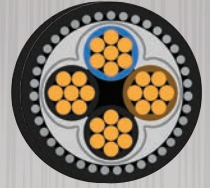




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SINGLE WIRE ARMoured ENERGY CABLE LSOH 694_B

A 600/1000 Volt Low Smoke Zero Halogen (LSOH) sheathed energy distribution cable with steel wire armour providing mechanical protection. The cable is suitable for situations where fire conditions, resulting in acid gas and smoke emissions, are a consideration for public safety and safe evacuation of the building.

The cable may be installed in air, on tray, clipped direct to a surface or buried directly in the ground, the cable is weatherproof and durable.

CONSTRUCTION

Plain stranded copper conductor with cross linked polyethylene (XLPE) insulation, cores laid up, extruded LSOH inner sheath, a single layer of galvanised steel wire (aluminium wire for single cores) and LSOH sheath black overall.

TECHNICAL DATA

BS 6724 IEC 60502-1

Nominal Voltage	600/1000V
Test Voltage	5000V
Operating Temperature	-20°C to +90°C
Bending Radius	6 times O/D circular conductors 8 times O/D shaped conductors
Flame Propagation	BS EN 60332-1-2 BS EN 60332-3-24 Cat C (Cat A to order)
Smoke Density	BS EN 61034-2
Halogen Emission	BS EN 60754-2
Current Rating Table	4E4A 4E4B

Note - Minimum installation temperature 0°C



LSOH 694_B DIMENSIONS

Single Core x mm ²	Nom OD mm	Weight kg / km
50.0	17.5	758
70.0	20.2	960
95.0	22.3	1240
120.0	24.2	1510
150.0	27.4	1900
185.0	30.0	2320
240.0	32.8	2930
300.0	35.6	3580
400.0	40.4	4600
500.0	44.2	5770
630.0	48.8	7250

Cores x mm ²	Nom OD mm	Weight kg / km
2 x 1.5	12.1	302
2 x 2.5	13.6	346
2 x 4.0	14.7	410
2 x 6.0	15.9	499
2 x 10.0	17.0	648
2 x 16.0	20.2	978
2 x 25.0*	20.4	1290
2 x 35.0*	23.3	1500
2 x 50.0*	25.8	1890
2 x 70.0*	29.0	2450
2 x 95.0*	33.1	3300
2 x 120.0*	36.1	3800
3 x 1.5	12.6	330
3 x 2.5	14.0	390
3 x 4.0	15.3	464
3 x 6.0	16.6	568
3 x 10.0	19.0	866
3 x 16.0	21.6	1152
3 x 25.0	26.0	1800
3 x 35.0	28.0	2230
3 x 50.0*	29.5	2490
3 x 70.0*	33.2	3290
3 x 95.0*	37.0	4440
3 x 120.0*	40.0	5470
3 x 150.0*	45.5	6930
3 x 185.0*	49.8	8040
3 x 240.0*	55.1	10150
4 x 1.5	13.0	365

Cores x mm ²	Nom OD mm	Weight kg / km
4 x 2.5	15.0	438
4 x 4.0	16.0	532
4 x 6.0	18.0	764
4 x 10.0	20.0	1013
4 x 16.0	22.9	1360
4 x 25.0	27.6	2160
4 x 35.0	30.4	2690
4 x 50.0*	32.0	3130
4 x 70.0*	38.0	4500
4 x 95.0*	41.7	5600
4 x 120.0	46.0	7400
4 x 150.0*	51.0	8780
4 x 185.0*	55.6	10630
4 x 240.0*	62.0	13390
4 x 300.0*	67.5	16290
4 x 400.0*	76.5	19800
5 x 1.5	14.3	410
5 x 2.5	16.3	470
5 x 4.0	17.8	710
5 x 6.0	20.0	876
5 x 10.0	22.9	1165
5 x 16.0	26.6	1742
5 x 25.0	31.5	2323
5 x 35.0	33.8	2932
5 x 50.0*	40.4	4192
5 x 70.0*	46.3	5336
5 x 95.0*	52.0	7700
7 x 1.5	14.9	508
7 x 2.5	16.8	620
7 x 4.0	19.8	910
7 x 6.0	21.4	1110
7 x 10.0	25.6	1720
12 x 1.5	18.6	855
12 x 2.5	21.5	1088
12 x 4.0	27.6	1550
19 x 1.5	21.0	1120
19 x 2.5	25.8	1574
27 x 1.5	26.8	1635
27 x 2.5	30.2	2050
37 x 1.5	28.8	1970
37 x 2.5	33.8	2540
48 x 1.5	33.9	2390
48 x 2.5	38.8	3430

