Multicore XLPE/PVC/SWA/PVC Power Cable

600/1000 V and 1900/3300 V

Application

Armoured cables for use in fixed installations for use indoor, outdoor or for direct burial.

Specifications

- In accordance with BS5467
- **Conductors:** Stranded Class 2 copper conductors to BS EN 60228
- **Insulation:** XLPE insulation Type GP8 to BS7655
- **Core Identification:**
  2 core - brown, blue
  3 core - brown, black, grey
  4 core - brown, black, grey, blue
  5 core + above - number printed
- **Inner Sheath:** PVC inner sheath Type 9 to BS7655
- Mild galvanised steel wires to BS EN 10257-1
- **Outer Sheath:** Black PVC outer sheath Type 9 to BS7655
- Flame retardant to BS EN 60332-1-2
- **Temperature Rating:** 90°C maximum conductor operating temperature
- **Voltage Rating:** 600/1000 V

NB: 1900/3300V only available in 3 core.

Multicore XLPE/PVC/SWA/PVC Power Cable

600/1000 V and 1900/3300 V

Anixter Number	Number of Cores	Nominal Conductor Area mm²	Insulation Thickness mm	Diameter Under Armour mm	Armour Wire Size mm	Nominal O/D mm	Approx Weight kg/km	Min Bending Radius (fixed bend) mm
600/1000 V								
BS5467-2C-0015	2	1.5*	0.6	7.7	0.9	12.1	295	80
BS5467-2C-0025	2	2.5*	0.7	9.0	0.9	13.6	345	90
BS5467-2C-0040	2	4*	0.7	10.1	0.9	14.7	409	90
BS5467-2C-0060	2	6*	0.7	11.3	0.9	15.9	485	100
BS5467-2C-0100	2	10*	0.7	13.2	0.9	18.0	635	110
BS5467-2C-0160	2	16†	0.7	14.7	1.25	20.4	900	120
BS5467-2C-0250	2	25\\	0.9	14.7	1.25	20.4	938	170
BS5467-2C-0350	2	35	0.9	16.7	1.6	23.3	1373	190
BS5467-2C-0500	2	50	1.0	19.0	1.6	25.8	1800	210
BS5467-2C-0700	2	70	1.1	22.0	1.6	29.0	2320	240
BS5467-2C-0950	2	95	1.1	25.1	2.0	33.1	3160	270
BS5467-2C-1200	2	120	1.2	27.9	2.0	36.1	3790	290
BS5467-2C-1500	2	150	1.4	30.9	2.0	39.3	4500	320
BS5467-2C-1850	2	185	1.6	34.9	2.5	44.7	5820	360
BS5467-2C-2400	2	240	1.7	39.0	2.5	49.0	7220	400
BS5467-2C-3000	2	300	1.8	43.3	2.5	53.5	8710	430
BS5467-2C-4000	2	400	2.0	48.4	2.5	59.0	11100	480
BS5467-3C-0015	3	1.5*	0.6	8.2	0.9	12.6	330	80
BS5467-3C-0025	3	2.5*	0.7	9.5	0.9	14.1	390	90
BS5467-3C-0040	3	4*	0.7	10.7	0.9	15.3	470	100
BS5467-3C-0060	3	6*	0.7	12.0	0.9	16.6	570	100
BS5467-3C-0100	3	10*	0.7	14.0	1.25	19.5	880	120
BS5467-3C-0160	3	16†	0.7	15.9	1.25	21.6	1070	130
BS5467-3C-0250	3	25†	0.9	20.1	1.6	26.7	1550	170
BS5467-3C-0350	3	35†	0.9	22.6	1.6	29.4	1940	180
BS5467-3C-0500	3	50\\	1.0	21.7	1.6	28.5	2360	230
BS5467-3C-0700	3	70	1.1	25.2	1.6	32.2	3120	260
BS5467-3C-0950	3	95	1.1	28.8	2.0	37.0	4310	300
BS5467-3C-1200	3	120	1.2	32.0	2.0	40.4	5160	330
BS5467-3C-1500	3	150	1.4	35.9	2.5	45.5	6610	370
BS5467-3C-1850	3	185	1.6	40.0	2.5	49.8	7920	400
BS5467-3C-2400	3	240	1.7	44.9	2.5	55.1	9930	450
BS5467-3C-3000	3	300	1.8	49.8	2.5	60.2	11970	490
BS5467-3C-4000	3	400	2.0	55.8	2.5	66.6	14770	540

*Circular stranded conductors.

