

BS5467

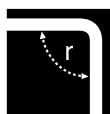


BS5467

CABLE CHARACTERISTICS



Temperature Range
-15 to +90°C



Bending Radius
Circular conductor $r = 6D$
Shaped conductor $r = 8D$



Mechanical Impact
Medium



Fire Performance
BS4066



Flexibility
Rigid

CABLE DESCRIPTION

CONDUCTOR

Plain annealed copper stranded conductor for flexibility

INSULATION

90°C cross-linked XLPE Insulation

New Harmonised Core Identification:

- ● blue-brown
- ● ● brown-black-grey
- ● ● ● blue-brown-black-grey
- ● ● ● ● blue-brown-black-grey-green/yellow

BEDDING

Extruded bedding compound

ARMOUR

Single layer of galvanised steel wires

(Aluminium wires on single core)

OUTER SHEATH

PVC Sheath



Nominal cross sectional area mm²	Approx. overall diameter mm	Nominal diameter of armour wires mm	Approximate cable weight kg/km	Maximum conductor resistance @ 20°C Ohms/km	Conductor short circuit rating (1 sec) kA	Current rating				Volt drop single phase AC touching mV/A/m	Volt drop Three phase AC trefoil mV/A/m
						Single phase AC in air horizontal spaced Amps	Three phase in ground trefoil formation Amps	Three phase in Trefoil Duct Amps	Three phase in air trefoil formation		
Single Core											
70	20.0	1.25	950	0.2680	10	337	284	278	295	0.71	0.62
95	21.6	1.25	1225	0.1930	13.6	403	340	327	362	0.55	0.47
120	23.2	1.25	1500	0.1530	17.1	458	386	366	420	0.45	0.39
150	25.8	1.6	1950	0.1240	21.4	510	431	396	483	0.38	0.33
185	28.0	1.6	2350	0.0991	26.4	574	485	437	555	0.33	0.28
240	30.5	1.6	3000	0.0754	34.3	661	558	489	654	0.28	0.24
300	33.5	1.6	3675	0.0601	42.9	739	623	534	745	0.25	0.21
400	37.8	2.0	4700	0.0470	57.2	820	691	567	851	0.22	0.195
500	41.1	2.0	5925	0.0366	71.5	910	765	615	963	0.21	0.18
630	45.3	2.0	7450	0.0283	90.1	1001	841	664	1084	0.195	0.17
800	54.8	2.5	9400	0.0221	114	1055	888	692	1178	0.19	0.165
1000	58.4	2.5	11400	0.0176	143	1115	942	735	1278	0.18	0.155

Single phase AC Volt drop- If the cable spacing is larger than 1 cable diameter then the volt drop will be larger than those specified. If current rating in buildings is required reference should be made to BS7671 (IEE Wiring Regs). Alternatively rating are as BS6724 cables.

