



BS6724 SWA/LSZH Cable IEC 60502 600/1000V

Applications:	Power cable suitable for power networks, where fire emission of smoke and toxic fumes creates a serious potential threat. Suitable for direct burial. Armoured LSZH mains cable to British Standard BS6724 & IEC60502 suitable for power networks. The cable are suitable for use in hazardous areas when fitted with the applicable rated cable glands chosen by the installer based on the applicable conditions. Only in cases in which all the accessories and machinery connected is also suitable for these environments.
Conductor identification:	Two Core – Brown, Blue Three Core – Brown, Black & Grey (Optional: Brown, Blue & Green/Yellow) Four Core – Brown, Black, Grey & Blue (Optional: Brown, Black, Grey & Green/Yellow) Five Core – Numbered Cores (Optional: Brown, Black, Grey, Blue + Green/Yellow) Six Core and Above – Numbered Cores (optional numbered + Green and Yellow)
Conductor stranding:	Class 2 stranded copper: 2 circular or circular compacted conductors 2* shaped or circular conductors or circular compacted conductors. 2S shaped conductors (Dimensions and weights based on circular)
Conductors:	Plain annealed stranded copper
Insulation:	XLPE (Cross linked polyethylene)
Bedding:	LSZH (Low smoke zero halogen)
Armour/Protection:	SWA (Galvanised single wire armour)
Sheath/Jacket:	LSZH (Low smoke zero halogen)
Colour:	Black
Voltage:	600/1000v
Operating temperature:	Maximum 90°C. Minimum bending 0°C
Minimum bending radius:	1.5 sq.mm – 16 sq.mm –6 x overall diameter (circular cond.) 25 sq.mm and above – 8 x overall diameter (shaped cond.)
Standards:	BS6724: Electric cables. Thermosetting insulated, armoured cables for voltages of 600/1000V and 1900/3300V, having low emission of smoke and corrosive gases when affected by fire BSEN50267-1 Common test methods for cables under fire conditions. Tests on gases evolved during combustion of materials from cables. Apparatus BSEN50267-2-1: Common test methods for cables under fire conditions. Tests on gases evolved during combustion of materials from cables. Procedures. Determination of the amount of halogen acid gas BSEN50266-1 Common test methods for cables under fire conditions. Test for vertical flame spread of vertically-mounted bunched wires or cables IEC60502: Power cables with extruded insulation and their accessories for rated voltages from 1kV to 30kV BSEN/IEC60332-1-2: Tests on electric and optical fibre cables under fire conditions Part 1: test for vertical flame propagation for a single insulated wire or cable Section 2: procedure for 1kW pre-mixed flame BSEN61034-2: 2005 Measurement of smoke density of cables burned under defined conditions. Test procedure and requirements Flame Propagation Test to BS EN 60332-1-2: 2004 for single cable and BS EN 60332-3-24: 2009 (Cat C) for multiple cables
Notes:	If you are considering installing in high UV exposure and/or high/low ambient temperatures i.e. desert/arctic conditions then special sheathing may be required





TWO CORE: REF 6942 XWL

Size Sq.mm	Class of conductor	RT of insulation	Diameter over laid up cores mm	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	0.6	6.0	0.8	7.7	0.9	9.6	12.3	300	55131	-	20S	88344
2.5	2	0.7	6.8	0.8	8.5	0.9	10.4	13.6	360	55132	-	20S	88344
4	2	0.7	7.9	0.8	9.7	0.9	11.6	14.7	420	55134	-	20S	88344
6	2	0.7	9.1	0.8	10.7	0.9	12.6	15.9	500	55145	-	20S	88344
10	2	0.7	10.9	0.8	12.7	0.9	14.6	18.0	650	55147	-	20	88345
16	2	0.7	12.9	0.8	14.5	1.25	17.0	20.0	910	55149	-	25	88346
25	2*	0.9	16.8	0.8	18.4	1.25	20.9	24.1	1060	56428	-	25	88346
35	2*	0.9	19.3	1.0	21.3	1.6	24.5	27.9	1480	56429	-	32	88283
50	2S	1.0	17.0	1.0	19.0	1.6	22.2	25.8	1800	56430	-	25	88346
70	2S	1.1	20.0	1.0	22.0	1.6	25.2	29.0	2300	56431	-	32	88283
95	2S	1.1	22.7	1.2	25.1	2.0	29.1	33.1	3170	56432	-	32	88283
120	2S	1.2	25.5	1.2	27.9	2.0	31.9	36.1	3800	56433	-	40	88284
150	2S	1.4	28.5	1.2	30.9	2.0	34.9	39.3	4500	56434	-	40	88284
185	2S	1.6	32.1	1.4	34.9	2.5	39.9	44.7	5800	56435	-	50S	88349
240	2S	1.7	36.2	1.4	39.0	2.5	44.0	59.0	7280	56436	-	50	88350
300	2S	1.8	40.1	1.6	43.3	2.5	48.3	53.5	8750	56437	-	50	88350
400	2S	2.0	45.2	1.6	48.4	2.5	53.4	59.0	10700	56438	-	63	88352

