

Single Core LSF Insulated 6701B (2491B up to and including 1.0mm²)

90°C 300/500 & 450/750V



Application

For use in applications where greater flexibility is required to assist installation. Incorporates low smoke zero halogen insulation for use in areas where dense smoke and toxic fumes may cause a threat to life and equipment.

Specifications

- In accordance with BS7211 and Cenelec Harmonised codes - H05Z-K (300/500V cable) RoHS Compliant
H07Z-K (450/750V cable) RoHS Compliant
- **Conductors:** Flexible Class 5 copper conductors to BS EN 60228.
- **Insulation:** Low smoke zero halogen thermosetting insulation.
Type EI.5 to BS EN 50363-5, having following characteristics:
 - Minimum oxygen index: 30%
 - Maximum HCL Emission @ 800°C: 0.5%
- Flame retardant to BS EN 60332-2-2 (up to and incl. 1.0mm²) and BS EN 60332-1-2 (above 1.0mm²).
- Normal colours available see 2:2.
- **Temperature Rating:** 90°C maximum conductor operating temperature.
- **Voltage Rating:** Up to and including 1.0mm² - 300/500V
1.5mm² and above - 450/750V.

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Flexible Cables & Cords

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Anixter Number	Cenelec Code	Nominal Conductor Area	Nominal Conductor Stranding	Insulation Thickness	Maximum O/D	Approximate Weight
		mm ²	#/mm	mm	mm	kg/km
A3BS-0005	H05Z-K1	0.5	16/0.2	0.6	2.6	10
A3BS-0007	H05Z-K1	0.75	24/0.2	0.6	2.8	13
A3BS-0010	H05Z-K1	1.0	32/0.2	0.6	2.9	16
A3BS-0015	H07Z-K1	1.5	30/0.25	0.7	3.5	22
A3BS-0025	H07Z-K1	2.5	50/0.25	0.8	4.3	33
A3BS-0040	H07Z-K1	4.0	56/0.3	0.8	4.9	49
A3BS-0060	H07Z-K1	6.0	84/0.3	0.8	5.5	69
A3BS-0100	H07Z-K1	10	80/0.4	1.0	7.1	116
A3BS-0160	H07Z-K1	16	126/0.4	1.0	8.4	175
A3BS-0250	H07Z-K1	25	196/0.4	1.2	10.6	273
A3BS-0350	H07Z-K1	35	276/0.4	1.2	12.1	367
A3BS-0500	H07Z-K1	50	396/0.4	1.4	14.4	474
A3BS-0700	H07Z-K1	70	360/0.5	1.4	16.6	749
A3BS-0950	H07Z-K1	95	475/0.5	1.6	18.8	987
A3BS-1200	H07Z-K1	120	608/0.5	1.6	20.9	1240
A3BS-1500	H07Z-K1	150	765/0.5	1.8	23.3	1540
A3BS-1850	H07Z-K1	185	925/0.5	2.0	25.8	1860
A3BS-2400	H07Z-K1	240	1221/0.5	2.2	29.4	2450

For further technical information see page 2:46.

Technical Specifications for 6701B

CURRENT CAPACITY (Amperes):

Conductor Cross Sectional Area	Reference Method A (enclosed in conduit in thermally insulating wall etc)		Reference Method B (enclosed in conduit on a wall or in trunking etc)	
	2 Cables, Single Phase a.c. or d.c.	3 or 4 Cables, Three Phase a.c.	2 Cables, Single Phase a.c. or d.c.	3 or 4 Cables, Three Phase a.c.
1	2	3	4	5
mm ²	A	A	A	A
1	14	13	17	15
1.5	19	17	23	20
2.5	26	23	31	28
4	35	31	42	37
6	45	40	54	48
10	61	54	75	66
16	81	73	100	88
25	106	95	133	117
35	131	117	164	144
50	158	141	198	175
70	200	179	253	222
95	241	216	306	269
120	278	249	354	312
150	318	285	393	342
185	362	324	449	384
240	424	380	528	450

BS7211

Ambient temperature: 30°C Conductor operating temperature: 90°C.

For ambient air temperatures other than 30°C, the following factors should be applied.

Ambient air temp °C	25	30	35	40	45	50	55	60
Rating factor	1.04	1.0	0.96	0.91	0.87	0.82	0.76	0.71

Ambient air temp °C	65	70	75	80	85
Rating factor	0.65	0.58	0.50	0.41	0.29

Technical Specifications for 6701B

VOLTAGE DROP (per Ampere per metre):

Conductor Cross Sectional Area	2 Cables d.c.	Reference Methods 3 & 4 (enclosed in conduit etc in or on a wall) 2 Cables Single Phase a.c.			Reference Methods 3 & 4 (enclosed in conduit etc in or on a wall) 3/4 Cables Three Phase a.c.		
1	2	3			4		
mm ²	mV	mV			mV		
1	46	46			40		
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	0.31	1.90	1.60	0.27	1.65
35	1.35	1.35	0.29	1.35	1.15	0.25	1.15
50	0.99	1.00	0.29	1.05	0.87	0.25	0.90
70	0.68	0.70	0.28	0.75	0.60	0.24	0.65
95	0.49	0.51	0.27	0.58	0.44	0.23	0.50
120	0.39	0.41	0.26	0.48	0.35	0.23	0.42
150	0.32	0.33	0.26	0.43	0.29	0.23	0.37
185	0.25	0.27	0.26	0.37	0.23	0.23	0.32
240	0.190	0.21	0.26	0.33	0.185	0.22	0.29

GUIDE TO MINIMUM BENDING RADII ON FLEXIBLE CORDS AND CABLES

Cable Type	Cable Diameter (mm)			
	≤8 ≤	> 8 ≤ 12	> 12 ≤ 20	> 20
	M.B.R. (Minimum Bending Radius)			
Flexible Cable Thermoplastic (e.g. PVC)				
Fixed installation	3D	3D	4D	4D
Free movement*	5D	5D	6D	6D
Flexible Cable Elastomeric (e.g. rubber)				
Fixed installation	3D	3D	4D	4D
Free movement*	4D	4D	5D	6D

Where D = cable diameter.

The above values are based on recommendations given in BS7540 “Use of cables with a rated voltage not exceeding 450/750V”.

*These values do not apply to cables used on festoon, reeling drum, cranes, robotics, etc., where repetitive flexing and/or twisting is anticipated.

For further details refer to BS7540.