

INSULATED OVERHEAD CONDUCTORS

27. AERIAL BUNDLE CONDUCTORS (ABC)



ABC Cables are self supporting insulated cables used for low voltage electricity distribution. ABCs comprise of Three Phase conductors (Aluminium) and a Neutral conductor (Aluminium/Alloy Aluminium) bundled together with or without street lamp wires. The neutral conductor also acts as a messenger or a load bearer. The conductors are insulated with black UV resistant cross-linked thermosetting polyethylene (XLPE).

STANDARD	AS/NZS 3560.1 or National French Standard NFC 33-209
VOLTAGE	0.6/1.0 KV
CONDUCTOR	Aluminium (Compacted) / Aluminium Alloy (Class 2)
INSULATION MATERIAL	XLPE (X-90UV) Black
MAX. OPERATING TEMP.	90 °C

AS/NZS 3560.1

Item Description	Nominal Diameter of Conductor(mm)			Nominal Diameter over insulation(mm)			Appx. Overall Diameter (mm)	Appx. Mass (kg/km)	
	Phase (Compacted)	Neutral	Street Lamp (compacted)	Phase	Neutral	Street Lamp		without street lamp	with street lamp
2 Core									
2 X 16mm ²	4.7	4.7		7.4	7.4		14.8	130	
2 X 25mm ²	5.9	5.9		8.6	8.6		17.2	190	
2 X 35mm ²	6.9	6.9		9.6	9.6		19.3	250	
2 X 50mm ²	8.1	8.1		11.2	11.2		22.3	340	
2 X 95mm ²	11.4	11.4		14.9	14.9		29.8	640	
3 Core									
3 X 25mm ²	5.9	5.9		8.6	8.6		18.5	290	
3 X 35mm ²	6.9	6.9		9.6	9.6		20.8	370	
3 X 50mm ²	8.1	8.1		11.2	11.2		24.1	510	
4 Core									
4 X 16mm ²	4.7	4.7		7.4	7.4		17.8	270	
4 X 25mm ²	5.9	5.9		8.6	8.6		20.8	390	
4 X 35mm ²	6.9	6.9		9.6	9.6		23.2	500	
4 X 50mm ²	8.1	8.1		11.2	11.2		27	670	
4 X 70mm ²	9.7	9.7		12.8	12.8		30.8	930	
4 X 95mm ²	11.4	11.4		14.9	14.9		36	1280	
4 X 120mm ²	12.9	12.9		16.3	16.3		39.3	1570	
4 X 150mm ²	14.2	14.2		17.7	17.7		42.8	1890	
3 Core + Neutral + Street Lamp (Optional) - NFC 33 209									
3X25mm ² + 54.6mm ² + 16mm ²	5.9	9.5	4.8	8.6	12.7	7.2	30	514	580
3X35mm ² + 54.6mm ² + 16mm ²	6.9	9.5							
3X50mm ² + 54.6mm ² + 16mm ²	8.1	9.5	4.8	11.2	12.7	7.2	36	735	802
3X70mm ² + 54.6mm ² + 16mm ²	9.7	9.5							
3X70mm ² + 54.6mm ² + 25mm ²	9.7	9.5	6.0	13.3	12.7	8.8	40	1077	1179
3X70mm ² + 70mm ² + 16mm ²	9.7	10.5							
3X95mm ² + 70mm ² + 16mm ²	11.4	10.5	4.8	14.9	13.5	7.2	44	1196	1263
3X120mm ² + 70mm ² + 16mm ²	12.9	10.5							
3X120mm ² + 95mm ² + 16mm ²	12.9	12.5	4.8	16.3	15.7	7.2	47	1414	1480
3X150mm ² + 70mm ² + 16mm ²	14.2	10.5							
3X150mm ² + 95mm ² + 16mm ²	14.2	12.5	4.8	18.0	15.7	7.2	49	1724	1791