Nominal cross sectional area	Approx. overall diameter	Approximate diameter under armour	Nominal diameter of armour wires	Approximate cable weight	Maximum conductor resistance @ 20°C	Conductor short circuit rating (1 sec)	Armour short circuit rating (1sec)	Current rating			Volt drop single phase AC touching
								Direct in ground Amps	In duct Amps	In air Amps	
mm²	mm	mm	mm	kg/km	Ohms/km	Ka	Ka				mV/A/m
Two Core											
1.5	11.5	7.1	0.9	320	12.1	0.20	0.65	38	31	31	31
2.5	12.9	8.3	0.9	365	7.41	0.35	0.75	49	41	41	19
4	14.4	9.8	0.9	440	4.61	0.57	0.85	65	53	55	12
6	15.6	11	0.9	470	3.08	0.86	1.0	81	67	70	7.9
10	16.8	12	0.9	810	1.83	1.4	1.2	109	89	95	4.7
16	19.6	14.1	1.25	1025	1.15	2.2	1.9	141	115	126	2.9
25	20.9	15.6	1.25	1000	0.727	3.6	1.9	183	148	164	1.9
35	23	17	1.6	1400	0.524	5.0	2.8	219	178	202	1.35
50	25.3	19.3	1.6	1750	0.387	7.1	3.1	259	211	244	1
70	28.5	22.3	1.6	2300	0.268	10.0	3.7	317	260	306	0.69
95	32.3	25.1	2	3100	0.193	13.6	5.2	381	313	378	0.52
120	34.8	27.4	2	3700	0.153	17.2	5.8	433	357	437	0.42
150	37.9	30.3	2	4400	0.124	21.4	6.4	485	401	499	0.35
185	42.5	33.5	2.5	5700	0.0991	26.5	8.8	547	455	576	0.29
240	46.5	37.3	2.5	7100	0.0754	34.3	9.9	632	527	680	0.24
300	50.3	40.9	2.5	8500	0.0601	42.9	10.9	708	592	775	0.21
400	54.7	45.1	2.5	10700	0.047	57.2	12.2	799	669	892	0.19
Seven Core											
1.5	15.8	10.7	0.9	500	12.1	0.20	1.0	38	31	31	31
2.5	17.6	12.5	0.9	730	7.41	0.35	1.1	49	41	41	19
4	20.1	14.1	1.25	840	4.61	0.57	1.8	65	53	55	12
Twelve Core											
1.5	20	14	1.25	820	12.1	0.20	1.8	38	31	31	31
2.5	22.8	16.6	1.25	1020	7.41	0.35	0.2	49	41	41	19
4	26.1	19.2	1.6	1390	4.61	0.57	3.1	65	53		12
Nineteen Core											
1.5	22.6	16.4	1.25	1080	12.1	0.20	2.1	38	31	31	31
2.5	27	19.9	1.6	1530	7.41	0.35	3.2	49	41	41	19
4	29.7	22.6	1.6	1850	4.61	0.57	3.7	65	53	55	12
Twenty-Seven Core											
1.5	27.3	20.0	1.6	1850	12.1	0.20	3.8	38	31	31	31
2.5	31.3	24	1.6	1960	7.41	0.35	3.8	49	41	41	19
4	34.8	27.3	1.6	2420	4.61	0.57	4.4	65	53	55	12
Thirty Seven Core											
1.5	29.9	22.5	1.6	1850	12.1	0.20	3.8	38	31	31	31
2.5	34.3	27	1.6	2440	7.41	0.35	4.3	49	41	41	19
4	39.6	31.1	2	3320	4.61	0.57	6.4	65	53	55	12
Forty Eight Core											
1.5	33.5	26	1.6	2900	12.1	0.20	4.1	38	31	31	31
2.5	40.1	31.4	2	3550	7.41	0.35	6.4	49	41	41	19
4	44.7	35.8	2	4850	4.61	0.57	7.2	65	53	55	

