

SWA PVC POWER CABLE 0.6/1KV BS5467



Multi-core PVC cables with steel wire armour (SWA) are versatile power and auxiliary control cables suitable for use in various applications, including power networks, underground installations, and indoor or outdoor use.

They provide excellent mechanical protection against damage, thanks to heavy galvanized steel wire armour, making them ideal for use inside and outside buildings or for direct burial in the ground.

These cables are designed for fixed wiring applications, offering reliability and durability in power networks, both indoors and outdoors, and within cable ducting systems.

CONDUCTOR	Plain Copper
STRANDING	Class 2
INSULATION	XLPE
BEDDING	PVC
ARMOUR	AWA (single core) or SWA (multi core)
OUTERSHEATH	PVC
OUTERSHEATH COLOUR	Black
RATED VOLTAGE	0.6/1kV
CORE IDENTIFICATION	One Core - Brown Two Core - Brown, Blue Three Core - Brown, Black & Grey (Optional: Brown, Blue & Green/Yellow) Four Core - Brown, Black, Grey & Blue (Optional: Brown, Black, Grey & Green/Yellow) Five Core - Numbered Cores (Optional: Brown, Black, Grey, Blue & Green/Yellow) Six Core and Above - Numbered Cores (Optional: Numbered + Green/Yellow)
MINIMUM BENDING RADIUS	1.5sqmm - 16sqmm - 6x Overall diameter (circular cond.) 25sqmm and above - 8 x Overall Diameter (shaped cond.)
OPERATING TEMPERATURE	Maximum 90°C
STANDARDS	BS5467: Electric cables. Thermosetting insulated, armoured cables for voltages of 600/1000V and 1900/3300V IEC60502: Power cables with extruded insulation and their accessories for rated voltages from 1kV to 30kV BS EN 60332-1

SPECIFICATION DATA

BATT Part No	Number of cores	Nominal cross sectional area of conductor	Nominal thickness of insulation (mm)	Nominal diameter under armour (mm)	Nominal O/D (mm)	Weight
56441	1	95	1.1	15.2	21.4	1187
56442	1	120	1.2	17	23.1	1442
56443	1	150	1.4	19.1	25.6	1782
56444	1	185	1.6	21	27.7	2168
56445	1	240	1.7	23.9	30.4	2724
56446	1	300	1.8	26.5	33.25	3357
56447	1	400	2	30	37.4	4288
56448	1	500	2.2	33.2	41.15	5425
56449	1	630	2.4	37.3	45.35	6827
55091	2	1.5	0.6	7.1	11	245
55092	2	2.5	0.7	8.3	12.4	309
55093	2	4	0.7	9.3	13.45	367
55098	2	6	0.7	10.5	14.65	446
55105	2	10	0.7	11.8	16	575
55108	2	16	0.7	13.8	18.7	865
56452	2	25	0.9	17.2	22.9	1280
56453	2	35	0.9	19.4	26.1	1715
56454	2	50	1	19.9	26	1770
56455	2	70	1.1	23	28.75	2250
56456	2	95	1.1	26	32.95	3038
55109	3	1.5	0.6	7.5	11.45	268
55110	3	2.5	0.7	8.9	12.95	342
55111	3	4	0.7	10	14.05	416
55113	3	6	0.7	11.2	15.35	513
55115	3	10	0.7	12.7	17.55	769
55116	3	16	0.7	14.8	19.75	1025
56463	3	25	0.9	18.6	25.5	1746
56464	3	35	0.9	20.7	27.85	2137
56465	3	50	1	22.5	28.15	2338
56466	3	70	1.1	26	31.75	3083
56467	3	95	1.1	29.7	36.3	4143
56468	3	120	1.2	33	39.75	5003
56469	3	150	1.4	37.1	44.45	6413
56470	3	185	1.6	41	48.45	7710
56471	3	240	1.7	46	53.7	9605
55118	4	1.5	0.6	8.3	12.15	301
55121	4	2.5	0.7	9.8	13.85	389
55123	4	4	0.7	11	15.1	493
55124	4	6	0.7	12.5	17.4	698
55126	4	10	0.7	14.1	18.9	909
55129	4	16	0.7	16.4	21.35	1235
56485	4	25	0.9	20.6	27.5	2104
56486	4	35	0.9	23	29	2511
56487	4	50	1	25.8	32.55	3105
56488	4	70	1.1	30.1	38.3	4468
56489	4	95	1.1	34.1	42.25	5665

