

# PRODUCT CATALOGUE

## CABLES & CONDUCTORS



**REROY**

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## Introduction

**Reroy Cables Ltd.** is an indigenous and fully Ghanaian owned company with strong commitment to the growth and sustainability of Africa's energy sector. Reroy seeks to leverage its vast experience and technical expertise to introduce innovative solutions to the current and future challenges facing the Power sector across the continent.

**Reroy Cables Ltd.**, a subsidiary of Reroy Group was incorporated on the 20th April 1992 and commenced business as an importer and distributor of Electrical Cables and Accessories. The company commissioned its first manufacturing facility for production of domestic wiring and power distribution cables in September 2003.

**Reroy Cables Ltd.** is currently a leader in the development, design, manufacture, testing, marketing and distribution of copper and aluminum cables and conductors. The company has made and continues to make a valuable contribution to infra-structural development on the continent by the production of quality products at competitive prices, while creating employment and local skills development.

As one of the largest cable manufacturers in the country, with a strong emphasis on customer satisfaction, **Reroy Cables Ltd.** is constantly expanding its product range to meet the needs of its valued clients across various sectors of industry from power generation and telecommunications to and construction and marine engineering.

**Reroy Cables Ltd.** understands the importance of a strong knowledge base, technical competence and motivation of its employees to the success of the business, and consequently invests heavily in their development. Since 2003, the company has been developing steadily and currently employs over 200 personnel with a mixture of both local and foreign professionals. The goal of the company is to continue to be a market leader in the cable manufacturing industry, while supporting continuous economic growth and promoting national development.

## VISION

To be market leaders in the development, design, manufacture, testing, marketing and distribution of high quality power cables and conductors both domestically and across Africa.

## MISSION

- To provide the best quality of products and services to our clients through the use of world class materials and business processes, while striving to achieve the highest levels of customer satisfaction.
- To achieve profitable and sustainable business growth while developing the human capital within our organization, through continuous professional improvement and skills development.

## CORPORATE PHILOSOPHY

Pursuant to our Vision and Mission, our organization seeks to balance the desire for profitable and sustainable growth with providing the best value to our clients.

We believe the best way to achieve this is to have a primary focus on client satisfaction, underpinned by integrity in all our business operations and the promotion of a culture of continuous improvement.

Consequently, we focus on driving five key business metrics which we believe are fundamental to the way we do business:

- People - Develop the people connected to our organization both professionally and personally.
- Quality - Achieve the highest levels of quality through continuous improvement
- Cost - Promote a culture of cost excellence at all levels of our organization.
- Delivery - Ensure we do what we say we will do, when we say we will do it.
- Lead time - Always aim to deliver excellent results in a timely manner.

# Quality Statement



We at **REROY CABLES LTD** are committed to the manufacture and supply of quality electrical cables and conductors in accordance with recognized international standards that satisfy the needs and expectations of our valued customers.

We achieve this through the use of:

- Quality raw materials
- Reliable technologies for manufacturing and
- Continual improvement programmes.

Furthermore, we are committed to complying with all the appropriate legal requirements within our industry.

This policy is communicated to and understood by all members of our team and at all levels of our organization.

A handwritten signature in black ink, appearing to read "Kate Quartey-Papafio".

.....  
Mrs. Kate Quartey-Papafio  
Chairperson-Reroy Group



## General Information

The design of electrical cables varies according to the cable's application. Cables are mostly categorized on the basis of their rated voltage, structure and application. For instance, there are single-conductor cables as well as multi-conductor cables that are suited for different applications.

The conductor material of cables can also vary depending on the desired properties of the cable and its conductor. Typical materials used as conductors are aluminum and copper.

### **ALUMINUM CABLES:**

Aluminum Cables are known for high electrical conductivity. They are ductile, light weight, non-magnetic and can be used for several heavy-duty applications.

Furthermore, the silver-white metal of Aluminum Cables is reflective to heat and can be also be recycled.

The application areas of these types of cables include electric lights, telephone lines, and motors.

### **COPPER CABLES:**

Copper Cables are also widely used Electrical Cables that are suited for a broad range of industrial segments, the major ones being mining, electronics, transportation, and telecommunication. Just like the Aluminum Cables, Copper Cables have high electrical conductivity and are ductile, lightweight and flexible. Largely, the Copper Cables find application in microwave ovens, integrated circuits, electromagnets, electrical busbars, electrical switches, etc.

### **INDUSTRIAL CABLES:**

Industrial Cables are especially designed to withstand extreme temperatures and find application in sectors such as chemical plants, oil refineries, aviation, pharmaceutical companies and many more. The Industrial Cables offer great resistance to oil, grease, chemicals & flames. Some commonly used types of Industrial Cables include Coaxial Cables Armored Shielded Instrumentation Cables and Control Cables.

### **FIBRE OPTIC CABLES:**

Fiber Optical Cables are made of one or more translucent fibers which are sheathed in a protective jacket. These types of Cables can be categorized as Simplex Fiber Optical Cables, Duplex Fiber Optical Cables and Multi-Fiber Optical Cables. The Simplex Fiber Optical Cables have one optical fiber. Similarly, the Duplex Cables have two optical fibers and the Multi-Fiber Cables have several optical fibers. Fiber Optic Cables are mainly used in telecommunications and computer networks.

## Terminology & Definitions

### 1. Aluminum

Aluminum is used as a generic term to mean hard drawn aluminum and aluminum alloy.

### 2. Wire

Filament of drawn metal having constant circular cross-section.

### 3. Conductor

Material intended to be used for carrying electric current consisting of multiple uninsulated wires twisted together.

### 4. Concentric-lay-stranded conductor

A conductor composed of a central core surrounded by one or more adjacent layers of wires laid helically in opposite directions.

### 5. Direction of lay

The direction of twist of a layer of wires as it moves away from the viewer. A right-hand lay is in clockwise direction and a left-hand lay is in anti-clockwise direction.

### 6. Lay length

The axial length of one complete turn of the helix formed by an individual wire in a stranded conductor.

### 7. Lay ratio

Means the ratio of the lay length to the external diameter of the corresponding layer of wires in the stranded conductor.

### 8. Steel ratio

The ratio of steel area to aluminum area as a percentage in ACSR conductors.

### 9. Rated tensile strength

Estimate of the conductor breaking load calculated using the specified tensile properties of the component wires.



# OVERHEAD

Conductors

## Chapter 1

# Bare Stranded Soft-drawn Copper Conductors



## CONSTRUCTION

Bare stranded soft-drawn (annealed) copper conductor is a concentric-lay-stranded conductor consisting of annealed copper wires available in both single layer and multi-layer constructions.

## APPLICATION

Bare stranded soft-drawn (annealed) copper conductor is suitable for uninsulated hook up, jumpers and grounding conductors in electrical construction, where high conductivity and flexibility are required.

## APPLICABLE STANDARD

Bare stranded soft-drawn (annealed) copper conductor can be supplied to meet various International Standards as follows:

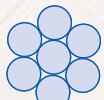
- IEC 60228
- BS EN 60228

However, **REROY** can also supply a range of alternative designs to meet customer-specified requirements.

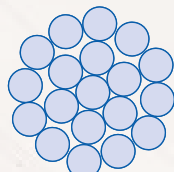


## TECHNICAL DATA

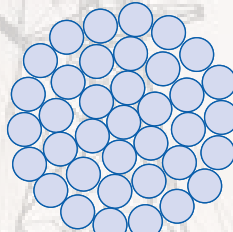
Composition	Coeff. of Linear Expansion Per °C x 10 <sup>6</sup>
7	17.0
19	17.0
37	17.0
61	17.0



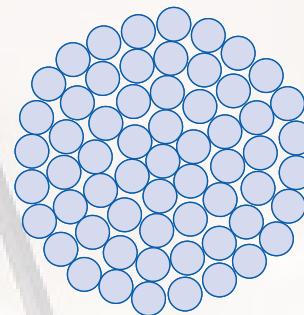
7 Wires



19 Wires



37 Wires



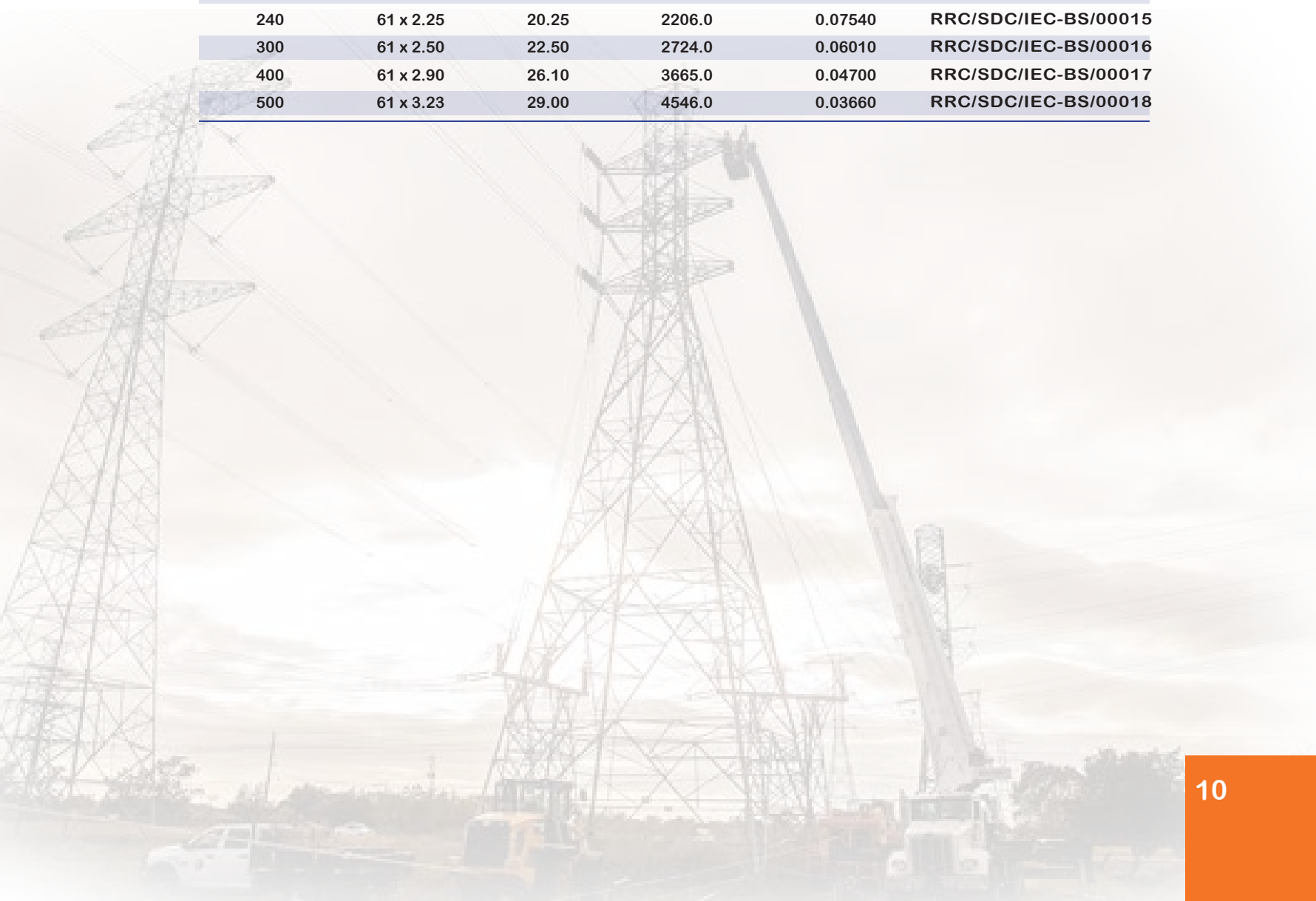
61 Wires

## SDC

Bare Stranded Soft-Drawn Copper Conductors

IEC 60228 / BS EN 60228 Standards

Nominal cross sectional area	Conductor construction	Approx. overall diameter	Approx. overall weight	Max. DC Resistance at 20 °C	Product Code
mm <sup>2</sup>	No. x Ø ( mm )	mm	Kg / km	Ω / km	
1.5	7 x 0.52	1.56	13.5	12.1000	RRC/SDC/IEC-BS/00001
2.5	7 x 0.67	2.01	22.4	7.41000	RRC/SDC/IEC-BS/00002
4	7 x 0.85	2.55	36.0	4.61000	RRC/SDC/IEC-BS/00003
6	7 x 1.04	3.12	54.0	3.08000	RRC/SDC/IEC-BS/00004
10	7 x 1.34	4.02	90.0	1.83000	RRC/SDC/IEC-BS/00005
16	7 x 1.68	5.04	141.0	1.15000	RRC/SDC/IEC-BS/00006
25	7 x 2.14	6.42	228.0	0.72700	RRC/SDC/IEC-BS/00007
35	7 x 2.52	7.56	317.0	0.52400	RRC/SDC/IEC-BS/00008
50	19 x 1.78	8.90	429.0	0.38700	RRC/SDC/IEC-BS/00009
70	19 x 2.14	10.70	619.0	0.26800	RRC/SDC/IEC-BS/00010
95	19 x 2.50	12.50	845.0	0.19300	RRC/SDC/IEC-BS/00011
120	37 x 2.05	14.35	1109.0	0.15300	RRC/SDC/IEC-BS/00012
150	37 x 2.25	15.75	1336.0	0.12400	RRC/SDC/IEC-BS/00013
185	37 x 2.50	17.50	1649.0	0.09910	RRC/SDC/IEC-BS/00014
240	61 x 2.25	20.25	2206.0	0.07540	RRC/SDC/IEC-BS/00015
300	61 x 2.50	22.50	2724.0	0.06010	RRC/SDC/IEC-BS/00016
400	61 x 2.90	26.10	3665.0	0.04700	RRC/SDC/IEC-BS/00017
500	61 x 3.23	29.00	4546.0	0.03660	RRC/SDC/IEC-BS/00018



# Bare Stranded Hard-Drawn Copper Conductors



## CONSTRUCTION

Bare stranded hard-drawn copper conductor is a concentric-lay-stranded conductor consisting of hard-drawn copper wires available in both single layer and multi-layer constructions.

## APPLICATION

Bare stranded hard-drawn copper conductor is suitable for overhead transmission and distribution networks applications, where the highest electrical conductivity per unit area and good strength-to-weight ratio are required.

## APPLICABLE STANDARD

Bare stranded hard-drawn copper conductor can be supplied to meet various International Standards as follows :

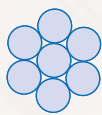
- BS 7884
- DIN 48201 / 1

However, REROY can also supply a range of alternative designs to meet customer-specified requirements.

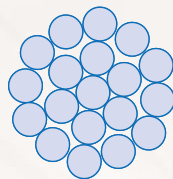


## TECHNICAL DATA

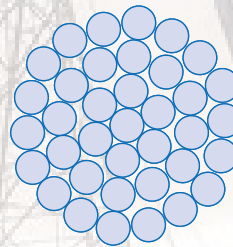
Composition	Final Modulus of Elasticity MPa	Coeff. of Linear Expansion Per °C x 10 <sup>6</sup>
7	112 800	17.0
19	104 900	17.0
37	104 900	17.0
61	100 000	17.0



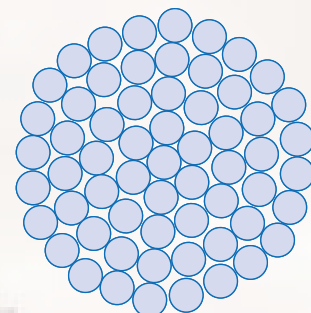
7 Wires



19 Wires



37 Wires



61 Wires

The above data is approximate and subject to manufacturing tolerance.  
We reserve the right to change the above figures as a result of product development and/or changes in standard.

# Overhead Conductors



## HDC

Bare Stranded Hard-Drawn Copper Conductors

BS 7884 Standard

Nominal Cross Sectional Area	Conductor Construction	Approx. Overall Diameter	Approx. Overall Weight	Max. Dc Resistance At 20 °c	Minimum Breaking Load	Product Code
mm <sup>2</sup>	No. x Ø ( mm )	mm	Kg / km	Ω / km	N	
10	7 x 1.35	4.05	89.8	1.82900	3752	RRC/HDC/BS/00001
14	7 x 1.60	4.80	126.2	1.30300	5267	RRC/HDC/BS/00002
16	3 x 2.65	5.70	148.3	1.10600	6194	RRC/HDC/BS/00003
16	7 x 1.70	5.10	142.4	1.15400	5946	RRC/HDC/BS/00004
25	7 x 2.10	6.30	217.3	0.75630	9073	RRC/HDC/BS/00005
32	3 x 3.75	8.06	296.9	0.55200	12 400	RRC/HDC/BS/00006
32	7 x 2.46	7.38	298.2	0.54970	12 442	RRC/HDC/BS/00007
35	7 x 2.50	7.50	308.0	0.53370	12 860	RRC/HDC/BS/00008
50	7 x 3.00	9.00	443.5	0.37060	18 520	RRC/HDC/BS/00009
50	19 x 1.80	9.00	435.8	0.38190	17 700	RRC/HDC/BS/00010
70	7 x 3.55	10.65	621.1	0.26460	25 930	RRC/HDC/BS/00011
70	19 x 2.10	10.50	593.2	0.28060	24 090	RRC/HDC/BS/00012
95	19 x 2.50	12.50	840.7	0.19800	34 140	RRC/HDC/BS/00013
100	7 x 4.30	12.90	911.2	0.18100	36 540	RRC/HDC/BS/00014
120	19 x 2.80	14.00	1055.0	0.15780	42 830	RRC/HDC/BS/00015
125	19 x 2.90	14.50	1131.0	0.14710	45 940	RRC/HDC/BS/00016
150	19 x 3.20	16.00	1377.0	0.12080	55 940	RRC/HDC/BS/00017
150	37 x 2.25	15.75	1334.0	0.12640	53 880	RRC/HDC/BS/00018
185	19 x 3.55	17.75	1695.0	0.09815	68 860	RRC/HDC/BS/00019
185	37 x 2.50	17.50	1647.0	0.10240	66 490	RRC/HDC/BS/00020

Bare Stranded Hard-Drawn Copper Conductors

DIN 48201/1 Standard

Nominal Cross Sectional Area	Conductor Construction	Approx. Overall Diameter	Approx. Overall Weight	Max. Dc Resistance At 20 °c	Ampacity (*)	Calculated Breaking Load	Product Code
mm <sup>2</sup>	No. x Ø ( mm )	mm	Kg / km	Ω / km	A	KN	
10	7 x 1.35	4.1	90	1.80600	90	4.02	RRC/HDC/DIN/00001
16	7 x 1.70	5.1	143	1.13850	125	6.37	RRC/HDC/DIN/00002
25	7 x 2.10	6.3	218	0.74610	160	9.72	RRC/HDC/DIN/00003
35	7 x 2.50	7.5	310	0.52640	200	13.77	RRC/HDC/DIN/00004
50	7 x 3.00	9.0	446	0.37590	250	19.84	RRC/HDC/DIN/00005
50	19 x 1.80	9.0	437	0.38880	250	19.38	RRC/HDC/DIN/00006
70	19 x 2.10	10.5	594	0.27620	310	26.38	RRC/HDC/DIN/00007
95	19 x 2.50	12.5	845	0.19490	380	37.39	RRC/HDC/DIN/00008
120	37 x 2.00	14.0	1060	0.15540	425	46.90	RRC/HDC/DIN/00009
150	37 x 2.25	15.8	1337	0.12380	510	58.93	RRC/HDC/DIN/00010
185	37 x 2.50	17.5	1640	0.10030	585	72.76	RRC/HDC/DIN/00011
240	61 x 2.25	20.3	2209	0.07530	700	97.23	RRC/HDC/DIN/00012
300	61 x 2.50	22.5	2725	0.06100	800	120.04	RRC/HDC/DIN/00013
400	61 x 2.89	26.0	3640	0.04560	960	160.42	RRC/HDC/DIN/00014
500	61 x 3.23	29.1	4545	0.03650	1110	200.38	RRC/HDC/DIN/00015

\* Standard values applicable up to 60 Hz at wind velocity of 0.6 m/s and solar effects for an original ambient temperature of 35 °C and a final conductor temperature of 70 °C. Reduce the values by an average of approximately 30% in case of special locations at still air.

# All Aluminium Conductors

## CONSTRUCTION

All Aluminum Conductors (AAC) is a concentric-layer-stranded conductor consisting of hard drawn aluminum wires available in both single layer and multi-layer constructions.

## APPLICATION

All Aluminum Conductors (AAC) can be used as a bare overhead conductor for distribution lines. Because of its low strength-to-weight ratio, (AAC) has limited use in transmission lines. AAC is extensively used in urban areas where spans are usually short but high conductivity is required.

## APPLICABLE STANDARD

All Aluminum Conductors (AAC) can be supplied to meet various International Standards as follows:

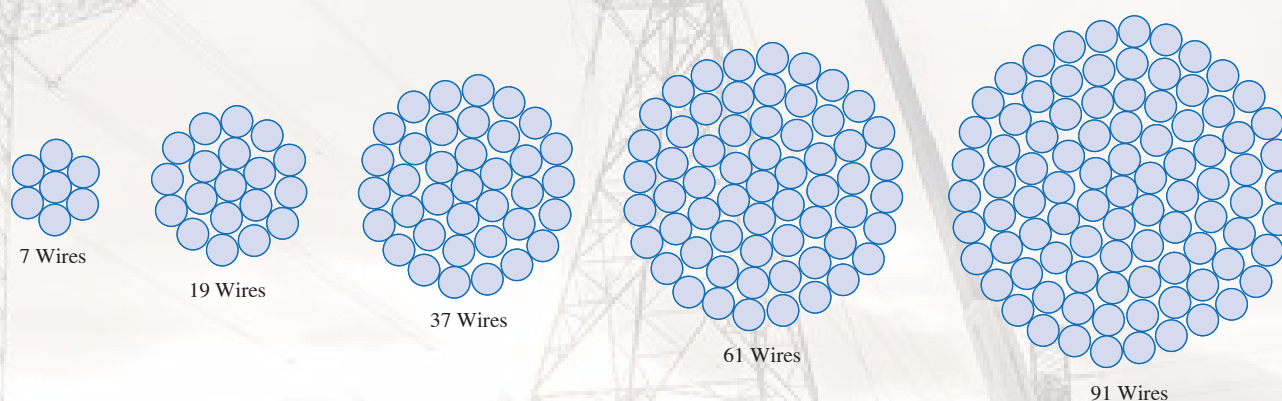
- BS 215 / 1
- IEC 61089
- ASTM B 231
- DIN 48201 / 5

However, **REROY** can also supply a range of alternative designs to meet customer-specified requirements.



## TECHNICAL DATA

Composition	Final Modulus of Elasticity MPa	Coeff. of Linear Expansion Per °C x 10
7	63 300	23.0
19	61 200	23.0
37	58 900	23.0
61	58 300	23.0
91	58 300	23.0



The above data is approximate and subject to manufacturing tolerance.  
We reserve the right to change the above figures as a result of product development and/or changes in standard.

