformers in substations, industrial facilities and urbanizations. They are suitable for installations in dry or wet locations, outdoors, underground ducts or directly buried in earth.

Construction Conductor

1. Conductor: Aluminum, compacted class B stranding..
2. Conductor screen: Extruded semiconductive compound.
3. Insulation: Cross-linked Polyethylene (XLPE).
4. Insulation screen: Strippable semiconductive compund.
These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.
5. Concentric Neutral: Made up of round copper wires with a total cross section equal to one third of phase conductor section (N=1/3), with a non hygroscopic separator tape over the wires.
6. Outer jacket: PVC compound, flame retardant, resistant to heat, abrasion and humidity, resistant to sunlight (SR), black color.

Applicable Standards

ICEA S-94-649, NTC 2186-1.

Operating Temperature

90 °C.

Operating Voltage

35 kV.

Medium Voltage Aluminum 90°C XLPE 35 kV 133% N=1/3 PVC

DIMENSIONAL DATA

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
	53.5	1/0 AWG	19	8.52	39.62	1354.83	3	476
	67.4	2/0 AWG	19	9.57	40.67	1465.53	4	489
	85	3/0 AWG	19	10.75	41.85	1604.43	5	503
	107	4/0 AWG	19	12.07	43.17	1762.46	6	519
	127	250 KCMIL	37	13.25	45.87	2056.73	7	551
	177	350 KCMIL	37	15.68	48.98	2429.21	9	588
	253	500 KCMIL	37	18.74	52.84	2997.13	13	635

ELECTRICAL DATA I

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90°C [Ohm/km]	Perm current rating in air 40° C [A]	Perm. Current buried/duct 20°C - trefoil [A]
	53.5	1/0 AWG	0.55	0.703	200	155
	67.4	2/0 AWG	0.437	0.558	230	175
	85	3/0 AWG	0.345	0.443	270	200
	107	4/0 AWG	0.274	0.351	310	230
	127	250 KCMIL	0.233	0.297	345	250
	177	350 KCMIL	0.165	0.213	430	305
	253	500 KCMIL	0.116	0.149	530	370

ELECTRICAL DATA II

	Cross section [mm²]	Cond.cross sect. (AWG/KCMIL)	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
	53.5	1/0 AWG	111.0	0.189	0.206
	67.4	2/0 AWG	118.0	0.182	0.2
	85	3/0 AWG	126.0	0.176	0.193
	107	4/0 AWG	135.0	0.169	0.187
	127	250 KCMIL	143.0	0.166	0.183
	177	350 KCMIL	159.0	0.158	0.175
	253	500 KCMIL	178.0	0.15	0.168

Medium Voltage Aluminum 90°C XLPE 8.7/15kV N=25mm2 PVC

Medium Voltage Aluminum Power Cable meets all the requirements of the IEC 60502-2 Standard.

STANDARDS

Product IEC 60228 Class 2 ; IEC 60502-2

APPLICATION AND FEATURES

Medium Voltage single core cables are used in electrical energy distribution networks, as feeders for transformers in substations, industrial facilities and urbanizations. They are suitable for installations in dry or wet locations, outdoors, underground ducts or directly buried in earth.

Construction Conductor

1. Conductor: Aluminum, compacted class 2 stranding..
2. Conductor screen: Extruded semiconductive compound.
3. Insulation: Cross-linked Polyethylene (XLPE).
4. Insulation screen: Strippable semiconductive compund.
These last three components extruded in CV (continuous vulcanization) of triple extrusion in the dry curing process.
5. Screen: Made up of round copper wires with a total cross section equal to twenty-five square milimeter, with a non-hygroscopic separator tape over the wires.
6. Outer jacket: PVC compound, flame retardant, resistant to heat, abrasion and humidity, resistant to sunlight (SR), black color.

Applicable Standards

- IEC 60228
- IEC 60502-2

Operating Temperature

90 °C.

Operating Voltage

8.7/15(17.5) kV

Medium Voltage Aluminum 90°C XLPE 8.7/15kV N=25mm2 PVC

DIMENSIONAL DATA

Name	Cross section [mm²]	Total nb wires	Conductor diam. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]	Max. pull tension of cond. [kN]	Minimum repeated bending diameter [mm]
70 mm2	70	19	9.58	25.56	822.36	4	307
95 mm2	95	19	11.29	27.43	942.03	5	330
120 mm2	120	37	12.81	29.11	1053	6	350
185 mm2	185	37	15.92	32.38	1310.69	10	389
240 mm2	240	37	18.25	34.71	1520.59	12	417

ELECTRICAL DATA I

Name	Cross section [mm²]	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. Electrical Resistance AC 60Hz 90° C [Ohm/km]	Perm current rating in air 30°C [A]	Perm. Current buried/ duct 20°C - trefoil [A]
70 mm2	70	0.443	0.563	230	186
95 mm2	95	0.32	0.407	280	221
120 mm2	120	0.253	0.322	324	252
185 mm2	185	0.164	0.209	424	317
240 mm2	240	0.125	0.16	502	367

Medium Voltage Aluminum 90°C XLPE 8.7/15kV N=25mm2 PVC

ELECTRICAL DATA II

Name	Cross section [mm²]	Nominal capacitance [pF/m]	Phase reactance 60 Hz - trefoil formation [Ohm/km]	Phase reactance 60 Hz - flat formation [Ohm/km]
70 mm2	70	225.87	0.147	0.165
95 mm2	95	253.16	0.14	0.158
120 mm2	120	277.31	0.134	0.151
185 mm2	185	326.51	0.126	0.143
240 mm2	240	363.23	0.121	0.138