\\ Shaped stranded conductors on 25sqmm & above (2 core), 50sqmm & above (3 & 4 core).

† Circular or circular compacted stranded conductors.

Continued overleaf...

Multicore XLPE/PVC/SWA/PVC Power Cable

600/1000 V and 1900/3300 V (continued)

Anixter Number	Number of Cores	Nominal Conductor Area mm²	Insulation Thickness mm	Diameter Under Armour mm	Armour Wire Size mm	Nominal O/D mm	Approx Weight kg/km	Min Bending Radius (fixed bend) mm
600/1000 V								
BS5467-4C-0015	4	1.5*	0.6	8.9	0.9	13.3	380	90
BS5467-4C-0025	4	2.5*	0.7	10.4	0.9	15.0	450	90
BS5467-4C-0040	4	4*	0.7	11.8	0.9	16.4	560	100
BS5467-4C-0060	4	6*	0.7	13.2	1.25	18.7	790	120
BS5467-4C-0100	4	10*	0.7	15.6	1.25	21.1	1040	130
BS5467-4C-0160	4	16†	0.7	17.7	1.25	23.4	1300	140
BS5467-4C-0250	4	25†	0.9	22.3	1.6	28.9	1880	180
BS5467-4C-0350	4	35†	0.9	25.1	1.6	31.9	2350	200
BS5467-4C-0500	4	50\\	1.0	25.0	1.6	32.0	2950	260
BS5467-4C-0700	4	70	1.1	29.5	2.0	37.7	4230	320
BS5467-4C-0950	4	95	1.1	33.3	2.0	41.7	5390	340
BS5467-4C-1200	4	120	1.2	37.5	2.5	47.1	6890	380
BS5467-4C-1500	4	150	1.4	41.6	2.5	51.4	8300	420
BS5467-4C-1850	4	185	1.6	46.4	2.5	56.6	10070	460
BS5467-4C-2400	4	240	1.7	52.6	2.5	63.0	12680	510
BS5467-4C-3000	4	300	1.8	58.0	2.5	68.8	15380	560
BS5467-4C-4000	4	400	2.0	65.4	3.15	78.1	19950	630
A3AM-C007Q	7	1.5*	0.6	10.6	0.9	15.2	488	100
A3AM-C012Q	12	1.5*	0.6	13.9	1.25	19.4	817	120
A3AM-C019Q	19	1.5*	0.6	16.5	1.25	22.2	1225	140
A3AM-C027Q	27	1.5*	0.6	20.1	1.6	26.7	1553	170
A3AM-C037Q	37	1.5*	0.6	22.4	1.6	29.0	1859	180
A3AP-C007Q	7	2.5*	0.7	12.5	0.9	17.1	685	110
A3AP-C012Q	12	2.5*	0.7	16.7	1.25	22.4	910	140
A3AP-C019Q	19	2.5*	0.7	20.0	1.6	26.6	1500	160
A3AP-C027Q	27	2.5*	0.7	23.9	1.6	30.7	1928	190
A3AP-C037Q	37	2.5*	0.7	27.0	1.6	33.8	2360	210