# Overhead Conductors



## All Aluminum Conductors ( AAC )

BS 215 / 1 Standard

Code Name	Nominal Cross Sectional Area	Conductor Construction	Approx. Overall Diameter	Approx. Overall Weight	Calculated DC Resistance at 20 °C	Calculated Breaking Load	Product Code
	mm <sup>2</sup>	No. x Ø ( mm )	mm	Kg / km	Ω / km	KN	
MIDGE	22	7 x 2.06	6.18	64	1.22700	3.99	RRC/AAC/BS/00001
ANT	50	7 x 3.10	9.30	145	0.54190	8.28	RRC/AAC/BS/00002
FLY	60	7 x 3.40	10.20	174	0.45050	9.90	RRC/AAC/BS/00003
WASP	100	7 x 4.39	13.17	290	0.27020	16.00	RRC/AAC/BS/00004
HORNET	150	19 x 3.25	16.25	434	0.18250	25.70	RRC/AAC/BS/00005
CHAFER	200	19 x 3.78	18.90	587	0.13490	32.40	RRC/AAC/BS/00006
COCKROACH	250	19 x 4.22	21.10	731	0.10830	40.40	RRC/AAC/BS/00007
BUTTERFLY	300	19 x 4.65	23.25	888	0.08916	48.75	RRC/AAC/BS/00008
CENTIPEDE	400	37 x 3.78	26.46	1145	0.06944	63.10	RRC/AAC/BS/00009

## All Aluminum Conductors ( AAC ) - A1 Conductors

IEC 61089 Standard

Code Number	Nominal Cross Sectional Area	Conductor Construction	Approx. Overall Diameter	Approx. Overall Weight	Max. Dc Resistance At 20 °c	Rated Strength	Product Code
	mm <sup>2</sup>	No. x Ø ( mm )	mm	Kg / km	Ω / km	KN	
16	16	7 x 1.71	5.12	43.8	1.78960	3.04	RRC/AAC/IEC/00001
25	25	7 x 2.13	6.40	68.4	1.14530	4.50	RRC/AAC/IEC/00002
40	40	7 x 2.70	8.09	109.4	0.71580	6.80	RRC/AAC/IEC/00003
63	63	7 x 3.39	10.20	172.3	0.45450	10.39	RRC/AAC/IEC/00004
100	100	19 x 2.59	12.90	274.8	0.28770	17.00	RRC/AAC/IEC/00005
125	125	19 x 2.89	14.50	343.6	0.23020	21.25	RRC/AAC/IEC/00006
160	160	19 x 3.27	16.40	439.8	0.17980	26.40	RRC/AAC/IEC/00007
200	200	19 x 3.66	18.30	549.7	0.14390	32.00	RRC/AAC/IEC/00008
250	250	19 x 4.09	20.50	687.1	0.11510	40.00	RRC/AAC/IEC/00009
315	315	37 x 3.29	23.00	867.9	0.09160	51.97	RRC/AAC/IEC/00010
400	400	37 x 3.71	26.00	1102.0	0.07210	64.00	RRC/AAC/IEC/00011
450	450	37 x 3.94	27.50	1239.8	0.06410	72.00	RRC/AAC/IEC/00012
500	500	37 x 4.15	29.00	1377.6	0.05770	80.00	RRC/AAC/IEC/00013
560	560	37 x 4.39	30.70	1542.9	0.05150	89.60	RRC/AAC/IEC/00014
630	630	61 x 3.63	32.60	1738.3	0.04580	100.80	RRC/AAC/IEC/00015
710	710	61 x 3.85	34.60	1959.1	0.04070	113.60	RRC/AAC/IEC/00016
800	800	61 x 4.09	36.80	2207.4	0.03610	128.00	RRC/AAC/IEC/00017
900	900	61 x 4.33	39.00	2483.3	0.03210	144.00	RRC/AAC/IEC/00018
1000	1000	61 x 4.57	41.10	2759.2	0.02890	160.00	RRC/AAC/IEC/00019
1120	1120	91 x 3.96	43.50	3093.5	0.02580	179.20	RRC/AAC/IEC/00020

# Overhead Conductors



All Aluminum Conductors ( AAC )

ASTM B 231 Standard

Code Name	Nominal Cross Sectional Area		Conductor Construction No. x Ø ( mm )	Approx. Overall Diameter mm	Approx. Overall Weight Kg / km	Calculated Dc Resistance At 20 °c Ω / km	Rated Strength KN	Product Code
	AWG / MCM *	mm <sup>2</sup>						
Rose	4	21.1	7 x 1.96	5.88	58.2	1.36505	3.91	RRC/AAC/ASTM/00001
Iris	2	33.6	7 x 2.47	7.41	92.6	0.85954	5.99	RRC/AAC/ASTM/00002
Pansy	1	42.4	7 x 2.78	8.34	116.6	0.67853	7.30	RRC/AAC/ASTM/00003
Poppy	1/0	53.5	7 x 3.12	9.36	147.2	0.53871	8.84	RRC/AAC/ASTM/00004
Aster	2/0	67.4	7 x 3.50	10.50	185.7	0.42808	11.10	RRC/AAC/ASTM/00005
Phlox	3/0	85.0	7 x 3.93	11.79	233.9	0.33953	13.50	RRC/AAC/ASTM/00006
Oxlip	4/0	107.2	7 x 4.42	13.26	295.2	0.26842	17.00	RRC/AAC/ASTM/00007
Valerian	250.0	126.7	19 x 2.91	14.55	348.6	0.22815	20.70	RRC/AAC/ASTM/00008
Sneezewort	250.0	126.7	7 x 4.80	14.40	348.8	0.22760	20.10	RRC/AAC/ASTM/00009
Laurel	266.8	135.2	19 x 3.01	15.05	372.2	0.21324	22.10	RRC/AAC/ASTM/00010
Daisy	266.8	135.2	7 x 4.96	14.88	372.3	0.21316	21.40	RRC/AAC/ASTM/00011
Peony	300.0	152.0	19 x 3.19	15.95	418.3	0.18986	24.30	RRC/AAC/ASTM/00012
Tulip	336.4	170.5	19 x 3.38	16.90	469.5	0.16911	27.30	RRC/AAC/ASTM/00013
Daffodil	350.0	177.3	19 x 3.45	17.25	487.9	0.16232	28.40	RRC/AAC/ASTM/00014
Canna	397.5	201.4	19 x 3.67	18.35	554.9	0.14344	31.60	RRC/AAC/ASTM/00015
Goldentuft	450.0	228.0	19 x 3.91	19.55	627.6	0.12637	35.00	RRC/AAC/ASTM/00016
Syringa	477.0	241.7	37 x 2.88	20.16	664.8	0.11961	38.60	RRC/AAC/ASTM/00017
Cosmos	477.0	241.7	19 x 4.02	20.10	664.8	0.11955	37.00	RRC/AAC/ASTM/00018
Hyacinth	500.0	253.3	37 x 2.95	20.65	696.8	0.11400	40.50	RRC/AAC/ASTM/00019
Zinnia	500.0	253.3	19 x 4.12	20.60	697.1	0.11382	38.90	RRC/AAC/ASTM/00020
Mistletoe	556.5	282.0	37 x 3.12	21.84	775.7	0.10192	44.30	RRC/AAC/ASTM/00021
Dahlia	556.5	282.0	19 x 4.35	21.75	775.8	0.10210	43.30	RRC/AAC/ASTM/00022
Meadowsweet	600.0	304.0	37 x 3.23	22.61	836.3	0.09509	47.50	RRC/AAC/ASTM/00023
Orchid	636.0	322.3	37 x 3.33	23.31	886.9	0.08947	50.40	RRC/AAC/ASTM/00024
Heuchera	650.0	329.4	37 x 3.37	23.59	907.4	0.08736	51.70	RRC/AAC/ASTM/00025
Flag	700.0	354.7	61 x 2.72	24.48	975.8	0.08134	57.10	RRC/AAC/ASTM/00026
Verbena	700.0	354.7	37 x 3.49	24.43	975.7	0.08145	55.40	RRC/AAC/ASTM/00027
Nasturtium	715.5	362.6	61 x 2.75	24.75	998.5	0.07959	58.40	RRC/AAC/ASTM/00028
Violet	715.5	362.6	37 x 3.53	24.71	998.5	0.07962	56.70	RRC/AAC/ASTM/00029
Cattail	750.0	380.0	61 x 2.82	25.38	1046.0	0.07567	60.30	RRC/AAC/ASTM/00030
Petunia	750.0	380.0	37 x 3.62	25.34	1046.0	0.07571	58.60	RRC/AAC/ASTM/00031
Lilac	795.0	402.8	61 x 2.90	26.10	1110.0	0.07155	63.80	RRC/AAC/ASTM/00032
Arbutus	795.0	402.8	37 x 3.72	26.04	1109.0	0.07169	61.80	RRC/AAC/ASTM/00033
Snapdragon	900.0	456.0	61 x 3.09	27.81	1256.0	0.06302	70.80	RRC/AAC/ASTM/00034
Cockscomb	900.0	456.0	37 x 3.96	27.72	1256.0	0.06327	68.40	RRC/AAC/ASTM/00035
Goldenrod	954.0	483.4	61 x 3.18	28.62	1331.0	0.05951	75.00	RRC/AAC/ASTM/00036
Magnolia	954.0	483.4	37 x 4.08	28.56	1331.0	0.05960	72.60	RRC/AAC/ASTM/00037
Camellia	1000.0	506.7	61 x 3.25	29.25	1394.0	0.05697	78.30	RRC/AAC/ASTM/00038
Hawkweed	1000.0	506.7	37 x 4.18	29.26	1395.0	0.05678	76.20	RRC/AAC/ASTM/00039
Larkspur	1033.5	523.7	61 x 3.31	29.79	1442.0	0.05493	81.30	RRC/AAC/ASTM/00040
Blueball	1033.5	523.7	37 x 4.25	29.75	1441.0	0.05493	78.80	RRC/AAC/ASTM/00041
Marigold	1113.0	564.0	61 x 3.43	30.87	1553.0	0.05115	87.30	RRC/AAC/ASTM/00042
Hawthorn	1192.5	604.2	61 x 3.55	31.95	1662.0	0.04775	93.50	RRC/AAC/ASTM/00043
Narcissus	1272.0	644.5	61 x 3.67	33.03	1774.0	0.04468	98.10	RRC/AAC/ASTM/00044
Columbine	1351.0	694.8	61 x 3.78	34.02	1884.0	0.04212	104.00	RRC/AAC/ASTM/00045

The above data is approximate and subject to manufacturing tolerance.  
We reserve the right to change the above figures as a result of product development and/or changes in standard.

## AAC

All Aluminum Conductors ( AAC )

ASTM B 231 Standard

Code Word	Nominal Cross Sectional Area		Conductor Construction	Approx. Overall Diameter	Approx. Overall Weight	Calculated Dc Resistance At 20 °c	Rated Strength	Product Code
	AWG / MCM *	mm <sup>2</sup>	No. x Ø ( mm )	mm	Kg / km	Ω / km	KN	
Carnation	1431.0	725.1	61 x 3.89	35.01	1997.0	0.03977	108.00	RRC/AAC/ASTM/00040
Gladiolus	1510.5	765.4	61 x 4.00	36.00	2108.0	0.03761	114.00	RRC/AAC/ASTM/00041
Coreopsis	1590.0	805.7	61 x 4.10	36.90	2216.0	0.03580	120.00	RRC/AAC/ASTM/00042
Jessamine	1750.0	886.7	61 x 4.30	38.70	2442.0	0.03255	132.00	RRC/AAC/ASTM/00043
Cowslip	2000.0	1013.0	91 x 3.77	41.47	2787.0	0.02866	153.00	RRC/AAC/ASTM/00044
Sagebrush	2250.0	1140.0	91 x 3.99	43.89	3166.0	0.02559	167.00	RRC/AAC/ASTM/00045
Lupine	2500.0	1267.0	91 x 4.21	46.31	3519.0	0.02298	186.00	RRC/AAC/ASTM/00046
Bitterroot	2750.0	1393.0	91 x 4.42	48.62	3872.0	0.02085	205.00	RRC/AAC/ASTM/00047

\* For small sizes the conductor cross-section is expressed in AWG number (American Wire Gauge) and for large sizes in MCM (milli-circular-mil)

All Aluminum Conductors ( AAC )

DIN 48201 / 5 Standard

Nominal Cross Sectional Area	Conductor Construction	Approx. Overall Diameter	Approx. Overall Weight	Max. Dc Resistance At 20 °c	Ampacity ( * )	Calculated Breaking Load	Product Code
mm <sup>2</sup>	No. x Ø ( mm )	mm	Kg / km	Ω / km	A	KN	
16	7 x 1.70	5.1	43	1.80180	110	2.84	RRC/AAC/DIN/00001
25	7 x 2.10	6.3	66	1.18080	145	4.17	RRC/AAC/DIN/00002
35	7 x 2.50	7.5	94	0.83320	180	5.78	RRC/AAC/DIN/00003
50	7 x 3.00	9.0	135	0.57860	225	7.94	RRC/AAC/DIN/00004
50	19 x 1.80	9.0	133	0.59500	225	8.45	RRC/AAC/DIN/00005
70	19 x 2.10	10.5	181	0.43710	270	11.32	RRC/AAC/DIN/00006
95	19 x 2.50	12.5	256	0.30840	340	15.68	RRC/AAC/DIN/00007
120	19 x 2.80	14.0	322	0.24590	390	18.78	RRC/AAC/DIN/00008
150	37 x 2.25	15.8	406	0.19600	455	25.30	RRC/AAC/DIN/00009
185	37 x 2.50	17.5	500	0.15870	520	30.54	RRC/AAC/DIN/00010
240	61 x 2.25	20.3	670	0.11910	625	39.51	RRC/AAC/DIN/00011
300	61 x 2.50	22.5	827	0.09649	710	47.70	RRC/AAC/DIN/00012
400	61 x 2.89	26.0	1104	0.07221	855	60.86	RRC/AAC/DIN/00013
500	61 x 3.23	29.1	1379	0.05781	990	74.67	RRC/AAC/DIN/00014
625	91 x 2.96	32.6	1732	0.04625	1140	95.25	RRC/AAC/DIN/00015
800	91 x 3.35	36.9	2218	0.03611	1340	118.39	RRC/AAC/DIN/00016
1000	91 x 3.74	41.1	2767	0.02897	1540	145.76	RRC/AAC/DIN/00017

\* Standard values applicable up to 60 Hz at wind velocity of 0.6 m/s and solar effects for an original ambient temperature of 35 °C and a final conductor temperature of 80 °C. Reduce the values by an average of approximately 30% in case of special locations at still air.

# All Aluminum-Alloy Conductors

## CONSTRUCTION

All Aluminum-Alloy Conductors (AAAC) is a concentric-lay-stranded conductor consisting of aluminum-alloy wires available in both single layer and multi-layer constructions.

## APPLICATION

All Aluminum-Alloy Conductors (AAAC) can be used in Medium, High and Extra-High voltage transmission lines. AAAC offers better sag performance due to the high strength-to-weight ratio provided by the aluminum-alloy. In addition, AAAC provides a higher corrosion resistance than ACSR conductors.

## APPLICABLE STANDARD

All Aluminum-Alloy Conductors (AAAC) can be supplied to meet various International Standards as follows :

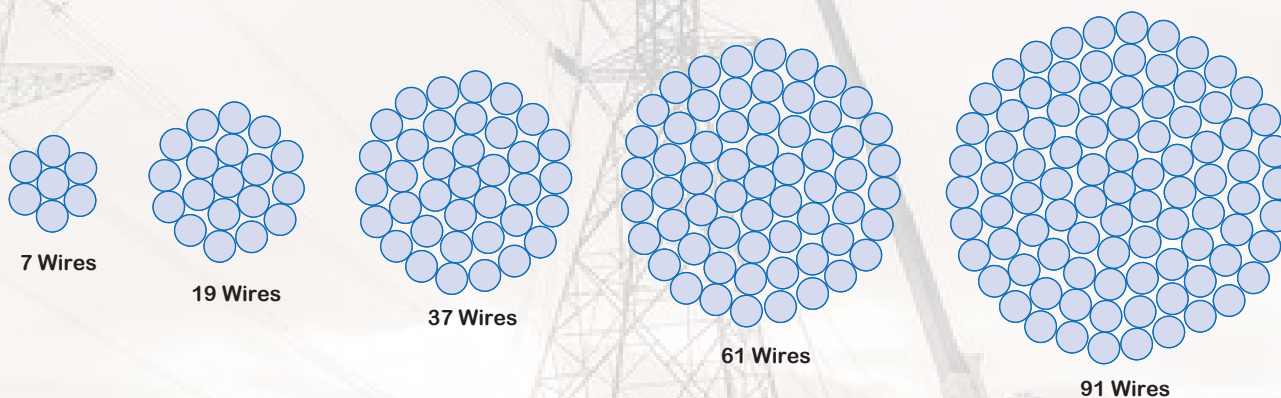
- IEC 61089
- ASTM B 399
- BS EN 50182
- DIN 48201 / 6

However, can also supply a range of alternative designs to meet customer-specified requirements.



## TECHNICAL DATA

Composition	Final Modulus of Elasticity MPa	Coeff. of Linear Expansion Per °C x 10 <sup>6</sup>
7	63 300	23.0
19	61 200	23.0
37	58 900	23.0
61	58 300	23.0
91	58 300	23.0



The above data is approximate and subject to manufacturing tolerance.  
We reserve the right to change the above figures as a result of product development and/or changes in standard.

# OVERHEAD CONDUCTORS



## AAAC

All Aluminum-Alloy Conductors ( AAAC ) - A2 Conductors

IEC 61089 Standard

Code Number	Nominal Cross Sectional Area		Conductor Construction	Approx. Overall Diameter	Approx. Overall Weight	Max. Dc Resistance At 20 °c	Rated Strength	Product Code
	mm <sup>2</sup>		No. x Ø ( mm )	mm	Kg / km	Ω / km	KN	
16	18.4		7 x 1.83	5.49	50.4	1.78960	5.43	RRC/AAAC/IEC/00001
25	28.8		7 x 2.29	6.86	78.7	1.14530	8.49	RRC/AAAC/IEC/00002
40	46.0		7 x 2.89	8.68	125.9	0.71580	13.58	RRC/AAAC/IEC/00003
63	72.5		7 x 3.63	10.90	198.3	0.45450	21.39	RRC/AAAC/IEC/00004
100	115.0		19 x 2.78	13.90	316.3	0.28770	33.95	RRC/AAAC/IEC/00005
125	144.0		19 x 3.10	15.50	395.4	0.23020	42.44	RRC/AAAC/IEC/00006
160	184.0		19 x 3.51	17.60	506.1	0.17980	54.32	RRC/AAAC/IEC/00007
200	230.0		19 x 3.93	19.60	632.7	0.14390	67.91	RRC/AAAC/IEC/00008
250	288.0		19 x 4.39	22.00	790.8	0.11510	84.88	RRC/AAAC/IEC/00009
315	363.0		37 x 3.53	24.70	998.9	0.09160	106.95	RRC/AAAC/IEC/00010
400	460.0		37 x 3.98	27.90	1268.4	0.07210	135.81	RRC/AAAC/IEC/00011
450	518.0		37 x 4.22	29.60	1426.9	0.06410	152.79	RRC/AAAC/IEC/00012
500	575.0		37 x 4.45	31.20	1585.5	0.05770	169.76	RRC/AAAC/IEC/00013
560	645.0		61 x 3.67	33.00	1778.4	0.05160	190.14	RRC/AAAC/IEC/00014
630	725.0		61 x 3.89	35.00	2000.7	0.04580	213.90	RRC/AAAC/IEC/00015
710	817.0		61 x 4.13	37.20	2254.8	0.04070	241.07	RRC/AAAC/IEC/00016
800	921.0		61 x 4.38	39.50	2540.6	0.03610	271.62	RRC/AAAC/IEC/00017
900	1036.0		91 x 3.81	41.80	2861.1	0.03210	305.58	RRC/AAAC/IEC/00018
1000	1151.0		91 x 4.01	44.10	3179.0	0.02890	339.53	RRC/AAAC/IEC/00019
1120	1289.0		91 x 4.25	46.70	3560.5	0.02580	380.27	RRC/AAAC/IEC/00020
1250	1439.0		91 x 4.49	49.40	3973.7	0.02310	424.41	RRC/AAAC/IEC/00021

All Aluminum-Alloy Conductors ( AAAC )

ASTM B 399 Standard

Code Word	Nominal Cross Sectional Area		Conductor Construction	Approx. Overall Diameter	Approx. Overall Weight	Calculated Dc Resistance At 20 °c	Rated Strength	Product Code
	MCM	mm <sup>2</sup>	No. x Ø ( mm )	mm	Kg / km	Ω / km	KN	
Alton	48.69	24.7	7 x 2.12	6.36	67.8	1.35568	7.83	RRC/AAAC/ASTM/00001
Ames	77.47	39.2	7 x 2.67	8.02	107.5	0.85469	12.40	RRC/AAAC/ASTM/00002
Azusa	123.30	62.4	7 x 3.37	10.11	171.3	0.53650	18.90	RRC/AAAC/ASTM/00003
Anaheim	155.40	78.6	7 x 3.78	11.35	215.6	0.42643	23.80	RRC/AAAC/ASTM/00004
Amherst	195.70	99.3	7 x 4.25	12.75	272.5	0.33733	30.00	RRC/AAAC/ASTM/00005
Alliance	246.90	125.0	7 x 4.77	14.31	343.2	0.26779	37.80	RRC/AAAC/ASTM/00006
Butte	312.80	159.0	19 x 3.26	16.30	435.1	0.21122	46.50	RRC/AAAC/ASTM/00007
Canton	394.50	200.0	19 x 3.66	18.30	548.5	0.16758	58.60	RRC/AAAC/ASTM/00008
Cairo	465.40	236.0	19 x 3.98	19.88	648.6	0.14171	69.20	RRC/AAAC/ASTM/00009
Darien	559.50	284.0	19 x 4.36	21.79	778.3	0.11809	83.10	RRC/AAAC/ASTM/00010
Elgin	652.40	331.0	19 x 4.71	23.54	908.3	0.10119	97.00	RRC/AAAC/ASTM/00011
Flint	740.80	375.0	37 x 3.59	25.16	1028.0	0.08944	107.00	RRC/AAAC/ASTM/00012
Greeley	927.20	470.0	37 x 4.02	28.14	1289.0	0.07133	135.00	RRC/AAAC/ASTM/00013

# Overhead Conductors



## AAAC

All Aluminum-Alloy Conductors ( AAAC )

ASTM B 399 Standard

Nominal cross sectional area		Conductor construction	Approx. overall diameter	Approx. overall weight	Calculated DC Resistance at 20 °C	Rated strength	Product Code
MCM	mm <sup>2</sup>	No. x Ø ( mm )	mm	Kg / km	Ω / km	KN	
41.74	21.1	7 x 1.96	5.88	57.9	1.58600	6.69	RRC/AAAC/ASTM/00001
66.36	33.5	7 x 2.47	7.41	92.0	0.99870	10.60	RRC/AAAC/ASTM/00002
105.60	53.5	7 x 3.12	9.36	146.8	0.62592	17.00	RRC/AAAC/ASTM/00003
133.10	67.3	7 x 3.50	10.50	184.8	0.49738	20.40	RRC/AAAC/ASTM/00004
167.80	84.9	7 x 3.93	11.79	233.0	0.39450	25.70	RRC/AAAC/ASTM/00005
211.60	107.0	7 x 4.42	13.26	294.7	0.31188	32.50	RRC/AAAC/ASTM/00006
250.00	126.0	19 x 2.91	14.55	346.7	0.26509	38.80	RRC/AAAC/ASTM/00007
300.00	152.0	19 x 3.19	15.95	416.7	0.22059	46.60	RRC/AAAC/ASTM/00008
350.00	178.0	19 x 3.45	17.25	487.3	0.18860	52.00	RRC/AAAC/ASTM/00009
400.00	203.0	19 x 3.69	18.45	557.5	0.16486	59.50	RRC/AAAC/ASTM/00010
450.00	228.0	19 x 3.91	19.55	626.0	0.14683	66.80	RRC/AAAC/ASTM/00011
500.00	253.0	19 x 4.12	20.60	695.0	0.13224	74.20	RRC/AAAC/ASTM/00012
550.00	279.0	37 x 3.10	21.70	766.2	0.11995	83.90	RRC/AAAC/ASTM/00013
600.00	303.0	37 x 3.23	22.16	831.9	0.11049	91.00	RRC/AAAC/ASTM/00014
650.00	330.0	37 x 3.37	23.59	905.5	0.10150	94.90	RRC/AAAC/ASTM/00015
700.00	354.0	37 x 3.49	24.43	971.2	0.09464	101.00	RRC/AAAC/ASTM/00016
750.00	381.0	37 x 3.62	25.34	1045.0	0.08796	109.00	RRC/AAAC/ASTM/00017
800.00	404.0	37 x 3.73	26.11	1109.0	0.08285	116.00	RRC/AAAC/ASTM/00018
900.00	456.0	37 x 3.96	27.72	1250.0	0.07351	131.00	RRC/AAAC/ASTM/00019
1000.00	508.0	37 x 4.18	29.26	1393.0	0.06597	146.00	RRC/AAAC/ASTM/00020
1250.00	631.0	61 x 3.63	32.67	1732.0	0.05306	179.00	RRC/AAAC/ASTM/00021
1500.00	759.0	61 x 3.98	35.82	2082.0	0.04414	215.00	RRC/AAAC/ASTM/00022
1750.00	886.0	61 x 4.30	38.70	2431.0	0.03781	251.00	RRC/AAAC/ASTM/00023

The above data is approximate and subject to manufacturing tolerance.  
 We reserve the right to change the above gures as a result of product development and/or changes in standard.

