

BS5467 0,6/1kV Single Core AWA PVC

An aluminium wire armoured cable for power and auxiliary control



Application

An aluminium wire armoured cables for power and auxiliary control. For the use in underground, power networks, outdoor and indoor applications and for the use of cable ducting.

Construction

Conductor	: Class 2 stranded copper conductor according to BS EN 60228.
Insulation	: XLPE, cross linked polyethylene
Bedding	: PVC, polyvinyl chloride
Armour	: AWA, aluminium wire armour
Sheath	: PVC, polyvinyl chloride

Core identification

1 Core	: Brown, Blue
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Outer Sheath Colours

Available colours	: Black
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Installation recommendations

Min. Bending Radius during Installation	: 8xD
Min. Bending Radius Fix Installed	: 6xD
Max. Conductor Operating Temperature	: -25 °C to 90°C

Standards applied

BS 5467
BS EN/IEC 60502-1
BS EN/IEC 60332-1-2

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Range and Dimensions

Article Code	Number of cores	Nominal cross sectional area mm ²	Nominal thickness of insulation mm	Nominal Under Armour diameter	Nominal overall diameter mm	Nominal weight kg/km	BW / CW Gland
P0701C050BAK BK4	1	50	1	12.7	17.5	800	20
P0701C070BAK BK4	1	70	1.1	14.7	20.2	960	25
P0701C095BAK BK4	1	95	1.1	16.6	22.3	1240	25
P0701C120BAK BK4	1	120	1.2	18.5	24.2	1510	25
P0701C150BAK BK4	1	150	1.4	20.8	27.4	1900	32
P0701C185BAK BK4	1	185	1.6	23.2	30	2320	32
P0701C240BAK BK4	1	240	1.7	26	32.8	2930	32
P0701C300BAK BK4	1	300	1.8	28.6	35.8	3580	40
P0701C400BAK BK4	1	400	2	32.4	40.5	4600	40
P0701C500BAK BK4	1	500	2.2	36	44.2	5770	50S
P0701C630BAK BK4	1	630	2.4	40	48.8	7250	50
P0701C800BAK BK4	1	800	2.6	45.6	55.4	9381	63S
P0701C1000BAK BK4	1	1000	2.8	50.6	60.6	11540	63S

Electrical characteristics XLPE/PVC/SWA/PVC

Nominal cross sectional area mm ²	Reference method C (clipped direct) Amps		Reference Method E (in free air or on a perforated cable tray, horizontal or vertical) Amps			Reference Method D (direct in ground or in ducting in ground, in or around buildings) Amps					
	Touching		Touching			Spaced by one cable diameter					
	2 Cables single-phase AC or DC flat Amps	3 or 4 Cables three-phase AC or DC flat Amps	2 Cables single-phase AC or DC flat Amps	3 Cables three-phase AC flat Amps	3 Cables three-phase AC trefoil Amps	2 Cables DC Amps		2 Cables single-phase AC Amps		3 or 4 Cables Three-phases AC Amps	
						horizontal	vertical	horizontal	vertical	horizontal	vertical
50	237	220	253	232	222	284	270	282	266	288	266
70	303	277	322	293	285	356	349	357	337	358	331
95	367	333	389	352	346	446	426	436	412	425	393
120	425	383	449	405	402	519	497	504	477	485	449
150	488	437	516	462	463	600	575	566	539	549	510
185	557	496	587	524	529	688	660	643	614	618	574
240	656	579	689	612	625	815	782	749	714	715	666
300	755	662	792	700	720	943	906	842	805	810	755
400	853	717	899	767	815	1137	1094	929	889	848	797
500	962	791	1016	851	918	1314	1266	1032	989	923	871
630	1082	861	1146	935	1027	1528	1474	1139	1092	992	940
800	1170	904	1246	987	1119	1809	1744	1204	1155	1042	978
1000	1261	961	1345	1055	1214	2100	2026	1289	1238	1110	1041

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

Notes

- Where a conductor operates at a temperature exceeding 70°C it must be ascertained that the equipment connected to the conductor is suitable for the conductor operating temperature (see Regulation 512.1.2 of the 17th Edition of IEE Wiring Regulations).
- Where cables in this table are connected to equipment or accessories designed to operate at a temperature not exceeding 70°C, the current ratings given in the equivalent table for 70°C thermoplastic insulated cables (Table 4D3A) must be used (see Regulation 523.1 of the 17th Edition of IEE Wiring Regulations).

