

Waveform Cable

BS7870 - 3.40

CABLE CHARACTERISTICS



Bending radius
 $r=15D$



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CABLE DESCRIPTION

CONDUCTOR

Sector shaped solid aluminium conductor complying with BS6360 Class 1.

INSULATION

XLPE suitable for operating at a conductor temperature of 90°C.

BEDDING

Rubber layer.

WAVEFORM WIRES

Circular plain copper wires embedded into a single layer of rubber compound and applied in a waveform pattern to provide an earth fault current path.

SHEATH

PVC Sheath Colour - Black

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Constructional Data

Nominal cross-sectional area mm ²	Minimum average thickness of insulation mm	Concentric neutral/earth conductor:		Minimum average thickness of oversheath mm	Approximate overall diameter mm
		Approximate Number of wires	Approximate diameter of wires mm		
3 Core					
70	1.1	30	1.35	1.9	30.7
95	1.1	30	1.58	2.1	34.5
120	1.2	28	1.87	2.2	38.0
185	1.6	42	1.87	2.5	45.9
240	1.7	42	1.87	2.7	50.7
300	1.8	42	1.87	2.8	55.2
4 Core					
95	1.1	22	1.87	2.2	38.3
185	1.6	42	1.87	2.6	53.2
240	1.7	42	1.87	2.8	57.8
300	1.8	42	1.87	3.1	63.0

Installation Data

Nominal cross-sectional area mm ²	Approximate cable weight Kg/m	Minimum bending radius mm	Nominal internal diameter of ducts mm
70	1.7	500	100
95	2.2	550	100
120	2.6	600	100
185	4	700	100
240	4.8	800	100
300	5.4	850	100
4 Core			
95	2.6	600	100
185	4.7	800	100
240	5.7	900	100
300	6.6	950	100

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Electrical Data

Nominal cross-sectional area mm ²	Maximum DC resistance of phase conductor at 20°C Ohms/km	Maximum DC resistance of neutral/earth conductor at 20°C Ohms/km	Maximum AC resistance of conductor at 80°C Ohms/km	Approximate reactance at 50Hz Ohms/km
3 Core				
70	0.443	0.443	0.551	0.0755
95	0.320	0.320	0.398	0.0735
120	0.253	0.253	0.315	0.0730
185	0.164	0.164	0.205	0.0740
240	0.125	0.164	0.157	0.0730
300	0.100	0.164	0.126	0.0725
4 Core				
95	0.32	0.320	0.398	0.0735
185	0.164	0.164	0.205	0.0740
240	0.125	0.164	0.157	0.0730
300	0.1	0.164	0.126	0.0725

Current Ratings

Nominal cross-sectional area mm ²	Current Ratings		
	Laid direct in ground Amps	Laid in ducts Amps	Laid in air Amps
3 Core			
70	195	160	185
95	235	190	230
120	265	225	265
185	335	275	350
240	390	320	415
300	435	360	475
4 Core			
95	235	190	230
185	335	275	350
240	390	320	415
300	435	360	475

Current Rating Conditions:

Ground Temperature 15°C
 Depth of burial 0.5m
 Thermal resistance of soil 1.2°C m/W



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Formerly Pirelli Cables