

FIRE RESISTANT ARMoured POWER CABLE BS7846



Fire performance cables ensure circuit integrity during fires, making them suitable for fire detection, alarm, emergency lighting systems in public buildings. These cables are designed for easy installation, whether clipped to a surface, placed in trays, baskets, or in open air. They feature fire-resistant and low-fire-hazard properties, allowing for direct installation in the ground, ducts in well-draining soil, or embedded in concrete

CONDUCTOR	Plain Copper
STRANDING	Class 2
INSULATION	MGT+XLPE
BEDDING	LSZH
ARMOUR	Steel Wire Armour
OUTERSHEATH	LSZH
OUTERSHEATH COLOUR	Black
CORE IDENTIFICATION	2 Core: Blue, Brown 3 Core: Brown, Black, Grey 4 Core: Brown, Blue, Black, Grey 5 Core: Brown, Black, Grey, Blue, Green/Yellow 7 Core: White + Black Numbered 12 Core: White + Black Numbered 19 Core: White + Black Numbered 27 Core: White + Black Numbered 37 Core: White + Black Numbered
MINIMUM BENDING RADIUS	6 x Overall Diameter
OPERATING TEMPERATURE	90°C
APPROVALS	

SPECIFICATION DATA

BATT Part No	Cores	Nominal cross sectional area of conductor	Radial thickness of insulation	Nominal steel armour wire diameter	Nominal thickness of oversheath	Approx overall diameter	Weight
57183	2	1.5	0.6	0.9		14.5	311
57184	2	2.5	0.7	0.9		13.8	375
57185	2	4	0.7	0.9		14.8	446
57186	2	6	0.7	0.9		15.9	527
57187	2	10	0.7	0.9		20.5	830
57188	2	16	0.7	1.25		20.6	900
57189	2	25	0.9	1.6		22.0	1200
57190	2	35	0.9	1.6		24.8	1600
57191	2	50	1	1.6		28	2000
57212	3	1.5	0.6	0.9		13	341
57213	3	2.5	0.7	0.9		14.1	422
57214	3	4	0.7	0.9		15.5	502
57215	3	6	0.7	0.9		16.6	605
57216	3	10	0.7	1.25		20.6	1080
57217	3	16	0.7	1.25		22.9	1310
57218	3	25	0.9	1.6		27.2	1800
57219	3	35	0.9	1.6		29.7	2200
57220	3	50	1	1.6		30.2	2450
57221	3	70	1.1	2		33.9	3200
57222	3	95	1.1	2		38.7	4450
57200	4	1.5	0.6	0.9		14.7	520
57201	4	2.5	0.7	0.9		18	620
57202	4	4	0.7	0.9		19.4	730
57203	4	6	0.7	0.9		21.7	990
57204	4	10	0.7	1.25		24.1	1260
57205	4	16	0.7	1.25		24.8	1640
57236	4	25	0.9	1.6		29.5	2150
57230	4	35	0.9	1.6		32.3	2650
57237	4	50	1	1.6		33.9	3384
57243	4	70	1.1	2		39.6	4400
57231	4	95	1.1	2		43.6	5650
57232	4	120	1.2	2.5		49	7250
57233	4	150	1.4	2.5		53.3	8550
57234	4	185	1.6	2.5		58.5	10300
57254	4	240	1.7	2.5		64.9	12900
57235	4	300	1.8	2.5		70.7	15550
57253	4	400	2	3.15		80	20250
57015	5	1.5	0.6	0.9		15	490
57017	5	2.5	0.7	0.9		15	530
57016	5	4	0.7	0.9		17	760
57229	5	6	0.7	0.9		20	930
57020	5	10	0.7	0.9		21.9	1158
57021	5	16	0.7	0.9		25.6	1710
57023	5	25	0.9	1.25		34	2250
57130	7	1.5	0.6	0.9		16.1	516
57142	7	2.5	0.7	0.9		18	641

57106	12	1.5	0.6	0.9		20.2	854
57143	12	2.5	0.7	0.9		22.3	1040
57145	19	1.5	0.6	0.9		24.1	1122
57144	19	2.5	0.7	0.9		26.6	1570
57057	27	1.5				27.9	1630
57239	27	2.5				30.9	1846
57125	37	1.5				32.3	2004
57060	37	2.5				34	2500

RATING TABLES

TABLE 4E4A – Multicore armoured 90 °C thermosetting insulated cables
(COPPER CONDUCTORS)

COPPER
CONDUCTORS

Air ambient temperature: 30 °C
Ground ambient temperature: 20 °C
Conductor operating temperature: 90 °C

CURRENT-CARRYING CAPACITY (amperes):

Conductor cross-sectional area	Reference Method C (clipped direct)		Reference Method E (in free air or on a perforated cable tray etc, horizontal or vertical)		Reference Method D (direct in ground or in ducting in ground, in or around buildings)	
	1 two-core cable, single-phase AC or DC	1 three- or 1 four-core cable, three-phase AC	1 two-core cable, single-phase AC or DC	1 three- or 1 four-core cable, three-phase AC	1 two-core cable, single-phase AC or DC	1 three- or 1 four-core cable, three-phase AC
1	2	3	4	5	6	7
(mm²)	(A)	(A)	(A)	(A)	(A)	(A)
1.5	27	23	29	25	25	21
2.5	36	31	39	33	33	28
4	49	42	52	44	43	36
6	62	53	66	56	53	44
10	85	73	90	78	71	58
16	110	94	115	99	91	75
25	146	124	152	131	116	96
35	180	154	188	162	139	115
50	219	187	228	197	164	135
70	279	238	291	251	203	167
95	338	289	354	304	239	197
120	392	335	410	353	271	223
150	451	386	472	406	306	251
185	515	441	539	463	343	281
240	607	520	636	546	395	324
300	698	599	732	628	446	365
400	787	673	847	728	-	-

- NOTES:
1. Where it is intended to connect the cables in this table to equipment or accessories designed to operate at a temperature lower than the maximum operating temperature of the cable, the cables should be rated at the maximum operating temperature of the equipment or accessory (see Regulation 512.1.5).
2. Where it is intended to group a cable in this table with other cables, the cable should be rated at the lowest of the maximum operating temperatures of any of the cables in the group (see Regulation 512.1.5).

TABLE 4E4B

VOLTAGE DROP (per ampere per metre):

Conductor operating temperature: 90 °C

Conductor cross-sectional area	Two-core cable, DC	Two-core cable, single-phase AC			Three- or four-core cable, three-phase AC		
1	2	3			4		
(mm ²)	(mV/A/m)	(mV/A/m)			(mV/A/m)		
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	0.140	0.190	0.115	0.120	0.165

The information in this datasheet is for guidance only and subject to change without liability. Images provided are representations; actual cable dimensions may vary due to manufacturing tolerances.

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