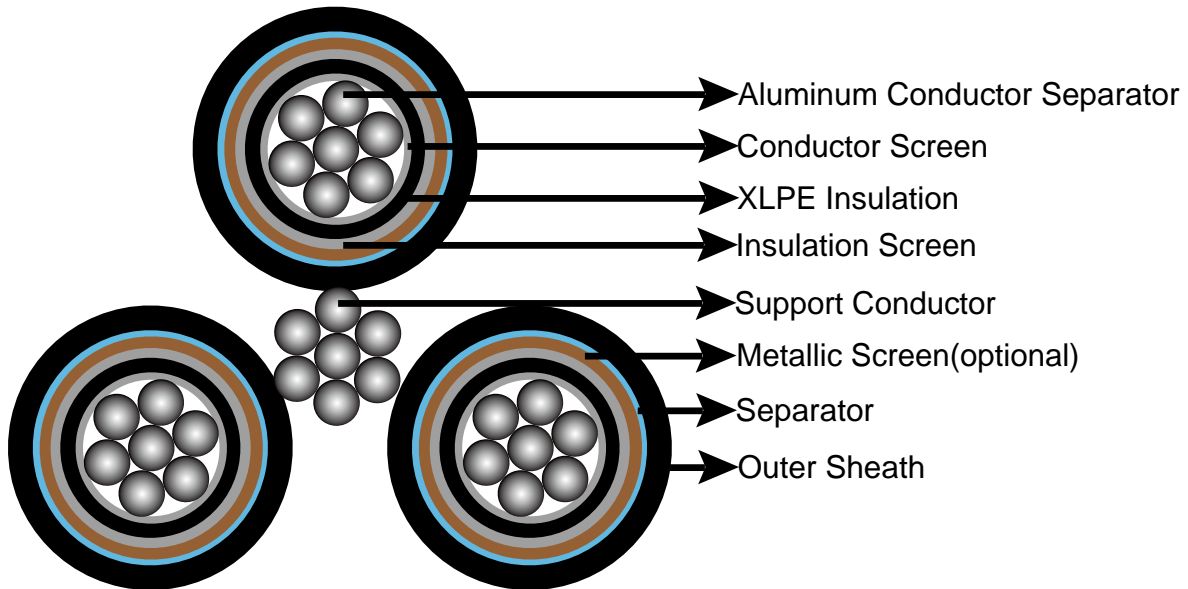


## MV Aerial Bundled Conductor (ABC) Cables



### APPLICATION

Aerial bundled cables are mainly used for secondary overhead lines on poles or as feeders to residential premises.

### STANDARD

Basic design to IEC 60502 / AS/NZS 3599-1 standards

### CONSTRUCTION

**Phase Conductor:** Circular compacted stranded H68 aluminium to BS2627.

**Conductor Screen:** Extruded semi-conductive layer.

**Insulation:** XLPE.

**Insulation Screen:** Extruded semi-conductive layer.

**Metallic Screen(optional):** Copper wire screen or copper tape screen.

**Separator:** Semi-conductive swellable tape.

**Outer Sheath:** HDPE.

**Support Conductor:** Galvanized steel wires.

**Assembly:** Three XLPE insulated screened cores are bundled around the galvanized steel wires in a right hand lay.



# Caledonian

## Caledonian Aluminium Conductor Cables

### CONSTRUCTION PARAMETERS

- IEC 60502 6.35/11 kV ABC for Overhead Distribution Lines**

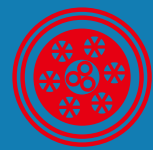
Number of Cores xNominal Cross Section	Phase Conductor			Messenger Suspension Unit			Continuous current rating at 300C ambient temp
	Stranding	Nominal Sectional Area	Maximum Conductor Resistance	Stranding	Nominal Sectional Area	Breaking Load	
No.xmm <sup>2</sup>	No.xmm	mm <sup>2</sup>	Ω/Km	No.xmm	mm <sup>2</sup>	KN	A
3X50 + 1X25	19/1.78	50	0.641	7/3.0	50	60	116
3X70 + 1X50	19/.14	70	0.443	7/3.15	50	62	210
3X95+ 1X50	19/2.52	95	0.32	7/3.0	50	60	173
3X185+1X120	37/2.52	185	0.164	7/4.67	120	150	259
3X150 +1X50	37/2.25	150	0.206	7/3.15	50	62	365
3X240 +1X50	61/2.25	240	0.125	7/3.15	50	62	500

Other cross-sections can be offered upon request.