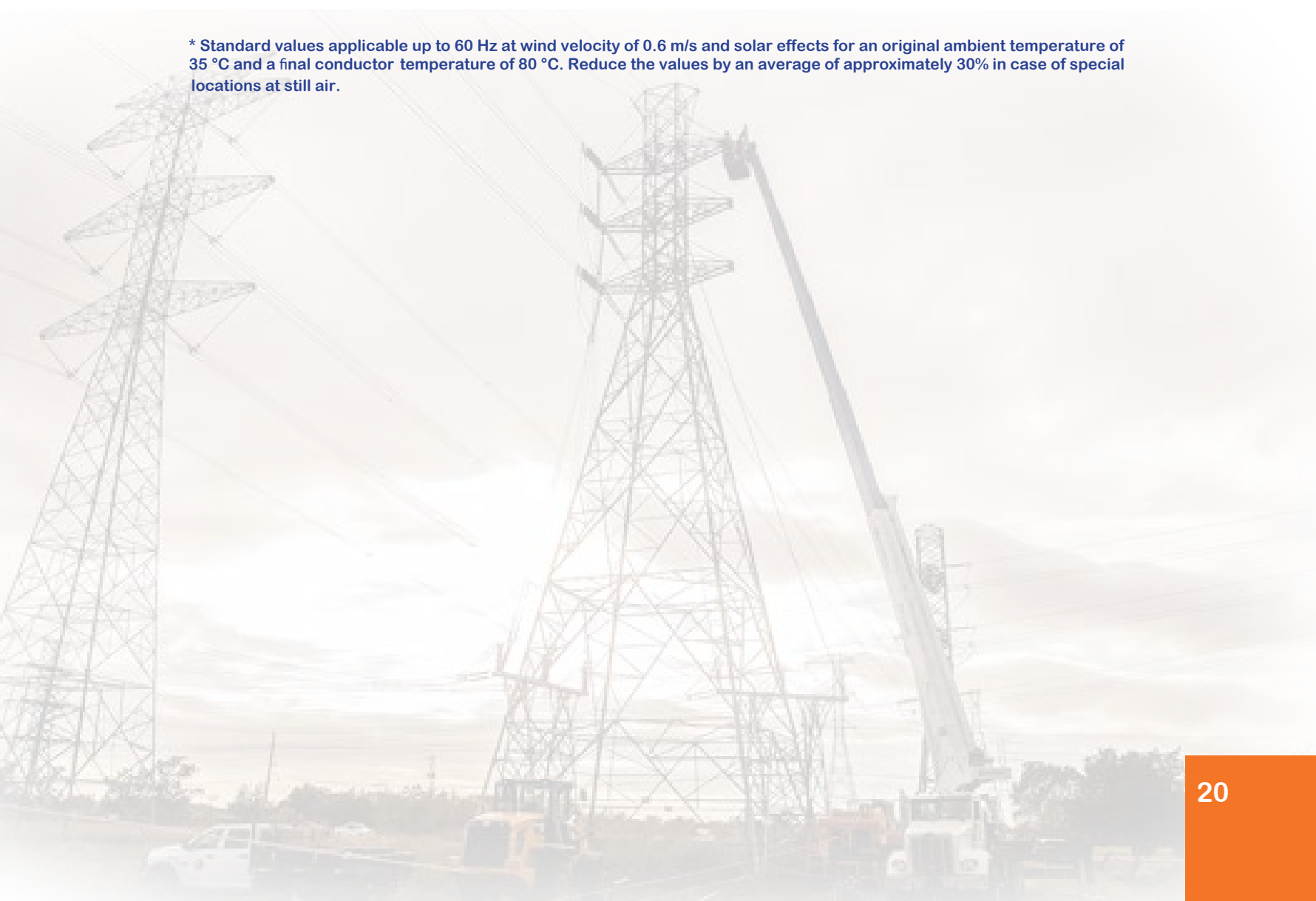
## AAAC

All Aluminum-Alloy Conductors ( AAAC )

DIN 48201 / 6 Standard

Nominal cross sectional area	Conductor construction	Approx. overall diameter	Approx. overall weight	Max. DC Resistance at 20 °C	Ampacity ( * )	Calculated breaking load	Product Code
mm <sup>2</sup>	No. x Ø ( mm )	mm	Kg / km	/ km	A	KN	
16	7 x 1.70	5.1	43	2.0910	105	4.44	RRC/AAAC/DIN/00001
25	7 x 2.10	6.3	66	1.37030	135	6.77	RRC/AAAC/DIN/00002
35	7 x 2.50	7.5	94	0.96690	170	9.60	RRC/AAAC/DIN/00003
50	7 x 3.00	9.0	135	0.67140	210	13.82	RRC/AAAC/DIN/00004
50	19 x 1.80	9.0	133	0.69050	210	13.50	RRC/AAAC/DIN/00005
70	19 x 2.10	10.5	181	0.50730	255	18.38	RRC/AAAC/DIN/00006
95	19 x 2.50	12.5	256	0.35790	320	26.05	RRC/AAAC/DIN/00007
120	19 x 2.80	14.0	322	0.28540	365	32.68	RRC/AAAC/DIN/00008
150	37 x 2.25	15.8	406	0.22740	425	41.09	RRC/AAAC/DIN/00009
185	37 x 2.50	17.5	500	0.18420	490	50.73	RRC/AAAC/DIN/00010
240	61 x 2.25	20.3	670	0.13830	585	67.74	RRC/AAAC/DIN/00011
300	61 x 2.50	22.5	827	0.11200	670	83.63	RRC/AAAC/DIN/00012
400	61 x 2.89	26.0	1104	0.08380	810	111.76	RRC/AAAC/DIN/00013
500	61 x 3.23	29.1	1379	0.06700	930	139.60	RRC/AAAC/DIN/00014
625	91 x 2.96	32.6	1732	0.05360	1075	174.90	RRC/AAAC/DIN/00015
800	91 x 3.35	36.9	2218	0.04180	1255	224.02	RRC/AAAC/DIN/00016
1000	91 x 3.74	41.1	2767	0.03360	1450	279.22	RRC/AAAC/DIN/00017

\* Standard values applicable up to 60 Hz at wind velocity of 0.6 m/s and solar effects for an original ambient temperature of 35 °C and a final conductor temperature of 80 °C. Reduce the values by an average of approximately 30% in case of special locations at still air.



# Aluminum Conductors, Steel-Reinforced



## CONSTRUCTION

Aluminum Conductors, Steel-Reinforced (ACSR) is a concentric-lay-stranded conductor consisting of galvanized steel central core with one or more layers of hard drawn stranded aluminum wires laid helically over the steel core. Steel core wires are protected from corrosion by galvanization.

## APPLICATION

Aluminum Conductors, Steel-Reinforced (ACSR) can be used in Medium, High and Extra -High voltage transmission lines; also used for primary and secondary distribution lines. The combination of aluminum and steel in the conductor design offers both efficient conductivity and high tensile strength making ACSR the most economical solution for overhead power transmission and distribution projects.

## APPLICABLE STANDARD

Aluminum Conductors, Steel-Reinforced (ACSR) can be supplied to meet various International Standards as follows :

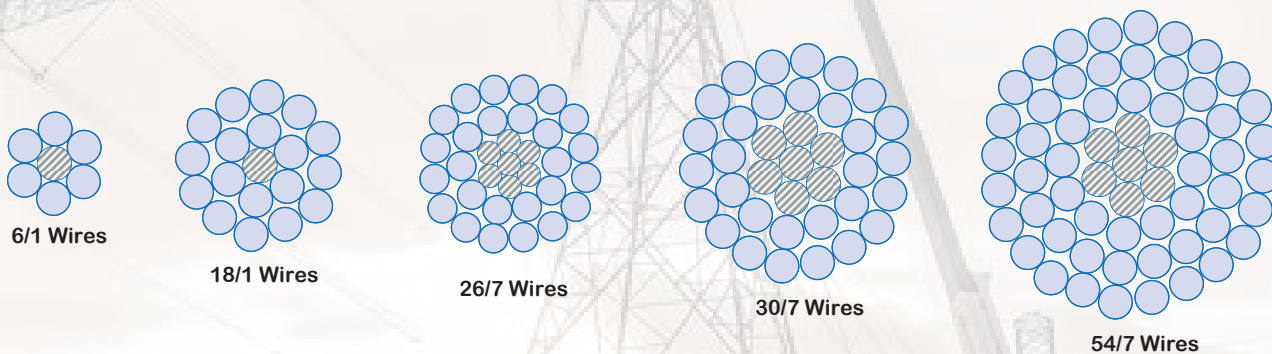
- **BS 215 / 2**
- **IEC 61089**
- **DIN 48204**
- **ASTM B 232**



However, **REROY** can also supply a range of alternative designs to meet customer-specified requirements.

## TECHNICAL DATA

Composition ( AL / ST )	Final Modulus of Elasticity MPa	Coeff. of Linear Expansion Per °C x 10
6 / 1	79 000	19.1
6 / 7	75 000	19.8
26 / 7	74 200	18.9
30 / 7	80 000	17.8
30 / 19	78 500	18.0
54 / 7	67 100	19.3
54 / 19	69 700	19.5



The above data is approximate and subject to manufacturing tolerance. We reserve the right to change the above figures as a result of product development and/or changes in standard.

## ACSR

Aluminum Conductors, Steel-Reinforced ( ACSR )

BS 215 / 2 Standard

Code Name	Nominal cross sectional area	Conductor construction		Approx. overall diameter	Approx. overall weight	Calculated DC Resistance at 20 °C	Calculated breaking load	Product Code
		Aluminum	Steel					
	mm <sup>2</sup>	No. x Ø ( mm )		mm	Kg / km	/ km	KN	
GOPHER	25	6 x 2.36	1 x 2.36	7.08	106	1.09300	9.61	RRC/ACSR/BS/00001
WEASEL	30	6 x 2.59	1 x 2.59	7.77	128	0.90770	11.45	RRC/ACSR/BS/00002
FERRET	40	6 x 3.00	1 x 3.00	9.00	172	0.67660	15.20	RRC/ACSR/BS/00003
RABBIT	50	6 x 3.35	1 x 3.35	10.05	214	0.54260	18.35	RRC/ACSR/BS/00004
HORSE	70	12 x 2.79	7 x 2.79	13.95	538	0.39360	61.20	RRC/ACSR/BS/00005
DOG	100	6 x 4.72	7 x 1.57	14.15	394	0.27330	32.70	RRC/ACSR/BS/00006
WOLF	150	30 x 2.59	7 x 2.59	18.13	726	0.18280	69.20	RRC/ACSR/BS/00007
DINGO	150	18 x 3.35	1 x 3.35	16.75	506	0.18150	35.70	RRC/ACSR/BS/00008
LYNX	175	30 x 2.79	7 x 2.79	19.53	842	0.15760	79.80	RRC/ACSR/BS/00009
CARACAL	175	18 x 3.61	1 x 3.61	18.05	587	0.15630	41.10	RRC/ACSR/BS/00010
PANTHER	200	30 x 3.00	7 x 3.00	21.00	974	0.13630	92.25	RRC/ACSR/BS/00011
JAGUAR	200	18 x 3.86	1 x 3.86	19.30	671	0.13670	46.55	RRC/ACSR/BS/00012
ZEBRA	400	54 x 3.18	7 x 3.18	28.62	1621	0.06740	131.90	RRC/ACSR/BS/00013

Aluminum Conductors, Steel-Reinforced ( ACSR ) - A1/S1A Conductors

IEC 61089 Standard

Code Number	Steel ratio	Nominal cross sectional area		Conductor construction		Approx. overall diameter	Approx. overall weight	Max. DC Resistance at 20 °C	Rated strength	Product Code
		Al	St	Al	St					
	%	mm <sup>2</sup>		No. x Ø ( mm )		mm	Kg / km	/ km	KN	
16	17	16	2.67	6 x 1.84	1 x 1.84	5.53	64.6	1.79340	6.08	RRC/ACSR/IEC/00001
25	17	25	4.17	6 x 2.30	1 x 2.30	6.91	100.9	1.14780	9.13	RRC/ACSR/IEC/00002
40	17	40	6.67	6 x 2.91	1 x 2.91	8.74	161.5	0.71740	14.40	RRC/ACSR/IEC/00003
63	17	63	10.50	6 x 3.66	1 x 3.66	11.00	254.4	0.45550	21.63	RRC/ACSR/IEC/00004
100	17	100	16.70	6 x 4.61	1 x 4.61	13.80	403.8	0.28690	34.33	RRC/ACSR/IEC/00005
125	6	125	6.94	18 x 2.97	1 x 2.97	14.90	397.9	0.23040	29.17	RRC/ACSR/IEC/00006
125	16	125	20.40	26 x 2.47	7 x 1.92	15.70	503.9	0.23100	45.69	RRC/ACSR/IEC/00007
160	6	160	8.89	18 x 3.36	1 x 3.36	16.80	509.3	0.18000	36.18	RRC/ACSR/IEC/00008
160	16	160	26.10	26 x 2.80	7 x 2.18	17.70	644.9	0.18050	57.69	RRC/ACSR/IEC/00009
200	6	200	11.10	18 x 3.76	1 x 3.76	18.80	636.7	0.14400	44.22	RRC/ACSR/IEC/00010
200	16	200	32.60	26 x 3.13	7 x 2.43	19.80	806.2	0.14440	70.13	RRC/ACSR/IEC/00011
250	10	250	24.60	22 x 3.80	7 x 2.11	21.60	880.6	0.11540	68.72	RRC/ACSR/IEC/00012
250	16	250	40.70	26 x 3.50	7 x 2.72	22.20	1007.7	0.11550	87.67	RRC/ACSR/IEC/00013
315	7	315	21.80	45 x 2.99	7 x 1.99	23.90	1039.6	0.09170	79.03	RRC/ACSR/IEC/00014
315	16	315	51.30	26 x 3.93	7 x 3.05	24.90	1269.7	0.09170	106.83	RRC/ACSR/IEC/00015
400	7	400	27.70	45 x 3.36	7 x 2.24	26.90	1320.1	0.07220	98.36	RRC/ACSR/IEC/00016
400	13	400	51.90	54 x 3.07	7 x 3.07	27.60	1510.3	0.07230	123.04	RRC/ACSR/IEC/00017
450	7	450	31.10	45 x 3.57	7 x 2.38	28.50	1485.2	0.06420	107.47	RRC/ACSR/IEC/00018
450	13	450	58.30	54 x 3.26	7 x 3.26	29.30	1699.1	0.06430	138.42	RRC/ACSR/IEC/00019
500	7	500	34.60	45 x 3.76	7 x 2.51	30.10	1650.2	0.05780	119.41	RRC/ACSR/IEC/00020
500	13	500	64.80	54 x 3.43	7 x 3.43	30.90	1887.9	0.05780	153.50	RRC/ACSR/IEC/00021

## ACSR

Aluminum Conductors, Steel-Reinforced ( ACSR ) - Al / StA Conductors

IEC 61089 Standard

Code Number	Steel ratio	Nominal cross sectional area		Conductor construction		Approx. overall diameter	Approx. overall weight	Max. DC Resistance at 20 °C	Rated strength	Product Code
		Al	St	Al	St					
	%	mm <sup>2</sup>		No. x Ø ( mm )		mm	Kg / km	/ km	KN	
560	7	560	38.70	45 x 3.98	7 x 2.65	31.80	1848.2	0.05160	133.74	RRC/ACSR/IEC/00022
560	13	560	70.90	54 x 3.63	19 x 2.18	32.70	2103.4	0.05160	172.59	RRC/ACSR/IEC/00023
630	7	630	43.60	45 x 4.22	7 x 2.81	33.80	2079.2	0.04590	150.45	RRC/ACSR/IEC/00024
630	13	630	79.80	54 x 3.85	19 x 2.31	34.70	2366.3	0.04590	191.77	RRC/ACSR/IEC/00025
710	7	710	49.10	45 x 4.48	7 x 2.99	35.90	2343.2	0.04070	169.56	RRC/ACSR/IEC/00026
710	13	710	89.90	54 x 4.09	19 x 2.45	36.80	2666.8	0.04070	216.12	RRC/ACSR/IEC/00027
800	4	800	34.60	72 x 3.76	7 x 2.51	37.60	2480.2	0.03610	167.41	RRC/ACSR/IEC/00028
800	8	800	66.70	84 x 3.48	7 x 3.48	38.30	2732.7	0.03620	205.33	RRC/ACSR/IEC/00029
800	13	800	101.0	54 x 4.34	19 x 2.61	39.10	3004.9	0.03620	243.52	RRC/ACSR/IEC/00030
900	4	900	38.90	72 x 3.99	7 x 2.66	39.90	2790.2	0.03210	188.33	RRC/ACSR/IEC/00031
900	8	900	75.00	84 x 3.69	7 x 3.69	40.60	3074.2	0.03220	226.50	RRC/ACSR/IEC/00032
1000	4	1000	43.20	72 x 4.21	7 x 2.80	42.10	3100.3	0.02890	209.26	RRC/ACSR/IEC/00033
1120	4	1120	47.30	72 x 4.45	19 x 1.78	44.50	3464.9	0.02580	234.53	RRC/ACSR/IEC/00034
1120	8	1120	91.20	84 x 4.12	19 x 2.47	45.30	3811.5	0.02580	283.17	RRC/ACSR/IEC/00035
1250	8	1250	102.0	84 x 4.35	19 x 2.61	47.90	4253.9	0.02320	316.04	RRC/ACSR/IEC/00036
1250	4	1250	52.80	72 x 4.70	19 x 1.88	47.00	3867.1	0.02310	261.75	RRC/ACSR/IEC/00037

Aluminum Conductors, Steel-Reinforced ( ACSR )

DIN 48204 Standard

Nominal cross sectional area	Nominal cross sectional area		Conductor construction		Approx. overall diameter	Approx. overall weight	Calculated DC Resistance at 20 °C	Ampacity ( * )	Rated strength	Product Code
	Al	St	Al	St						
	mm <sup>2</sup>		No. x Ø ( mm )		mm	Kg / km	/ km	A	KN	
16 / 2.5	15.27	2.54	6 x 1.80	1 x 1.80	5.4	62	1.87930	105	5.81	RRC/AAAC/DIN/00001
25 / 4	23.86	3.98	6 x 2.25	1 x 2.25	6.8	97	1.20280	140	9.02	RRC/AAAC/DIN/00002
35 / 6	34.35	5.73	6 x 2.70	1 x 2.70	8.1	140	0.83530	170	12.70	RRC/AAAC/DIN/00003
44 / 32	43.98	31.67	14 x 2.00	7 x 2.40	11.2	373	0.65730	195	45.46	RRC/AAAC/DIN/00004
50 / 8	48.25	8.04	6 x 3.20	1 x 3.20	9.6	196	0.59460	210	17.18	RRC/AAAC/DIN/00005
50 / 30	51.17	29.85	12 x 2.33	7 x 2.33	11.7	378	0.56440	213	44.28	RRC/AAAC/DIN/00006
70 / 12	69.89	11.40	26 x 1.85	7 x 1.44	11.7	284	0.41300	290	26.31	RRC/AAAC/DIN/00007
95 / 15	94.39	15.33	26 x 2.15	7 x 1.67	13.6	383	0.30580	350	35.17	RRC/AAAC/DIN/00008
95 / 55	96.61	66.30	12 x 3.20	7 x 3.20	16.0	714	0.29920	367	80.20	RRC/AAAC/DIN/00009
105 / 75	105.67	75.55	14 x 3.10	19 x 2.25	17.5	899	0.27360	394	106.69	RRC/AAAC/DIN/00010
120 / 20	121.57	19.85	26 x 2.44	7 x 1.90	15.5	494	0.23740	410	44.94	RRC/AAAC/DIN/00011
120 / 70	122.15	71.25	12 x 3.60	7 x 3.60	18.0	904	0.23640	724	98.16	RRC/AAAC/DIN/00012
125 / 30	127.92	29.85	30 x 2.33	7 x 2.33	16.3	590	0.22590	425	57.86	RRC/AAAC/DIN/00013
150 / 25	148.86	24.25	26 x 2.70	7 x 2.10	17.1	604	0.19390	470	54.37	RRC/AAAC/DIN/00014
170 / 40	171.77	40.08	30 x 2.70	7 x 2.70	18.9	794	0.16820	520	77.01	RRC/AAAC/DIN/00015
185 / 30	183.78	29.85	26 x 3.00	7 x 2.33	19.0	744	0.15710	535	66.28	RRC/AAAC/DIN/00016

The above data is approximate and subject to manufacturing tolerance.  
We reserve the right to change the above figures as a result of product development and/or changes in standard.

## ACSR

Aluminum Conductors, Steel-Reinforced ( ACSR )

DIN 48204 Standard

Nominal cross sectional area	Nominal cross sectional area		Conductor construction		Approx. overall diameter	Approx. overall weight	Calculated DC Resistance at 20 °C	Ampacity ( * )	Rated strength	Product Code
	Al	St	Al	St						
	mm <sup>2</sup>		No. x Ø ( mm )							
210 / 35	209.10	34.09	26 x 3.20	7 x 2.49	20.3	848	0.13800	590	74.94	RRC/ACSR/DIN/00017
210 / 50	212.06	49.48	30 x 3.00	7 x 3.00	21.0	979	0.13630	610	92.25	RRC/ACSR/DIN/00018
230 / 30	230.91	28.85	24 x 3.50	7 x 2.33	21.0	874	0.12490	630	73.09	RRC/ACSR/DIN/00019
240 / 40	243.05	39.49	26 x 3.45	7 x 2.68	21.8	985	0.11880	645	86.46	RRC/ACSR/DIN/00020
265 / 35	263.66	34.09	24 x 3.74	7 x 2.49	22.4	998	0.10940	680	82.94	RRC/ACSR/DIN/00021
300 / 50	304.26	49.48	26 x 3.85	7 x 3.00	24.5	1233	0.09490	740	105.09	RRC/ACSR/DIN/00022
305 / 40	304.62	39.49	54 x 2.68	7 x 2.68	24.1	1155	0.09490	740	99.30	RRC/ACSR/DIN/00023
340 / 30	339.29	29.85	48 x 3.00	7 x 2.33	25.0	1174	0.08510	790	92.56	RRC/ACSR/DIN/00024
380 / 50	381.70	49.48	54 x 3.00	7 x 3.00	27.0	1448	0.07570	840	120.91	RRC/ACSR/DIN/00025
385 / 35	386.04	34.09	48 x 3.20	7 x 2.49	26.7	1336	0.07480	850	104.31	RRC/ACSR/DIN/00026
435 / 55	434.29	56.30	54 x 3.20	7 x 3.20	28.8	1647	0.06660	900	136.27	RRC/ACSR/DIN/00027
450 / 40	448.71	39.49	48 x 3.45	7 x 2.68	28.7	1553	0.06440	920	120.19	RRC/ACSR/DIN/00028
490 / 65	490.29	63.55	54 x 3.40	7 x 3.40	30.6	1860	0.05900	960	152.85	RRC/ACSR/DIN/00029
495 / 35	494.36	34.09	45 x 3.74	7 x 2.49	29.9	1636	0.05840	985	120.31	RRC/ACSR/DIN/00030
510 / 45	510.54	45.28	48 x 3.68	7 x 2.87	30.7	1770	0.05660	995	134.33	RRC/ACSR/DIN/00031
550 / 70	549.65	71.25	54 x 3.60	7 x 3.60	32.4	2085	0.05260	1020	167.42	RRC/ACSR/DIN/00032
560 / 50	561.7	49.48	48 x 3.86	7 x 3.00	32.2	1943	0.05140	1040	146.28	RRC/ACSR/DIN/00033
570 / 40	571.16	39.49	45 x 4.02	7 x 2.68	32.2	1889	0.05060	1050	137.98	RRC/ACSR/DIN/00034
650 / 45	653.49	45.28	45 x 4.30	7 x 2.87	34.4	2163	0.04420	1120	155.52	RRC/ACSR/DIN/00035
680 / 85	678.58	85.95	54 x 4.00	19 x 2.40	36.0	2564	0.04260	1150	209.99	RRC/ACSR/DIN/00036

Standard values applicable up to 60 Hz at wind velocity of 0.6 m/s and solar effects for an original ambient temperature of 35 °C and a final conductor temperature of 80 °C. Reduce the values by an average of approximately 30% in case of special locations at still air.

