

694-LSH ENHANCED FIRE SAFETY ENERGY CABLE

STANDARD: BS 6724

VOLTAGE RATING: 600/1000V

APPLICATION:

Industrial wiring and mains distribution, where smoke and acid gas emission would pose a major hazard in the event of fire. Can be laid direct in the ground, or in ducts, clipped to surface, on trays or in free air. May be embedded in concrete.

CONSTRUCTION:

Single, Two, Three, Four and Five core cables. Stranded plain copper conductors, XLPE insulated, cores laid up, extruded Zero Halogen, Low Smoke (OHLS®) bedding, galvanised steel wire armoured (Aluminium wires for single cores) and Zero Halogen, Low Smoke (OHLS®) sheathed.

CORE COLOURS:

Single core: Brown or Blue.

Two core: Brown and Blue.

Three core: Brown, Black and Grey.

Four core: Brown, Black, Grey and Blue.

Five core: Brown, Black, Grey, Green/Yellow and Blue.

SHEATH COLOURS: Black. Other colours available to order.

BASEC: Certified

MINIMUM BENDING RADIUS: 6D circular conductors. 8D shaped conductors.

MAXIMUM CONDUCTOR TEMPERATURE: 90°C.

Note: Where a conductor operates at a temperature exceeding 70°C it shall be ascertained that the equipment connected to the conductor is suitable for the conductor operating temperature (see regulation 512-1-2 of BS7671, the 17th Edition of IEE Wiring Regulations).

CURRENT RATING: Refer to table 4E4A or 4E4B of BS7671, ERA69-30 Pt. V or on pages 103-104 and 106-107.

FIRE PERFORMANCE CHARACTERISTICS:

Smoke emission: BSEN 61034

Acid gas emission: IEC 60754-1, BS EN 50267

Flame propagation: BS EN 60332-3 categories A and C

Reference number	Nominal area of conductor	Insulation thickness	Armour wire diameter	Approx. diameter under armour	Approx. overall diameter	Approx. cable weight	Maximum resistance of cable		Reactance @ 50 Hz	Impedance AC @ 90°C	Star capacitance	Maximum armour resistance at 20°C
	mm²	mm	mm	mm	mm	kg/km	Ω/km DC at 20°C	Ω/km AC at 90°C	Ω/km	Ω/km	μF/km	Ω/km
Single	#50	1.0	0.9	12.7	17.5	800	0.3870	0.4938	0.104	0.505	0.41	1.30
Core	#70	1.1	1.25	14.7	20.2	960	0.2680	0.3410	0.101	0.356	0.46	0.75
Aluminium	#95	1.1	1.25	16.6	22.3	1240	0.1930	0.2469	0.097	0.265	0.53	0.67
Wire	#120	1.2	1.25	18.5	24.2	1510	0.1530	0.1962	0.094	0.217	0.56	0.61
Armour	#150	1.4	1.6	20.8	27.4	1900	0.1240	0.1594	0.095	0.186	0.52	0.42
694AWLSH	*185	1.6	1.6	23.2	30.0	2320	0.0991	0.1280	0.093	0.158	0.54	0.38
	*240	1.7	1.6	26.0	32.8	2930	0.0754	0.0985	0.090	0.134	0.59	0.34
	*300	1.8	1.6	28.6	35.6	3580	0.0601	0.0797	0.088	0.119	0.63	0.31
	*400	2.0	2.0	32.4	40.4	4600	0.0470	0.0635	0.089	0.109	0.62	0.22
	*500	2.2	2.0	36.0	44.2	5770	0.0366	0.0513	0.087	0.101	0.66	0.20
	*630	2.4	2.0	40.4	48.8	7250	0.0283	0.0419	0.085	0.095	0.70	0.18
	*800	2.6	2.5	45.6	55.4	9381	0.0221	0.0349	0.087	0.094	0.85	0.13
	*1000	2.8	2.5	50.6	60.6	11540	0.0176	0.0303	0.085	0.090	0.87	0.12



