



Standard Power Cables BS6724 Low Voltage(600/1000V)



Cable Approvals:	Cable approved to BS6724
Conductor:	Plain annealed copper stranded (Class 2) conductor for ease of handling
Insulation:	90°C cross-linked XLPE insulation
Core Identification:	blue-brown brown-black-grey blue-brown-black-grey blue-brown-black-grey-green/yellow 7 - 48 cores white with printed numbers
Bedding:	Extruded Afumex bedding compound
Outer Sheath:	Robust Afumex sheath Colour - black. Other colours to special order
Armour:	Single layer of galvanised steel wires Aluminium wires on single core

Single phase AC spaced voltage drop: Values are for spacing up to one cable diameter.

Insulation methods for current in accordance with BS7671/IEE Wiring Regulations

Current Ratings: The tabulated ratings are based upon a 30°C ambient temperature and 90°C operating temperature. For other ambient temperatures or where cables are grouped together, the rating factors listed should be applied.

Nominal cross sectional area mm ²	Approx. overall diameter mm	Approximate cable weight Kg/Km	Nominal Dia.of armour wires mm	Approx cable weight Kg/km	Max. conductor resistance @20°C Oh ms/km	Conductor Short circuit rating (1 sec) KA	Current Rating		Volt drop single phase AC spaced mV/A/m	Volt drop Three phase AC trefoil mV/A/m
							Three phase AC clipped direct Amps	Three phase AC free air Amps		
Single Core										
150	28.43	21.39	1.6	1991.65	0.1240	21.4	566	463	0.45	0.33
185	30.96	23.72	1.6	2424.05	0.0991	26.4	643	529	0.40	0.28
240	33.65	26.41	1.6	3019.05	0.0754	34.3	749	625	0.35	0.24
300	36.53	29.09	1.6	3670.29	0.0601	42.9	842	720	0.32	0.21
400	41.30	32.86	2.0	4732.86	0.0470	57.2	929	815	0.30	0.195
500	45.27	36.63	2.0	5892.26	0.0366	71.5	1032	918	0.29	0.18
630	49.47	40.63	2.0	7315.95	0.0283	90.1	1139	1027	0.27	0.17
800	55.89	45.65	2.5	9394.79	0.0221	114	1204	1119	0.27	0.165
1000	59.36	48.92	2.5	11315.45	0.0176	143	1289	1214	0.25	0.155

*Shaped conductors, all others are Circular conductors

Nominal cross sectional area mm ²	Approx. overall diameter mm	Approx. diameter under armour mm	Nominal diameter of armour wires mm	Approx cable weight Kg/km	Max. conductor resistance @20°C Oh ms/km	Current Rating			Volt drop single phase AC touching Mv/A/m
						DC or single phase AC clipped direct Amps	DC or single phase AC free air Amps	Volt drop DC mV/A/m	
Two Core									
1.5	14.56	9.72	0.9	406.94	12.1	27	29	31	31
2.5	16.12	11.08	0.9	485.94	7.41	36	39	19	19
4	17.14	12.10	0.9	557.73	4.61	49	52	12	12
6	18.28	13.24	0.9	637.75	3.08	62	66	7.9	7.9
10	20.28	15.04	0.9	789.13	1.83	85	90	4.7	4.7
16	23.02	17.08	1.25	1114.53	1.15	110	115	2.9	2.9
25*	26.66	20.52	1.25	1483.74	0.727	146	152	1.85	1.9
35*	30.06	23.02	1.6	1982.62	0.524	180	188	1.35	1.35
50*	27.72	20.48	1.6	2087.77	0.387	219	228	0.98	1.0
70*	30.72	23.28	1.6	2632.72	0.268	279	291	0.67	0.69
95*	34.72	26.28	2.0	3557.08	0.193	338	354	0.49	0.52
120*	36.52	27.88	2.0	4097.23	0.153	392	410	0.39	0.42
150*	42.52	33.68	2.0	5115.07	0.124	451	472	0.31	0.35
185*	46.02	35.78	2.5	6366.97	0.0991	515	539	0.25	0.29
240*	48.02	37.58	2.5	7586.04	0.0754	607	636	0.195	0.24
300*	56.02	45.38	2.5	9479.36	0.0601	698	732	0.155	0.21
400*	65.62	54.58	2.5	12095.70	0.047	787	847	0.12	0.19
Seven Core									
1.5	18.42	13.38	0.9	658.46	12.1	27	29	31	31
2.5	20.46	15.42	0.9	820.62	7.41	36	39	19	19
4	22.89	16.95	1.25	1128.67	4.61	49	52	12	12
Twelve Core									
1.5	23.54	17.60	1.25	1083.11	12.1	27	29	31	31
2.5	26.57	20.43	1.25	1361.79	7.41	36	39	19	19
4	29.59	22.75	1.6	1842.45	4.61	49	52	12	12
Nineteen Core									
1.5	26.84	20.70	1.25	1379.73	12.1	27	29	31	31
2.5	31.34	24.30	1.6	1988.03	7.41	36	39	19	19
Twenty-seven Core									
1.5	32.16	25.12	1.6	1976.21	12.1	27	29	31	31
2.5	36.75	29.51	1.6	2579.31	7.41	36	39	19	19
Thirty Seven Core									
1.5	35.26	28.22	1.6	2382.65	12.1	27	29	31	31
2.5	40.42	33.18	1.6	3145.16	7.41	36	39	19	19