Aluminum Conductors, Steel-Reinforced ( ACSR )

ASTM B 232 Standard

Code Word	Nominal cross sectional area		Conductor construction		Approx. overall diameter	Approx. overall weight	Calculated DC Resistance at 20 °C	Rated strength	Product Code
	MCM	mm <sup>2</sup>	Al	St					
			No. x Ø ( mm )						
Turkey	26.24	13.30	6 x 1.68	1 x 1.68	5.04	53.6	2.15703	5.28	RRC/ACSR/ASTM/00001
Swan	41.74	21.15	6 x 2.12	1 x 2.12	6.36	85.3	1.35457	8.30	RRC/ACSR/ASTM/00002
Swanate	41.74	21.15	7 x 1.96	1 x 2.61	6.53	99.6	1.35836	10.53	RRC/ACSR/ASTM/00003
Sparrow	66.36	33.62	6 x 2.67	1 x 2.67	8.01	135.7	0.85399	12.69	RRC/ACSR/ASTM/00004
Sparate	66.36	33.62	7 x 2.47	1 x 3.30	8.24	158.7	0.85533	16.14	RRC/ACSR/ASTM/00005
Grouse	80.00	40.54	8 x 2.54	1 x 4.24	9.32	221.4	0.71122	22.86	RRC/ACSR/ASTM/00006
Robin	83.69	42.41	6 x 3.00	1 x 3.00	9.00	171.1	0.67644	15.81	RRC/ACSR/ASTM/00007
Petrel	101.80	51.58	12 x 2.34	7 x 2.34	11.70	377.7	0.56140	46.16	RRC/ACSR/ASTM/00008
Raven	105.60	53.51	6 x 3.37	1 x 3.37	10.11	216.1	0.53606	19.35	RRC/ACSR/ASTM/00009
Minorca	110.80	56.14	12 x 2.44	7 x 2.44	12.20	411.1	0.51632	50.19	RRC/ACSR/ASTM/00010
Quail	133.10	67.44	6 x 3.78	1 x 3.78	11.34	272.0	0.42608	23.27	RRC/ACSR/ASTM/00011

## ACSR

Aluminum Conductors, Steel-Reinforced ( ACSR )

ASTM B 232 Standard

Code Word	Nominal cross sectional area		Conductor construction		Approx. overall diameter	Approx. overall weight	Calculated DC Resistance at 20 °C	Rated strength	Product Code
	MCM	mm <sup>2</sup>	Al	St					
			No. x Ø ( mm )		mm	Kg / km	/ km	KN	
Leghorn	134.60	68.20	12 x 2.69	7 x 2.69	13.45	499.2	0.42481	60.67	RRC/ACSR/ASTM/00001
Guinea	159.00	80.57	12 x 2.92	7 x 2.92	14.60	549.5	0.36053	71.10	RRC/ACSR/ASTM/00002
Pigeon	167.80	85.02	6 x 4.25	1 x 4.25	12.75	343.0	0.33705	29.42	RRC/ACSR/ASTM/00003
Dotterel	176.90	89.64	12 x 3.08	7 x 3.08	15.40	656.1	0.32404	76.68	RRC/ACSR/ASTM/00004
Dorking	190.80	96.68	12 x 3.20	7 x 3.20	16.00	707.8	0.30019	82.77	RRC/ACSR/ASTM/00005
Brahma	203.20	102.96	16 x 2.86	19 x 2.48	18.12	1003.8	0.28186	126.52	RRC/ACSR/ASTM/00006
Cochin	211.30	107.07	12 x 3.37	7 x 3.37	16.85	783.9	0.27067	91.79	RRC/ACSR/ASTM/00007
Penguin	211.60	107.22	6 x 4.77	1 x 4.77	14.31	432.7	0.26757	37.06	RRC/ACSR/ASTM/00008
Waxwing	266.80	135.19	18 x 3.09	1 x 3.09	15.45	430.2	0.21358	30.27	RRC/ACSR/ASTM/00009
Partridge	266.80	135.19	26 x 2.57	7 x 2.00	16.28	545.9	0.21480	50.23	RRC/ACSR/ASTM/00010
Ostrich	300.0	152.01	26 x 2.73	7 x 2.12	17.28	613.4	0.19036	56.55	RRC/ACSR/ASTM/00011
Merlin	336.4	170.45	18 x 3.47	1 x 3.47	17.35	542.8	0.16937	38.17	RRC/ACSR/ASTM/00012
Linnet	336.4	170.45	26 x 2.89	7 x 2.25	18.31	687.5	0.16987	62.76	RRC/ACSR/ASTM/00013
Oriole	336.4	170.45	30 x 2.69	7 x 2.69	18.83	783.3	0.17034	77.43	RRC/ACSR/ASTM/00014
Chickadee	397.5	201.41	18 x 3.77	1 x 3.77	18.85	641.3	0.14348	43.37	RRC/ACSR/ASTM/00015
Brant	397.5	201.41	24 x 3.27	7 x 2.18	19.62	761.0	0.14374	64.72	RRC/ACSR/ASTM/00016
Ibbs	397.5	201.41	26 x 3.14	7 x 2.44	19.88	812.4	0.14390	72.05	RRC/ACSR/ASTM/00017
Lark	397.5	201.41	30 x 2.92	7 x 2.92	20.44	925.2	0.14456	90.30	RRC/ACSR/ASTM/00018
Pelican	477.0	241.70	18 x 4.14	1 x 4.14	20.70	769.7	0.11898	52.30	RRC/ACSR/ASTM/00019
Flicker	477.0	241.70	24 x 3.58	7 x 2.39	21.49	913.5	0.11992	76.78	RRC/ACSR/ASTM/00020
Hawk	477.0	241.70	26 x 3.44	7 x 2.67	21.77	975.1	0.11989	86.36	RRC/ACSR/ASTM/00021
Hen	477.0	241.70	30 x 3.20	7 x 3.20	22.40	1110.6	0.12037	105.16	RRC/ACSR/ASTM/00022
Osprey	556.5	281.98	18 x 4.47	1 x 4.47	22.35	897.7	0.10206	60.97	RRC/ACSR/ASTM/00023
Parakeet	556.5	281.98	24 x 3.87	7 x 2.58	23.22	1065.6	0.10262	88.29	RRC/ACSR/ASTM/00024
Dove	556.5	281.98	26 x 3.72	7 x 2.89	23.55	1138.6	0.10252	101.10	RRC/ACSR/ASTM/00025
Eagle	556.5	281.98	30 x 3.46	7 x 3.46	24.22	1295.6	0.10296	122.94	RRC/ACSR/ASTM/00026
Peacock	605.0	306.55	24 x 4.03	7 x 2.69	24.19	1158.9	0.09464	95.86	RRC/ACSR/ASTM/00027
Squab	605.0	306.55	26 x 3.87	7 x 3.01	24.51	1237.0	0.09473	108.14	RRC/ACSR/ASTM/00028
Wood Duck	605.0	306.55	30 x 3.61	7 x 3.61	25.27	1408.4	0.09458	129.02	RRC/ACSR/ASTM/00029
Teal	605.0	306.55	30 x 3.61	19 x 2.16	25.24	1396.6	0.09458	133.37	RRC/ACSR/ASTM/00030
Kingbird	636.0	322.26	18 x 4.78	1 x 4.78	23.90	1026.6	0.08925	69.72	RRC/ACSR/ASTM/00031
Swift	636.0	322.26	36 x 3.38	1 x 3.38	23.66	956.5	0.08925	60.65	RRC/ACSR/ASTM/00032
Rook	636.0	322.26	24 x 4.14	7 x 2.76	24.84	1217.5	0.08967	101.04	RRC/ACSR/ASTM/00033
Grosbeak	636.0	322.26	26 x 3.97	7 x 3.09	25.15	1300.8	0.09002	111.87	RRC/ACSR/ASTM/00034
Scoter	636.0	322.26	30 x 3.70	7 x 3.70	25.90	1480.7	0.09004	135.53	RRC/ACSR/ASTM/00035
Egret	636.0	322.26	30 x 3.70	19 x 2.22	25.90	1469.0	0.09004	140.60	RRC/ACSR/ASTM/00036
Flamingo	666.6	337.77	24 x 4.23	7 x 2.82	25.38	1276.6	0.08590	105.48	RRC/ACSR/ASTM/00037
Gannet	666.6	337.77	26 x 4.07	7 x 3.16	25.76	1363.3	0.08565	117.26	RRC/ACSR/ASTM/00038
Stilt	715.5	362.54	24 x 4.39	7 x 2.92	26.32	1370.4	0.07975	113.35	RRC/ACSR/ASTM/00039

The above data is approximate and subject to manufacturing tolerance.  
We reserve the right to change the above figures as a result of product development and/or changes in standard.

## ACSR

Aluminum Conductors, Steel-Reinforced ( ACSR )

ASTM B 232 Standard

Code Word	Nominal cross sectional area		Conductor construction		Approx. overall diameter	Approx. overall weight	Calculated DC Resistance at 20 °C	Rated strength	Product Code
	MCM	mm <sup>2</sup>	Al	St					
			No. x Ø ( mm )		mm	Kg / km	/ km	KN	
Starling	715.5	362.54	26 x 4.21	7 x 3.28	26.68	1463.7	0.08005	125.95	RRC/ACSR/ASTM/00040
Redwing	715.5	362.54	30 x 3.92	19 x 2.35	27.43	1650.6	0.08021	153.66	RRC/ACSR/ASTM/00041
Coot	795.0	402.83	36 x 3.77	1 x 3.77	26.39	1195.8	0.07174	72.88	RRC/ACSR/ASTM/00042
Cuckoo	795.0	402.83	24 x 4.62	7 x 3.08	27.74	1522.2	0.07201	123.82	RRC/ACSR/ASTM/00043
Drake	795.0	402.83	26 x 4.44	7 x 3.45	28.11	1626.4	0.07197	139.67	RRC/ACSR/ASTM/00044
Tern	795.0	402.83	45 x 3.38	7 x 2.25	27.03	1331.8	0.07175	97.47	RRC/ACSR/ASTM/00045
Condor	795.0	402.83	54 x 3.08	7 x 3.08	27.72	1520.7	0.07201	124.33	RRC/ACSR/ASTM/00046
Mallard	795.0	402.83	30 x 4.14	19 x 2.48	28.96	1836.0	0.07191	171.22	RRC/ACSR/ASTM/00047
Ruddy	900.0	456.03	45 x 3.59	7 x 2.40	28.73	1507.3	0.06360	109.38	RRC/ACSR/ASTM/00048
Canary	900.0	456.03	54 x 3.28	7 x 3.28	29.52	1723.1	0.06350	141.00	RRC/ACSR/ASTM/00049
Catbird	954.0	483.39	36 x 4.14	1 x 4.14	28.98	1434.4	0.05949	87.88	RRC/ACSR/ASTM/00050
Rail	954.0	483.39	45 x 3.70	7 x 2.47	29.61	1598.1	0.05988	116.07	RRC/ACSR/ASTM/00051
Cardinal	954.0	483.39	54 x 3.38	7 x 3.38	30.42	1825.9	0.05979	149.72	RRC/ACSR/ASTM/00052
Tanager	1033.5	523.67	36 x 4.30	1 x 4.30	30.12	1553.5	0.05515	94.81	RRC/ACSR/ASTM/00053
Ortolan	1033.5	523.67	45 x 3.85	7 x 2.57	30.81	1730.5	0.05530	123.28	RRC/ACSR/ASTM/00054
Curlew	1033.5	523.67	54 x 3.51	7 x 3.51	31.62	1977.6	0.05545	161.46	RRC/ACSR/ASTM/00055
Bluejay	1113.0	563.96	45 x 4.00	7 x 2.66	31.98	1866.0	0.05123	132.71	RRC/ACSR/ASTM/00056
Finch	1113.0	563.96	54 x 3.65	19 x 2.19	32.85	2127.8	0.05152	174.60	RRC/ACSR/ASTM/00057
Bunting	1192.5	604.24	45 x 4.14	7 x 2.76	33.12	1996.9	0.04783	142.42	RRC/ACSR/ASTM/00058
Grackle	1192.5	604.24	54 x 3.77	19 x 2.27	33.97	2278.1	0.04830	184.19	RRC/ACSR/ASTM/00059
Skylark	1272.0	644.52	36 x 4.78	1 x 4.78	33.46	1913.6	0.04463	117.16	RRC/ACSR/ASTM/00060
Bittern	1272.0	644.52	45 x 4.27	7 x 2.85	34.16	2130.8	0.04496	151.63	RRC/ACSR/ASTM/00061
Pheasant	1272.0	644.52	54 x 3.90	19 x 2.34	35.10	2431.4	0.04513	194.13	RRC/ACSR/ASTM/00062
Dipper	1351.5	684.81	45 x 4.40	7 x 2.93	35.19	2263.2	0.04234	160.74	RRC/ACSR/ASTM/00063
Martin	1351.5	684.81	54 x 4.02	19 x 2.41	36.17	2581.7	0.04248	206.08	RRC/ACSR/ASTM/00064
Bobolink	1431.0	725.09	45 x 4.53	7 x 3.02	36.24	2397.2	0.03995	170.51	RRC/ACSR/ASTM/00065
Plover	1431.0	725.09	54 x 4.14	19 x 2.48	37.24	2734.9	0.04005	218.40	RRC/ACSR/ASTM/00066
Nuthatch	1510.5	765.37	45 x 4.65	7 x 3.10	37.20	2529.6	0.03791	177.64	RRC/ACSR/ASTM/00067
Parrot	1510.5	765.37	54 x 4.25	19 x 2.55	38.25	2883.7	0.03800	230.53	RRC/ACSR/ASTM/00068
Lapwing	1590.0	805.65	45 x 4.78	7 x 3.18	38.20	2663.5	0.03588	187.43	RRC/ACSR/ASTM/00069
Falcon	1590.0	805.65	54 x 4.36	19 x 2.62	39.26	3038.5	0.03611	242.99	RRC/ACSR/ASTM/00070
Chukar	1780.0	901.93	84 x 3.70	19 x 2.22	40.70	3083.1	0.03223	227.79	RRC/ACSR/ASTM/00071
Bluebird	2156.0	1092.45	84 x 4.07	19 x 2.44	44.76	3731.9	0.02664	268.05	RRC/ACSR/ASTM/00072
Kiwi	2167.0	1098.02	72 x 4.41	7 x 2.94	44.10	3423.9	0.02647	221.71	RRC/ACSR/ASTM/00073
Thrasher	2312.0	1171.49	76 x 4.43	19 x 2.07	45.79	3754.2	0.02485	251.86	RRC/ACSR/ASTM/00074

# Aluminum Conductors, Aluminum-Clad Steel Reinforced



## CONSTRUCTION

Aluminum Conductors, Aluminum-Clad Steel Reinforced (ACSR / AW) is a concentric-layer stranded conductor consisting of aluminum-clad steel central core (Alumoweld) with one or more layers of hard drawn stranded aluminum wires. Alumoweld is a highly resistant steel rod, covered with a thick coating of pure aluminum, which is cold-drawn in order to obtain wires of the required diameters.

The design and dimensions of ACSR / AW conductors are identical to those of ordinary ACSR conductors, except the steel core in ACSR conductor, which is aluminum-clad steel core in ACSR/AW.

## APPLICATION

Aluminum Conductors, Aluminum-Clad Steel Reinforced (ACSR / AW) can be used in Medium, High and Extra-High voltage transmission lines; also used for earth wires. In comparison with ACSR conductors, ACSR / AW conductors have considerable technical and economical advantages in overhead lines. Its lower weight combined with its higher current carrying capacity and corrosion protection provide a longer life cycle, reduction in energy losses and significant cost saving during the operation of the line.



## APPLICABLE STANDARD

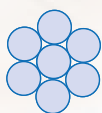
Aluminum Conductors, Aluminum-Clad Steel Reinforced (ACSR / AW) is designed and tested to meet:

- **ASTM B 549**

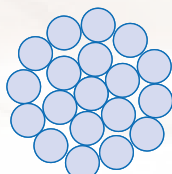
However, **REROY** can also supply a range of alternative designs to meet customer-specified requirements.

## TECHNICAL DATA

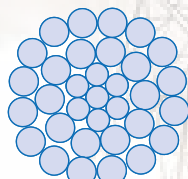
Composition ( AL / AW )	Final Modulus of Elasticity MPa	Coeff. of Linear Expansion Per °C x 10 <sup>-6</sup>
6 / 1	74 500	19.3
6 / 7	71 600	20.0
26 / 7	71 600	19.1
30 / 7	74 500	18.0
30 / 19	72 500	18.2
54 / 7	65 700	19.5
54 / 19	63 700	19.6



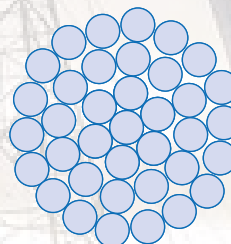
6/1 Wires



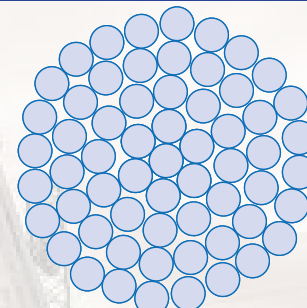
18/1 Wires



26/7 Wires



30/7 Wires



54/7 Wires

The above data is approximate and subject to manufacturing tolerance. We reserve the right to change the above figures as a result of product development and/or changes in standard.

## ACSR/AW

Aluminum Conductor, Aluminum-Clad Steel Reinforced (ACSR /AW)

ASTM B 549 Standard

Code Word	Nominal cross sectional area		Conductor construction		Approx. overall diameter	Approx. overall weight	Calculated DC Resistance at 20 °C	Rated strength	Product Code
	MCM	mm <sup>2</sup>	Aluminum	AW					
			No. x Ø ( mm )		mm	Kg / km	/ km	KN	
Swan / AW	41.74	21.15	6 x 2.12	1 x 2.12	6.36	81.0	1.28227	8.0	RRC/ACSR/AW/00001
Swanate / AW	41.74	21.15	7 x 1.96	1 x 2.61	6.53	93.0	1.25114	10.0	RRC/ACSR/AW/00002
Sparrow / AW	66.36	33.62	6 x 2.67	1 x 2.67	8.01	129.0	0.80840	12.0	RRC/ACSR/AW/00003
Sparate / AW	66.36	33.62	7 x 2.47	1 x 3.30	8.24	149.0	0.78740	16.0	RRC/ACSR/AW/00004
Grouse / AW	80.00	40.54	8 x 2.54	1 x 4.24	9.32	205.0	0.63591	22.0	RRC/ACSR/AW/00005
Robin / AW	83.69	42.41	6 x 3.00	1 x 3.00	9.00	162.0	0.64034	15.0	RRC/ACSR/AW/00006
Petrel / AW	101.80	51.58	12 x 2.34	7 x 2.34	11.70	342.0	0.46842	44.0	RRC/ACSR/AW/00007
Raven / AW	105.60	53.51	6 x 3.37	1 x 3.37	10.11	205.0	0.50745	19.0	RRC/ACSR/AW/00008
Minorca / AW	110.80	56.14	12 x 2.44	7 x 2.44	12.20	372.0	0.43081	48.0	RRC/ACSR/AW/00009
Quail / AW	133.10	67.44	6 x 3.78	1 x 3.78	11.34	259.0	0.40334	23.0	RRC/ACSR/AW/00010
Leghorn / AW	134.60	68.20	12 x 2.69	7 x 2.69	13.45	452.0	0.35445	58.0	RRC/ACSR/AW/00011
Guinea / AW	159.00	80.57	12 x 2.92	7 x 2.92	14.60	534.0	0.30081	68.0	RRC/ACSR/AW/00012
Pigeon / AW	167.80	85.02	6 x 4.25	1 x 4.25	12.75	326.0	0.31906	28.0	RRC/ACSR/AW/00013
Dotterel / AW	176.90	89.64	12 x 3.08	7 x 3.08	15.40	594.0	0.27037	75.0	RRC/ACSR/AW/00014
Dorking / AW	190.80	96.68	12 x 3.20	7 x 3.20	16.00	641.0	0.25047	81.0	RRC/ACSR/AW/00015
Brahma / AW	203.20	102.96	16 x 2.86	19 x 2.48	18.12	894.0	0.21628	121.0	RRC/ACSR/AW/00016
Cochin / AW	211.30	107.07	12 x 3.37	7 x 3.37	16.85	710.0	0.22584	88.0	RRC/ACSR/AW/00017
Penguin / AW	211.60	107.22	6 x 4.77	1 x 4.77	14.31	412.0	0.25329	34.0	RRC/ACSR/AW/00018
Waxwing / AW	266.80	135.19	18 x 3.09	1 x 3.09	15.45	421.0	0.20963	30.0	RRC/ACSR/AW/00019
Partridge / AW	266.80	135.19	26 x 2.57	7 x 2.00	16.28	519.0	0.20351	48.0	RRC/ACSR/AW/00020
Ostrich / AW	300.00	152.01	26 x 2.73	7 x 2.12	17.28	583.0	0.18040	54.0	RRC/ACSR/AW/00021
Merlin / AW	336.40	170.45	18 x 3.47	1 x 3.47	17.35	531.0	0.16623	38.0	RRC/ACSR/AW/00022
Linnet / AW	336.40	170.45	26 x 2.89	7 x 2.25	18.31	655.0	0.16093	60.0	RRC/ACSR/AW/00023
Oriole / AW	336.40	170.45	30 x 2.69	7 x 2.69	18.83	737.0	0.15778	74.0	RRC/ACSR/AW/00024
Chickadee / AW	397.50	201.41	18 x 3.77	1 x 3.77	18.85	628.0	0.14082	44.0	RRC/ACSR/AW/00025
Brant / AW	397.50	201.41	24 x 3.27	7 x 2.18	19.62	731.0	0.13767	63.0	RRC/ACSR/AW/00026
Ibbs / AW	397.50	201.41	26 x 3.14	7 x 2.44	19.88	774.0	0.13635	70.0	RRC/ACSR/AW/00027
Lark / AW	397.50	201.41	30 x 2.92	7 x 2.92	20.44	869.0	0.13390	87.0	RRC/ACSR/AW/00028
Pelican / AW	477.00	241.70	18 x 4.14	1 x 4.14	20.70	755.0	0.11678	51.0	RRC/ACSR/AW/00029
Flicker / AW	477.00	241.70	24 x 3.58	7 x 2.39	21.49	877.0	0.11484	74.0	RRC/ACSR/AW/00030
Hawk / AW	477.00	241.70	26 x 3.44	7 x 2.68	21.80	929.0	0.11358	84.0	RRC/ACSR/AW/00031
Hen / AW	477.00	241.70	30 x 3.20	7 x 3.20	22.40	1043.0	0.11150	104.0	RRC/ACSR/AW/00032
Osprey / AW	556.50	281.98	18 x 4.47	1 x 4.47	22.35	880.0	0.10017	59.0	RRC/ACSR/AW/00033
Parakeet / AW	556.50	281.98	24 x 3.87	7 x 2.58	23.22	1022.0	0.09829	86.0	RRC/ACSR/AW/00034

## ACSR

Aluminum Conductor, Aluminum-Clad Steel Reinforced (ACSR /AW)

ASTM B 549 Standard

Code Word	Nominal cross sectional area		Conductor construction		Approx. overall diameter	Approx. overall weight	Calculated DC Resistance at 20 °C	Rated strength	Product Code
	MCM	mm <sup>2</sup>	Aluminum	AW					
			No. x Ø ( mm )		mm	Kg / km	/ km	KN	
Dove / AW	556.50	281.98	26 x 3.72	7 x 2.89	23.55	1083.0	0.09715	97.0	RRC/ACSR/AW/00034
Eagle / AW	556.50	281.98	30 x 3.46	7 x 3.46	24.22	1217.0	0.09537	119.0	RRC/ACSR/AW/00035
Peacock / AW	605.00	306.55	24 x 4.03	7 x 2.69	24.19	1112.0	0.09063	93.0	RRC/ACSR/AW/00036
Squab / AW	605.00	306.55	26 x 3.87	7 x 3.01	24.51	1177.0	0.08976	105.0	RRC/ACSR/AW/00037
Wood Duck/AW	605.00	306.55	30 x 3.61	7 x 3.61	25.27	1323.0	0.08761	126.0	RRC/ACSR/AW/00038
Teal / AW	605.00	306.55	30 x 3.61	19 x 2.16	25.24	1314.0	0.08780	127.0	RRC/ACSR/AW/00039
Kingbird / AW	636.00	322.26	18 x 4.78	1 x 4.78	23.90	1006.0	0.08760	67.0	RRC/ACSR/AW/00040
Swift / AW	636.00	322.26	36 x 3.38	1 x 3.38	23.66	946.0	0.08842	61.0	RRC/ACSR/AW/00041
Rook / AW	636.00	322.26	24 x 4.14	7 x 2.76	24.84	1168.0	0.08589	98.0	RRC/ACSR/AW/00042
Grosbeak / AW	636.00	322.26	26 x 3.97	7 x 3.09	25.15	1238.0	0.08528	110.0	RRC/ACSR/AW/00043
Scoter / AW	636.00	322.26	30 x 3.70	7 x 3.70	25.90	1391.0	0.08340	130.0	RRC/ACSR/AW/00044
Egret / AW	636.00	322.26	30 x 3.70	19 x 2.22	25.90	1381.0	0.08355	133.0	RRC/ACSR/AW/00045
Flamingo / AW	666.60	337.77	24 x 4.23	7 x 2.82	25.38	1225.0	0.08227	103.0	RRC/ACSR/AW/00046
Gannet / AW	666.60	337.77	26 x 4.07	7 x 3.16	25.76	1298.0	0.08117	116.0	RRC/ACSR/AW/00047
Stilt / AW	715.50	362.54	24 x 4.39	7 x 2.92	26.32	1314.0	0.07640	110.0	RRC/ACSR/AW/00048
Starling / AW	715.50	362.54	26 x 4.21	7 x 3.28	26.68	1393.0	0.07583	122.0	RRC/ACSR/AW/00049
Redwing / AW	715.50	362.54	30 x 3.92	19 x 2.35	27.43	1552.0	0.07444	149.0	RRC/ACSR/AW/00050
Coot / AW	795.00	402.83	36 x 3.77	1 x 3.77	26.39	1183.0	0.07107	74.0	RRC/ACSR/AW/00051
Cuckoo / AW	795.00	402.83	24 x 4.62	7 x 3.08	27.74	1460.0	0.06897	122.0	RRC/ACSR/AW/00052
Drake / AW	795.00	402.83	26 x 4.44	7 x 3.45	28.11	1549.0	0.06820	136.0	RRC/ACSR/AW/00053
Tern / AW	795.00	402.83	45 x 3.38	7 x 2.25	27.03	1298.0	0.07011	96.0	RRC/ACSR/AW/00054
Condor / AW	795.00	402.83	54 x 3.08	7 x 3.08	27.72	1458.0	0.06897	124.0	RRC/ACSR/AW/00055
Mallard / AW	795.00	402.83	30 x 4.14	19 x 2.48	28.96	1726.0	0.06675	165.0	RRC/ACSR/AW/00056
Ruddy / AW	900.00	456.03	45 x 3.59	7 x 2.40	28.73	1470.0	0.06213	107.0	RRC/ACSR/AW/00057
Canary / AW	900.00	456.03	54 x 3.28	7 x 3.28	29.52	1653.0	0.06081	138.0	RRC/ACSR/AW/00058
Catbird / AW	954.00	483.39	36 x 4.14	1 x 4.14	28.98	1420.0	0.05894	87.0	RRC/ACSR/AW/00059
Rail / AW	954.00	483.39	45 x 3.70	7 x 2.47	29.61	1558.0	0.05850	113.0	RRC/ACSR/AW/00060
Cardinal / AW	954.00	483.39	54 x 3.38	7 x 3.38	30.42	1752.0	0.05727	146.0	RRC/ACSR/AW/00061
Tanager / AW	1033.50	523.67	36 x 4.30	1 x 4.30	30.12	1537.0	0.05463	94.0	RRC/ACSR/AW/00062
Ortolan / AW	1033.50	523.67	45 x 3.85	7 x 2.57	30.81	1688.0	0.05403	121.0	RRC/ACSR/AW/00063
Curlew / AW	1033.50	523.67	54 x 3.51	7 x 3.51	31.62	1896.0	0.05310	158.0	RRC/ACSR/AW/00064
Bluejay / AW	1113.00	563.96	45 x 4.00	7 x 2.66	31.98	1819.0	0.05006	130.0	RRC/ACSR/AW/00065
Finch / AW	1113.00	563.96	54 x 3.65	19 x 2.19	32.85	2043.0	0.04939	167.0	RRC/ACSR/AW/00066
Bunting / AW	1192.50	604.24	45 x 4.14	7 x 2.76	33.12	1948.0	0.04673	139.0	RRC/ACSR/AW/00067

The above data is approximate and subject to manufacturing tolerance.  
We reserve the right to change the above figures as a result of product development and/or changes in standard.

