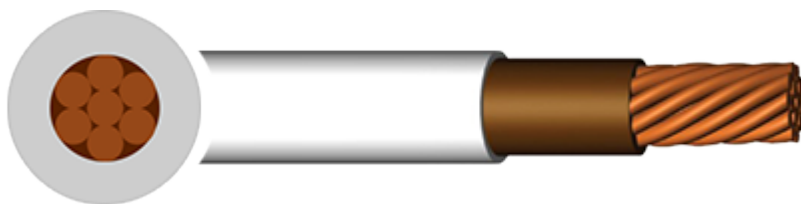


6181B Surface Wiring Cable - BS7211,LSZH 1.5mm-35mm



6181B is a Low Smoke Zero Halogen single core cable, double insulated with a voltage rating of 450/750V. General surface wire cable for fixed installation, domestic and light industrial use. Available in Blue and Brown cores, sizes from 1.5mm² – 35mm². As this cable is used internally, it is covered by current CPR regulations. This cable is BASEC Approved to 35mm².

Key Features



CPR Compliant
Yes



Installation Guidelines
Should not be installed at temperatures below 0°C or above +40°C



Voltage Rating
450/750 Volts



Minimum Bending Radius
As Per Manufacturers Datasheet

Construction

- **Conductor:** 1mm² & 2.5mm² -Solid conductor | Above 2.5mm² - plain annealed stranded circular copper conductor single core
- **Insulation:** Cross Linked polyethylene (XLPE)
- **Sheath:** Low Smoke Zero Halogen (LSZH)
- **Sheath Colour:** Grey or White

Standards

- BS 7211, Acid gas emission to IEC60754, Smoke emission to IEC 61034, Flame propagation to IEC 60332, Low Smoke and Zero Halogen (LSZH), BASEC Approved

6181B Surface Wiring Cable - BS7211,LSZH 1.5mm-35mm - Dimensions

Reference	Conductor Size (mm ²)	No Of Cores	Stranding(mm)	Overall Diameter(mm)	Weight(Kg/Km)	Nylon Size	Gland Ref
6181B1/5B*	1.5	1	1/1.38	5.1	34	NONE	20/16
6181B2/5B*	2.5	1	1/1.78	6	49	NONE	20/16
6181B4B*	4	1	7/0.85	6.8	75	NONE	20/16
6181B6B*	6	1	7/1.04	7.4	99	NONE	20/16
6181B10B*	10	1	7/1.35	8.8	155	NONE	20S
6181B16B*	16	1	7/1.04	10.5	225	NONE	20S
6181B25B*	25	1	7/2.14	12.5	340	0.5	20
6181B35BU	35	1	7/2.52	13.5	440	0.6	25
6181B35BR	35	1	7/2.52	13.5	440	0.5	25

TABLE 4D1A

CURRENT-CARRYING CAPACITY (amperes):

Ambient temperature: 30 °C
Conductor operating temperature:
70 °C

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.)		Reference Method C (clipped direct)		Reference Method F (in free air or on a perforated cable tray horizontal or vertical)				
							Touching			Spaced by one diameter	
	2 cables, single-phase AC or DC	3 or 4 cables, three-phase AC	2 cables, single-phase AC or DC	3 or 4 cables, three-phase AC	2 cables, single-phase AC or DC flat and touching	3 or 4 cables, three-phase AC flat and touching or trefoil	2 cables, single-phase AC or DC flat	3 cables, three-phase AC flat	3 cables, three-phase AC trefoil	2 cables, single-phase AC or DC or 3 cables three-phase AC flat	
										Horizontal	Vertical
I	2	3	4	5	6	7	8	9	10	11	12
(mm ²)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)
1	11	10.5	13.5	12	15.5	14	-	-	-	-	-
1.5	14.5	13.5	17.5	15.5	20	18	-	-	-	-	-
2.5	20	18	24	21	27	25					
4	26	24	32	28	37	33					
6	34	31	41	36	47	43					
10	46	42	57	50	65	59					
16	61	56	76	68	87	79					
25	80	73	101	89	114	104	131	114	110	146	130
35	99	89	125	110	141	129	162	143	137	181	162
50	119	108	151	134	182	167	196	174	167	219	197
70	151	136	192	171	234	214	251	225	216	281	254
95	182	164	232	207	284	261	304	275	264	341	311
120	210	188	269	239	330	303	352	321	308	396	362
150	240	216	300	262	381	349	406	372	356	456	419
185	273	245	341	296	436	400	463	427	409	521	480
240	321	286	400	346	515	472	546	507	485	615	569
300	367	328	458	394	594	545	629	587	561	709	659
400	-	-	546	467	694	634	754	689	656	852	795
500	-	-	626	533	792	723	868	789	749	982	920
630	-	-	720	611	904	826	1005	905	855	1138	1070
800	-	-	-	-	1030	943	1086	1020	971	1265	1188
1000	-	-	-	-	1154	1058	1216	1149	1079	1420	1337