*Shaped conductors, all others are Circular conductors

7,12,19,27,&48 core current ratings: The tabulated rating is as a two core and may be used where the number of cores carrying current does not exceed the square root of the total number of cores.

Nominal cross sectional area mm ²	Approx. overall diameter mm	Approximate cable weight Kg/Km	Nominal Dia.of armour wires mm	Approx cable weight Kg/km	Max. conductor resistance @20°C Oh ms/km	Conductor Short circuit rating (1 sec) KA	Current Rating		Volt drop Three phase AC trefoil mV/A/m
							Three phase AC clipped direct Amps	Three phase AC free air Amps	
Three Core									
1.5	15.12	10.28	0.9	449.32	12.1	0.20	23	25	27
2.5	16.79	11.75	0.9	542.40	7.41	0.35	31	33	16
4	17.89	12.85	0.9	630.54	4.61	0.57	42	44	10
6	19.11	14.07	0.9	737.35	3.08	0.86	53	56	6.8
10	21.95	16.01	1.25	1062.08	1.83	1.4	73	78	4
16	24.35	18.21	1.25	1334.76	1.15	2.2	94	99	2.5
25	29.16	22.12	1.6	1996.84	0.727	3.6	124	131	1.65
35	31.83	24.59	1.6	2416.26	0.524	5.0	154	162	1.15
50*	31.02	23.78	1.6	2697.42	0.387	7.1	187	197	0.87
70*	34.18	26.74	1.6	3434.54	0.268	10.0	238	251	0.6
95*	40.74	32.10	2	4777.31	0.193	13.6	289	304	0.45
120*	42.84	34.00	2	5529.76	0.153	17.2	335	353	0.37
150*	49.08	39.04	2.5	7189.97	0.124	21.4	386	406	0.3
185*	52.24	42.00	2.5	8452.27	0.0991	26.5	441	463	0.26
240*	57.70	47.06	2.5	10473.46	0.0754	34.3	520	546	0.21
300*	62.52	51.68	2.5	12579.28	0.0601	42.9	599	628	0.185
400*	78.84	67.60	2.5	16523.75	0.047	57.2	673	728	0.165