THREE CORE: REF 6943 XWL

Size Sq.mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	0.8	8.2	0.9	10.1	12.8	341	55151	55264	20S	88344
2.5	2	0.8	9.1	0.9	11.0	14.1	405	55154	55170	20S	88344
4	2	0.8	10.4	0.9	12.3	15.3	495	55155	55179	20S	88344
6	2	0.8	11.5	0.9	13.4	16.6	600	55159	55171	20	88345
10	2	0.8	13.7	1.25	16.4	19.5	900	55160	55291	20	88345
16	2	0.8	15.5	1.25	18.0	21.2	1080	55161	55372	25	88346
25	2*	1.0	20.1	1.6	23.3	26.7	1750	56474	-	25	88346
35	2*	1.0	22.8	1.6	26.0	29.6	2100	56475	56747	32	88283
50	2S	1.0	21.7	1.6	24.9	28.5	2350	56476	-	32	88283
70	2S	1.0	25.2	1.6	28.4	32.2	3150	56477	-	32	88283
95	2S	1.2	28.8	2.0	32.8	37.0	4300	56478	-	40	88284
120	2S	1.2	32.0	2.0	36.0	40.4	5250	56479	-	40	88284
150	2S	1.4	35.9	2.5	40.9	45.5	6720	56480	-	50S	88349
185	2S	1.4	40.0	2.5	45.0	49.8	8040	56481	-	50	88350
240	2S	1.4	44.9	2.5	49.9	55.1	10150	56482	-	63	88352
300	2S	1.6	49.8	2.5	54.8	60.2	12320	56483	-	63	88352
400	2S	1.6	55.4	2.5	60.6	66.6	15090	56484	-	75S	88354



FOUR CORE: REF 6944 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	0.8	9.0	0.9	10.9	13.5	390	55162	55321	20S	88344
2.5	2	0.8	10.0	0.9	11.9	15.0	465	55175	55322	20S	88344
4	2	0.8	11.5	0.9	13.4	16.4	579	55193	55327	20	88345
6	2	0.8	12.7	0.9	15.3	18.7	820	55194	55333	20	88345
10	2	0.8	15.1	1.25	17.6	21.1	1090	55195	55334	25	88346
16	2	0.8	17.2	1.25	19.7	22.9	1400	55196	55277	25	88346
25	2*	1.0	22.3	1.6	25.5	28.9	2100	56496	56755*	32	88283
35	2*	1.0	25.3	1.6	28.5	32.1	2580	56497	56774*	32	88283
50	2S	1.0	25.0	1.6	28.2	32.0	3000	56498	-	32	88283
70	2S	1.2	29.5	2.0	33.5	37.7	4300	56499	56823*	40	88284
95	2S	1.2	33.3	2.0	37.3	41.7	5510	56500	-	50S	88349
120	2S	1.4	37.5	2.0	42.5	47.1	7150	56501	56775*	50	88350
150	2S	1.4	41.6	2.5	46.6	51.4	8500	56502	-	50	88350
185	2S	1.4	46.4	2.5	51.4	56.6	10300	56503	-	63	88352
240	2S	1.6	52.6	2.5	57.6	63.0	13000	56504	-	63	88352
300	2S	1.6	58.0	2.5	63.0	68.8	15750	56505	-	75S	88353
400	2S	1.8	64.8	3.15	71.3	78.1	20450	56506	-	75	88354