Multicore XLPE/PVC/SWA/PVC Power Cable

600/1000 V and 1900/3300 V

Anixter Number	Number of Cores	Nominal Conductor Area mm^2	Insulation Thickness mm	Diameter Under Armour mm	Armour Wire Size mm	Nominal O/D mm	Approx Weight kg/km	Min Bending Radius (fixed bend) mm
1900/3300 V Cables								
A2BZ-0160	3	16†	2.0	22.1	1.6	29.3	1600	180
A2BZ-0250	3	25†	2.0	25.4	1.6	32.2	2060	200
A2BZ-0350	3	35†	2.0	27.8	1.6	34.8	2320	210
A2BZ-0500	3	50\\	2.0	26.7	2.0	34.7	3040	280
A2BZ-0700	3	70	2.0	29.8	2.0	38.0	3800	310
A2BZ-0950	3	95	2.0	33.0	2.0	41.4	4730	340
A2BZ-1200	3	120	2.0	36.1	2.5	45.7	6070	370
A2BZ-1500	3	150	2.0	38.7	2.5	48.5	7010	390
A2BZ-1850	3	185	2.0	41.9	2.5	51.9	8270	420
A2BZ-2400	3	240	2.0	46.7	2.5	56.9	10310	460
A2BZ-3000	3	300	2.0	50.8	2.5	61.2	12300	490
A2BZ-4000	3	400	2.0	55.8	2.5	66.6	15050	540

*Circular stranded conductors.
\\ Cables having conductors of nominal area 50sqmm and above have shaped stranded conductors.
† Circular or circular compacted stranded conductors.

For further technical information see page 1:64. (See 1:72 for technical information on 1900/3300 V cables).
For conductor and armour resistances refer to page 20:31.
For gross cross-sectional area of armour refer to page 20:34.
For conductor short-circuit ratings refer to page 20:28.
For armour short-circuit ratings refer to page 20:36.

Technical Information

- Multicore XLPE/PVC/SWA/PVC 600/1000 V
- Multicore XLPE/LSF/SWA/LSF 600/1000 V
- Multicore XLPE/LC/PVC/SWA/PVC 600/1000 V

CURRENT CARRYING CAPACITY (Amperes)

Reference Method D (direct in ground or in ducting in ground, in or around buildings)			Reference Method E (in free air or on a perforated cable tray etc., horizontal or vertical)		
Area	2 Core	3 & 4 Core	Nominal Conductor Area	2 Core	3 & 4 Core
mm^2	Arm'd	Arm'd	mm^2	Arm'd	Arm'd
1.5	38 (25)	32 (21)	1.5	31 (29)	26 (25)
2.5	49 (33)	42 (28)	2.5	41 (39)	34 (33)
4	65 (43)	55 (36)	4	53 (52)	45 (44)
6	81(53)	69 (44)	6	67 (66)	56 (56)
10	109 (71)	92 (58)	10	89 (90)	75 (78)
16	141 (91)	119 (75)	16	115 (115)	96 (99)
25	183 (116)	152 (96)	25	148 (152)	124 (131)
35	219 (139)	182 (115)	35	178 (188)	149 (162)
50	259 (164)	217 (135)	50	211 (228)	177 (197)
70	317 (203)	266 (167)	70	260 (291)	218 (251)
95	381 (239)	319 (197)	95	313 (354)	263 (304)
120	433 (271)	363 (223)	120	357 (410)	300 (353)
150	485 (306)	406 (251)	150	401 (472)	338 (406)
185	547 (343)	458 (281)	185	455 (539)	382 (463)
240	632 (395)	529 (324)	240	527 (636)	442 (546)
300	708 (446)	592 (365)	300	592 (732)	496 (628)
400	799 (-)	667 (-)	400	669 (847)	570 (728)

Standard depth of laying 0.5m (figures in brackets are based on 0.7m depth)
Thermal resistivity of soil 1.2°C m/W (figures in brackets are based on 2.5°C m/W)
Standard ground temperature 15°C (figures in brackets are based on 20°C)
Ambient air temperature 25°C (figures clipped direct and in brackets are based on 30°C)
Maximum conductor temperature 90°C
2 core - single phase a.c. 3 & 4 core - three phase a.c.
Ratings do not apply if the cable is protected by a semi-enclosed fuse to BS3036.
For further guidance refer to the BS7671 (IEE Wiring Regulations - latest edition) and ERA publication 69-30 Part 5.
3 & 4 core ratings also apply to 5 core cables.