Nominal cross sectional area mm ²	Approx. overall diameter mm	Approximate cable weight Kg/Km	Nominal Dia.of armour wires mm	Approx cable weight Kg/km	Max. conductor resistance @20°C Oh ms/km	Conductor Short circuit rating (1 sec) KA	Current Rating		Volt drop Three phase AC trefoil mV/A/m
							Three phase AC clipped direct Amps	Three phase AC free air Amps	
Four Core									
1.5	16.08	11.24	0.9	505.62	12.1	0.20	23	25	27
2.5	17.92	12.88	0.9	620.44	7.41	0.35	31	33	16
4	19.15	14.11	0.9	726.78	4.61	0.57	42	44	10
6	21.42	15.48	1.25	992.67	3.08	0.86	53	56	6.8
10	23.59	17.65	1.25	1243.84	1.83	1.4	73	78	4
16	26.25	20.11	1.25	1588.41	1.15	2.2	94	99	2.5
25	31.51	24.47	1.6	2372.47	0.727	3.6	124	131	1.65
35	34.49	27.25	1.6	2910.20	0.524	5.0	154	162	1.15
50*	35.93	28.49	1.6	3432.35	0.387	7.1	187	197	0.87
70*	42.14	33.50	2.0	4850.60	0.268	10.0	238	251	0.60
95*	47.06	38.22	2.0	6112.47	0.193	13.6	289	304	0.45
120*	51.38	41.34	2.5	7673.06	0.153	17.2	335	353	0.37
150*	56.30	46.06	2.5	9127.05	0.124	21.4	386	406	0.30
185*	62.90	52.26	2.5	10983.74	0.0991	26.5	441	463	0.26
240*	69.94	59.10	2.5	13765.42	0.0754	34.3	520	546	0.21
300*	76.79	65.55	2.5	16568.85	0.0601	42.9	599	628	0.185
400*	86.28	73.14	3.15	21687.09	0.047	57.2	673	728	0.165

Nominal cross sectional area mm ²	Approx. overall diameter mm	Approximate cable weight Kg/Km	Nominal Dia. of armour wires mm	Approx cable weight Kg/km	Max. conductor resistance @20°C Oh ms/km	Conductor Short circuit rating (1 sec) KA	Current Rating		Volt drop Three phase AC trefoil mV/A/m
							Three phase AC clipped direct Amps	Three phase AC free air Amps	
FI Core									
1.5	17.32	12.28	0.9	569.37	12.1	0.20	23	25	27
2.5	19.16	14.12	0.9	697.09	7.41	0.35	31	33	16
4	20.74	15.50	1.25	836.11	4.61	0.57	42	44	10
6	22.97	17.03	1.25	1129.99	3.08	0.86	53	56	6.8
10	25.60	19.46	1.25	1434.28	1.83	1.4	73	78	40
16	29.45	22.41	1.6	2036.17	1.15	2.2	94	99	2.5
25	34.30	27.06	1.6	2772.44	0.727	3.6	124	131	1.65
35	37.61	30.17	1.6	3427.52	0.524	5.0	154	162	1.15

Temperature rating factors

Ambient Temperature°C	15	30	35	40	45	50	55	60
Rating factor	1.2	1.00	0.95	0.91	0.87	0.85	0.76	0.71

Number of Circuits	2	3	4	5	6	7	8	9
Single layer clipped direct(touching)	0.85	0.79	0.75	0.73	0.72	0.71	0.71	0.70
Single layer clipped direct (spaced*)	0.94	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Single layer/perf.cab.tray Horz. Or Vert. (touching)	0.86	0.81	0.77	0.75	0.74	0.73	0.73	0.72
Single layer / perf.cab.tray Horz Or Vert.(spaced*)	0.91	0.89	0.88	0.87	0.87	-	-	-

Note: The factors in this table are applicable to groups of cables of one size. If, due to known operating conditions, a cable is expected to carry not more than 30% of its grouped rating, it may be ignored for the purposes of obtaining the rating factor the rest of the group.

When cables having differing conductor operating temperatures are grouped together, the current rating shall be based upon the lowest operating temperature in the group.

*Spaced by a clearance between adjacent surfaces of at least one cable diameter. Where the horizontal clearances between adjacent cables exceeds 2 cable diameters no correction factor need be applied.

If current rating in group/duct is required then reference should be made to ERA69-30 part V. Alternatively ratings are as BS5467 cables.