Reference number	Nominal area of conductor	Insulation thickness	Armour wire diameter	Approx. diameter under armour	Approx. overall diameter	Approx. cable weight	Maximum resistance of cable		Reactance @ 50Hz	Impedance AC @ 90°C	Star capacitance	Maximum armour resistance at 20°C
	mm ²	mm	mm	mm	mm	kg/km	DC at 20°C	AC at 90°C	Ω/km	Ω/km	μF/km	Ω/km
Two	*1.5	0.6	0.9	7.3	12.3	305	12.1000	15.4280	0.104	15.428	0.23	10.20
Core	*2.5	0.7	0.9	8.5	13.6	354	7.4100	9.4480	0.101	9.449	0.25	8.80
Steel	*4	0.7	0.9	9.4	14.7	416	4.6100	5.8780	0.099	5.879	0.27	7.90
Wire	*6	0.7	0.9	10.5	15.9	507	3.0800	3.9270	0.094	3.927	0.30	7.00
Armour	#10	0.7	0.9	12.3	18.0	647	1.8300	2.3330	0.093	2.335	0.32	6.00
6942LSH	#16	0.7	1.25	14.9	20.4	993	1.1500	1.4660	0.088	1.469	0.35	3.70
	25	0.9	1.25	14.7	20.4	1290	0.7270	0.9260	0.082	0.930	0.38	3.70
	35	0.9	1.6	16.8	23.3	1500	0.5240	0.6685	0.077	0.673	0.42	2.60
	50	1.0	1.6	19.0	25.8	1890	0.3870	0.4940	0.076	0.500	0.45	2.30
	70	1.1	1.6	22.0	29.0	2450	0.2680	0.3412	0.075	0.349	0.49	2.00
	95	1.1	2.0	25.1	33.1	3300	0.1930	0.2471	0.074	0.258	0.55	1.40
	120	1.2	2.0	27.9	36.1	4020	0.1530	0.1964	0.072	0.209	0.57	1.30
	150	1.4	2.0	30.9	39.3	4750	0.1240	0.1597	0.073	0.176	0.57	1.20
	185	1.6	2.5	34.9	44.7	6180	0.0991	0.1284	0.073	0.148	0.55	0.82
	240	1.7	2.5	39.0	49.0	7570	0.0754	0.0989	0.072	0.122	0.60	0.73
	300	1.8	2.5	43.3	53.5	9180	0.0601	0.0801	0.072	0.107	0.62	0.67
	400	2.0	2.5	48.4	59.0	10500	0.0470	0.0641	0.071	0.096	0.64	0.59

Three	*1.5	0.6	0.9	7.8	12.6	335	12.1000	15.4280	0.104	15.428	0.23	9.50
Core	*2.5	0.7	0.9	9.2	14.1	388	7.4100	9.4480	0.101	9.449	0.25	8.20
Steel	*4	0.7	0.9	10.0	15.3	471	4.6100	5.8780	0.099	5.879	0.27	7.50
Wire	*6	0.7	0.9	11.2	16.6	576	3.0800	3.9270	0.094	3.928	0.30	6.70
Armour	#10	0.7	1.25	13.1	19.5	884	1.8300	2.3330	0.093	2.335	0.32	4.00
6943LSH	#16	0.7	1.25	15.3	21.6	1159	1.1500	1.4660	0.088	1.469	0.35	3.50
	#25	0.9	1.6	18.9	25.5	1800	0.7270	0.9260	0.082	0.930	0.37	2.50
	#35	0.9	1.6	21.3	28.0	2230	0.5240	0.6685	0.077	0.673	0.42	2.30
	50	1.0	1.6	21.7	28.5	2490	0.3870	0.4940	0.076	0.500	0.45	2.00
	70	1.1	1.6	25.2	32.2	3290	0.2680	0.3412	0.075	0.349	0.49	1.80
	95	1.1	2.0	28.8	37.0	4440	0.1930	0.2471	0.074	0.258	0.55	1.30
	120	1.2	2.0	32.0	40.4	5470	0.1530	0.1964	0.072	0.209	0.57	1.20
	150	1.4	2.5	35.9	45.5	6930	0.1240	0.1597	0.073	0.176	0.55	0.78
	185	1.6	2.5	40.0	49.8	8350	0.0991	0.1284	0.073	0.148	0.55	0.71
	240	1.7	2.5	44.9	55.1	10400	0.0754	0.0989	0.072	0.122	0.60	0.63
	300	1.8	2.5	49.8	60.2	12600	0.0601	0.0801	0.072	0.107	0.62	0.58
	400	2.0	2.5	55.8	66.6	14600	0.0470	0.0641	0.071	0.096	0.64	0.52