## ACSR/AW

Aluminum Conductor, Aluminum-Clad Steel Reinforced (ACSR /AW)

ASTM B 549 Standard

Code Word	Nominal cross sectional area		Conductor construction		Approx. overall diameter mm	Approx. overall weight Kg / km	Calculated DC Resistance at 20 °C / km	Rated strength KN	Product Code
	MCM	mm <sup>2</sup>	Aluminum	AW					
			No. x Ø ( mm )						
Grackle / AW	1192.50	604.24	54 x 3.77	19 x 2.27	33.97	2188.0	0.04628	179.0	RRC/ACSR/AW/00068
Skylark / AW	1272.00	644.52	36 x 4.78	1 x 4.78	33.46	1893.0	0.04421	114.0	RRC/ACSR/AW/00069
Bittern / AW	1272.00	644.52	45 x 4.27	7 x 2.85	34.16	2078.0	0.04392	149.0	RRC/ACSR/AW/00070
Pheasant / AW	1272.00	644.52	54 x 3.90	19 x 2.34	35.10	2333.0	0.04326	189.0	RRC/ACSR/AW/00071
Dipper / AW	1351.50	684.81	45 x 4.40	7 x 2.93	35.19	2207.0	0.04137	158.0	RRC/ACSR/AW/00072
Martin / AW	1351.50	684.81	54 x 4.02	19 x 2.41	36.17	2478.0	0.04072	201.0	RRC/ACSR/AW/00073
Bobolink / AW	1431.00	725.09	45 x 4.53	7 x 3.02	36.24	2336.0	0.03903	167.0	RRC/ACSR/AW/00074
Plover / AW	1431.00	725.09	54 x 4.14	19 x 2.48	37.24	2625.0	0.03840	212.0	RRC/ACSR/AW/00075
Nuthatch / AW	1510.50	765.37	45 x 4.65	7 x 3.10	37.20	2467.0	0.03704	177.0	RRC/ACSR/AW/00076
Parrot / AW	1510.50	765.37	54 x 4.25	19 x 2.55	38.25	2768.0	0.03643	224.0	RRC/ACSR/AW/00077
Lapwing / AW	1590.00	805.65	45 x 4.78	7 x 3.18	38.20	2598.0	0.03506	186.0	RRC/ACSR/AW/00078
Falcon / AW	1590.00	805.65	54 x 4.36	19 x 2.62	39.26	2917.0	0.03461	236.0	RRC/ACSR/AW/00079
Chukar / AW	1780.00	901.93	84 x 3.70	19 x 2.22	40.70	2996.0	0.03136	220.0	RRC/ACSR/AW/00080
Bluebird / AW	2156.00	1092.45	84 x 4.07	19 x 2.44	44.76	3627.0	0.02592	262.0	RRC/ACSR/AW/00081
Kiwi / AW	2167.00	1098.02	72 x 4.41	7 x 2.94	44.10	3366.0	0.02609	218.0	RRC/ACSR/AW/00082
Thrasher / AW	2312.00	1171.49	76 x 4.43	19 x 2.07	45.79	3679.0	0.02440	246.0	RRC/ACSR/AW/00083



# Aluminum Conductors, Aluminum-Alloy Reinforced



## CONSTRUCTION

Aluminum Conductors, Aluminum-Alloy Reinforced (ACAR) is a concentric-lay-stranded conductor consisting of stranded aluminum alloy central core with one or more layers of hard drawn stranded aluminum wires. The diameters of all wires are the same. Aluminum and aluminum-alloy wires can be mixed in the same layer.

## APPLICATION

Aluminum Conductors, Aluminum-Alloy Reinforced (ACAR) can be used as bare overhead transmission conductor or primary or secondary distribution conductor. When higher capacity and strength for equal weight are prime line considerations, ACAR is the solution over ACSR due to its better strength-to-weight ratio.

## APPLICABLE STANDARD

Aluminum Conductors, Aluminum-Alloy Reinforced (ACAR) can be supplied to meet various International Standards as follows :

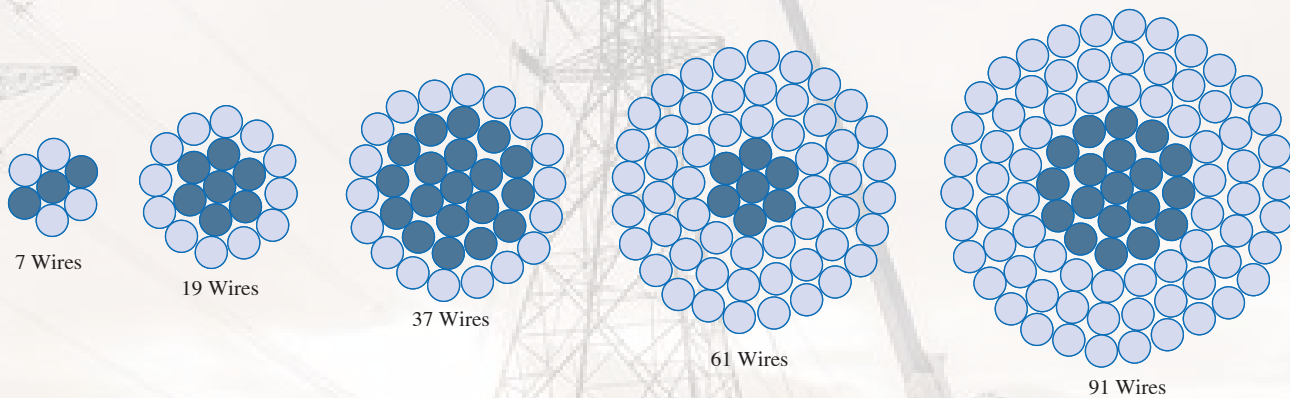
- IEC 61089
- ASTM B 524

However, **REROY** can also supply a range of alternative designs to meet customer- specified requirements.



## TECHNICAL DATA

Composition ( AL + ALLOY)	Final Modulus of Elasticity MPa	Coeff. of Linear Expansion Per °C x 10 <sup>-6</sup>
7	63 300	23.0
19	61 200	23.0
37	58 900	23.0
61	58 300	23.0
91	58 300	23.0



The above data is approximate and subject to manufacturing tolerance.  
We reserve the right to change the above figures as a result of product development and/or changes in standard.

# Overhead Conductors



## ACAR

Aluminum Conductors, Aluminum-Alloy Reinforced ( ACAR ) - A1 / A2 Conductors

IEC 61089 Standard

Code Number	Nominal cross sectional area		Conductor construction		Approx. overall diameter mm	Approx. overall weight Kg / km	Max DC Resistance at 20 °C / km	Rated strength KN	Product Code
	Al	Alloy	Al	Alloy					
	mm <sup>2</sup>		No. x Ø ( mm )						
16	9.73	7.30	4 x 1.76	3 x 1.76	5.28	46.6	1.78960	3.85	RRC/ACAR/IEC/00001
25	15.20	11.40	4 x 2.20	3 x 2.20	6.60	72.8	1.14530	5.93	RRC/ACAR/IEC/00002
40	24.30	18.30	4 x 2.78	3 x 2.78	8.35	116.5	0.71580	9.25	RRC/ACAR/IEC/00003
63	38.30	28.70	4 x 3.49	3 x 3.49	10.50	183.5	0.45450	14.38	RRC/ACAR/IEC/00004
100	60.80	45.60	4 x 4.40	3 x 4.40	13.20	291.2	0.28630	22.52	RRC/ACAR/IEC/00005
125	83.30	48.60	12 x 2.97	7 x 2.97	14.90	362.7	0.23020	27.79	RRC/ACAR/IEC/00006
160	107.00	62.20	12 x 3.36	7 x 3.36	16.80	464.2	0.17980	35.04	RRC/ACAR/IEC/00007
200	133.00	77.80	12 x 3.76	7 x 3.76	18.80	580.3	0.14390	43.13	RRC/ACAR/IEC/00008
250	167.00	97.20	12 x 4.21	7 x 4.21	21.00	725.3	0.11510	53.92	RRC/ACAR/IEC/00009
250	131.00	138.00	18 x 3.04	19 x 3.04	21.30	742.2	0.11540	60.39	RRC/ACAR/IEC/00010
315	263.00	61.30	30 x 3.34	7 x 3.34	23.40	892.6	0.09160	60.52	RRC/ACAR/IEC/00011
315	165.00	174.00	18 x 3.42	19 x 3.42	23.90	935.1	0.09160	76.09	RRC/ACAR/IEC/00012
400	334.00	77.80	30 x 3.76	7 x 3.76	26.30	1133.5	0.07210	75.19	RRC/ACAR/IEC/00013
400	210.00	221.00	18 x 3.85	19 x 3.85	27.00	1187.5	0.07210	95.58	RRC/ACAR/IEC/00014
450	375.00	87.60	30 x 3.99	7 x 3.99	27.90	1275.2	0.06410	84.59	RRC/ACAR/IEC/00015
450	236.00	249.00	18 x 4.08	19 x 4.08	28.60	1335.9	0.06410	107.52	RRC/ACAR/IEC/00016
500	417.00	97.30	30 x 4.21	7 x 4.21	29.40	1416.9	0.05770	93.98	RRC/ACAR/IEC/00017
500	262.00	277.00	18 x 4.31	19 x 4.31	30.10	1484.3	0.05770	119.47	RRC/ACAR/IEC/00018
560	467.00	109.00	30 x 4.45	7 x 4.45	31.20	1586.9	0.05150	105.26	RRC/ACAR/IEC/00019
560	504.00	65.40	54 x 3.45	7 x 3.45	31.00	1571.9	0.05160	101.54	RRC/ACAR/IEC/00020
630	454.00	205.00	42 x 3.71	19 x 3.71	33.40	1820.0	0.04580	130.25	RRC/ACAR/IEC/00021
630	271.00	417.00	24 x 3.79	37 x 3.79	34.10	1897.5	0.04580	160.19	RRC/ACAR/IEC/00022
710	512.00	232.00	42 x 3.94	19 x 3.94	35.50	2051.2	0.04070	146.78	RRC/ACAR/IEC/00023
710	305.00	470.00	24 x 4.02	37 x 4.02	36.20	2138.4	0.04070	180.53	RRC/ACAR/IEC/00024
800	577.00	261.00	42 x 4.18	19 x 4.18	37.60	2311.2	0.03610	165.39	RRC/ACAR/IEC/00025
800	344.00	530.00	24 x 4.27	37 x 4.27	38.40	2409.5	0.03610	203.41	RRC/ACAR/IEC/00026
900	649.00	294.00	42 x 4.43	19 x 4.43	39.90	2600.1	0.03210	186.06	RRC/ACAR/IEC/00027
900	567.00	388.00	54 x 3.66	37 x 3.66	40.20	2638.4	0.03210	199.54	RRC/ACAR/IEC/00028
1000	816.00	215.00	72 x 3.80	19 x 3.80	41.80	2849.1	0.02890	190.94	RRC/ACAR/IEC/00029
1000	630.00	432.00	54 x 3.85	37 x 3.85	42.40	2931.6	0.02890	221.71	RRC/ACAR/IEC/00030
1120	914.00	241.00	72 x 4.02	19 x 4.02	44.20	3191.0	0.02580	213.85	RRC/ACAR/IEC/00031
1120	705.00	483.00	54 x 4.08	37 x 4.08	44.90	3283.4	0.02580	248.32	RRC/ACAR/IEC/00032
1250	1020.00	269.00	72 x 4.25	19 x 4.25	46.70	3561.4	0.02310	238.68	RRC/ACAR/IEC/00033
1250	787.00	539.00	54 x 4.31	37 x 4.31	47.40	3664.5	0.02310	277.14	RRC/ACAR/IEC/00034
1400	1143.00	302.00	72 x 4.50	19 x 4.50	49.40	3988.8	0.02070	267.32	RRC/ACAR/IEC/00035

# Overhead Conductors



Aluminum Conductors, Aluminum-Alloy Reinforced ( ACAR ) - A1 / A3 Conductors

IEC 61089 Standard

Code Number	Nominal cross sectional area		Conductor construction		Approx. overall diameter mm	Approx. overall weight Kg / km	Max DC Resistance at 20 °C / km	Rated strength KN	Product Code
	Al	Alloy	Al	Alloy					
	mm <sup>2</sup>		No. x Ø ( mm )						
16	9.78	7.33	4 x 1.76	3 x 1.76	5.29	46.8	1.78960	4.07	RRC/ACAR/IEC/00036
25	15.30	11.50	4 x 2.21	3 x 2.21	6.62	73.1	1.14530	6.29	RRC/ACAR/IEC/00037
40	24.40	18.30	4 x 2.79	3 x 2.79	8.37	117.0	0.71580	9.82	RRC/ACAR/IEC/00038
63	38.50	28.90	4 x 3.50	3 x 3.50	10.50	184.3	0.45450	14.80	RRC/ACAR/IEC/00039
100	61.10	45.80	4 x 4.41	3 x 4.41	13.20	292.5	0.28630	23.49	RRC/ACAR/IEC/00040
125	83.70	48.80	12 x 2.98	7 x 2.98	14.90	364.1	0.23020	29.29	RRC/ACAR/IEC/00041
160	107.00	62.50	12 x 3.37	7 x 3.37	16.90	466.0	0.17980	36.95	RRC/ACAR/IEC/00042
200	134.00	78.10	12 x 3.77	7 x 3.77	18.80	582.5	0.14390	44.78	RRC/ACAR/IEC/00043
250	167.00	97.60	12 x 4.21	7 x 4.21	21.10	728.1	0.11510	55.98	RRC/ACAR/IEC/00044
250	132.00	139.00	18 x 3.05	19 x 3.05	21.40	746.0	0.11540	64.67	RRC/ACAR/IEC/00045
315	263.00	61.40	30 x 3.34	7 x 3.34	23.40	894.4	0.09160	62.40	RRC/ACAR/IEC/00046
315	166.00	175.00	18 x 3.43	19 x 3.43	24.00	940.0	0.09160	81.48	RRC/ACAR/IEC/00047
400	334.00	78.00	30 x 3.77	7 x 3.77	26.40	1135.8	0.07210	76.82	RRC/ACAR/IEC/00048
400	211.00	222.00	18 x 3.86	19 x 3.86	27.00	1193.7	0.07210	100.30	RRC/ACAR/IEC/00049
450	376.00	87.70	30 x 3.99	7 x 3.99	28.00	1277.8	0.06410	86.42	RRC/ACAR/IEC/00050
450	237.00	250.00	18 x 4.10	19 x 4.10	28.70	1342.9	0.06410	112.84	RRC/ACAR/IEC/00051
500	418.00	97.50	30 x 4.21	7 x 4.21	29.50	1419.8	0.05770	96.03	RRC/ACAR/IEC/00052
500	263.00	278.00	18 x 4.32	19 x 4.32	30.20	1492.1	0.05770	125.38	RRC/ACAR/IEC/00053
560	468.00	109.00	30 x 4.46	7 x 4.46	31.20	1590.1	0.05150	107.55	RRC/ACAR/IEC/00054
560	505.00	65.50	54 x 3.45	7 x 3.45	31.10	1573.9	0.05160	103.53	RRC/ACAR/IEC/00055
630	456.00	206.00	42 x 3.72	19 x 3.72	33.40	1826.0	0.04580	134.59	RRC/ACAR/IEC/00056
630	272.00	420.00	24 x 3.80	37 x 3.80	34.20	1909.0	0.04580	169.14	RRC/ACAR/IEC/00057
710	514.00	232.00	42 x 3.95	19 x 3.95	35.50	2057.8	0.04070	151.68	RRC/ACAR/IEC/00058
710	307.00	473.00	24 x 4.03	37 x 4.03	36.30	2151.4	0.04070	190.61	RRC/ACAR/IEC/00059
800	579.00	262.00	42 x 4.19	19 x 4.19	37.70	2318.7	0.03610	170.90	RRC/ACAR/IEC/00060
800	346.00	533.00	24 x 4.28	37 x 4.28	38.50	2424.2	0.03610	214.78	RRC/ACAR/IEC/00061
900	651.00	294.00	42 x 4.44	19 x 4.44	40.00	2608.5	0.03210	192.27	RRC/ACAR/IEC/00062
900	569.00	390.00	54 x 3.66	37 x 3.66	40.30	2649.5	0.03210	207.79	RRC/ACAR/IEC/00063
1000	818.00	216.00	72 x 3.80	19 x 3.80	41.80	2855.4	0.02890	195.47	RRC/ACAR/IEC/00064
1000	632.00	433.00	54 x 3.86	37 x 3.86	42.50	2943.9	0.02890	230.88	RRC/ACAR/IEC/00065
1120	916.00	242.00	72 x 4.02	19 x 4.02	44.30	3198.1	0.02580	218.92	RRC/ACAR/IEC/00066
1120	708.00	485.00	54 x 4.09	37 x 4.09	45.00	3297.2	0.02580	258.58	RRC/ACAR/IEC/00067
1250	1022.00	270.00	72 x 4.25	19 x 4.25	46.80	3569.3	0.02310	244.33	RRC/ACAR/IEC/00068
1250	791.00	542.00	54 x 4.32	37 x 4.32	47.50	3679.9	0.02310	288.60	RRC/ACAR/IEC/00069
1400	1145.00	302.00	72 x 4.50	19 x 4.50	49.50	3997.6	0.02070	273.65	RRC/ACAR/IEC/00070

The above data is approximate and subject to manufacturing tolerance.  
We reserve the right to change the above figures as a result of product development and/or changes in standard.

## ACAR

Aluminum Conductors, Aluminum-Alloy Reinforced ( ACAR )

ASTM B 524 Standard

Nominal cross sectional area mm <sup>2</sup>	Conductor construction		Approx. overall diameter mm	Approx. overall weight Kg / km	Calculated DC Resistance at 20 °C / km	Rated strength KN	Product Code
	Aluminum	Alloy					
	No. x Ø ( mm )						
16	4 x 1.71	3 x 1.71	5.13	44.2	1.90726	3.59	RRC/ACAR/ASTM/00001
20	4 x 1.91	3 x 1.91	5.73	55.2	1.52875	4.48	RRC/ACAR/ASTM/00002
25	4 x 2.13	3 x 2.13	6.39	68.6	1.22926	5.57	RRC/ACAR/ASTM/00003
31.5	4 x 2.39	3 x 2.39	7.17	86.4	0.97635	7.01	RRC/ACAR/ASTM/00004
40	4 x 2.70	3 x 2.70	8.10	110.3	0.76502	8.95	RRC/ACAR/ASTM/00005
50	4 x 3.02	3 x 3.02	9.06	138.1	0.61149	11.20	RRC/ACAR/ASTM/00006
63	4 x 3.39	3 x 3.39	10.17	173.9	0.48529	13.70	RRC/ACAR/ASTM/00007
80	4 x 3.81	3 x 3.81	11.43	219.7	0.38420	17.20	RRC/ACAR/ASTM/00008
100	4 x 4.26	3 x 4.26	12.78	274.6	0.30731	21.31	RRC/ACAR/ASTM/00009
112	4 x 4.51	3 x 4.51	13.53	307.8	0.27419	23.90	RRC/ACAR/ASTM/00010
125	4 x 4.77	3 x 4.77	14.31	344.3	0.24511	26.70	RRC/ACAR/ASTM/00011
140	15 x 3.06	4 x 3.06	15.30	385.0	0.21257	26.50	RRC/ACAR/ASTM/00012
140	12 x 3.06	7 x 3.06	15.30	384.0	0.21750	30.10	RRC/ACAR/ASTM/00013
160	15 x 3.27	4 x 3.27	16.35	440.0	0.18614	29.80	RRC/ACAR/ASTM/00014
160	12 x 3.27	7 x 3.27	16.35	439.0	0.19046	33.50	RRC/ACAR/ASTM/00015
180	15 x 3.47	4 x 3.47	17.35	495.0	0.16530	33.60	RRC/ACAR/ASTM/00016
180	12 x 3.47	7 x 3.47	17.35	495.0	0.16914	37.80	RRC/ACAR/ASTM/00017
200	15 x 3.66	4 x 3.66	18.30	550.0	0.14858	36.90	RRC/ACAR/ASTM/00018
200	12 x 3.66	7 x 3.66	18.30	550.0	0.15203	41.60	RRC/ACAR/ASTM/00019
224	15 x 3.87	4 x 3.87	19.35	616.0	0.13290	40.60	RRC/ACAR/ASTM/00020
224	12 x 3.87	7 x 3.87	19.35	615.0	0.13598	46.00	RRC/ACAR/ASTM/00021
250	15 x 4.09	4 x 4.09	20.45	688.0	0.11898	45.30	RRC/ACAR/ASTM/00022
250	12 x 4.09	7 x 4.09	20.45	687.0	0.12174	51.40	RRC/ACAR/ASTM/00023
250	18 x 2.93	19 x 2.93	20.51	687.0	0.12447	57.40	RRC/ACAR/ASTM/00024
250	24 x 2.93	13 x 2.93	20.51	686.0	0.12151	51.40	RRC/ACAR/ASTM/00025
250	30 x 2.93	7 x 2.93	20.51	688.0	0.11869	46.60	RRC/ACAR/ASTM/00026
250	33 x 2.93	4 x 2.93	20.51	688.0	0.11733	42.90	RRC/ACAR/ASTM/00027
280	15 x 4.33	4 x 4.33	21.65	771.0	0.10616	50.80	RRC/ACAR/ASTM/00028
280	12 x 4.33	7 x 4.33	21.65	771.0	0.10862	57.60	RRC/ACAR/ASTM/00029
280	18 x 3.10	19 x 3.10	21.70	768.0	0.11119	64.20	RRC/ACAR/ASTM/00030
280	24 x 3.10	13 x 3.10	21.70	769.0	0.10855	57.60	RRC/ACAR/ASTM/00031
280	30 x 3.10	7 x 3.10	21.70	770.0	0.10603	52.10	RRC/ACAR/ASTM/00032
280	33 x 3.10	4 x 3.10	21.70	770.0	0.10482	48.10	RRC/ACAR/ASTM/00033
315	18 x 3.29	19 x 3.29	23.03	865.0	0.09872	70.20	RRC/ACAR/ASTM/00034
315	24 x 3.29	13 x 3.29	23.03	866.0	0.09638	63.40	RRC/ACAR/ASTM/00035

# Overhead Conductors



Aluminum Conductors, Aluminum-Alloy Reinforced ( ACAR )