- IEC 60502 19/33 kV ABC for Overhead Distribution Lines**

Number of Cores xNominal Cross Section	Phase Conductor			Messenger Suspension Unit			Continuous current rating at 300C ambient temp
	Stranding	Nominal Sectional Area	Maximum Conductor Resistance	Stranding	Nominal Sectional Area	Breaking Load	
No.xmm <sup>2</sup>	No.xmm	mm <sup>2</sup>	Ω/Km	No.xmm	mm <sup>2</sup>	KN	A
3X50 + 1X50	19/1.78	50	0.641	7/3.0	50	60	165
3X150+ 1X50	37/2.25	150	0.206	7/3.0	50	60	315
3X185+1X70	37/2.52	185	0.164	7/3.57	70	91	355
3X70 +1X50	19/2.14	7	0.443	7/3.15	50	62	250
3X150 +1X50	37/2.25	150	0.206	7/3.15	50	62	370

Other cross-sections can be offered upon request.



• **AS/NZS 3599 Part 1 6.35/11 kV AL/XLPE /HDPE Non-screened Cables**

Number of Cores xNominal Cross Section	Phase Conductor				Messenger Suspension Unit	Nominal Sectional Area	Breaking Load
	Diameter of Conductor	Thickness of Insulation	Thickness of Insulation Screen	Thickness of Sheath	Stranding		
No.xmm <sup>2</sup>	mm	mm	mm	mm	No.xmm	mm <sup>2</sup>	KN
3x35	6.9	3.4	0.8	1.2	7/4.75	52.4	1370
3x50	8.1	3.4	0.8	1.2	7/4.75	54.6	1530
3x70	9.7	3.4	0.8	1.2	7/4.75	57.8	1790
3x95	11.4	3.4	0.8	1.2	7/4.75	61.3	2100
3x120	12.8	3.4	0.8	1.2	19/3.50	67.3	2540
3x150	14.2	3.4	0.8	1.2	19/3.50	70.1	2840
3x185	15.7	3.4	0.8	1.2	19/3.50	73.1	3190

Other cross-sections can be offered upon request.

• **AS/NZS 3599 Part 1 6.35/11 kV AL/XLPE /CWS/HDPE Screened Cables**

Number of Cores xNominal Cross Section	Diameter of Conductor	Thickness of Insulation	Thickness of Insulation Screen	Copper Wire Screen Stranding	Thickness of Sheath	Galvanized Steel Wire Stranding	Nominal Sectional Area	Breaking Load
No.xmm <sup>2</sup>	mm	mm	mm	No.xmm	mm	No.xmm	mm <sup>2</sup>	KN
<b>Light Duty Screen</b>								
3x35	6.9	3.4	0.8	25/0.85	1.8	7/2.00	54.1	1820
3x35	6.9	3.4	0.8	25/0.85	1.8	19/2.00	58.1	2130
3x50	8.1	3.4	0.8	25/0.85	1.8	19/2.00	60.4	2300
3x70	9.7	3.4	0.8	25/0.85	1.8	19/2.00	63.6	2570
3x95	11.4	3.4	0.8	25/0.85	1.8	19/2.00	67.0	2900
3x120	12.8	3.4	0.8	25/0.85	1.8	19/2.00	69.8	3190
3x150	14.2	3.4	0.8	25/0.85	1.9	19/2.00	73.0	3530
3x185	15.7	3.4	0.8	25/0.85	1.9	19/2.00	76.0	3890



# Caledonian

## Caledonian Aluminium Conductor Cables

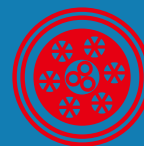
Number of Cores xNominal Cross Section	Diameter of Conductor	Thickness of Insulation	Thickness of Insulation Screen	Copper Wire Screen Stranding	Thickness of Sheath	Galvanized Steel Wire Stranding	Nominal Sectional Area	Breaking Load
No.xmm <sup>2</sup>	mm	mm	mm	No.xmm	mm	No.xmm	mm <sup>2</sup>	KN
<b>Heavy Duty Screen</b>								
3x35	6.9	3.4	0.8	40/0.85	1.8	7/2.00	54.1	2050
3x35	6.9	3.4	0.8	40/0.85	1.8	19/2.00	58.1	2360
3x50	8.1	3.4	0.8	23/1.35	1.8	19/2.00	62.4	2820
3x70	9.7	3.4	0.8	32/1.35	1.8	19/2.00	65.6	3440
3x95	11.4	3.4	0.8	39/1.35	1.8	19/2.00	69.0	4030
3x120	12.8	3.4	0.8	39/1.35	1.8	19/2.00	71.8	4320
3x150	14.2	3.4	0.8	39/1.35	1.9	19/2.00	75.0	4670
3x185	15.7	3.4	0.8	39/1.35	1.9	19/2.00	78.0	5020

Other cross-sections can be offered upon request.