The above table is in accordance with Table 4E3A of the 17th Edition of IEE Wiring Regulations

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Voltage drop

Nominal cross selection area mm ²	Two core cable DC	Reference method c & F (clipper direct, on tray or in free air)														
		2 Cables single-phase AC mV/A/m						3 or 4 Cables three-phase AC mV/A/m								
		Touching			Spaced*			Trefoil and touching			Flat and touching			Flat and spaced*		
	r	x	z	r	x	z	r	x	z	r	x	r	r	x	r	
50	0.980	0.990	0.210	1.000	0.980	0.29	1.00	0.860	0.180	0.870	0.840	0.250	0.88	0.840	0.330	0.90
70	0.670	0.680	0.200	0.710	0.690	0.29	0.75	0.590	0.170	0.620	0.600	0.250	0.65	0.620	0.320	0.70
95	0.490	0.510	0.195	0.550	0.530	0.28	0.60	0.440	0.170	0.470	0.460	0.240	0.52	0.490	0.310	0.58
120	0.390	0.410	0.190	0.450	0.430	0.27	0.51	0.350	0.165	0.390	0.380	0.240	0.44	0.410	0.300	0.51
150	0.310	0.330	0.185	0.380	0.360	0.27	0.45	0.290	0.160	0.330	0.310	0.230	0.39	0.340	0.290	0.45
185	0.250	0.270	0.185	0.330	0.300	0.26	0.40	0.230	0.160	0.280	0.260	0.230	0.34	0.290	0.290	0.41
240	0.195	0.210	0.180	0.280	0.240	0.26	0.35	0.180	0.155	0.240	0.210	0.220	0.30	0.240	0.280	0.37
300	0.155	0.170	0.175	0.250	0.195	0.25	0.32	0.145	0.150	0.210	0.170	0.220	0.28	0.200	0.270	0.34
400	0.115	0.145	0.170	0.220	0.180	0.24	0.30	0.125	0.150	0.195	0.160	0.210	0.27	0.200	0.270	0.33
500	0.093	0.125	0.170	0.210	0.165	0.24	0.29	0.105	0.145	0.180	0.145	0.200	0.25	0.190	0.240	0.31
630	0.073	0.105	0.165	0.195	0.150	0.23	0.27	0.092	0.145	0.170	0.135	0.195	0.24	0.175	0.230	0.29
800	0.056	0.090	0.160	0.190	0.145	0.23	0.27	0.086	0.140	0.165	0.130	0.180	0.23	0.175	0.195	0.36
1000	0.045	0.092	0.155	0.180	0.140	0.21	0.25	0.080	0.135	0.155	0.125	0.170	0.21	0.165	0.180	0.24

Conductor operating temperature: 90°C

r = Resistive Component
 x = Reactive Component
 z = Impedance Value

The above table is in accordance with Table 4E4B of the 17th Edition of IEE Wiring Regulations.

For cables having conductors of 16mm² or less cross sectional area their inductances can be ignored and (mV/A/m)r values only are tabulated. For cables having conductors greater than 16mm², cross sectional area the impedance values are given as (mV/A/m)z, together with the resistive component (mV/A/m)r and the reactive component (mV/A/m)x.

The above paragraph is extracted from Appendix 4 of the 17th Edition of IEE Wiring Regulations

NOTICE

Incore Cables has endeavored to ensure the accuracy of the data in this publication, however we cannot be liable for the consequences of errors or omissions. All data is subject to change without notice. The installer and/or user assumes all liability for the consequences of the installation and/or use of any of our products in contravention of any applicable law, regulation or code.

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