ASTM B 524 Standard

Nominal cross sectional area	Conductor construction		Approx. overall diameter	Approx. overall weight	Calculated DC Resistance at 20 °C	Rated strength	Product Code
	Aluminum	Alloy					
mm <sup>2</sup>	No. x Ø ( mm )		mm	Kg / km	/ km	KN	
315	30 x 3.29	7 x 3.29	23.03	867.0	0.09414	57.90	RRC/ACAR/ASTM/00036
315	33 x 3.29	4 x 3.29	23.03	867.0	0.09306	53.70	RRC/ACAR/ASTM/00037
355	18 x 3.50	19 x 3.50	24.50	979.0	0.08723	79.50	RRC/ACAR/ASTM/00038
355	24 x 3.50	13 x 3.50	24.50	980.0	0.08516	71.70	RRC/ACAR/ASTM/00039
355	30 x 3.50	7 x 3.50	24.50	981.0	0.08318	65.50	RRC/ACAR/ASTM/00040
355	33 x 3.50	4 x 3.50	24.50	982.0	0.08223	60.80	RRC/ACAR/ASTM/00041
400	18 x 3.71	19 x 3.71	25.97	1100.0	0.07763	88.70	RRC/ACAR/ASTM/00042
400	24 x 3.71	13 x 3.71	25.97	1102.0	0.07579	79.90	RRC/ACAR/ASTM/00043
400	30 x 3.71	7 x 3.71	25.97	1103.0	0.07403	72.70	RRC/ACAR/ASTM/00044
400	33 x 3.71	4 x 3.71	25.97	1103.0	0.07318	67.30	RRC/ACAR/ASTM/00045
450	18 x 3.94	19 x 3.94	27.58	1242.0	0.06883	99.20	RRC/ACAR/ASTM/00046
450	24 x 3.94	13 x 3.94	27.58	1242.0	0.06720	89.00	RRC/ACAR/ASTM/00047
450	30 x 3.94	7 x 3.94	27.58	1243.0	0.06564	80.60	RRC/ACAR/ASTM/00048
450	33 x 3.94	4 x 3.94	27.58	1244.0	0.06489	74.40	RRC/ACAR/ASTM/00049
500	18 x 4.15	19 x 4.15	29.05	1377.0	0.06204	110.00	RRC/ACAR/ASTM/00050
500	24 x 4.15	13 x 4.15	29.05	1379.0	0.06057	98.80	RRC/ACAR/ASTM/00051
500	30 x 4.15	7 x 4.15	29.05	1379.0	0.05916	89.50	RRC/ACAR/ASTM/00052
500	33 x 4.15	4 x 4.15	29.05	1380.0	0.05849	82.60	RRC/ACAR/ASTM/00053
500	33 x 3.23	28 x 3.23	29.07	1376.0	0.06162	109.00	RRC/ACAR/ASTM/00054
500	42 x 3.23	19 x 3.23	29.07	1377.0	0.06030	100.00	RRC/ACAR/ASTM/00055
500	48 x 3.23	13 x 3.23	29.07	1377.0	0.05945	93.60	RRC/ACAR/ASTM/00056
500	54 x 3.23	7 x 3.23	29.07	1378.0	0.05862	86.50	RRC/ACAR/ASTM/00057
560	18 x 4.39	19 x 4.39	30.73	1541.0	0.05545	123.00	RRC/ACAR/ASTM/00058
560	24 x 4.39	13 x 4.39	30.73	1542.0	0.05413	111.00	RRC/ACAR/ASTM/00059
560	30 x 4.39	7 x 4.39	30.73	1544.0	0.05287	100.00	RRC/ACAR/ASTM/00060
560	33 x 4.39	4 x 4.39	30.73	1544.0	0.05227	92.40	RRC/ACAR/ASTM/00061
560	33 x 3.42	28 x 3.42	30.78	1542.0	0.05496	119.00	RRC/ACAR/ASTM/00062
560	42 x 3.42	19 x 3.42	30.78	1544.0	0.05378	110.00	RRC/ACAR/ASTM/00063
560	48 x 3.42	13 x 3.42	30.78	1545.0	0.05302	102.00	RRC/ACAR/ASTM/00064
560	54 x 3.42	7 x 3.42	30.78	1545.0	0.05229	96.10	RRC/ACAR/ASTM/00065
630	18 x 4.66	19 x 4.66	32.62	1736.0	0.04921	139.00	RRC/ACAR/ASTM/00066
630	24 x 4.66	13 x 4.66	32.62	1737.0	0.04804	125.00	RRC/ACAR/ASTM/00067
630	30 x 4.66	7 x 4.66	32.62	1740.0	0.04692	113.00	RRC/ACAR/ASTM/00068
630	33 x 4.66	4 x 4.66	32.62	1740.0	0.04638	104.00	RRC/ACAR/ASTM/00069
630	33 x 3.63	28 x 3.63	32.67	1737.0	0.04879	133.00	RRC/ACAR/ASTM/00070

The above data is approximate and subject to manufacturing tolerance.  
We reserve the right to change the above figures as a result of product development and/or changes in standard.

# Overhead Conductors



## ACAR

Aluminum Conductors, Aluminum-Alloy Reinforced ( ACAR )

ASTM B 524 Standard

Nominal cross sectional area	Conductor construction		Approx. overall diameter	Approx. overall weight	Calculated DC Resistance at 20 °C	Rated strength	Product Code
	Aluminum	Alloy					
mm <sup>2</sup>	No. x Ø ( mm )		mm	Kg / km	/ km	KN	
630	42 x 3.63	19 x 3.63	32.67	1739.0	0.04774	123.00	RRC/ACAR/ASTM/00071
630	48 x 3.63	13 x 3.63	32.67	1740.0	0.04707	114.00	RRC/ACAR/ASTM/00072
630	54 x 3.63	7 x 3.63	32.67	1741.0	0.04641	107.00	RRC/ACAR/ASTM/00073
710	33 x 3.85	28 x 3.85	34.65	1954.0	0.04337	148.00	RRC/ACAR/ASTM/00074
710	42 x 3.85	19 x 3.85	34.65	1956.0	0.04244	137.00	RRC/ACAR/ASTM/00075
710	48 x 3.85	13 x 3.85	34.65	1957.0	0.04184	126.00	RRC/ACAR/ASTM/00076
710	54 x 3.85	7 x 3.85	34.65	1958.0	0.04126	118.00	RRC/ACAR/ASTM/00077
800	33 x 4.09	28 x 4.09	36.81	2205.0	0.03843	167.00	RRC/ACAR/ASTM/00078
800	42 x 4.09	19 x 4.09	36.81	2207.0	0.03761	154.00	RRC/ACAR/ASTM/00079
800	48 x 4.09	13 x 4.09	36.81	2209.0	0.03707	142.00	RRC/ACAR/ASTM/00080
800	54 x 4.09	7 x 4.09	36.81	2209.0	0.03656	133.00	RRC/ACAR/ASTM/00081
900	33 x 4.33	28 x 4.33	38.97	2472.0	0.03429	187.00	RRC/ACAR/ASTM/00082
900	42 x 4.33	19 x 4.33	38.97	2474.0	0.03355	173.00	RRC/ACAR/ASTM/00083
900	48 x 4.33	13 x 4.33	38.97	2475.0	0.03308	159.00	RRC/ACAR/ASTM/00084
900	54 x 4.33	7 x 4.33	38.97	2478.0	0.03262	148.00	RRC/ACAR/ASTM/00085
1000	33 x 4.57	28 x 4.57	41.13	2781.0	0.03078	206.00	RRC/ACAR/ASTM/00086
1000	42 x 4.57	19 x 4.57	41.13	2783.0	0.03012	192.00	RRC/ACAR/ASTM/00087
1000	48 x 4.57	13 x 4.57	41.13	2786.0	0.02970	178.00	RRC/ACAR/ASTM/00088
1000	54 x 4.57	7 x 4.57	41.13	2786.0	0.02928	166.00	RRC/ACAR/ASTM/00089
1000	54 x 3.74	37 x 3.74	41.14	2779.0	0.03057	204.00	RRC/ACAR/ASTM/00090
1000	63 x 3.74	28 x 3.74	41.14	2780.0	0.03013	190.00	RRC/ACAR/ASTM/00091
1000	72 x 3.74	19 x 3.74	41.14	2782.0	0.02970	180.00	RRC/ACAR/ASTM/00092
1120	54 x 3.96	37 x 3.96	43.56	3116.0	0.02754	226.00	RRC/ACAR/ASTM/00093
1120	63 x 3.96	28 x 3.96	43.56	3118.0	0.02714	210.00	RRC/ACAR/ASTM/00094
1120	72 x 3.96	19 x 3.96	43.56	3119.0	0.02675	198.00	RRC/ACAR/ASTM/00095
1250	54 x 4.18	37 x 4.18	45.98	3472.0	0.02471	253.00	RRC/ACAR/ASTM/00096
1250	63 x 4.18	28 x 4.18	45.98	3474.0	0.02436	234.00	RRC/ACAR/ASTM/00097
1250	72 x 4.18	19 x 4.18	45.98	3476.0	0.02401	221.00	RRC/ACAR/ASTM/00098
1400	54 x 4.43	37 x 4.43	48.73	3899.0	0.02200	283.00	RRC/ACAR/ASTM/00099
1400	63 x 4.43	28 x 4.43	48.73	3901.0	0.02169	263.00	RRC/ACAR/ASTM/00100
1400	72 x 4.43	19 x 4.43	48.73	3904.0	0.02138	248.00	RRC/ACAR/ASTM/00101
1600	54 x 4.73	37 x 4.73	52.03	4488.0	0.01949	323.00	RRC/ACAR/ASTM/00102
1600	63 x 4.73	28 x 4.73	52.03	4491.0	0.01921	300.00	RRC/ACAR/ASTM/00103
1600	72 x 4.73	19 x 4.73	52.03	4493.0	0.01893	283.00	RRC/ACAR/ASTM/00104

# Weather-Resistant XLPE Insulated Service Drop Cable



## CONSTRUCTION

Service drop or secondary distribution cables are composed of one or more concentric-lay-stranded aluminum 1350 phase conductors insulated with an extruded layer of cross-linked polyethylene compound and assembled with one neutral conductor of All Aluminum Conductors (AAC); Aluminum-Alloy Conductors 6201-T81 (AAAC); Aluminum Conductors, Steel-Reinforced (ACSR); or Aluminum conductors, Aluminum-Clad Steel Reinforced (ACSR/AW). The neutral conductor may be bare or covered with an extruded layer of cross-linked polyethylene compound.

Note: Service drop or secondary distribution cables have many options in terms of the number of phase conductors used, the type of neutral conductor and either it is bare or insulated. This catalogue covers only the design and construction of Quadruplex cables with three concentric-lay-stranded aluminum 1350 phase conductors assembled with one bare full neutral conductor. However, we can provide all the necessary information for any other type or design upon a customer's request.

## APPLICATION

Service drop cables are intended for use either as a service drop cable between a power pole and the service entrance, or as a secondary distribution cable between poles. The use of these service drop or secondary distribution cables is limited to circuits, not exceeding 600 volts phase-to-phase or 480 volts phase-to-ground, to a normal temperature rating of the service conductor temperature of 90 °C.

## APPLICABLE STANDARD

- ANSI / ICEA S-76-474

However, can also supply a range of alternative designs to meet customer-specified requirements.

## TECHNICAL DATA

- Nominal voltage:
  - 480 Volts phase-to-ground
  - 600 Volts phase-to-phase
- Power frequency test voltage 3.0 kV for 1 minute
- Max. admissible temperature of conductor at normal operation 90 °C
- Max. admissible temperature of conductor at emergency operation 130 °C
- Max. admissible temperature of conductor at short circuit operation 250 °C

The above data is approximate and subject to manufacturing tolerance.  
We reserve the right to change the above figures as a result of product development and/or changes in standard.



## SERVICE DROP CABLES

Quadruplex Service Drop Cables With Bare ( AAC ) Neutral Conductor

ANSI / ICEA S-76-474

Aluminum phase conductor size		Minimum phase insulation thickness mm	AAC Neutral conductor size		Approx. overall diameter mm	Approx. overall weight Kg / km	Phase conductor DC Resistance at 20 °C / km	Neutral conductor Rated strength KN	Product Code
MCM	mm <sup>2</sup>		MCM	mm <sup>2</sup>					
4	21.1	1.0	4	21.1	18.3	322	1.36505	3.91	<b>RRC/QDC/AAC/00001</b>
2	33.6	1.0	2	33.6	21.9	485	0.85954	5.99	<b>RRC/QDC/AAC/00002</b>
1/0	53.5	1.4	1/0	53.5	28.2	786	0.53871	8.84	<b>RRC/QDC/AAC/00003</b>
2/0	67.4	1.4	2/0	67.4	30.9	966	0.42808	11.10	<b>RRC/QDC/AAC/00004</b>
3/0	85.0	1.4	3/0	85.0	34.0	1192	0.33953	13.50	<b>RRC/QDC/AAC/00005</b>
4/0	107.2	1.4	4/0	107.2	37.6	1478	0.26842	17.00	<b>RRC/QDC/AAC/00006</b>
266.8	135.2	1.8	266.8	135.2	43.8	1871	0.21324	22.10	<b>RRC/QDC/AAC/00007</b>
336.4	170.5	1.8	336.4	170.5	48.2	2306	0.16911	27.30	<b>RRC/QDC/AAC/00008</b>
397.5	201.4	1.8	397.5	201.4	51.8	2694	0.14344	31.60	<b>RRC/QDC/AAC/00009</b>
477.0	241.7	1.8	477.0	241.7	56.1	3149	0.11961	38.60	<b>RRC/QDC/AAC/00010</b>

Quadruplex Service Drop Cables With Bare ( AAAC ) Neutral Conductor

ANSI / ICEA S-76-474

Aluminum phase conductor size		Minimum phase insulation thickness mm	AAAC Neutral conductor size		Approx. overall diameter mm	Approx. overall weight Kg / km	Phase conductor DC Resistance at 20 °C / km	Neutral conductor Rated strength KN	Product Code
MCM	mm <sup>2</sup>		MCM	mm <sup>2</sup>					
4	21.1	1.0	48.69	24.7	18.5	332	1.36505	7.83	<b>RRC/QDC/AAAC/00001</b>
2	33.6	1.0	77.47	39.2	22.3	499	0.85954	12.40	<b>RRC/QDC/AAAC/00002</b>
1/0	53.5	1.4	123.30	62.4	28.6	810	0.53871	18.90	<b>RRC/QDC/AAAC/00003</b>
2/0	67.4	1.4	155.40	78.6	31.4	995	0.42808	23.80	<b>RRC/QDC/AAAC/00004</b>
3/0	85.0	1.4	195.70	99.3	34.6	1230	0.33953	30.00	<b>RRC/QDC/AAAC/00005</b>
4/0	107.2	1.4	246.90	125.0	38.2	1526	0.26842	37.80	<b>RRC/QDC/AAAC/00006</b>
266.8	135.2	1.8	312.80	159.0	44.5	1934	0.21324	46.50	<b>RRC/QDC/AAAC/00007</b>
336.4	170.5	1.8	394.50	200.0	49.0	2385	0.16911	58.60	<b>RRC/QDC/AAAC/00008</b>
397.5	201.4	1.8	465.40	236.0	52.7	2788	0.14344	69.20	<b>RRC/QDC/AAAC/00009</b>
477.0	241.7	1.8	559.50	284.0	57.1	3263	0.11961	83.10	<b>RRC/QDC/AAAC/00010</b>

# Overhead Conductors



Quadruplex Service Drop Cables With Bare ( ACSR ) Neutral Conductor

ANSI / ICEA S-76-474

Aluminum phase conductor size		Minimum phase insulation thickness mm	ACSR Neutral conductor size		Approx. overall diameter mm	Approx. overall weight Kg / km	Phase conductor DC Resistance at 20 °C / km	Neutral conductor Rated strength KN	Product Code
MCM	mm <sup>2</sup>		MCM	mm <sup>2</sup>					
4	21.1	1.0	4	21.1	18.5	349	1.36505	8.30	RRC/QDC/ACSR/00001
2	33.6	1.0	2	33.6	22.3	528	0.85954	12.69	RRC/QDC/ACSR/00002
1/0	53.5	1.4	1/0	53.5	28.6	855	0.53871	19.35	RRC/QDC/ACSR/00003
2/0	67.4	1.4	2/0	67.4	31.4	1052	0.42808	23.27	RRC/QDC/ACSR/00004
3/0	85.0	1.4	3/0	85.0	34.6	1301	0.33953	29.42	RRC/QDC/ACSR/00005
4/0	107.2	1.4	4/0	107.2	38.2	1616	0.26842	37.06	RRC/QDC/ACSR/00006
266.8	135.2	1.8	266.8	135.2	44.0	1929	0.21324	30.27	RRC/QDC/ACSR/00007
336.4	170.5	1.8	336.4	170.5	48.4	2379	0.16911	38.17	RRC/QDC/ACSR/00008
397.5	201.4	1.8	397.5	201.4	52.1	2780	0.14344	43.37	RRC/QDC/ACSR/00009
477.0	241.7	1.8	477.0	241.7	56.4	3254	0.11961	52.30	RRC/QDC/ACSR/00010

Quadruplex Service Drop Cables With Bare ( ACSR / AW ) Neutral Conductor

ANSI / ICEA S-76-474

Aluminum phase conductor size		Minimum phase insulation thickness mm	ACSR / AW Neutral conductor size		Approx. overall diameter mm	Approx. overall weight Kg / km	Phase conductor DC Resistance at 20 °C / km	Neutral conductor Rated strength KN	Product Code
MCM	mm <sup>2</sup>		MCM	mm <sup>2</sup>					
4	21.1	1.0	4	21.1	18.5	345	1.36505	8.00	RRC/QDC/ACSR/AW/00001
2	33.6	1.0	2	33.6	22.3	521	0.85954	12.00	RRC/QDC/ACSR/AW/00002
1/0	53.5	1.4	1/0	53.5	28.6	844	0.53871	19.00	RRC/QDC/ACSR/AW/00003
2/0	67.4	1.4	2/0	67.4	31.4	1039	0.42808	23.00	RRC/QDC/ACSR/AW/00004
3/0	85.0	1.4	3/0	85.0	34.6	1284	0.33953	28.00	RRC/QDC/ACSR/AW/00005
4/0	107.2	1.4	4/0	107.2	38.2	1595	0.26842	34.00	RRC/QDC/ACSR/AW/00006
266.8	135.2	1.8	266.8	135.2	44.0	1920	0.21324	30.00	RRC/QDC/ACSR/AW/00007
336.4	170.5	1.8	336.4	170.5	48.4	2368	0.16911	38.00	RRC/QDC/ACSR/AW/00008
397.5	201.4	1.8	397.5	201.4	52.1	2767	0.14344	44.00	RRC/QDC/ACSR/AW/00009
477.0	241.7	1.8	477.0	241.7	56.4	3240	0.11961	51.00	RRC/QDC/ACSR/AW/00010



# BUILDING CABLES **AND** WIRES

Chapter 2

## Plain Copper Conductor, Thermoplastic & Nylon Jacket CU/PVC/Nylon

### Technical Specifications:

#### Applications

THHN/THWN building wires are used for general purpose applications such as for supplying power and lighting in residential and commercial buildings. They are installed in ducts, conduits and raceways in wet and dry locations.

These building wires are designed to suit 105 °C dry and 75 °C wet locations with rated voltage up to 600V. They are also used for Appliance Wire Material (AWM) at 105 °C in dry locations and Machine Tool Wire (MTW) at 90 °C dry and 60 °C wet locations such as oil refineries, cement and chemical plants.

#### Standard

As per UL 83, UL 1581, UL 1063 & UL 62

#### Rated Voltage

Working Voltage up to 600 V

#### Conductor

Annealed solid or stranded copper wires

#### Insulation

Polyvinyl Chloride (PVC) Rated 105 °C

#### Jacket:

Nylon jacket is provided to protect PVC insulation against abrasions and scratches while pulling through conduits. It is also resistant to oil, gasoline and chemicals.

#### Packing

Available in standard length of 500, 300, 250 and 125 feet on coil

Other lengths available upon request



### Technical Data:

Conductor			Maximum DC Conductor Resistance at 20 °C	Nominal Insulation Thickness	Normal Jacket Thickness	Approx. Overall Diameter	Approx. Net Weight	Product Code
Nominal Cross Section	No. x Dia							
AWG	mm <sup>2</sup>	No. x Dia	Ohms/km	mm	mm	mm	Kg/km	
14	2.08	1 x 1.63	8.45	0.38	0.10	2.7	24	RRC/TFFN/CU/00001
12	3.31	1 x 2.05	5.31	0.38	0.10	3.1	36	RRC/TFFN/CU/00002
10	5.26	1 x 2.59	3.343	0.51	0.10	3.9	58	RRC/TFFN/CU/00003
18*	0.82	19 x 0.235	21.9	0.38	0.10	2.16	11.5	RRC/TFFN/CU/00004
16*	1.31	19 x 0.296	13.7	0.38	0.10	2.5	17	RRC/TFFN/CU/00005
14	2.08	19 x 0.37	8.62	0.38	0.10	2.9	24	RRC/TFFN/CU/00006
12	3.31	19 x 0.47	5.43	0.38	0.10	3.4	37	RRC/TFFN/CU/00007
10	5.26	19 x 0.59	3.409	0.51	0.10	4.2	59	RRC/TFFN/CU/00008
8	8.37	19 x 0.75	2.144	0.76	0.13	5.5	97	RRC/TFFN/CU/00009
6	13.3	19 x 0.944	1.348	0.76	0.13	6.38	195	RRC/TFFN/CU/00010

\*Listed as TFFN

Table 1

Other sizes available upon request.

The above data is approximate and subject to normal manufacturing tolerance.

**Definition:**

THHN: Thermoplastic insulated, High Heat resistant, Nylon Jacketed cable, 105 °C dry locations

THWN: Thermoplastic insulated Heat and moisture resistant, Nylon jacketed cable, 75 °C Wet locations

**Features:**

- Wires are as per UL Standard, Type THHN/ THWN
- Meets UL "VW-1" \*Flame Test requirements
- Oil resistant and gasoline resistant
- Construction in smaller diameter to improve conduit-fill
- Can be used as:

THHN 105 °C dry locations, building wire

THWN 75 °C wet locations, building wire

MTW 90 °C dry and 60 °C wet locations, machine tool wire

AWM 105 °C dry locations, appliance wire material

TFFN 105 °C dry locations, flexible cord and fixture wire

**Reference Standards:**

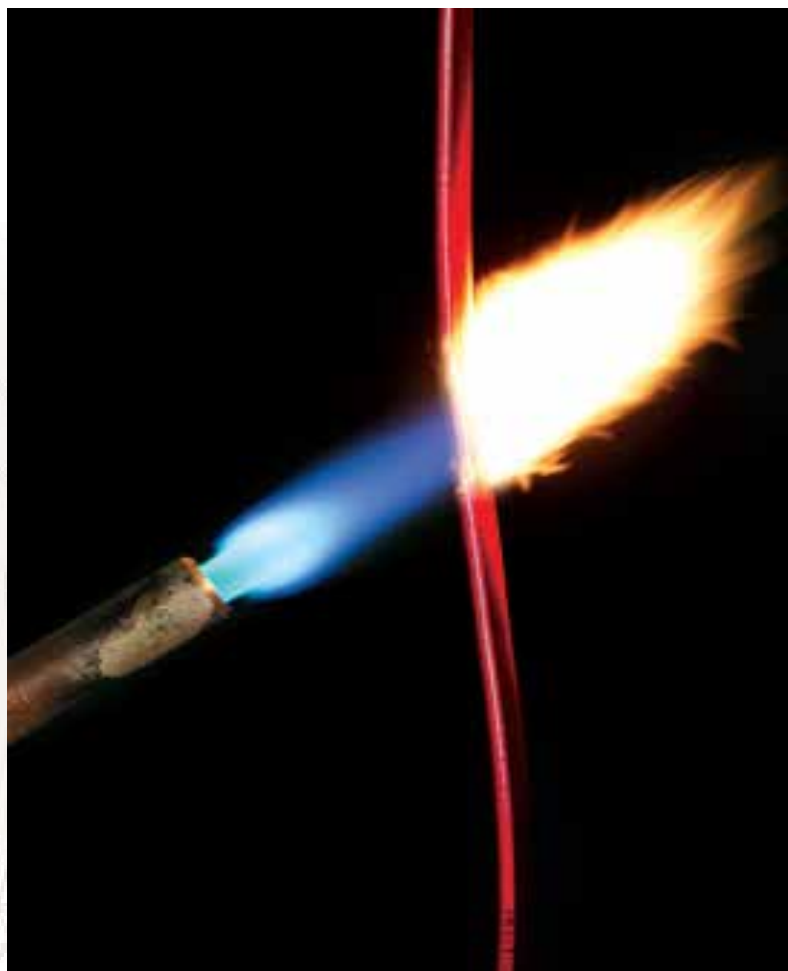
- UL 83 : Underwriters Laboratories  
Thermoplastic Insulated

**Wires and Cables**

- UL 1581 : Underwriters Laboratories  
Electrical Wires, Cables and

**Flexible Cords**

- UL 1063 Underwriters Laboratories  
Thermoplastic Insulated  
Wires and Cables
- UL 62 : Underwriters Laboratories  
Flexible Cord and Fixture Wire



(\* VW-1: Vertical Single Wire Flame Test)

**Marking:**

Wires are marked as:

**REROY # AWG THHN OR THWN, OIL AND GASOLINE RESISTANT, 600 V 105 °C**

## Plain Copper Conductor, PVC Insulation CU/PVC Wires

### Technical Specifications:

#### Applications

used for indoor fixed installation in dry locations, distribution in conduits as well as in steel support brackets and equipment wiring.