*Core colours are brown, black, grey and green/yellow

FIVE CORE: REF 6945 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	0.8	9.9	0.9	11.8	14.2	433	55158	55274	20S	88344
2.5	2	0.8	11.0	0.9	12.9	16.0	530	55507	55278	20S	88344
4	2	0.8	12.7	1.25	15.3	18.4	775	55509	55275	20	88345
6	2	0.8	14.0	1.25	16.6	19.7	929	55512	55318	20	88345
10	2	1.0	17.1	1.25	19.7	23.2	1300	55478	55319	25	88346
16	2	1.0	19.8	1.6	23.1	26.6	1880	55203	55339	25	88346
25	2	1.0	24.5	1.6	27.8	31.7	2670	56214	56674	32	88283
35	2	1.2	26	1.6	29.6	32.8	2950	56219	56695	-	-
50	2	1.2	26	1.6	29.6	32.8	2950	56352	56696	-	-
70	2	1.2	30	2	34.4	37.8	3827	56403	56697	-	-
95	2	1.2	34.9	2	39.3	43.1	5101	56561	-	-	-
120	2	1.4	39.4	2.5	44.8	48.8	7333	56404	-	-	-
150	2	1.4	43.7	2.5	49.1	53.5	8920	56386	-	-	-
185	2	1.4	48.5	2.5	53.4	58.5	10693	56617	-	-	-
240	2	1.6	-	2.5	-	75	16800	56618	-	-	-

SIX CORE: REF 6946 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	0.8	10.9	0.9	12.8	15.2	497	-	-	20S	88344
2.5	2	0.8	12.1	0.9	14.0	17.1	609	-	-	20	88345
4	2	0.8	13.9	0.9	16.5	19.7	886	-	-	20	88345
6	2	0.8	15.4	1.25	18.0	21.3	1070	-	-	20	88345
10	2	1.0	18.8	1.6	22.1	25.6	1650	-	-	25	88346
16	2	1.0	21.8	1.6	25.1	28.8	2190	-	-	32	88283
25	2	1.0	26.9	1.6	30.2	34.1	3090	-	-	40	88284



SEVEN CORE: REF 6947 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	0.8	10.9	0.9	12.8	15.2	506	55157	-	205	88344
2.5	2	0.8	12.1	0.9	14.0	17.1	618	55364	-	20	88345
4	2	0.8	13.9	1.25	16.5	19.7	907	55510	-	20	88345
6	2	0.8	15.4	1.25	18.0	21.3	1110	55052	-	25	88346
10	2	1.0	18.8	1.25	22.1	25.6	1720	55137	-	25	88346
16	2	1.0	21.8	1.6	25.1	28.8	2300	55167	-	32	88283

EIGHT CORE: REF 6948 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	0.8	11.9	1.25	14.5	17.6	663	55381	-	20	88345
2.5	2	0.8	13.1	1.25	15.7	18.8	793	55025	-	20	88345
4	2	0.8	15.3	1.25	17.9	21.2	1030	55519	-	25	88346
6	2	1.0	17.3	1.6	20.6	24.1	1440	-	-	25	88346
10	2	1.0	20.7	1.6	24.0	27.7	1960	-	-	32	88283

TEN CORE: REF 694/10 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	0.8	13.9	1.25	16.5	19.8	812	55208	-	20	88345
2.5	2	0.8	15.5	1.25	18.1	21.4	989	-	-	25	88346
4	2	1.0	18.3	1.6	21.6	25.1	1410	-	-	25	88346
6	2	1.0	20.3	1.6	23.6	27.3	1680	-	-	32	88283

TWELVE CORE: REF 694/12 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	0.8	14.3	1.25	16.9	19.4	854	55166	55356	25	88346
2.5	2	0.8	16.0	1.25	18.6	22.4	1080	55352	-	25	88346
4	2	1.0	18.9	1.6	22.2	27.7	1550	55511	-	25	88346
6	2	1.0	21.0	1.6	24.3	28.0	1920	-	-	32	88283

SIXTEEN CORE: REF 694/16 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	0.8	16.0	1.25	18.6	21.9	1020	-	-	25	88346
2.5	2	0.8	18.2	1.6	21.5	25.0	1430	-	-	25	88346
4	2	1.0	22.1	1.6	25.4	29.1	1950	-	-	32	88283
6	2	1.0	23.4	1.6	26.7	30.4	2300	-	-	32	88283



NINETEEN CORE: REF 694/19 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	1.0	17.3	1.25	19.9	23.2	1120	55451	-	25	88346
2.5	2	1.0	19.3	1.6	22.6	26.1	1570	55363	-	25	88346
4	2	1.0	22.3	1.6	25.6	29.3	2050	55051	-	32	88283

TWENTY TWO CORE: REF 694/22 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	1.0	20.3	1.6	23.6	27.3	1560	-	-	32	88283
2.5	2	1.0	22.7	1.6	26.0	29.7	1930	-	-	32	88283
4	2	1.0	26.3	1.6	29.6	33.5	2530	-	-	40	88284

TWENTY SEVEN CORE: REF 694/27 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	1.0	20.7	1.6	24.0	27.9	1630	55504	-	32	88283
2.5	2	1.0	23.2	1.6	26.5	30.2	2050	55353	-	32	88283
4	2	1.0	26.9	1.6	30.2	34.4	2740	55231	-	40	88284

