ENHANCED FIRE RESISTANT ARMOURED POWER CABLE BS7846 F-120

Enhanced Fire-resistant cables, designed to endure intense fire scenarios, meet the standards set by BS 7846. Compliant with BS 8519, they are categorized for life safety and firefighting systems, offering fire survival times of up to 120 minutes. Subjected to rigorous F120 fire survival testing per BS 8491, these cables withstand fire, mechanical shock, and high-pressure water spray. Tailored for fixed installations such as power circuits, fire alarm systems, and emergency lighting, they boast enhanced resistance to heat, fire, impact, and water jets.

CONDUCTOR	Plain Copper
STRANDING	Class 2
INSULATION	MGT+XLPE
BEDDING	LSZH
ARMOUR	Steel Wire Armour
OUTERSHEATH	LSZH
OUTERSHEATH COLOUR	Black
RATED VOLTAGE	0.6/1kV
CORE IDENTIFICATION	3 Core: Brown, Black, Grey 4 Core: Brown, Blue, Black, Grey 5 Core: Brown, Blue, Black, Grey, Green/Yellow
MINIMUM BENDING RADIUS	6 x Overall Diameter
OPERATING TEMPERATURE	90°C
STANDARDS	BS7846 â€“ F120, BS8491 â€“ F120, BS EN 60332-1 BS EN 60332-3 Categories A, B & C, IEC60754, BS EN 50267-2-1:, IEC 61034, BS EN 50268
APPROVALS	LPCB

SPECIFICATION DATA

BATT Part No	Cores	Nominal cross sectional area of conductor	Nominal steel armour wire diameter	Approx overall diameter	Weight
57314	3	4	1.25	21.0	800
57315	3	6	1.25	21.8	940
57264	3	10	1.25	22.5	1100
57265	3	16	1.25	23.6	1300
57316	3	25	1.6	27.9	1850
57317	3	35	1.6	30.5	2260
57352	4	4	1.25	21.0	800
57279	4	6	1.25	21.9	1000
57280	4	10	1.25	22.4	1230
57281	4	16	1.25	24.8	1580
57266	4	25	1.6	30.3	2385
57267	4	35	1.6	33.1	2930
57268	4	50	1.6	33.6	3230
57269	4	70	2	39.0	4520
57270	4	95	2	42.9	5700
57271	4	120	2.5	47.6	7260
57272	4	150	2.5	52.5	8610
57273	4	185	2.5	57.4	10370
57353	4	240	2.5	62.9	12960
57275	4	300	2.5	69.1	15690
57002	5*	4			
57003	5*	6	1.25		
57004	5*	10	1.25	27.4	
57007	5*	16	1.6	28.2	
57009	5*	25	1.6		
57010	5*	35	1.6		
57011	5*	50	2		
57012	5*	70			
57013	5*	95	2.5		

* BASEC and LPCB approvals available on request for 5 cores.

RATING TABLES

COPPER CONDUCTORS

TABLE 4E4A – Multicore armoured 90 °C thermosetting insulated cables (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
(mm^2)	(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