#### Standard

As per BS 6004 & IEC 60227-3

#### Rated Voltage

Working voltage up to 300/500 V

#### Conductor

Annealed solid copper wire

Class 1 of BS EN 60228 & IEC 60228

#### Insulation

PVC insulation type T11 temperature rating 70 °C as per BS 7655

(PVC rated 85 °C or 105 °C available on request)

meet flame retardant part IEC 60332-1 and BSEN 60332-1

#### Packing

Available in standard length of 100 yards on coil

Other lengths available upon request



### Technical Data:

Conductor		Maximum DC Conductor Resistance at 20 °C	Nominal Insulation Thickness	Approx. Overall Diameter	Approx. Net Weight	Product Code
Size	Cons.					
mm <sup>2</sup>	No. x mm	Ohms/km	mm	mm	Kg/km	
0.5	1 x 0.80	36	0.6	2	8.47	RRC/SC-RW/CU/00001
0.75	1 x 0.98	24.5	0.6	2.2	11.23	RRC/SC-RW/CU/00002
1.0	1 x 1.13	18.1	0.6	2.3	13.9	RRC/SC-RW/CU/00003

Table 2

Other sizes available upon request.

The above data is approximate and subject to normal manufacturing tolerance.

## Plain Copper Conductor, PVC Insulation CU/PVC Wires

### Technical Specifications:

#### Applications

used for indoor fixed installation in dry locations, distribution in conduits as well as in steel support brackets and equipment wiring.

#### Standard

As per BS 6004 & IEC 60227-3

#### Rated Voltage

Working voltage up to 450/750 V

#### Conductor

Annealed solid copper wire  
Class 1 of BS EN 60228 & IEC 60228

#### Insulation

PVC insulation type T11 temperature rating 70 °C as per BS 7655  
(PVC rated 85 °C or 105 °C available on request)

#### Packing

Available in standard length of 100 yards on coil  
Other lengths available upon request



### Technical Data:

Conductor		Maximum DC Conductor Resistance at 20 °C	Nominal Insulation Thickness	Approx. Overall Diameter	Approx. Net Weight	Product Code
Size	Cons.					
mm <sup>2</sup>	No. x mm	Ohms/km	mm	mm	Kg/km	
1.5	1 x 1.38	12.1	0.7	2.8	20.27	<b>RRC/SC-RW/CU/00004</b>
2.5	1 x 1.78	7.41	0.8	3.4	32.4	<b>RRC/SC-RW/CU/00005</b>
4	1 x 2.25	4.61	0.8	3.9	47.13	<b>RRC/SC-RW/CU/00006</b>
6	1 x 2.76	3.08	0.8	4.4	67	<b>RRC/SC-RW/CU/00007</b>
10	1 x 3.57	1.83	1.0	5.6	111.22	<b>RRC/SC-RW/CU/00008</b>

Table 3

Other sizes available upon request.

The above data is approximate and subject to normal manufacturing tolerance.

Plain Copper Conductor, PVC Insulation CU/PVC Wires

## Technical Specifications:

### Applications

used for indoor fixed installation in dry locations, distribution in conduits as well as in steel support brackets and equipment wiring.

### Standard

As per BS 6004 & IEC 60227-3

### Rated Voltage

Working voltage up to 450/750 V

### Conductor

Annealed solid copper wire  
Class 2 of BS EN 60228 & IEC 60228

### Insulation

PVC insulation type T11 temperature rating 70 °C as per BS 7655  
(PVC rated 85 °C or 105 °C available on request)

### Packing

Available in standard length of 100 & 80 yards on coil  
Other lengths available upon request



## Technical Data:

Conductor		Maximum DC Conductor Resistance at 20 °C	Nominal Insulation Thickness	Approx. Overall Diameter	Approx. Net Weight	Product Code
Size	Cons.					
mm <sup>2</sup>	No. x mm	Ohms/km	mm	mm	Kg/km	
1.5	7 x 0.52	12.1	0.7	3.0	21.22	<b>RRC/SC-RS/CU/00001</b>
2.5	7 x 0.67	7.41	0.8	3.6	33.71	<b>RRC/SC-RS/CU/00002</b>
4	7 x 0.85	4.61	0.8	4.2	49.92	<b>RRC/SC-RS/CU/00003</b>
6	7 x 1.04	3.08	0.8	4.8	70.27	<b>RRC/SC-RS/CU/00004</b>
10	7 x 1.34	1.83	1.0	6.0	116.63	<b>RRC/SC-RS/CU/00005</b>
16	7 x 1.68	1.15	1.0	7.1	174.85	<b>RRC/SC-RS/CU/00006</b>
25	7 x 2.14	0.727	1.2	8.9	271.93	<b>RRC/SC-RS/CU/00007</b>
35	7 x 2.52	0.524	1.2	10.0	370.1	<b>RRC/SC-RS/CU/00008</b>
50	19 x 1.78	0.387	1.4	11.8	505.7	<b>RRC/SC-RS/CU/00009</b>
70	19 x 2.22	0.268	1.4	12.7	670	<b>RRC/SC-RS/CU/00010</b>

Table 4

Other sizes available upon request.

The above data is approximate and subject to normal manufacturing tolerance.

Plain Copper Conductor, PVC Insulation CU/PVC Wires

## Technical Specifications:

### Applications

used for indoor fixed installation in dry locations for lighting fittings inside electrical panels and connections for apparatuses, switch gears and control gears.

### Standard

Wires are made as per BS 6004 & IEC 60227-3

### Rated Voltage

Working voltage up to 450/750 V

### Conductor

annealed flexible copper Class 5 of BS EN 60228 & IEC 60228; copper fine wires bunched together to circular conductor

### Insulation

PVC insulation type T11 temperature rating 70 °C as per BS 7655 (PVC rated 85 °C or 105 °C available on request)

### Packing

Available in standard length of 100 yards on coil  
Other lengths available upon request



## Technical Data:

Conductor		Maximum DC Conductor Resistance at 20 °C	Nominal Insulation Thickness	Approx. Overall Diameter	Approx. Net Weight	Product Code
Size	Cons.					
mm <sup>2</sup>	No. x mm	Ohms/km	mm	mm	Kg/km	
1.5	30 x 0.25	13.3	0.7	3.0	21.6	RRC/SC-RF/CU/00001
2.5	50 x 0.25	7.98	0.8	3.7	34.0	RRC/SC-RF/CU/00002
4	56 x 0.30	4.95	0.8	4.2	49.92	RRC/SC-RF/CU/00003
6	84 x 0.30	3.3	0.8	4.8	70.83	RRC/SC-RF/CU/00004
10	80 x 0.40	1.91	1.0	6.2	117.86	RRC/SC-RF/CU/00005
16	126 x 0.40	1.21	1.0	7.34	176.24	RRC/SC-RF/CU/00006
25	196 x 0.40	0.780	1.2	9.1	272.8	RRC/SC-RF/CU/00007
35	273 x 0.40	0.554	1.2	10.3	371.93	RRC/SC-RF/CU/00008
50	399 x 0.40	0.386	1.4	12.31	533.29	RRC/SC-RF/CU/00009
70	551 x 0.40	0.272	1.4	14	718.5	RRC/SC-RF/CU/00010

Table 5

Other sizes available upon request.

The above data is approximate and subject to normal manufacturing tolerance.

Plain Copper Conductor, PVC Insulated Wires

## Technical Specifications:

### Applications

used for indoor fixed installation in dry locations for lighting fittings inside electrical panels and connections for apparatuses, switch gears and control gears.

### Standard

As per BS 6231

### Rated Voltage

Working voltage up to 600/1000 V

### Conductor

annealed flexible copper Class 5 of BS EN 60228 & IEC 60228; copper fine wires bunched together to circular conductor

### Insulation

Type BK: Type T11 temperature rating 70 °C as per BS 7655

Type CK: Type T13 temperature rating 90 °C as per BS 7655

Type CK: PVC rated 105 °C available on request

### Packing

Available in standard length of 100 yards on coil

Other lengths available on request



## Technical Data:

Conductor		Maximum DC Conductor Resistance at 20 °C	Nominal Insulation Thickness	Approx. Overall Diameter	Approx. Net Weight	Product Code
Size	Cons.					
mm <sup>2</sup>	No. x mm	Ohms/km	mm	mm	Kg/km	
0.5	16 x 0.2	39	0.8	2.6	11.5	RRC/SC-RF/CU/00011
0.75	24 x 0.2	26	0.8	2.8	14.6	RRC/SC-RF/CU/00012
1	32 x 0.2	19.5	0.8	2.92	17.6	RRC/SC-RF/CU/00013
1.5	30 x 0.25	13.3	0.8	3.2	22.9	RRC/SC-RF/CU/00001
2.5	50 x 0.25	7.98	0.8	3.7	33.6	RRC/SC-RF/CU/00002
4	56 x 0.30	4.95	0.8	4.2	49.5	RRC/SC-RF/CU/00003
6	84 x 0.30	3.3	0.8	4.8	69.8	RRC/SC-RF/CU/00004
10	80 x 0.40	1.91	1.0	6.2	117.1	RRC/SC-RF/CU/00005
16	126 x 0.40	1.21	1.0	7.34	175.3	RRC/SC-RF/CU/00006
25	196 x 0.40	0.780	1.2	9.1	270.3	RRC/SC-RF/CU/00007
35	273 x 0.40	0.544	1.2	10.3	365.3	RRC/SC-RF/CU/00008
50	399 x 0.40	0.386	1.4	12.31	530.7	RRC/SC-RF/CU/00009
70	551 x 0.40	0.272	1.4	14	716.2	RRC/SC-RF/CU/00010

Table 6

Other sizes available upon request.

The above data is approximate and subject to normal manufacturing tolerance.

Tinned Copper Conductor, PVC Insulated Wires

## Technical Specifications:

### Applications

Panels and connections for apparatuses, switch gears and control gears.

### Standard

As per BS 6231

### Rated Voltage

Working voltage up to 600/1000 V

### Conductor

Annealed flexible tinned copper wires Class 5 of BS EN 60228  
Tinned copper fine wires bunched together to circular conductor

### Insulation

Type BK: Type TI1 temperature rating 70 °C as per BS 7655

Type CK: Type TI3 temperature rating 90 °C as per BS 7655

Type CK: PVC rated 105 °C available on request

### Packing

Available in standard length of 100 yards on coil

Other lengths available upon request



## Technical Data:

Conductor		Maximum DC Conductor Resistance at 20°C	Nominal Insulation Thickness	Approx. Overall Diameter	Approx. Net Weight	Product Code
Size	Cons.					
mm <sup>2</sup>	No. x mm	Ohms/km	mm	mm	Kg/km	
0.5	16 x 0.2	40.1	0.8	2.6	11.5	RRC/SC-RF/CU/00011
0.75	24 x 0.2	26.7	0.8	2.8	14.6	RRC/SC-RF/CU/00012
1	32 x 0.2	20	0.8	2.92	17.6	RRC/SC-RF/CU/00013
1.5	30 x 0.25	13.7	0.8	3.2	22.9	RRC/SC-RF/CU/00001
2.5	50 x 0.25	8.21	0.8	3.7	33.6	RRC/SC-RF/CU/00002
4	56 x 0.30	5.09	0.8	4.2	49.5	RRC/SC-RF/CU/00003
6	84 x 0.30	3.39	0.8	4.8	69.8	RRC/SC-RF/CU/00004
10	80 x 0.40	1.95	1.0	6.2	117.1	RRC/SC-RF/CU/00005
16	126 x 0.40	1.24	1.0	7.34	175.3	RRC/SC-RF/CU/00006
25	196 x 0.40	0.795	1.2	9.1	270.3	RRC/SC-RF/CU/00007
35	273 x 0.40	0.565	1.2	10.3	365.3	RRC/SC-RF/CU/00008
50	399 x 0.40	0.393	1.4	12.31	530.7	RRC/SC-RF/CU/00009
70	551 x 0.40	0.277	1.4	14	716.2	RRC/SC-RF/CU/00010

Table 7

Other sizes available upon request.

The above data is approximate and subject to normal manufacturing tolerance.

## Aerial Bundle Conductors

Aerial Bundle Conductors (ABC) are self supporting insulated cables used for low voltage electricity distribution.

ABCs comprise of three phase conductors (Aluminium) and a neutral conductor (Alloy Aluminium) bundled together with or without street lamp wires. The neutral conductor also acts as a messenger or a load bearer.

Aerial Bundled Conductors are manufactured to National French Standard NFC 33-209.

### **Phase Conductor**

Multistrand round compacted hard drawn Aluminium conductor is insulated with black weather resistant cross-linked thermosetting polyethylene (XLPE).

### **Neutral Messenger**

Multistrand round Aluminium Alloy conductor is insulated with black weather resistant cross-linked thermosetting polyethylene (XLPE).

### **Street Lamp Wires**

Multistrand round compacted hard drawn Aluminium conductor is insulated with black weather resistant cross-linked thermosetting polyethylene (XLPE) conforming to NFC 33-209.



# Aerial Bundle Conductors



(3 x 25mm<sup>2</sup> Al/XLPE + N 54.6mm<sup>2</sup> + K x 16mm<sup>2</sup> ABC)

Item Description		mm <sup>2</sup>	3x25+54.6	3x25+54.6+1x16	3x25+54.6+2x16	3x25+54.6+3x16
Nominal Cross Sectional Area	Phase Conductor	mm <sup>2</sup>	25	25	25	25
	Neutral Messenger	mm <sup>2</sup>	54.6	54.6	54.6	54.6
	Street Lighting Conductor	mm <sup>2</sup>	-	16	16	16
Number of Strands	Phase Conductor	Nos.	7	7	7	7
	Neutral Messenger	Nos.	7	7	7	7
	Street Lighting Conductor	Nos.	-	7	7	7
Maximum Resistance of Conductor at 20 °C	Phase Conductor	Ω/km	1.2	1.2	1.2	1.2
	Neutral Messenger	Ω/km	0.63	0.63	0.63	0.63
	Street Lighting Conductor	Ω/km	-	1.91	1.91	1.91
Minimum Breaking Strength	Phase Conductor	daN	300	300	300	300
	Neutral Messenger	daN	1660	1660	1660	1660
	Street Lighting Conductor	daN	-	190	190	190
Nominal Diameter of Strands	Neutral Messenger	mm	3.15	3.15	3.15	3.15
Nominal Diameter of Bare Conductors	Phase Conductor	mm	6.0	6.0	6.0	6.0
	Neutral Messenger	mm	9.5	9.5	9.5	9.5
	Street Lighting Conductor	mm	-	4.8	4.8	4.8
Lay Direction	Neutral Messenger		Left	Left	Left	Left
Lay Pitch	Neutral Messenger	mm	190	190	190	190
Nominal Thickness of Insulating Sheath	Phase Conductor	mm	1.4	1.4	1.4	1.4
	Neutral Messenger	mm	1.6	1.6	1.6	1.6
	Street Lighting Conductor	mm	-	1.2	1.2	1.2
Nominal Insulated Core Diameter	Phase Conductors	mm	8.8	8.8	8.8	8.8
	Neutral Messenger	mm	12.7	12.7	12.7	12.7
	Street Lighting Conductor	mm	-	7.2	7.2	7.2
Current Carrying Capacity	Phase Conductors	A	112	112	112	112
	Street Lighting Conductor	A	-	83	83	83
Voltage Drop	Phase Conductor	V/A/km	2.2	2.2	2.2	2.2

## Complete Cable

Approximate Overall Diameter		mm	30	30	30	30
Maximum Lay Pitch		cm	80	80	80	80
Lay Direction			Right	Right	Right	Right
Inductance		mH/km	0.28	0.28	0.28	0.28
Impedance		Ω/km	0.501	0.501	0.501	0.501
Maximum Short Circuit Rating	for 0.2 sec	kA	5.28	5.28	5.28	5.28
	for 1.0 sec	kA	2.36	2.36	2.36	2.36
	for 3.0 sec	kA	1.36	1.36	1.36	1.36
Minimum Bending Radius		mm	229	229	229	229
Approximate Cable Weight		kg/km	514.1	580.7	647.3	713.8
Nominal Drum Length		m	500	500	500	500
Size of the Drum			SIE 36	SIE 36	SIE 36	SIE 36



K Represents the number of cores for public lighting, it may be zero, 1, 2 or 3

# Aerial Bundle Conductors

(3 x 35mm<sup>2</sup> Al/XLPE + N 54.6mm<sup>2</sup> + K x 16mm<sup>2</sup> ABC)

Item Description		mm <sup>2</sup>	3x35 + 54.6	3x35+54.6 +1x16	3x35+54.6 +2x16	3x35+54.6 +3x16
Nominal Cross-Sectional Area	Phase Conductor	mm <sup>2</sup>	35	35	35	35
	Neutral Messenger	mm <sup>2</sup>	54.6	54.6	54.6	54.6
	Street Lighting Conductor	mm <sup>2</sup>	-	16	16	16
Number of Strands	Phase Conductor	Nos.	7	7	7	7
	Neutral Messenger	Nos.	7	7	7	7
	Street Lighting Conductor	Nos.	-	7	7	7
Maximum Resistance of Conductor at 20 °C	Phase Conductor	Ω/km	0.868	0.868	0.868	0.868
	Neutral Messenger	Ω/km	0.63	0.63	0.63	0.63
	Street Lighting Conductor	Ω/km	-	1.91	1.91	1.91
Minimum Breaking Strength	Phase Conductor	daN	420	420	420	420
	Neutral Messenger	daN	1660	1660	1660	1660
	Street Lighting Conductor	daN	-	190	190	190
Nominal Diameter of Strands	Neutral Messenger	mm	3.15	3.15	3.15	3.15
Nominal Diameter of Bare Conductors	Phase Conductor	mm	7.0	7.0	7.0	7.0
	Neutral Messenger	mm	9.5	9.5	9.5	9.5
	Street Lighting Conductor	mm	-	4.8	4.8	4.8
Lay Direction	Neutral Messenger		Left	Left	Left	Left
Lay Pitch	Neutral Messenger	mm	190	190	190	190
Nominal Thickness of Insulating Sheath	Phase Conductors	mm	1.6	1.6	1.6	1.6
	Neutral Messenger	mm	1.6	1.6	1.6	1.6
	Street Lighting Conductor	mm	-	1.2	1.2	1.2
Nominal Insulated Core Diameter	Phase Conductor	mm	10.2	10.2	10.2	10.2
	Neutral Messenger	mm	12.7	12.7	12.7	12.7
	Street Lighting Conductor	mm	-	7.2	7.2	7.2
Current Carrying Capacity	Phase Conductor	A	138	138	138	138
	Street Lighting Conductor	A	-	83	83	83
Voltage Drop	Phase Conductor	V/A/km	1.65	1.65	1.65	1.65

## Complete Cable

Approximate Overall Diameter		mm	33	33	33	33
Maximum Lay Pitch		cm	85	85	85	85
Lay Direction			Right	Right	Right	Right
Inductance		mH/km	0.28	0.28	0.28	0.28
Impedance		Ω/km	0.501	0.501	0.501	0.501
Maximum Short Circuit Rating	for 0.2 sec	kA	7.39	7.39	7.39	7.39
	for 1.0 sec	kA	3.31	3.31	3.31	3.31
	for 3.0 sec	kA	1.91	1.91	1.91	1.91
Minimum Bending Radius		mm	229	229	229	229
Approximate Cable Weight		kg/km	621.2	687.8	754.4	820.9
Nominal Drum Length		m	500	500	500	500
Size of the Drum			SIE 36	SIE 36	SIE 36	SIE 36



K Represents the number of cores for public lighting, it may be zero, 1, 2 or 3

# Aerial Bundle Conductors



## (3 x 50mm<sup>2</sup>Al/XLPE + N 54.6mm<sup>2</sup>+ K x 16mm<sup>2</sup> ABC)

Item Description		mm <sup>2</sup>	3x50 + 54.6	3x50+54.6 +1x16	3x50+54.6 +2x16	3x50+54.6 +3x16
Nominal Cross-Sectional Area	Phase Conductor	mm <sup>2</sup>	50	50	50	50
	Neutral Messenger	mm <sup>2</sup>	54.6	54.6	54.6	54.6
	Street Lighting Conductor	mm <sup>2</sup>	-	16	16	16
Number of Strands	Phase Conductor	Nos.	7	7	7	7
	Neutral Messenger	Nos.	7	7	7	7
	Street Lighting Conductor	Nos.	-	7	7	7
Maximum Resistance of Conductor at 20 °C	Phase Conductor	Ω/km	0.641	0.641	0.641	0.641
	Neutral Messenger	Ω/km	0.63	0.63	0.63	0.63
	Street Lighting Conductor	Ω/km	-	1.91	1.91	1.91
Minimum Breaking Strength	Phase Conductor	daN	600	600	600	600
	Neutral Messenger	daN	1660	1660	1660	1660
	Street Lighting Conductor	daN	-	190	190	190
Nominal Diameter of Strands	Neutral Messenger	mm	3.15	3.15	3.15	3.15
Nominal Diameter of Bare Conductors	Phase Conductor	mm	8.1	8.1	8.1	8.1
	Neutral Messenger	mm	9.5	9.5	9.5	9.5
	Street Lighting Conductor	mm	-	4.8	4.8	4.8
Lay Direction	Neutral Messenger		Left	Left	Left	Left
Lay Pitch	Neutral Messenger	mm	190	190	190	190
Nominal Thickness of Insulating Sheath	Phase Conductor	mm	1.6	1.6	1.6	1.6
	Neutral Messenger	mm	1.6	1.6	1.6	1.6
	Street Lighting Conductor	mm	-	1.2	1.2	1.2
Nominal Insulated Core Diameter	Phase Conductor	mm	11.3	11.3	11.3	11.3
	Neutral Messenger	mm	12.7	12.7	12.7	12.7
	Street Lighting Conductor	mm	-	7.2	7.2	7.2
Current Carrying Capacity	Phase Conductor	A	168	168	168	168
	Street Lighting Conductor	A	-	83	83	83
Voltage Drop	Phase Conductor	V/A/km	1.27	1.27	1.27	1.27

### Complete Cable

Approximate Overall Diameter		mm	36	36	36	36
Maximum Lay Pitch		cm	90	90	90	90
Lay Direction			Right	Right	Right	Right
Inductance		mH/km	0.27	0.27	0.27	0.27
Impedance		Ω/km	0.5	0.5	0.5	0.5
Maximum Short Circuit Rating	for 0.2 sec	kA	10.56	10.56	10.56	10.56
	for 1.0 sec	kA	4.72	4.72	4.72	4.72
	for 3.0 sec	kA	2.73	2.73	2.73	2.73
Minimum Bending Radius		mm	229	229	229	229
Approximate Cable Weight		kg/km	735.0	801.6	868.2	934.8
Nominal Drum Length		m	500	500	500	500
Size of the Drum			SIE 19	SIE 19	SIE 19	SIE 19



K Represents the number of cores for public lighting, it may be zero,1,2 or 3

# Aerial Bundle Conductors



(3 x 70mm<sup>2</sup> Al/XLPE + N 54.6mm<sup>2</sup> + K x 16mm<sup>2</sup> ABC)

Item Description		mm <sup>2</sup>	3x70 + 54.6	3x70+54.6 +1x16	3x70+54.6 +2x16	3x70+54.6 +3x16
Nominal Cross-Sectional Area	Phase Conductor	mm <sup>2</sup>	70	70	70	70
	Neutral Messenger	mm <sup>2</sup>	54.6	54.6	54.6	54.6
	Street Lighting Conductor	mm <sup>2</sup>	-	16	16	16
Number of Strands	Phase Conductor	Nos.	#12	#12	#12	#12
	Neutral Messenger	Nos.	7	7	7	7
	Street Lighting Conductor	Nos.	-	7	7	7
Maximum Resistance of Conductor at 20° C	Phase Conductor	Ω/km	0.443	0.443	0.443	0.443
	Neutral Messenger	Ω/km	0.63	0.63	0.63	0.63
	Street Lighting Conductor	Ω/km	-	1.91	1.91	1.91
Minimum Breaking Strength	Phase Conductor	daN	840	840	840	840
	Neutral Messenger	daN	1660	1660	1660	1660
	Street Lighting Conductor	daN	-	190	190	190
Nominal Diameter of Strands	Neutral Messenger	mm	3.15	3.15	3.15	3.15
Nominal Diameter of Bare Conductors	Phase Conductor	mm	9.9	9.9	9.9	9.9
	Neutral Messenger	mm	9.5	9.5	9.5	9.5
	Street Lighting Conductor	mm	-	4.8	4.8	4.8
Lay Direction	Neutral Messenger		Left	Left	Left	Left
Lay Pitch	Neutral Messenger	mm	190	190	190	190
Nominal Thickness of Insulating Sheath	Phase Conductor	mm	1.8	1.8	1.8	1.8
	Neutral Messenger	mm	1.6	1.6	1.6	1.6
	Street Lighting Conductor	mm	-	1.2	1.2	1.2
Nominal Insulated Core Diameter	Phase Conductors	mm	13.5	13.5	13.5	13.5
	Neutral Messenger	mm	12.7	12.7	12.7	12.7
	Street Lighting Conductor	mm	-	7.2	7.2	7.2
Current Carrying Capacity	Phase Conductors	A	213	213	213	213
	Street Lighting Conductor	A	-	83	83	83
Voltage Drop	Phase Conductor	V/A/km	0.87	0.87	0.87	0.87

Complete Cable						
Approximate Overall Diameter		mm	37.5	37.5	37.5	37.5
Maximum Lay Pitch		cm	100	100	100	100
Lay Direction			Right	Right	Right	Right
Inductance		mH/km	0.26	0.26	0.26	0.26
Impedance		Ω/km	0.35	0.35	0.35	0.35
Maximum Short Circuit Rating	for 0.2 sec	kA	14.79	14.79	14.79	14.79
	for 1.0 sec	kA	6.61	6.61	6.61	6.61
	for 3.0 sec	kA	3.82	3.82	3.82	3.82
Minimum Bending Radius		mm	243	243	243	243
Approximate Cable Weight		kg/km	975.8	1042.3	1108.9	1175.5
Nominal Drum Length		m	500	500	500	500
Size of the Drum			SIE 38	SIE 38	SIE 38	SIE 38



K Represents the number of cores for public lighting, it may be zero, 1, 2 or 3 # - can be 19 strands based on customer request.