Reference Method C (clipped direct)		
Nominal Conductor Area	2 Core	3 & 4 Core
mm^2	Arm'd	Arm'd
1.5	27	23
2.5	36	31
4	49	42
6	62	53
10	85	73
16	110	94
25	146	124
35	180	154
50	219	187
70	279	238
95	338	289
120	392	335
150	451	386
185	515	441
240	607	520
300	698	599
400	787	673

For cables of five core and above it is assumed only two cores are loaded simultaneously (i.e. live and neutral) and the two core rating should be taken. In instances where several cores are loaded simultaneously, the following rating factors should be applied to the two core current rating:

Number of cores	2	3	4	5	6	7	10	12
Factor	1.0	0.87	0.78	0.72	0.67	0.63	0.56	0.53

Number of cores	14	19	24	27	30	37	44	46	48
Factor	0.51	0.45	0.42	0.4	0.39	0.36	0.34	0.33	0.33

Technical Information

- XLPE/PVC/SWA/PVC
- XLPE/LSF/SWA/LSF
- XLPE/LC/PVC/SWA/PVC 600/1000 V

Conductor operating temperature 90°C

NB. for ambient air and ground temperatures other than those specified the following rating factors should be applied:

Cables Laid in Air

Ambient air temp °C	25	30	35	40	45	50	55
Rating factor	1.0	0.96	0.92	0.88	0.83	0.78	0.73

Cables laid direct in ground and in single-way ducts

Ground temp °C	10	15	20	25	30	35	40
Rating factor	1.03	1.0	0.97	0.93	0.89	0.86	0.82

VOLTAGE DROP (per Ampere per metre):

Conductor Cross Sectional Area	2 Core Cable d.c.	2 Core Cable Single Phase a.c.			3, 4 or 5 Core Cable Three Phase a.c.		
1	2	3			4		
mm^2	mV	mV			mV		
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	0.145	0.195	0.115	0.125	0.170

- Multicore PCU/XLPE/PVC 600/1000V to BS5467
- Multicore PCU/XLPE/PVC/SWA/PVC 600/1000 V to BS5467
- Multicore PCU/XLPE/LSF/SWA/LSF 600/1000 V to BS6724
- Multicore PCU/XLPE/LC/PVC/SWA/PVC 600/1000 V

ELECTRICAL CHARACTERISTICS

Conductor Size mm^2	Maximum d.c. Conductor Resistance @ 20°C ohms/km	Maximum a.c. Conductor Resistance @ 90°C ohms/km	Reactance @ 50Hz ohms/km	Impedance @ 90°C, 50Hz ohms/km
1.5	12.1	15.4	0.103	15.4
2.5	7.41	9.45	0.101	9.45
4.0	4.61	5.88	0.0929	5.88
6.0	3.08	3.93	0.0885	3.93
10	1.83	2.33	0.0835	2.33
16	1.15	1.47	0.0815	1.47
25	0.727	0.927	0.0818	0.931
35	0.524	0.668	0.0771	0.672
50	0.387	0.494	0.0765	0.500
70	0.268	0.342	0.0754	0.350
95	0.193	0.247	0.0727	0.257
120	0.153	0.197	0.0723	0.210
150	0.124	0.160	0.0728	0.176
185	0.0991	0.128	0.073	0.147
240	0.0754	0.0989	0.0722	0.122
300	0.0601	0.0802	0.0717	0.108
400	0.047	0.0656	0.0715	0.0970

Technical Information

- 1.9/3.3 kV 1 core & 3 cores XLPE Insulated, Armoured Cables BS5467 & BS6724

For further guidance refer to the BS7671 (IEE Wiring Regulations - latest edition) and ERA 69-30 Part 5.
For ambient air and ground temperatures other than those specified, the following factors should be applied.