THIRTY CORE: REF 694/30 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	1.0	21.5	1.6	24.8	28.5	1730	-	-	32	88283
2.5	2	1.0	24.1	1.6	27.4	31.3	2200	-	-	32	88283

THIRTY SEVEN CORE: REF 694/37 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	1.0	23.3	1.6	26.6	30.6	1970	55505	-	32	88283
2.5	2	1.0	26.1	1.6	29.4	33.8	2540	55355	-	40	88284

FORTY CORE: REF 694/40 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	1.0	24.3	1.6	27.6	31.5	2080	-	-	32	88283
2.5	2	1.0	27.7	1.6	31.8	35.9	2970	-	-	40	88284

FORTY EIGHT CORE: REF 694/48 XWL

Size Sq. mm	Class of conductor	RT of bedding mm	Diameter over bedding mm	Diameter of armour wire mm	Diameter over armour mm	Approx overall diameter mm	Weight kg/km	BATT CABLES part no	BATT CABLES part no – Green and Yellow Core	BW Gland size/ type	Gland part no
1.5	2	1.0	26.7	1.6	30.0	33.9	2390	55506	-	40	88284
2.5	2	1.0	30.4	2.0	34.5	38.8	3430	55508	-	40	88284



Technical Information

Single Core

Size	Max conductor resistance at 20°C Ohms/km	Conductor short circuit rating (1 sec) kA	Current Rating – Single phase AC horizontal flat speed free air Amps	Current Rating – Three phase AC trefoil touching free air Amps	Volt drop single phase AC spaced mV/A/m	Volt drop three phase AC trefoil mV/A/m
150	0.1240	21.4	566	463	0.45	0.33
185	0.0991	26.4	643	529	0.40	0.28
240	0.0754	34.3	749	625	0.35	0.24
300	0.0601	42.9	842	720	0.32	0.21
400	0.0470	57.2	929	815	0.30	0.195
500	0.0366	71.5	1032	918	0.29	0.18
630	0.0283	90.1	1139	1027	0.27	0.17
800	0.0221	114	1204	1119	0.27	0.165
1000	0.176	143	1289	1214	0.25	0.155

Two Core

Size	Max conductor resistance at 20°C Ohms/km	Current Rating – DC or single phase AC clipped direct Amps	Current Rating – DC or single phase AC free air – Amps	Volt drop DC mV/A/m	Volt drop single phase AC touching mV/A/m
1.5	12.1	27	29	31	31
2.5	7.41	36	39	19	19
4	4.61	49	52	12	12
6	3.08	62	66	7.9	7.9
10	1.83	85	90	4.7	4.7
16	1.15	110	115	2.9	2.9
25	0.727	146	152	1.85	1.9
35	0.524	180	188	1.35	1.35
50*	0.387	219	228	0.98	1.0
70*	0.268	279	291	0.67	0.69
95*	0.193	338	354	0.49	0.52
120*	0.153	392	410	0.39	0.42
150*	0.124	451	472	0.31	0.35
185*	0.00991	515	539	0.25	0.29
240*	0.0754	607	636	0.195	0.24
300*	0.0601	698	732	0.155	0.21
400*	0.047	787	847	0.12	0.19

Three Core

Size	Max conductor resistance at 20°C Ohms/km	Conductor short circuit rating (1 sec) kA	Current Rating – Single phase AC horizontal flat speed free air Amps	Current Rating – Three phase AC trefoil touching free air Amps	Volt drop three phase AC trefoil mV/A/m
1.5	12.1	0.20	23	25	27
2.5	7.41	0.35	31	33	16
4	4.61	0.57	42	44	10
6	3.08	0.86	53	56	6.8
10	1.83	1.4	73	78	4
16	1.15	2.2	94	99	2.5
25	0.727	3.6	124	131	1.65
35	0.524	5.0	152	162	1.15
50*	0.387	7.1	187	197	0.87
70*	0.268	10.0	238	251	0.6
95*	0.193	13.6	289	304	0.45
120*	0.153	17.2	335	353	0.37
150*	0.124	21.4	386	406	0.3
185*	0.00991	26.5	441	463	0.26
240*	0.0754	34.3	520	546	0.21
300*	0.0601	42.9	599	628	0.185
400*	0.047	57.2	673	728	0.165