Single core 70°C thermoplastic insulated cables, non-armoured, with or without sheath (COPPER CONDUCTORS) Reproduced from BS7671:2018 Wiring regulations

TABLE 4D1B

VOLTAGE DROP (per ampere per metre):

Conductor operating temperature: 70 °C

Conductor cross-sectional area	2 cables DC	2 cables, single-phase AC									3 or 4 cables, three-phase AC											
		Reference Methods A & B (enclosed in conduit or trunking)			Reference Methods C & F (clipped direct, on tray or in free air)						Reference Methods A & B (enclosed in conduit or trunking)			Reference Methods C & F (clipped direct, on tray or in free air)								
1	2	3			4						6			7								
mm ²	(mV/Nm)	(mV/Afm)			(mV/Afm)						(mV/Afm)			(mV/Afm)								
1	44	44			44						38			38								
1.5	29	29			29						25			25								
2.5	18	18			18						15			15								
4	11	11			11						9.5			9.5								
6	7.3	7.3			7.3						6.4			6.4								
10	4.4	4.4			4.4						3.8			3.8								
16	2.8	2.8			2.8						2.4			2.4								
		r	X	Z	r	X	Z	r	X	Z	r	X	Z	r	X	Z	r	X	Z	r	X	Z
25	1.75	1.80	0.33	1.80	1.75	0.20	1.75	1.75	0.29	1.80	1.50	0.29	1.55	1.50	0.175	1.50	1.50	0.25	1.55	1.50	0.32	1.55
35	1.25	1.30	0.31	1.30	1.25	0.195	1.25	1.25	0.28	1.30	1.10	0.27	1.10	1.10	0.170	1.10	1.10	0.24	1.10	1.10	0.32	1.15
50	0.93	0.95	0.30	1.00	0.93	0.190	0.95	0.93	0.28	0.97	0.81	0.26	0.85	0.80	0.165	0.82	0.80	0.24	0.84	0.80	0.32	0.86
70	0.63	0.65	0.29	0.72	0.63	0.185	0.66	0.63	0.27	0.69	0.56	0.25	0.61	0.55	0.160	0.57	0.55	0.24	0.60	0.55	0.31	0.63
95	0.46	0.49	0.28	0.56	0.47	0.180	0.50	0.47	0.27	0.54	0.42	0.24	0.48	0.41	0.155	0.43	0.41	0.23	0.47	0.40	0.31	0.51
120	0.36	0.39	0.27	0.47	0.37	0.175	0.41	0.37	0.26	0.45	0.33	0.23	0.41	0.32	0.150	0.36	0.32	0.23	0.40	0.32	0.30	0.44
150	0.29	0.31	0.27	0.41	0.30	0.175	0.34	0.29	0.26	0.39	0.27	0.23	0.36	0.26	0.150	0.30	0.26	0.23	0.34	0.26	0.30	0.40
185	0.23	0.25	0.27	0.37	0.24	0.170	0.29	0.24	0.26	0.35	0.22	0.23	0.32	0.21	0.145	0.26	0.21	0.22	0.31	0.21	0.30	0.36
240	0.180	0.195	0.26	0.33	0.185	0.165	0.25	0.185	0.25	0.31	0.17	0.23	0.29	0.160	0.145	0.22	0.160	0.22	0.27	0.160	0.29	0.34
300	0.145	0.160	0.26	0.31	0.150	0.165	0.22	0.150	0.25	0.29	0.14	0.23	0.27	0.130	0.140	0.190	0.130	0.22	0.25	0.130	0.29	0.32
400	0.105	0.130	0.26	0.29	0.120	0.160	0.20	0.115	0.25	0.27	0.12	0.22	0.25	0.105	0.140	0.175	0.105	0.21	0.24	0.100	0.29	0.31
500	0.086	0.110	0.26	0.28	0.098	0.155	0.185	0.093	0.24	0.26	0.10	0.22	0.25	0.086	0.135	0.160	0.086	0.21	0.23	0.081	0.29	0.30
630	0.068	0.094	0.25	0.27	0.081	0.155	0.175	0.076	0.24	0.25	0.08	0.22	0.24	0.072	0.135	0.150	0.072	0.21	0.22	0.066	0.28	0.29
800	0.053	-	-	-	0.068	0.150	0.165	0.061	0.24	0.25	-	-	-	0.060	0.130	0.145	0.060	0.21	0.22	0.053	0.28	0.29
1000	-0.042	-	-	-	0.059	0.150	0.160	0.050	0.24	0.24	-	-	-	0.052	0.130	0.140	0.052	0.20	0.21	0.044	0.28	0.28

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