Cables laid in air

Ambient air temp °C	25	30	35	40	45	50	55
Rating factor	1.0	0.96	0.92	0.88	0.83	0.78	0.73

Cables laid direct in ground and in single-way ducts

Ground temp °C	10	15	20	25	30	35	40
Rating factor	1.03	1.0	0.97	0.93	0.89	0.86	0.82

CURRENT CARRYING CAPACITY (Amperes)

Single-Core 1900/3300 V 50Hz

Direct Buried - BS5467				In Single-Way Duct - BS5467		
Nominal Conductor Area	Trefoil	3 Cables Touching	Spaced	Nominal Conductor	3 Cables	
					Trefoil	Flat
mm²	Arm'd	Arm'd	Arm'd	mm²	Arm'd	Arm'd
50	222	221	230	50	219	220
70	271	269	279	70	264	265
95	324	321	331	95	310	311
120	366	361	369	120	342	342
150	409	402	409	150	376	376
185	460	449	454	185	414	414
240	528	513	512	240	464	463
300	589	568	560	300	506	504
400	651	619	595	400	535	532
500	720	677	641	500	579	574
630	789	733	684	630	624	618
800	831	763	703	800	650	644
1000	880	802	735	1000	689	682

CURRENT CARRYING CAPACITY (Amperes)

3 Core 1900/3300 V 50Hz XLPE/PVC/SWA/PVC, XLPE/LSF/SWA/LSF

Direct Buried - BS5467		In Single-Way Duct - BS5467		Air - BS5467 & BS6724	
Nominal Conductor Area	3 Core	Nominal Conductor Area	3 Core	Nominal Conductor Area	3 Core
mm²	Arm'd	mm²	Arm'd	mm²	Arm'd
16	114	16	96	16	112
25	147	25	124	25	149
35	175	35	147	35	177
50	207	50	174	50	213
70	254	70	214	70	268
95	304	95	257	95	328
120	345	120	293	120	380
150	387	150	328	150	432
185	436	185	371	185	496
240	502	240	428	240	583
300	563	300	480	300	667
400	633	400	549	400	765

XLPE/PVC/AWA/PVC XLPE/LSF/AWA/LSF

Air - BS5467 & 6724			
Nominal Conductor Area	Trefoil	3 Cables Vertical Spaced	Horizontally Spaced
mm²	Arm'd	Arm'd	Arm'd
50	240	277	299
70	300	345	372
95	368	420	452
120	428	478	513
150	487	536	576
185	556	604	648
240	656	695	745
300	747	771	826
400	851	829	887
500	963	906	968
630	1084	983	1049
800	1178	1030	1098
1000	1278	1096	1168

Standard depth of laying 0.8m
Thermal resistivity of soil 1.2°C m/W
Standard ground temperature 15°C
Ambient air temperature 25°C
Maximum conductor temperature 90°C

- Multicore PCU/XLPE/PVC 1900/3300 V to BS5467
- Multicore PCU/XLPE/PVC/SWA/PVC 1900/3300 V to BS5467
- Multicore PCU/XLPE/LSF/SWA/LSF 1900/3300 V to BS6724

ELECTRICAL CHARACTERISTICS

Conductor Size mm²	Maximum d.c. Conductor Resistance @ 20°C ohms/km	Maximum a.c. Conductor Resistance @ 90°C ohms/km	Reactance @ 50Hz ohms/km	Impedance @ 90°C, 50Hz ohms/km
16	1.15	1.47	0.104	1.47
25	0.727	0.927	0.094	0.932
35	0.524	0.668	0.091	0.674
50	0.387	0.494	0.088	0.502
70	0.268	0.342	0.084	0.352
95	0.193	0.247	0.081	0.260
120	0.153	0.197	0.079	0.212
150	0.124	0.160	0.077	0.178
185	0.0991	0.128	0.076	0.149
240	0.0754	0.0989	0.074	0.124
300	0.0601	0.0802	0.073	0.108
400	0.047	0.0656	0.0717	0.0972

