

# Waveform Cable

BS7870 - 3.40

## CABLE CHARACTERISTICS



Bending radius  
 $r=15D$



WWW.CABLEJOINTS.CO.UK  
THORNE & DERRICK UK  
TEL 0044 191 490 1547 FAX 0044 477 5371  
TEL 0044 117 977 4647 FAX 0044 977 5582  
WWW.THORNEANDDERRICK.CO.UK

## 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 <sup>2</sup>	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		
<b>3 Core</b>					
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
<b>4 Core</b>					
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 <sup>2</sup>	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
<b>4 Core</b>			
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 <sup>2</sup>	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
<b>3 Core</b>				
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
<b>4 Core</b>				
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 <sup>2</sup>	Current Ratings		
	Laid direct in ground Amps	Laid in ducts Amps	Laid in air Amps
<b>3 Core</b>			
70	195	160	185
95	235	190	230
120	265	225	265
185	335	275	350
240	390	320	415
300	435	360	475
<b>4 Core</b>			
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