

BS6491 X 450/750V

Flame retardant low voltage cable



Application

PVC insulated cable only for fixed wiring purposes. Used in trunking or conduit, or may be surface mounted when used for earthing.

Construction

Conductor	: Class 2 stranded copper conductors to BS EN 60228
Insulation	: PVC Insulation Type TI.1 to BS EN 50363-3 Flame retardant to BS EN 60332-1-2
Voltage rating	: 450/750V
Temperature rating	: 0 °C – 70 °C

Outer Sheath Colours

Available colours	: Black, Blue, Brown, Grey, Green/Yellow Other colours on request
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Installation recommendations

Min. Bending Radius < 10mm²	: 4xD
Min. Bending Radius 10mm² - 25mm²	: 5xD
Min. Bending Radius > 25mm²	: 6xD

Standards applied

BS EN 50525-3-31
Cenelec harmonised codes
BASEC approved

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Range and Dimensions

Article Code	Nominal cross sectional area mm ²	Nominal thickness of insulation mm	Nominal overall diameter mm	Nominal weight kg/km
P0201C1.5BAK**3	1.5	0.7	3.3	23
P0201C2.5BAK**3	2.5	0.8	4.0	35
P0201C004BAK**3	4	0.8	4.6	51
P0201C006BAK**3	6	0.8	5.2	71
P0201C010BAK**3	10	1.0	6.7	120
P0201C016BAK**3	16	1.0	7.8	180
P0201C025BAK**3	25	1.2	9.7	285
P0201C035BAK**3	35	1.2	10.9	380
P0201C050BAK**3	50	1.4	12.8	510
P0201C070BAK**3	70	1.4	14.6	720
P0201C095BAK**3	95	1.6	17.1	990
P0201C120BAK**3	120	1.6	18.8	1230
P0201C150BAK**3	150	1.8	20.9	1510
P0201C185BAK**3	185	2.0	23.3	1900
P0201C240BAK**3	240	2.2	26.6	2490
P0201C300BAK**3	300	2.4	29.6	3100
P0201C400BAK**3	400	2.6	33.2	3950
P0201C500BAK**3	500	2.8	36.9	4950
P0201C630BAK**3	630	2.8	41.1	5300

** Incore Cables No. shown above designate the sheath colour (*). For each colour substitute * for a colour code as listed below. e.g. P0201C1.5BAKBR3 = 4mm² Brown

Colour codes

Colour	Black	Blue	Grey	Green / Yellow	Brown
Code	BK	BL	GR	GY	BR

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Electrical characteristics

Current – Carrying capacity

Nominal cross sectional area mm ²	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 (on a perforated cable tray horizontal or vertical)		Reference method G (in free air)		
	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 and touching	3 or 4 Cables Three Phase a.c. flat and touching	Horizontal Flat Spaced	Vertical Flat Spaced	Trefoil
	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	2 Cables single-phase AC or DC or 3 Cables three-phase AC		3 Cables trefoil three phase AC
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	146	130	110
35	99	89	125	110	141	129	162	143	181	162	137
50	119	108	151	134	182	167	196	174	219	197	167
70	151	136	192	171	234	214	251	225	281	254	216
95	182	164	232	207	284	261	304	275	341	311	264
120	210	188	269	239	330	303	352	321	396	362	308
150	240	216	300	262	381	349	406	372	456	419	356
185	273	245	341	296	436	400	463	427	521	480	409
240	321	286	400	346	515	472	546	507	615	569	485
300	367	328	458	394	594	545	629	587	709	659	561
400	-	-	546	467	694	634	754	689	852	795	656
500	-	-	626	533	792	723	868	789	982	920	749
630	-	-	720	611	904	826	1005	905	1138	1070	855

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Voltage drop

Nominal cross sectional area	2 Cables DC	2 Cables single-phase AC mV/A/m						3 or 4 Cables three-phase AC mV/A/m																	
		Reference Methods A & B (enclosed in conduit etc in or on a wall)			Reference Methods C, F & G (clipped direct or on trays, touching)			Reference Method C, F & G (spaced*)			Reference Methods A & B (enclosed in conduit etc in or on wall)			Reference Methods C, F & G (in trefoil)			Reference Methods C, F & G (flat touching)			Reference Methods C, F & G (flat spaced*)					
mm ²	mV	mV			mV			mV			mV			mV			mV			mV					
2.5	29	29			29			29			25			29			29			29					
2.5	18	18			18			18			15			15			15			15					
4	11	11			11			11			9.5			9.5			9.5			9.5					
6	7.3	7.3			7.3			7.3			6.4			6.4			6.4			6.4					
10	4.4	4.4			4.4			4.4			3.8			3.8			3.8			3.8					
16	2.8	2.8			2.8			2.8			2.4			2.4			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	r	x	z
25	1.75	1.80	0.33	1.80	1.75	0.20	1.75	1.76	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	0.19	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	0.23	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	0.22	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	0.18	0.195	0.26	0.33	0.185	0.165	0.25	0.185	0.25	0.31	0.17	0.23	0.29	0.16	0.145	0.22	0.16	0.22	0.27	0.16	0.29	0.34			
300	0.145	0.16	0.26	0.31	0.15	0.165	0.22	0.150	0.25	0.29	0.14	0.23	0.27	0.13	0.140	0.19	0.13	0.21	0.25	0.13	0.29	0.32			
400	0.105	0.13	0.26	0.29	0.12	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	0.10	0.29	0.31			
500	0.086	0.11	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	0.16	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	0.15	0.072	0.21	0.22	0.066	0.28	0.29			

Conductor operating temperature: 90°C

r = Resistive Component

x = Reactive Component

z = Impedance Value

* Spaced by one cable diameter

De-rating factors

For ambient air temperatures other than 30 °C

Ambient temperature	20°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
De-rating factor	1.02	1.00	0.94	0.87	0.79	0.71	0.61	0.50

NOTICE

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