Conductor Short-Circuit Ratings

XLPE Insulated Cables

Short-Circuit Ratings

Conductor Size mm²	0.2s duration kA	1.0s duration kA	3.0s duration kA
1.5	0.479	0.214	0.123
2.5	0.799	0.357	0.206
4.0	1.27	0.572	0.330
6.0	1.91	0.858	0.495
10	3.19	1.43	0.825
16	5.11	2.28	1.32
25	7.99	3.57	2.06
35	11.1	5.0	2.88
50	15.9	7.15	4.12
70	22.3	10.0	5.77
95	30.3	13.5	7.84
120	38.3	17.1	9.9
150	47.9	21.4	12.3
185	59.1	26.4	15.2
240	76.7	34.3	19.8
300	95.9	42.9	24.7
400	127	57.2	33.0
500	159	71.5	41.2
630	201	90.0	52.0

N.B: The above ratings assume an adiabatic temperature rise and are based on a conductor temperature of 90°C at start of short-circuit and 250°C at end of short-circuit.

Armour Resistances

Max. DC Resistance of Conductor & Armour for 2, 3, 4 & 5 Core XLPE Insulated Cables Having Steel Wire Armour

XLPE/PVC/SWA/PVC Cables to BS5467
XLPE/LSF/SWA/LSF Cables to BS6724
MICA/XLPE/LSF/SWA/LSF Cables to BS7846

Nominal Conductor Area	Max Resistance per Km of Cable @ 20°C					
	Copper Conductor (plain)	Steel Wire Armour Cables with Stranded Copper Conductors				
		Two Core 600/1000 V	Three Core 600/1000 V	Three Core 1900/3300 V	Four Core 600/1000 V	Five-core 600/1000 V
mm^2	ohms/km	ohms/km	ohms/km	ohms/km	ohms/km	ohms/km
1.5	12.1	10.2	9.5	-	8.8	8.2
2.5	7.41	8.8	8.2	-	7.7	6.8
4.0	4.61	7.9	7.5	-	6.8	6.2
6.0	3.08	7.0	6.7	-	4.3	3.9
10	1.83	6.0	4.0	-	3.7	3.4
16	1.15	3.7	3.5	1.9	3.1	3.2
25	0.727	3.7	2.5	1.7	2.3	1.8
35	0.524	2.6	2.3	1.8	2.0	1.6
50	0.387	2.3	2.0	1.3	1.8	1.1
70	0.268	2.0	1.8	1.2	1.2	0.94
95	0.193	1.4	1.3	1.1	1.1	-
120	0.153	1.3	1.2	0.76	0.76	-
150	0.124	1.2	0.78	0.71	0.68	-
185	0.0991	0.82	0.71	0.65	0.61	-
240	0.0754	0.73	0.63	0.59	0.54	-
300	0.0601	0.67	0.58	0.55	0.49	-
400	0.0470	0.59	0.52	0.50	0.35	-

Armour Resistances

Max. DC Resistance of Conductor & Armour for Auxiliary XLPE Insulated Cables Having Steel Wire Armour

XLPE/PVC/SWA/PVC Cables to BS5467
XLPE/LSF/SWA/LSF Cables to BS6724 600/1000 V
MICA/XLPE/LSF/SWA/LSF Cables to BS7846 600/1000 V

Nominal Conductor Area	Max Resistance per Km of Cable @ 20°C					
	Copper Conductor (plain)	Steel Wire Armour				
		Number of Cores*				
		7	12	19	27	37
mm²	ohms/km	ohms/km				
1.5	12.1	7.5	4.0	3.5	2.3	2.0
2.5	7.41	6.3	3.5	2.3	1.9	1.7
4.0	4.61	4.0	2.3	2.0	1.7	1.2

* For non-preferred sizes, the maximum resistance shall not be greater than that of the next lowest preferred number of cores.