Four	*1.5	0.6	0.9	8.5	13.5	365	12.1000	15.4280	0.104	15.428	0.23	8.80
Core	*2.5	0.7	0.9	9.9	15.0	438	7.4100	9.4480	0.101	9.449	0.25	7.70
Steel	*4	0.7	0.9	11.0	16.4	532	4.6100	5.8780	0.099	5.879	0.27	6.80
Wire	*6	0.7	1.25	12.3	18.7	764	3.0800	3.9270	0.094	3.928	0.30	4.30
Armour	#10	0.7	1.25	14.5	21.1	1013	1.8300	2.3330	0.093	2.336	0.32	3.70
6944LSH	#16	0.7	1.25	17.0	22.9	1360	1.1500	1.4660	0.088	1.469	0.35	3.10
	#25	0.9	1.6	21.0	27.6	2160	0.7270	0.9260	0.082	0.930	0.37	2.30
	#35	0.9	1.6	23.6	30.4	2690	0.5240	0.6685	0.077	0.673	0.42	2.00
	50	1.0	1.6	25.0	32.0	3130	0.3870	0.4940	0.076	0.500	0.45	1.80
	70	1.1	2.0	29.5	37.7	4500	0.2680	0.3412	0.075	0.349	0.48	1.20
	95	1.1	2.0	33.3	41.7	5600	0.1930	0.2471	0.074	0.258	0.55	1.10
	120	1.2	2.5	37.5	47.1	7400	0.1530	0.1964	0.072	0.209	0.55	0.76
	150	1.4	2.5	41.6	51.4	8780	0.1240	0.1597	0.073	0.176	0.55	0.68
	185	1.6	2.5	46.4	56.6	10630	0.0991	0.1284	0.073	0.148	0.55	0.61
	240	1.7	2.5	52.6	63.0	13390	0.0754	0.0989	0.072	0.122	0.58	0.54
	300	1.8	2.5	58.0	68.8	16290	0.0601	0.0801	0.072	0.107	0.62	0.49
	400	2.0	3.15	65.4	78.1	19800	0.0470	0.0641	0.071	0.096	0.63	0.35

Five	*1.5	0.6	0.9	9.7	14.3	410	12.1000	15.4280	0.104	15.428	0.23	8.20
Core	*2.5	0.7	0.9	11.7	16.3	470	7.4100	9.4480	0.101	9.449	0.25	6.80
Steel	*4	0.7	0.9	13.0	17.8	710	4.6100	5.8780	0.099	5.879	0.27	6.20
Wire	*6	0.7	1.25	14.5	20.0	876	3.0800	3.9270	0.094	3.928	0.30	3.90
Armour	#10	0.7	1.25	17.2	22.9	1165	1.8300	2.3330	0.093	2.336	0.32	3.40
6945LSH	#16	0.7	1.6	20.0	26.6	1742	1.1500	1.4660	0.088	1.469	0.35	2.20
	#25	0.9	1.6	24.7	31.5	2323	0.7270	0.9260	0.082	0.930	0.37	1.80
	#35	0.9	1.6	27.8	34.8	2932	0.5240	0.6685	0.077	0.673	0.42	1.60
	#50	1.0	2.0	32.4	40.4	4192	0.3870	0.4940	0.076	0.500	0.45	1.10
	#70	1.1	2.0	37.9	46.3	5336	0.2680	0.3412	0.075	0.349	0.48	0.90

Shaped conductors unless otherwise stated. * Circular, non-compacted, conductors. # Compacted circular conductors.