- AS/NZS 3599 Part 1 12.7/22 kV AL/XLPE /HDPE Non-screened Cables**

Number of Cores xNominal Cross Section	Phase Conductor				Messenger Suspension Unit	Nominal Sectional Area	Breaking Load
	Diameter of Conductor	Thickness of Insulation	Thickness of Insulation Screen	Thickness of Sheath	Stranding		
No.xmm <sup>2</sup>	mm	mm	mm	mm	No.xmm	mm <sup>2</sup>	KN
3x35	6.9	5.5	0.8	1.2	7/4.75	61.0	1780
3x50	8.1	5.5	0.8	1.2	7/4.75	63.3	1970
3x70	9.7	5.5	0.8	1.2	7/4.75	66.5	2260
3x95	11.4	5.5	0.8	1.2	7/4.75	69.9	2600
3x120	12.8	5.5	0.8	1.2	19/3.50	75.9	3070
3x150	14.2	5.5	0.8	1.2	19/3.50	78.7	3390
3x185	15.7	5.5	0.8	1.2	19/3.50	81.7	3760

Other cross-sections can be offered upon request.



• **AS/NZS 3599 Part 1 12.7/22 kV AL/XLPE /CWS/HDPE Screened Cables**

Number of Cores xNominal Cross Section	Diameter of Conductor	Thickness of Insulation	Thickness of Insulation Screen	Copper Wire Screen Stranding	Thickness of Sheath	Galvanized Steel Wire Stranding	Nominal Sectional Area	Breaking Load
No.xmm <sup>2</sup>	mm	mm	mm	No.xmm	mm	No.xmm	mm <sup>2</sup>	KN
<b>Light Duty Screen</b>								
3x35	6.9	5.5	0.8	25/0.85	1.8	7/2.00	62.7	2280
3x35	6.9	5.5	0.8	25/0.85	1.8	19/2.00	66.7	2580
3x50	8.1	5.5	0.8	25/0.85	1.8	19/2.00	69.0	2780
3x70	9.7	5.5	0.8	25/0.85	1.9	19/2.00	72.6	3110
3x95	11.4	5.5	0.8	25/0.85	1.9	19/2.00	76.0	3460
3x120	12.8	5.5	0.8	25/0.85	2.0	19/2.00	79.2	3810
3x150	14.2	5.5	1.0	25/0.85	2.0	19/2.00	82.8	4230
3x185	15.7	5.5	1.0	25/0.85	2.1	19/2.00	86.2	4650
<b>Heavy Duty Screen</b>								
3x35	6.9	5.5	0.8	40/0.85	1.8	7/2.00	62.7	2510
3x35	6.9	5.5	0.8	40/0.85	1.8	19/2.00	66.7	2810
3x50	8.1	5.5	0.8	23/1.35	1.8	19/2.00	71.0	3300
3x70	9.7	5.5	0.8	32/1.35	1.9	19/2.00	74.6	3970
3x95	11.4	5.5	0.8	39/1.35	1.9	19/2.00	78.0	4600
3x120	12.8	5.5	0.8	39/1.35	2.0	19/2.00	81.2	4950
3x150	14.2	5.5	1.0	39/1.35	2.0	19/2.00	84.8	5360
3x185	15.7	5.5	1.0	39/1.35	2.1	19/2.00	88.2	5790

Other cross-sections can be offered upon request.



# Caledonian

## Caledonian Aluminium Conductor Cables

### TECHNICAL DATA

Nominal Cross Section	Continuous Current Rating		
	Still air	1m/s wind	2m/s wind
mm <sup>2</sup>	A	A	A
35	105	145	165
50	125	170	200
70	150	215	250
95	180	260	300
120	205	300	350
150	230	340	395
185	265	390	450



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