Gross Cross-sectional Area of Armour for 2, 3 & 4 Core PVC Insulated Cables

PVC/PVC/SWA/PVC Cables to BS6346 and ENATS 09-6 600/1000 V

Nominal Conductor Area	Gross cross-sectional area of round armour wires		
	Steel Wire Armour Cables with Stranded Copper Conductors		
	Two Core	Three Core	Four Core
mm²	mm²	mm²	mm²
1.5	15	16	17
2.5	17	19	20
4.0	20	22	34
6.0	22	34	38
10	40	42	46
16	46	50	72

Gross Cross-Sectional

Gross Cross-sectional Area of Armour for 2, 3, 4, & 5 Core XLPE Insulated Cables

XLPE/PVC/SWA/PVC Cables to BS5467 600/1000 V
XLPE/LSF/SWA/LSF Cables to BS6724 600/1000 V
MICA/XLPE/LSF/SWA/LSF Cables to BS7846 600/1000 V

Nominal Conductor Area	Gross cross-sectional area of round armour wires			
	Steel Wire Armour Cables with Stranded Copper Conductors			
	Two Core	Three Core	Four Core	Five Core
mm^2	mm^2	mm^2	mm^2	mm^2
1.5	15	16	17	19
2.5	17	19	20	22
4.0	19	20	22	25
6.0	22	23	36	40
10	26	39	42	46
16	42	45	50	72
25	42	62	70	88
35	60	68	78	100
50	68	78	90	144
70	80	90	131	166
95	113	128	147	-
120	125	141	206	-
150	138	201	230	-
185	191	220	255	-
240	215	250	289	-
300	235	269	319	-
400	265	304	452	-

Gross Cross-sectional Area of Armour for Auxiliary XLPE Insulated Cables

XLPE/PVC/SWA/PVC Cables to BS5467
XLPE/LSF/SWA/LSF Cables to BS6724
MICA/XLPE/LSF/SWA/LSF Cables to BS7846

Nominal Conductor Area	Gross cross-sectional area of round armour wires				
	Number of Cores				
	7	12	19	27	37
mm^2	mm^2	mm^2	mm^2	mm^2	mm^2
1.5	20	39	45	70	78
2.5	24	45	70	84	94
4.0	39	68	80	96	138

Armour Short-Circuit Ratings

Two Core XLPE/PVC/SWA/PVC 600/1000 V
Two Core XLPE/LSF/SWA/LSF 600/1000 V
Two Core MICA/XLPE/LSF/SWA/LSF 600/1000 V

Short-Circuit Ratings

Conductor Size mm²	0.2s duration kA	1.0s duration kA	3.0s duration kA
1.5	1.54	0.69	0.398
2.5	1.75	0.782	0.451
4.0	1.95	0.874	0.505
6.0	2.26	1.01	0.583
10	2.68	1.20	0.693
16	4.32	1.93	1.11
25	4.32	1.93	1.11
35	6.17	2.76	1.59
50	7.0	3.13	1.81
70	8.23	3.68	2.12
95	11.6	5.20	3.0
120	12.9	5.75	3.32
150	14.2	6.35	3.67
185	19.7	8.79	5.07
240	22.1	9.89	5.71
300	24.1	10.8	6.24
400	27.3	12.2	7.04

N.B: The above ratings assume an adiabatic temperature rise and are based on an armour temperature of 80°C at start of short-circuit and 200°C at end of short-circuit.

Armour Short-Circuit Ratings

Three Core XLPE/PVC/SWA/PVC 600/1000 V
Three Core XLPE/LSF/SWA/LSF 600/1000 V
Three Core MICA/XLPE/LSF/SWA/LSF 600/1000 V

Short-Circuit Ratings

Conductor Size mm²	0.2s duration kA	1.0s duration kA	3.0s duration kA
1.5	1.65	0.736	0.425
2.5	1.95	0.874	0.505
4.0	2.06	0.920	0.531
6.0	2.37	1.06	0.612
10	4.0	1.79	1.03
16	4.63	2.07	1.20
25	6.37	2.85	1.65
35	7.0	3.13	1.81
50	8.03	3.59	2.07
70	9.26	4.14	2.39
95	13.2	5.89	3.4
120	14.5	6.49	3.75
150	20.7	9.25	5.34
185	22.6	10.1	5.84
240	25.7	11.5	6.64
300	27.7	12.4	7.16
400	31.3	14.0	8.08

N.B: The above ratings assume an adiabatic temperature rise and are based on an armour temperature of 80°C at start of short-circuit and 200°C at end of short-circuit.