56490	4	120	1.2	38.3	47.7	7278
56491	4	150	1.4	42.6	52.25	8653
56492	4	185	1.6	47.1	57.1	10480
56493	4	240	1.7	53.3	63.4	13090
56494	4	300	1.8	58.9	69.2	15808
55138 (Numbered Cores)	2	1.5	0.6	7.1	11	245
55139 (Numbered Cores)	2	2.5	0.7	8.3	12.4	309
55140 (Numbered Cores)	3	1.5	0.6	7.5	11.45	268
55141 (Numbered Cores)	3	2.5	0.7	8.9	12.95	342
55143 (Numbered Cores)	4	1.5	0.6	8.3	12.15	301
55144 (Numbered Cores)	4	2.5	0.7	9.8	13.85	389
55043 (Numbered Cores)	5	1.5	0.6	9	13.1	350
55049 (Numbered Cores)	5	2.5	0.7	10.7	14.8	458
55513 (Numbered Cores)	5	4	0.7	12.1	16.35	578
55347 (Numbered Cores)	5	6	0.7	13.7	18.65	815
55348 (Numbered Cores)	5	10	0.7	15.5	20.28	1071
55514 (Numbered Cores)	5	16	0.7	18.5	24.35	1632
55373 (Numbered Cores)	7	1.5	0.6	9.9	14.05	402
55490 (Numbered Cores)	7	2.5	0.7	11.7	15.95	522
55484 (Numbered Cores)	7	4	0.7	13.4	18.35	761
55542 (Numbered Cores)	7	6	0.7	15.1	20.1	913
55381 (Numbered Cores)	8	1.5	0.6	11.4	15.6	500
55025 (Numbered Cores)	8	2.5	0.7	13.5	17.7	625
55053 (Numbered Cores)	10	1.5	0.6	12	16.9	635
55089 (Numbered Cores)	10	2.5	0.7	14.2	19.1	775
55374 (Numbered Cores)	12	1.5	0.6	13.2	18.2	674
55491 (Numbered Cores)	12	2.5	0.7	15.8	20.95	885
55534 (Numbered Cores)	12	4	0.7	18.2	24.05	1275
55041 (Numbered Cores)	16	1.5	0.6	14.4	19.8	782
55382 (Numbered Cores)	19	1.5	0.6	15.6	20.6	870
55492 (Numbered Cores)	19	2.5	0.7	18.9	24.9	1343
55004 (Numbered Cores)	19	4	0.7	21.5	27.5	1708
55045 (Numbered Cores)	22	1.5	0.6	17.5	22.6	1020
55383 (Numbered Cores)	27	1.5	0.6	18.8	25	1225
55493 (Numbered Cores)	27	2.5	0.7	22.8	29.2	1700
55048 (Numbered Cores)	30	1.5	0.6	24.4	30.4	1930
55033 (Numbered Cores)	37	1.5	0.6	21.2	27.4	1504
55030 (Numbered Cores)	37	2.5	0.7	25.7	32.1	2100
55245 (G/Y Core)	3	1.5	0.6	7.5	11.45	268
55227 (G/Y Core)	3	2.5	0.7	8.9	12.95	342
55229 (G/Y Core)	3	4	0.7	10	14.05	416
55210 (G/Y Core)	3	6	0.7	11.2	15.35	513
55006 (G/Y Core)	3	10	0.7	12.7	17.55	769
55211 (G/Y Core)	3	16	0.7	14.8	19.75	1025
56682 (G/Y Core)	3	25	0.9	18.6	25.5	1746
55247 (G/Y Core)	4	1.5	0.6	8.3	12.15	301
55249 (G/Y Core)	4	2.5	0.7	9.8	13.85	389
55240 (G/Y Core)	4	4	0.7	11	15.1	493
55250 (G/Y Core)	4	6	0.7	12.5	17.4	698
55253 (G/Y Core)	4	10	0.7	14.1	18.9	909
55255 (G/Y Core)	4	16	0.7	16.4	21.35	1235