*Shaped Conductor, All others circular

Core identification chart -

- ● 2 core: Blue - Brown
- ● ● 3 core: Brown - Black - Grey
- ● ● ● 4 core: Blue - Brown - Black - Grey
- ● ● ● ● 5 core: Blue - Brown - Black - Grey - Green/Yellow
- ○ ○ ○ ○ ○ ○ ○ 7-48 core: White cores with black numbers

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Current Rating Table

TABLE 4E4A
Multicore 90°C armoured thermosetting insulated
cables (Copper Conductors)

Ambient temperature : 30°C
 Ground ambient temperature: 20°C
 Conductor operating temperature: 90°C

CURRENT-CARRYING CAPACITY (amperes):

Conductor cross sectional area	Reference Method C (clipped direct)		Reference Method E (in free air or on a perforated cable tray horizontal or vertical)		Reference Method D (direct in ground or in ducting in ground, in or around buildings)	
	1 two core cable, single phase a.c. or d.c.	1 three- or fourcore cable, three-phase a.c.	1 two core cable, single phase a.c. or d.c.	1 three- or fourcore cable, three-phase a.c.	1 two core cable, single phase a.c. or d.c.	1 three- or fourcore cable, three-phase a.c.
1	2	3	4	5	6	7
(mm ²)	(A)	(A)	(A)	(A)	(A)	(A)
1.5	27	23	29	25	25	21
2.5	36	31	39	33	33	28
4	49	42	52	44	43	36
6	62	53	66	56	53	44
10	85	73	90	78	71	58
16	110	94	115	99	91	75
25	146	124	152	131	116	96
35	180	154	188	162	139	115
50	219	187	228	197	164	135
70	279	238	291	251	203	167
95	338	289	354	304	239	197
120	392	335	410	353	271	223
150	451	386	472	406	306	251
185	515	441	539	463	343	281
240	607	520	636	546	395	324
300	698	599	732	628	446	365
400	787	673	847	728	-	-

NOTES

- Where a conductor operates at a temperature exceeding 70°C it must be ascertained that the equipment connected to the conductor is suitable for the conductor operating temperature (see Regulation 512.1.2).
- Where cables in this table are connected to equipment or accessories designed to operate at a temperature not exceeding 70°C, the current ratings given in the equivalent table for 70°C thermoplastic insulated cables (Table 4D4A) must be used (see also Regulation 523.1)

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Current Rating Table

TABLE 4E4B

VOLTAGE DROP (per ampere per metre)

Conductor operating temperature: 90°C

Conductor cross sectional area	Two-core cable, d.c.	Two-core cable, single-phase a.c.			Three- or four-core cable, three-phase a.c.		
	1	2	3			4	
(mm ²)	(mV/A/m)	(mV/A/m)			(mV/A/m)		
1.5	31	31			27		
2.5	19	19			16		
4	12	12			10		
6	7.9	7.9			6.8		
10	4.7	4.7			4.0		
16	2.9	2.9			2.5		
		r	x	z	r	x	z
25	1.85	1.85	0.160	1.90	1.60	0.140	1.65
35	1.35	1.35	0.155	1.35	1.15	0.135	1.15
50	0.98	0.99	0.155	1.00	0.86	0.135	0.87
70	0.67	0.67	0.150	0.69	0.59	0.130	0.60
95	0.49	0.50	0.150	0.52	0.43	0.130	0.45
120	0.39	0.40	0.145	0.42	0.34	0.130	0.37
150	0.31	0.32	0.145	0.35	0.28	0.125	0.30
185	0.25	0.26	0.145	0.29	0.22	0.125	0.26
240	0.195	0.20	0.140	0.24	0.175	0.125	0.21
300	0.155	0.16	0.140	0.21	0.140	0.120	0.185
400	0.120	0.13	0.140	0.190	0.115	0.120	0.165

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