

## Waveform Aluminium Cable 600/1000v BS7870



Solid aluminium conductors / XLPE insulation / rubber bedded / Copper wire waveform concentric / PVC sheathed. A 3 phased shaped aluminium conductor with helical concentric copper neutral/earth conductors for use on IDNO adoptable networks.

**Applications:** Aluminium cable suitable for power distribution  
**Volts grade:** 600 / 1000  
**Sheath colour:** Black ●  
**Standards:** BS 7870-8.1:2003 LV & MV polymeric insulated cables for use by distribution and generation utilities. Specification for multicore and multi pair cables for installation above and below ground. Single wire armoured and PVC sheathed multi pair cable with copper conductors.

Size sq.mm	Reactance at 50Hz	Min thickness of insulation mm	Internal diameter of ducts mm	Min bending radius mm	Wavelength of wires mm	Thickness of PVC sheath mm	Nominal overall diameter mm	Weight kg/m
95	0.0735	1.1	100	550	250	2.1	35	2.3
185	0.074	1.6	100	700	300	2.5	46	4
300	0.0725	1.8	100	850	375	2.8	55	5.4

### Dimensions

Number of Cores	Nominal Cross Sectional	Minimum Average Thickness of insulation	Minimum Average Thickness of insulation at	Minimum Average Thickness of outer sheath	Minimum Average Thickness of outer sheath at	Nominal Overall Diameter (MM)	Nominal Weight
3	95	1.1	0.89	2.1	1.68	36	1980
3	185	1.6	1.34	2.5	2.02	46	3520
3	300	1.8	1.52	2.8	2.28	56	4810
4	95	1.1	1.05	2.2	2.1	36	2300
4	185	1.8	1.65	2.65	2.55	48	4200
4	300	1.9	1.8	3.25	3.1	60	6100

### Conductors

Nominal Cross sectional Area (mm)	Maximum Resistance Phase Conductor at 20	Maximum DC Resistance Neutral/Earth Conductor at 20	Maximum AC Resistance Neutral/Earth Conductor at 20
95	0.32	0.32	0.411
185	0.164	0.164	0.211
300	0.1	0.164	0.13

### Concentric Neutral / Earth Conductor

Nominal Cross Sectional Area (mm)	Approx No Of Wires	Nominal Diameter of Wires	Approx Length of Lay
95	22	1.85	250
185	41	1.85	300
300	41	1.85	440

 **Concentric Neutral / Earth Conductor**

Nominal Cross Sectional Area (mm)	Approx No Of Wires	Nominal Diameter of Wires	Approx Length of Lay
95	22	1.85	250
185	41	1.85	300
300	41	1.85	440

 **Concentric Neutral / Earth Conductor**

Nominal Cross Sectional Area (mm)	Nominal Reactance at 50Hz	Nominal Voltage Drop mV/A/m	Zero Phase Sequence Resistance	Zero Phase Sequence Resistance	Short Circuit Rating for 1 Second
95	0.073	0.25	0.241	0.086	6.6
185	0.073	0.33	0.124	0.077	14.2
300	0.072	0.41	0.084	0.074	22.7

 **Electrical Characteristics**

Nominal Cross Sectional area (mm)	Nominal Internal Diameter Ducts (mm)	Current Rating A		
		Direct in Ground	In Ducts	In Air
95	70	244	227	232
185	90	353	328	364
300	110	461	429	508