55259 (G/Y Core)	5	1.5	0.6	9	13.1	350
55233 (G/Y Core)	5	2.5	0.7	10.7	14.8	458
55260 (G/Y Core)	5	4	0.7	12.1	16.35	578
55293 (G/Y Core)	5	6	0.7	13.7	18.65	815
55133 (G/Y Core)	5	10	0.7	15.5	20.28	1071
55320 (G/Y Core)	5	16	0.7	18.5	24.35	1632
56652 (G/Y Core)	5	25	0.9	22.7	28.6	2408
56654 (G/Y Core)	5	35	0.9	25.4	31.5	3047
56367 (G/Y Core)	5	50	1	29.9	37.2	4200
56010 (G/Y Core)	5	70	1.1	34.5	42.2	5600
56713 (G/Y Core)	5	95	1.1	39.4	48.3	6665
55242 (Numbered + G/Y)	7	1.5	0.6	9.9	14.05	402
55297 (Numbered + G/Y)	7	2.5	0.7	11.7	15.95	522
55294 (Numbered + G/Y)	12	1.5	0.6	13.2	18.2	674
55402 (Numbered + G/Y)	12	2.5	0.7	15.8	20.95	885
55431 (Numbered + G/Y)	19	2.5	0.7	18.9	24.9	1343

RATING TABLES

COPPER CONDUCTORS

TABLE 4E3A – Single-core armoured 90 °C thermosetting insulated cables (non-magnetic armour) (COPPER CONDUCTORS)

CURRENT-CARRYING CAPACITY (amperes):

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

Conductor cross-sectional area	Reference Method C (clipped direct)		Reference Method F (in free air or on a perforated cable tray, horizontal or vertical)								
	Touching		Touching		Spaced by one cable diameter						
	2 cables, single-phase AC or DC flat	3 or 4 cables, three-phase AC flat	2 cables, single-phase AC or DC flat	3 cables, three-phase AC flat	2 cables, DC		2 cables, single-phase AC		3 or 4 cables, three-phase AC		
	2	3	4	5	6	7	8	9	10	11	12
(mm ²)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)	(A)
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

NOTES:

- 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).
- 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 4E3B

VOLTAGE DROP (per ampere per metre):

Conductor operating temperature: 90 °C

Conductor cross-sectional area 1 (mm ²)	2 cables, DC 2 (mV/A/m)	Reference Methods C & F (clipped direct, on tray or in free air)														
		2 cables, single-phase AC						3 or 4 cables, three-phase AC								
		touching 3 (mV/A/m)			spaced* 4 (mV/A/m)			trefoil and touching 5 (mV/A/m)			flat and touching 6 (mV/A/m)			flat and spaced* 7 (mV/A/m)		
		r	x	z	r	x	z	r	x	z	r	x	z	r	x	z
50	0.98	0.99	0.21	1.00	0.98	0.29	1.00	0.86	0.180	0.87	0.84	0.25	0.88	0.84	0.33	0.90
70	0.67	0.68	0.200	0.71	0.69	0.29	0.75	0.59	0.170	0.62	0.60	0.25	0.65	0.62	0.32	0.70
95	0.49	0.51	0.195	0.55	0.53	0.28	0.60	0.44	0.170	0.47	0.46	0.24	0.52	0.49	0.31	0.58
120	0.39	0.41	0.190	0.45	0.43	0.27	0.51	0.35	0.165	0.39	0.38	0.24	0.44	0.41	0.30	0.51
150	0.31	0.33	0.185	0.38	0.36	0.27	0.45	0.29	0.160	0.33	0.31	0.23	0.39	0.34	0.29	0.45
185	0.25	0.27	0.185	0.33	0.30	0.26	0.40	0.23	0.160	0.28	0.26	0.23	0.34	0.29	0.29	0.41
240	0.195	0.21	0.180	0.28	0.24	0.26	0.35	0.180	0.155	0.24	0.21	0.22	0.30	0.24	0.28	0.37
300	0.155	0.170	0.175	0.25	0.195	0.25	0.32	0.145	0.150	0.21	0.170	0.22	0.28	0.20	0.27	0.34
400	0.115	0.145	0.170	0.22	0.180	0.24	0.30	0.125	0.150	0.195	0.160	0.21	0.27	0.20	0.27	0.33
500	0.093	0.125	0.170	0.21	0.165	0.24	0.29	0.105	0.145	0.180	0.145	0.20	0.25	0.190	0.24	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	0.23	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	0.26
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

NOTE: * Spacings larger than one cable diameter will result in a larger voltage drop.

**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 1 (mm ²)	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
	2 (A)	3 (A)	4 (A)	5 (A)	6 (A)	7 (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:

- 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).
- 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 1 (mm ²)	Two-core cable, DC 2 (mV/A/m)	Two-core cable, single-phase AC 3 (mV/A/m)			Three- or four-core cable, three-phase AC 4 (mV/A/m)		
		r	x	z	r	x	z
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

The information in this datasheet is for guidance only and subject to change without liability. Images provided are representations; actual cable dimensions may vary due to manufacturing tolerances.

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