Four Core

Size	Max conductor resistance at 20°C Ohms/km	Conductor short circuit rating (1 sec) kA	Current Rating – Single phase AC horizontal flat speed free air Amps	Current Rating – Three phase AC trefoil touching free air Amps	Volt drop three phase AC trefoil mV/A/m
1.5	12.1	0.20	23	25	27
2.5	7.41	0.35	31	33	16
4	4.61	0.57	42	44	10
6	3.08	0.86	53	56	6.8
10	1.83	1.4	73	78	4
16	1.15	2.2	94	99	2.5
25	0.727	3.6	124	131	1.65
35	0.524	5.0	152	162	1.15
50*	0.387	7.1	187	197	0.87
70*	0.268	10.0	238	251	0.6
95*	0.193	13.6	289	304	0.45
120*	0.153	17.2	335	353	0.37
150*	0.124	21.4	386	406	0.3
185*	0.00991	26.5	441	463	0.26
240*	0.0754	34.3	520	546	0.21
300*	0.0601	42.9	599	628	0.185
400*	0.047	57.2	673	728	0.165

*shaped conductors, all others are circular conductors

Five Core

Size	Max conductor resistance at 20°C Ohms/km	Conductor short circuit rating (1 sec) kA	Current Rating – Single phase AC horizontal flat speed free air Amps	Current Rating – Three phase AC trefoil touching free air Amps at 40°C	Volt drop three phase AC trefoil mV/A/m
1.5	12.1	0.20	23	25	27
2.5	7.41	0.35	31	33	16
4	4.61	0.57	42	44	10
6	3.08	0.86	53	56	6.8
10	1.83	1.4	73	78	4
16	1.15	2.2	94	99	2.5
25	0.727	3.6	124	131	1.65
35	0.524	5.0	154	162	1.15
50	0.387	7.2		143	0.726
70	0.268	10		176	0.526
95	0.193	13.6		215	0.402
120	0.153	17.2		248	0.334
150	0.124	21.5		281	0.287
185	0.0991	26.5		319	0.246
240	0.0754	34.3		380	0.207

Seven Core

Size	Max conductor resistance at 20°C Ohms/km	Current Rating – DC or single phase AC clipped direct Amps	Current Rating – DC or single phase AC free air – Amps	Volt drop DC mV/A/m	Volt drop single phase AC touching mV/A/m
1.5	12.1	27	29	31	31
2.5	7.41	36	39	19	19
4	4.61	49	52	12	12

Twelve Core

Size	Max conductor resistance at 20°C Ohms/km	Current Rating – DC or single phase AC clipped direct Amps	Current Rating – DC or single phase AC free air – Amps	Volt drop DC mV/A/m	Volt drop single phase AC touching mV/A/m
1.5	12.1	27	29	31	31
2.5	7.41	36	39	19	19
4	4.61	49	52	12	12



Nineteen Core

Size	Max conductor resistance at 20°C Ohms/km	Current Rating – DC or single phase AC clipped direct Amps	Current Rating – DC or single phase AC free air – Amps	Volt drop DC mV/A/m	Volt drop single phase AC touching mV/A/m
1.5	12.1	27	29	31	31
2.5	7.41	36	39	19	19
4	4.61	49	52	12	12

Twenty Seven Core

Size	Max conductor resistance at 20°C Ohms/km	Current Rating – DC or single phase AC clipped direct Amps	Current Rating – DC or single phase AC free air – Amps	Volt drop DC mV/A/m	Volt drop single phase AC touching mV/A/m
1.5	12.1	27	29	31	31
2.5	7.41	36	39	19	19
4	4.61	49	52	12	12

Thirty seven Core

Size	Max conductor resistance at 20°C Ohms/km	Current Rating – DC or single phase AC clipped direct Amps	Current Rating – DC or single phase AC free air – Amps	Volt drop DC mV/A/m	Volt drop single phase AC touching mV/A/m
1.5	12.1	27	29	31	31
2.5	7.41	36	39	19	19
4	4.61	49	52	12	12

Forty eight Core

Size	Max conductor resistance at 20°C Ohms/km	Current Rating – DC or single phase AC clipped direct Amps	Current Rating – DC or single phase AC free air – Amps	Volt drop DC mV/A/m	Volt drop single phase AC touching mV/A/m
1.5	12.1	27	29	31	31
2.5	7.41	36	39	19	19
4	4.61	49	52	12	12

*shaped conductors, all others are circular conductors

7, 12, 19, 27, 37 and 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.

Temperature rating factors

Ambient Temperature °C	25	30	35	40	45	50	55	60
Rating factor	1.02	1.00	0.96	0.91	0.87	0.82	0.76	0.71

No 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 all 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 for 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 ground/duct is required then reference should be to ERA69-30 part V. Alternatively ratings are as BS5467 cables.