Nominal cross sectional area mm²	Approx. overall diameter mm	Approximate diameter under armour mm	Nominal diameter of armour wires mm	Approximate cable weight kg/km	Maximum conductor resistance @ 20°C Ohms/km	Conductor short circuit rating (1 sec) Ka	Armour short circuit rating (1sec) Ka	Current rating			Volt drop Three phase AC mV/A/m
								Direct in ground Amps	In duct Amps	In air Amps	
Three Core											
1.5	13.3	8.2	0.9	340	12.1	0.20	0.74	32	26	26	27
2.5	14.6	9.5	0.9	410	7.41	0.35	0.88	42	34	35	16
4	15.8	10.7	0.9	500	4.61	0.57	0.97	55	45	47	10
6	17	11.9	0.9	600	3.08	0.86	1.0	69	56	59	6.8
10	19.9	13.9	1.25	915	1.83	1.4	1.8	92	75	82	4
16	22.4	16.2	1.25	1200	1.15	2.2	2.0	119	96	107	2.5
25	25.6	19.6	1.6	1000	0.727	3.6	2.8	152	124	140	1.65
35	28	21.9	1.6	1400	0.524	5.0	3.0	182	149	172	1.15
50	30	23.9	1.6	1750	0.387	7.1	3.6	217	177	209	0.87
70	33.6	27.4	1.6	2300	0.268	10.0	4.1	266	218	263	0.6
95	38.1	30.7	2	3100	0.193	13.6	5.9	319	263	324	0.45
120	41.4	33.8	2	3700	0.153	17.2	6.5	363	300	376	0.37
150	45.7	36.9	2.5	4400	0.124	21.4	9.3	406	338	430	0.3
185	49.8	40.8	2.5	5700	0.00991	26.5	10.2	458	382	495	0.26
240	54.8	45.5	2.5	7100	0.0754	34.3	11.6	529	442	584	0.21
300	59.5	49.8	2.5	8500	0.0601	42.9	12.4	592	496	666	0.185
400	65.5	55.4	2.5	10700	0.047	57.2	14.1	667	570	766	0.165
Four Core											
1.5	12.9	8.3	0.9	400	12.1	0.20	0.78	32	26	26	27
2.5	14.4	9.8	0.9	470	7.41	0.35	0.92	42	34	35	16
4	15.7	11.1	0.9	580	4.61	0.57	1.0	55	45	47	10
6	17.9	12.4	1.25	810	3.08	0.86	1.6	69	56	59	6.8
10	19.7	14.2	1.25	10875	1.83	1.4	1.9	92	75	82	4
16	22.4	16.7	1.25	1450	1.15	2.2	2.2	119	96	107	2.5
25	27.3	20.7	1.6	2060	0.727	3.6	3.2	152	124	140	1.65
35	30.2	23.4	1.6	2550	0.524	5.0	3.7	182	149	172	1.15
50	32.2	26	1.6	2875	0.387	7.1	4.1	217	177	209	0.87
70	38	30.6	2	4250	0.268	10.0	6.1	266	218	263	0.6
95	41.7	34.1	2	5475	0.193	13.6	6.8	319	263	324	0.45
120	45.4	37.6	2.5	7175	0.153	17.2	9.5	363	300	376	0.37
150	50.6	41.6	2.5	8475	0.124	21.4	10.6	406	338	430	0.3
185	55.3	46	2.5	10350	0.0991	26.5	11.8	458	382	495	0.26
240	61.2	51.7	2.5	13000	0.0754	34.3	13.4	529	442	584	0.21
300	66.8	56.9	2.5	15750	0.0601	42.9	14.8	592	496	666	0.185
400	75.4	64	3.15	20400	0.047	57.2	20.9	667	570	766	0.165
Five Core											
1.5	14.9	9.8	9.8	400	12.1	0.20	0.88	32	26	26	27
2.5	16.5	11.4	11.4	490	7.41	0.35	1.0	42	34	35	16
4	18.9	12.9	12.9	715	4.61	0.57	1.1	55	45	47	10
6	20.4	14.4	14.4	900	3.08	0.86	1.8	69	56	59	6.8
10	23.2	17	17	1200	1.83	1.4	2.1	92	75	82	4
16	27.3	20.2	20.2	1650	1.15	2.2	3.3	119	96	107	2.5
25	30	24	24	2200	0.727	3.6	4.0	152	124	140	1.65
35	32.9	26.7	26.7	2700	0.524	5.0	4.6	182	149	172	1.15
50	37.9	30.7	30.7	3600	0.387	7.1	6.6	217	177	209	0.87
70	44.1	36.5	36.5	4700	0.268	10.0	7.7	266	218	263	0.6

Standard current ratings from ERA 69-30pt V	
Ambient temperature (air)	15°C
Depth of burial	25°C
Thermal resistance of soil	0.5m
Armour bonded and earthed at both ends	1.2°C m/w

NOTE: If current rating in buildings is required reference should be made to BS7671 (IEE Wiring Regs). Alternatively rating are as BS6724 cables.