# Aerial Bundle Conductors

(3 x 70mm<sup>2</sup> Al/XLPE + N 54.6mm<sup>2</sup> + K x 25mm<sup>2</sup> ABC)

Item Description		mm <sup>2</sup>	3x70+54.6 +1x25	3x70+54.6 +2x25	3x70+54.6 +3x25
Nominal Cross-Sectional Area	Phase Conductor	mm <sup>2</sup>	70	70	70
	Neutral Messenger	mm <sup>2</sup>	54.6	54.6	54.6
	Street Lighting Conductor	mm <sup>2</sup>	25	25	25
Number of Strands	Phase Conductor	Nos.	#12	#12	#12
	Neutral Messenger	Nos.	7	7	7
	Street Lighting Conductor	Nos.	7	7	7
Maximum Resistance of Conductor at 20 °C	Phase Conductor	Ω/km	0.443	0.443	0.443
	Neutral Messenger	Ω/km	0.63	0.63	0.63
	Street Lighting Conductor	Ω/km	1.20	1.20	1.20
Minimum Breaking Strength	Phase Conductor	daN	840	840	840
	Neutral Messenger	daN	1660	1660	1660
	Street Lighting Conductor	daN	300	300	300
Nominal Diameter of Strands	Neutral Messenger	mm	3.15	3.15	3.15
Nominal Diameter of Bare Conductors	Phase Conductor	mm	9.9	9.9	9.9
	Neutral Messenger	mm	9.5	9.5	9.5
	Street Lighting Conductor	mm	6.0	6.0	6.0
Lay Direction	Neutral Messenger		Left	Left	Left
Lay Pitch	Neutral Messenger	mm	190	190	190
Nominal Thickness of Insulating Sheath	Phase Conductor	mm	1.8	1.8	1.8
	Neutral Messenger	mm	1.6	1.6	1.6
	Street Lighting Conductor	mm	1.4	1.4	1.4
Nominal Insulated Core Diameter	Phase Conductor	mm	13.5	13.5	13.5
	Neutral Messenger	mm	12.7	12.7	12.7
	Street Lighting Conductor	mm	8.8	8.8	8.8
Current Carrying Capacity	Phase Conductors	A	213	213	213
	Street Lighting Conductor	A	111	111	111
Voltage Drop	Phase Conductor	V/A/km	0.87	0.87	0.87

## Complete Cable

Approximate Overall Diameter		mm	40	40	40
Maximum Lay Pitch		cm	100	100	100
Lay Direction			Right	Right	Right
Inductance		mH/km	0.26	0.26	0.26
Impedance		Ω/km	0.35	0.35	0.35
Maximum Short Circuit Rating	for 0.2 sec	kA	14.79	14.79	14.79
	for 1.0 sec	kA	6.61	6.61	6.61
	for 3.0 sec	kA	3.82	3.82	3.82
Minimum Bending Radius		mm	243	243	243
Approximate Cable Weight		kg/km	1077.3	1178.9	1280.4
Nominal Drum Length		m	500	500	500
Size of the Drum			SIE 39	SIE 39	SIE 39



K Represents the number of cores for public lighting, it may be zero, 1, 2 or 3  
# - can be 19 strands based on customer request.

# Aerial Bundle Conductors



(3 x 70 mm<sup>2</sup> Al/XLPE + N 70mm<sup>2</sup> + K x 16mm<sup>2</sup> ABC)

Item Description		mm <sup>2</sup>	3x70 + N70	3x70+N70 +1x16	3x70+N70 +2x16	3x70+N70 +3x16
Nominal Cross-Sectional Area	Phase Conductor	mm <sup>2</sup>	70	70	70	70
	Neutral Messenger	mm <sup>2</sup>	70	70	70	70
	Street Lighting Conductor	mm <sup>2</sup>	-	16	16	16
Number of Strands	Phase Conductor	Nos.	#12	#12	#12	#12
	Neutral Messenger	Nos.	7	7	7	7
	Street Lighting Conductor	Nos.	-	7	7	7
Maximum Resistance of Conductor at 20 °C	Phase Conductor	Ω/km	0.443	0.443	0.443	0.443
	Neutral Messenger	Ω/km	0.5	0.5	0.5	0.5
	Street Lighting Conductor	Ω/km	-	1.91	1.91	1.91
Minimum Breaking Strength	Phase Conductor	daN	840	840	840	840
	Neutral Messenger	daN	2050	2050	2050	2050
	Street Lighting Conductor	daN	-	190	190	190
Nominal Diameter of Strands	Neutral Messenger	mm	3.50	3.50	3.50	3.50
Nominal Diameter of Bare Conductors	Phase Conductor	mm	9.9	9.9	9.9	9.9
	Neutral Messenger	mm	10.5	10.5	10.5	10.5
	Street Lighting Conductor	mm	-	4.8	4.8	4.8
Lay Direction	Neutral Messenger		Left	Left	Left	Left
Lay Pitch	Neutral Messenger	mm	210	210	210	210
Nominal Thickness of Insulating Sheath	Phase Conductor	mm	1.8	1.8	1.8	1.8
	Neutral Messenger	mm	1.5	1.5	1.5	1.5
	Street Lighting Conductor	mm	-	1.2	1.2	1.2
Nominal Insulated Core Diameter	Phase Conductor	mm	13.5	13.5	13.5	13.5
	Neutral Messenger	mm	13.5	13.5	13.5	13.5
	Street Lighting Conductor	mm	-	7.2	7.2	7.2
Current Carrying Capacity	Phase Conductor	A	213	213	213	213
	Street Lighting Conductor	A	-	83	83	83
Voltage Drop	Phase Conductor	V/A/km	0.87	0.87	0.87	0.87

## Complete Cable

Approximate Overall Diameter		mm	41	41	41	41
Maximum Lay Pitch		cm	100	100	100	100
Lay Direction			Right	Right	Right	Right
Inductance		mH/km	0.26	0.26	0.26	0.26
Impedance		Ω/km	0.35	0.35	0.35	0.35
Maximum Short Circuit Rating	for 0.2 sec	kA	14.79	14.79	14.79	14.79
	for 1.0 sec	kA	6.61	6.61	6.61	6.61
	for 3.0 sec	kA	3.82	3.82	3.82	3.82
Minimum Bending Radius		mm	243	243	243	243
Approximate Cable Weight		kg/km	1013.3	1079.9	1146.4	1213.0
Nominal Drum Length		m	500	500	500	500
Size of the Drum			SIE 39	SIE 39	SIE 39	SIE 39



K Represents the number of cores for public lighting, it may be zero, 1, 2 or 3  
# - can be 19 strands based on customer request.

# Aerial Bundle Conductors

(3 x 95mm<sup>2</sup> Al/XLPE + N 70mm<sup>2</sup> + K x 16mm<sup>2</sup> ABC)

Item Description		mm <sup>2</sup>	3x95 + N70	3x95+N70 +1x16	3x95+N70 +2x16	3x95+N70 +3x16
Nominal Cross-Sectional Area	Phase Conductor	mm <sup>2</sup>	95	95	95	95
	Neutral Messenger	mm <sup>2</sup>	70	70	70	70
	Street Lighting Conductor	mm <sup>2</sup>	-	16	16	16
Number of Strands	Phase Conductor	Nos.	19	19	19	19
	Neutral Messenger	Nos.	7	7	7	7
	Street Lighting Conductor	Nos.	-	7	7	7
Maximum Resistance of Conductor at 20 °C	Phase Conductor	Ω/km	0.320	0.320	0.320	0.320
	Neutral Messenger	Ω/km	0.5	0.5	0.5	0.5
	Street Lighting Conductor	Ω/km	-	1.91	1.91	1.91
Minimum Breaking Strength	Phase Conductor	daN	1140	1140	1140	1140
	Neutral Messenger	daN	2050	2050	2050	2050
	Street Lighting Conductor	daN	-	190	190	190
Nominal Diameter of Strands	Neutral Messenger	mm	3.50	3.50	3.50	3.50
Nominal Diameter of Bare Conductors	Phase Conductor	mm	11.2	11.2	11.2	11.2
	Neutral Messenger	mm	10.5	10.5	10.5	10.5
	Street Lighting Conductor	mm	-	4.8	4.8	4.8
Lay Direction	Neutral Messenger		Left	Left	Left	Left
Lay Pitch	Neutral Messenger	mm	210	210	210	210
Nominal Thickness of Insulating Sheath	Phase Conductor	mm	1.8	1.8	1.8	1.8
	Neutral Messenger	mm	1.5	1.5	1.5	1.5
	Street Lighting Conductor	mm	-	1.2	1.2	1.2
Nominal Insulated Core Diameter	Phase Conductor	mm	14.8	14.8	14.8	14.8
	Neutral Messenger	mm	13.5	13.5	13.5	13.5
	Street Lighting Conductor	mm	-	7.2	7.2	7.2
Current Carrying Capacity	Phase Conductor	A	258	258	258	258
	Street Lighting Conductor	A	-	83	83	83
Voltage Drop	Phase Conductor	V/A/km	0.67	0.67	0.67	0.67

## Complete Cable

Approximate Overall Diameter		mm	44	44	44	44
Maximum Lay Pitch		cm	110	110	110	110
Lay Direction			Right	Right	Right	Right
Inductance		mH/km	0.25	0.25	0.25	0.25
Impedance		Ω/km	0.258	0.258	0.258	0.258
Maximum Short Circuit Rating	for 0.2 sec	kA	20.07	20.07	20.07	20.07
	for 1.0 sec	kA	8.98	8.98	8.98	8.98
	for 3.0 sec	kA	5.18	5.18	5.18	5.18
Minimum Bending Radius		mm	266	266	266	266
Approximate Cable Weight		kg/km	1196.2	1262.8	1329.3	1395.9
Nominal Drum Length		m	500	500	500	500
Size of the Drum			SIE 40	SIE 40	SIE 40	SIE 40



K Represents the number of cores for public lighting, it may be zero, 1, 2 or 3

# Aerial Bundle Conductors

(3 x 120mm<sup>2</sup> AI/XLPE + N 70mm<sup>2</sup> + K x 16mm<sup>2</sup> ABC)

Item Description		mm <sup>2</sup>	3x120 + N70	3x120+N70 +1x16	3x120+N70 +2x16	3x120+N70 +3x16
Nominal Cross-Sectional Area	Phase Conductor	mm <sup>2</sup>	120	120	120	120
	Neutral Messenger	mm <sup>2</sup>	70	70	70	70
	Street Lighting Conductor	mm <sup>2</sup>	-	16	16	16
Number of Strands	Phase Conductor	Nos.	19	19	19	19
	Neutral Messenger	Nos.	7	7	7	7
	Street Lighting Conductor	Nos.	-	7	7	7
Maximum Resistance of Conductor at 20 °C	Phase Conductor	Ω/km	0.253	0.253	0.253	0.253
	Neutral Messenger	Ω/km	0.5	0.5	0.5	0.5
	Street Lighting Conductor	Ω/km	-	1.91	1.91	1.91
Minimum Breaking Strength	Phase Conductor	daN	1440	1440	1440	1440
	Neutral Messenger	daN	2050	2050	2050	2050
	Street Lighting Conductor	daN	-	190	190	190
Nominal Diameter of Strands	Neutral Messenger	mm	3.50	3.50	3.50	3.50
Nominal Diameter of Bare Conductors	Phase Conductor	mm	12.2	12.2	12.2	12.2
	Neutral Messenger	mm	10.5	10.5	10.5	10.5
	Street Lighting Conductor	mm	-	4.8	4.8	4.8
Lay Direction	Neutral Messenger		Left	Left	Left	Left
Lay Pitch	Neutral Messenger	mm	210	210	210	210
Nominal Thickness of Insulating Sheath	Phase Conductor	mm	1.8	1.8	1.8	1.8
	Neutral Messenger	mm	1.5	1.5	1.5	1.5
	Street Lighting Conductors	mm	-	1.2	1.2	1.2
Nominal Insulated Core Diameter	Phase Conductors	mm	15.8	15.8	15.8	15.8
	Neutral Messenger	mm	13.5	13.5	13.5	13.5
	Street Lighting Conductor	mm	-	7.2	7.2	7.2
Current Carrying Capacity	Phase Conductor	A	300	300	300	300
	Street Lighting Conductor	A	-	83	83	83
Voltage Drop	Phase Conductor	V/A/km	0.55	0.55	0.55	0.55

## Complete Cable

Approximate Overall Diameter		mm	46	46	46	46
Maximum Lay Pitch		cm	120	120	120	120
Lay Direction			Right	Right	Right	Right
Inductance		mH/km	0.25	0.25	0.25	0.25
Impedance		Ω/km	0.258	0.258	0.258	0.258
Maximum Short Circuit Rating	for 0.2 sec	kA	25.35	25.35	25.35	25.35
	for 1.0 sec	kA	11.34	11.34	11.34	11.34
	for 3.0 sec	kA	6.55	6.55	6.55	6.55
Minimum Bending Radius		mm	284	284	284	284
Approximate Cable Weight		kg/km	1350.5	1417.1	1483.7	1550.2
Nominal Drum Length		m	500	500	500	500
Size of the Drum			SIE 38	SIE 38	SIE 38	SIE 38



K Represents the number of cores for public lighting, it may be zero, 1, 2 or 3

# Aerial Bundle Conductors



(3 x 150mm<sup>2</sup> Al/XLPE + N 70mm<sup>2</sup> + K x 16mm<sup>2</sup> ABC)

Item Description		mm <sup>2</sup>	3x150 + N70	3x150+N70 +1x16	3x150+N70 +2x16	3x150+N70 +3x16
Nominal Cross-Sectional Area	Phase Conductor	mm <sup>2</sup>	150	150	150	150
	Neutral Messenger	mm <sup>2</sup>	70	70	70	70
	Street Lighting Conductor	mm <sup>2</sup>	-	16	16	16
Number of Strands	Phase Conductor	Nos.	19	19	19	19
	Neutral Messenger	Nos.	7	7	7	7
	Street Lighting Conductor	Nos.	-	7	7	7
Maximum Resistance of Conductor at 20 °C	Phase Conductor	Ω/km	0.206	0.206	0.206	0.206
	Neutral Messenger	Ω/km	0.5	0.5	0.5	0.5
	Street Lighting Conductor	Ω/km	-	1.91	1.91	1.91
Minimum Breaking Strength	Phase Conductor	daN	1800	1800	1800	1800
	Neutral Messenger	daN	2050	2050	2050	2050
	Street Lighting Conductor	daN	-	190	190	190
Nominal Diameter of Strands	Neutral Messenger	mm	3.50	3.50	3.50	3.50
Nominal Diameter of Bare Conductors	Phase Conductor	mm	14.1	14.1	14.1	14.1
	Neutral Messenger	mm	10.5	10.5	10.5	10.5
	Street Lighting Conductor	mm	-	4.8	4.8	4.8
Lay Direction	Neutral Messenger		Left	Left	Left	Left
Lay Pitch	Neutral Messenger	mm	210	210	210	210
Nominal Thickness of Insulating Sheath	Phase Conductor	mm	1.7	1.7	1.7	1.7
	Neutral Messenger	mm	1.5	1.5	1.5	1.5
	Street Lighting Conductor	mm	-	1.2	1.2	1.2
Nominal Insulated Core Diameter	Phase Conductor	mm	17.5	17.5	17.5	17.5
	Neutral Messenger	mm	13.5	13.5	13.5	13.5
	Street Lighting Conductor	mm	-	7.2	7.2	7.2
Current Carrying Capacity	Phase Conductor	A	344	344	344	344
	Street Lighting Conductor	A	-	83	83	83
Voltage Drop	Phase Conductor	V/A/km	0.46	0.46	0.46	0.46

## Complete Cable

Approximate Overall Diameter		mm	48	48	48	48
Minimum/Maximum Lay Pitch		cm	115/130	115/130	115/130	115/130
Lay Direction			Right	Right	Right	Right
Inductance		mH/km	0.24	0.24	0.24	0.24
Impedance		Ω/km	0.257	0.257	0.257	0.257
Maximum Short Circuit Rating	for 0.2 sec	kA	31.69	31.69	31.69	31.69
	for 1.0 sec	kA	14.17	14.17	14.17	14.17
	for 3.0 sec	kA	8.18	8.18	8.18	8.18
Minimum Bending Radius		mm	315	315	315	315
Approximate Cable Weight		kg/km	1660.9	1727.5	1794.0	1860.6
Nominal Drum Length		m	500	500	500	500
Size of the Drum			SIE 41	SIE 41	SIE 41	SIE 41



K Represents the number of cores for public lighting, it may be zero,1,2 or 3

# Aerial Bundle Conductors



(3 x 120mm<sup>2</sup> Al/XLPE + N 95mm<sup>2</sup> + K x 16mm<sup>2</sup> ABC)

Item Description		mm <sup>2</sup>	3x120 + N95	3x120+N95 +1x16	3x120+N95 +2x16	3x120+N95 +3x16
Nominal Cross-Sectional Area	Phase Conductor	mm <sup>2</sup>	120	120	120	120
	Neutral Messenger	mm <sup>2</sup>	95	95	95	95
	Street Lighting Conductor	mm <sup>2</sup>	-	16	16	16
Number of Strands	Phase Conductor	Nos.	19	19	19	19
	Neutral Messenger	Nos.	19	19	19	19
	Street Lighting Conductor	Nos.	-	7	7	7
Maximum Resistance of Conductor at 20 °C	Phase Conductor	Ω/km	0.253	0.253	0.253	0.253
	Neutral Messenger	Ω/km	0.343	0.343	0.343	0.343
	Street Lighting Conductor	Ω/km	-	1.91	1.91	1.91
Minimum Breaking Strength	Phase Conductor	daN	1440	1440	1440	1440
	Neutral Messenger	daN	2750	2750	2750	2750
	Street Lighting Conductor	daN	-	190	190	190
Nominal Diameter of Strands	Neutral Messenger	mm	2.50	2.50	2.50	2.50
Nominal Diameter of Bare Conductors	Phase Conductor	mm	12.2	12.2	12.2	12.2
	Neutral Messenger	mm	12.5	12.5	12.5	12.5
	Street Lighting Conductor	mm	-	4.8	4.8	4.8
Lay Direction	Neutral Messenger		Left	Left	Left	Left
Lay Pitch	Neutral Messenger	mm	250	250	250	250
Nominal Thickness of Insulating Sheath	Phase Conductor	mm	1.8	1.8	1.8	1.8
	Neutral Messenger	mm	1.6	1.6	1.6	1.6
	Street Lighting Conductor	mm	-	1.2	1.2	1.2
Nominal Insulated Core Diameter	Phase Conductor	mm	15.8	15.8	15.8	15.8
	Neutral Messenger	mm	15.7	15.7	15.7	15.7
	Street Lighting Conductor	mm	-	7.2	7.2	7.2
Current Carrying Capacity	Phase Conductor	A	300	300	300	300
	Street Lighting Conductor	A	-	83	83	83
Voltage Drop	Phase Conductor	V/A/km	0.55	0.55	0.55	0.55

Complete Cable						
Approximate Overall Diameter		mm	47	47	47	47
Maximum Lay Pitch		cm	120	120	120	120
Lay Direction			Right	Right	Right	Right
Inductance		mH/km	0.25	0.25	0.25	0.25
Impedance		Ω/km	0.258	0.258	0.258	0.258
Maximum Short Circuit Rating	for 0.2 sec	kA	25.35	25.35	25.35	25.35
	for 1.0 sec	kA	11.34	11.34	11.34	11.34
	for 3.0 sec	kA	6.55	6.55	6.55	6.55
Minimum Bending Radius		mm	284	284	284	284
Approximate Cable Weight		kg/mm	1413.7	1480.3	1546.9	1613.4
Nominal Drum Length		m	500	500	500	500
Size of the Drum			SIE 41	SIE 41	SIE 41	SIE 41



K Represents the number of cores for public lighting, it may be zero 1,2 or 3

# Aerial Bundle Conductors

## (3 x 150mm<sup>2</sup> Al/XLPE + N 95mm<sup>2</sup> + K x 16mm<sup>2</sup> ABC)

Item Description		mm <sup>2</sup>	3x150 +N95	3x150+N95 +1x16	3x150+N95 +2x16	3x150+N95 +3x16
Nominal Cross-Sectional Area	Phase Conductor	mm <sup>2</sup>	150	150	150	150
	Neutral Messenger	mm <sup>2</sup>	95	95	95	95
	Street Lighting Conductor	mm <sup>2</sup>	-	16	16	16
Number of Strands	Phase Conductor	Nos.	19	19	19	19
	Neutral Messenger	Nos.	19	19	19	19
	Street Lighting Conductor	Nos.	-	7	7	7
Maximum Resistance of Conductor at 20 °C	Phase Conductor	Ω/km	0.206	0.206	0.206	0.206
	Neutral Messenger	Ω/km	0.343	0.343	0.343	0.343
	Street Lighting Conductor	Ω/km	-	1.91	1.91	1.91
Minimum Breaking Strength	Phase Conductor	daN	1800	1800	1800	1800
	Neutral Messenger	daN	2750	2750	2750	2750
	Street Lighting Conductor	daN	-	190	190	190
Nominal Diameter of Strands	Neutral Messenger	mm	2.50	2.50	2.50	2.50
Nominal Diameter of Bare Conductors	Phase Conductor	mm	14.1	14.1	14.1	14.1
	Neutral Messenger	mm	12.5	12.5	12.5	12.5
	Street Lighting Conductor	mm	-	4.8	4.8	4.8
Lay Direction	Neutral Messenger		Left	Left	Left	Left
Lay Pitch	Neutral Messenger	mm	250	250	250	250
Nominal Thickness of Insulating Sheath	Phase Conductor	mm	1.7	1.7	1.7	1.7
	Neutral Messenger	mm	1.6	1.6	1.6	1.6
	Street Lighting Conductor	mm	-	1.2	1.2	1.2
Nominal Insulated Core Diameter	Phase Conductor	mm	17.5	17.5	17.5	17.5
	Neutral Messenger	mm	15.7	15.7	15.7	15.7
	Street Lighting Conductor	mm	-	7.2	7.2	7.2
Current Carrying Capacity	Phase Conductor	A	344	344	344	344
	Street Lighting Conductor	A	-	83	83	83
Voltage Drop	Phase Conductor	V/A/km	0.46	0.46	0.46	0.46

### Complete Cable

Approximate Overall Diameter		mm	49	49	49	49
Minimum/Maximum Lay Pitch		cm	115/130	115/130	115/130	115/130
Lay Direction			Right	Right	Right	Right
Inductance		mH/km	0.24	0.24	0.24	0.24
Impedance		Ω/km	0.257	0.257	0.257	0.257
Maximum Short Circuit Rating	for 0.2 sec	kA	31.69	31.69	31.69	31.69
	for 1.0 sec	kA	14.17	14.17	14.17	14.17
	for 3.0 sec	kA	8.18	8.18	8.18	8.18
Minimum Bending Radius		mm	315	315	315	315
Approximate Cable Weight		kg/km	1724.1	1790.7	1857.2	1923.3
Nominal Drum Length		m	500	500	500	500
Size of the Drum			SIE 41	SIE 41	SIE 41	SIE 41



K Represents the number of cores for public lighting, it may be zero, 1, 2 or 3