Armour Short-Circuit Ratings

Four Core XLPE/PVC/SWA/PVC 600/1000 V
Four Core XLPE/LSF/SWA/LSF 600/1000 V
Four Core MICA/XLPE/LSF/SWA/LSF 600/1000 V

Short-Circuit Ratings

Conductor Size mm²	0.2s duration kA	1.0s duration kA	3.0s duration kA
1.5	1.75	0.782	0.451
2.5	2.06	0.920	0.531
4.0	2.26	1.01	0.583
6.0	3.71	1.66	0.958
10	4.32	1.932	1.12
16	5.14	2.30	1.33
25	7.2	3.22	1.86
35	8.03	3.59	2.07
50	9.26	4.14	2.39
70	13.25	6.03	3.48
95	15.1	6.76	3.90
120	21.2	9.48	5.47
150	23.7	10.6	6.12
185	26.2	11.7	6.77
240	29.7	13.3	7.68
300	32.9	14.7	8.49
400	46.5	20.8	12.0

N.B: The above ratings assume an adiabatic temperature rise and are based on an armour temperature of 80°C at start of short-circuit and 200°C at end of short-circuit.

Armour Short-Circuit Ratings

Five Core XLPE/PVC/SWA/PVC 600/1000 V
Five Core XLPE/LSF/SWA/LSF 600/1000 V
Five Core MICA/XLPE/LSF/SWA/LSF 600/1000 V

Short-Circuit Ratings

Conductor Size mm²	0.2s duration kA	1.0s duration kA	3.0s duration kA
1.5	1.95	0.874	0.505
2.5	2.26	1.01	0.583
4.0	2.57	1.15	0.664
6.0	4.11	1.84	1.06
10	6.98	2.12	1.22
16	7.40	3.31	1.91
25	9.06	4.05	2.34
35	10.3	4.6	2.66
50	14.8	6.62	3.82
70	17.1	7.64	4.41
95	-	-	-
120	-	-	-
150	-	-	-
185	-	-	-
240	-	-	-
300	-	-	-
400	-	-	-

N.B: The above ratings assume an adiabatic temperature rise and are based on an armour temperature of 80°C at start of short-circuit and 200°C at end of short-circuit.

Armour Short-Circuit Ratings

Auxiliary XLPE/PVC/SWA/PVC 600/1000 V
Auxiliary XLPE/LSF/SWA/LSF 600/1000 V
Auxiliary MICA/XLPE/LSF/SWA/LSF 600/1000 V

Short-Circuit Ratings

Conductor Size Number x mm²	0.2s duration kA	1.0s duration kA	3.0s duration kA
7 x 1.5	2.06	0.920	0.531
12 x 1.5	4.0	1.79	1.03
19 x 1.5	4.63	2.07	1.20
27 x 1.5	7.20	3.22	1.86
37 x 1.5	8.03	3.59	2.07
7 x 2.5	2.46	1.10	0.635
12 x 2.5	4.63	2.07	1.20
19 x 2.5	7.20	3.22	1.86
27 x 2.5	8.63	3.86	2.23
37 x 2.5	9.66	4.32	2.49
7 x 4.0	4.0	1.79	1.03
12 x 4.0	7.0	3.13	1.81
19 x 4.0	8.23	3.68	2.12
27 x 4.0	9.88	4.42	2.55
37 x 4.0	41.2	6.35	3.67

N.B: The above ratings assume an adiabatic temperature rise and are based on an armour temperature of 80°C at start of short-circuit and 200°C at end of short-circuit.