BS5467 SWA PVC

BASEC SWA PVC 0.6/1kV

Application

This multi-core, PVC-sheathed, steel wire armoured (SWA) cable is manufactured to BS5467 standards for reliable performance in low voltage (600/1000V) power distribution. Suitable for direct burial, ducting, or cable tray installation, it offers strong mechanical protection via its steel wire armour. The PVC sheath provides resistance to moisture, UV, and chemicals, making it ideal for tough external environments.

Characteristics

Voltage Rating (Uo/U) 600/1000V
Temperature rating -25/+90 °C
Fixed: Minimum Bending Radius
1.5mm^2 to 16mm^2 - Fixed: 6 x overall diameter
25mm^2 and above - Fixed: 8 x overall diameter

Construction

BS 5467, IEC/EN 60502-1, IEC/EN 60228
Flame Retardant according to IEC/EN 60332-1-2

Construction

Conductor Class 2 stranded copper conductor
Insulation XLPE Cross-Linked Polyethylene
Bedding PVC (Polyvinyl Chloride)
Armour SWA (Steel Wire Armour)
Sheath PVC Polyvinyl

Regulatory Compliance

Core Identification

2-core: Brown + Blue
3-core: Brown + Black + Grey
4-core: Brown + Black + Grey + Blue
5-core: Brown + Black + Grey + Blue + Green/Yellow
Alternative Core Identification
White cores with Black numbers

THE COPPER MARK RESPONSIBLY PRODUCED COPPER

The Copper Mark Partnership
- IEWC promotes sustainable practices by our suppliers
- Copper Mark promotes seven of 17 UN Global Sustainability Goals
- Copper Mark recipients cover
- 20% of global copper production

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Premier Part No	No of Cores	Nominal cross-section (mm^2)	Nominal Thickness of Insulation (mm^2)	Nominal Diameter under armour (mm^2)	Nominal overall diameter (mm^2)	Approx. net weight (kg/km)	CW/BW LSOH Glands metric
21002x001.5	2	1.5	0.6	7.3	12.1	302	20s
21002x002.5	2	2.5	0.7	8.5	13.6	345	20s
21002x004	2	4	0.7	9.4	14.7	410	20s
21002x006	2	6	0.7	10.5	15.9	499	20
21002x010	2	10	0.7	12.3	18.0	648	20
21002x016	2	16	0.7	14.3	20.4	978	20
21002x025	2	25	0.9	14.7	21.0	1290	25
21002x035	2	35	0.9	16.8	23.3	1500	25
21002x050	2	50	1.0	19.0	25.8	1890	25
21002x070	2	70	1.1	22.0	29.0	2450	32
21002x095	2	95	1.1	25.1	33.1	3300	32
21002x120	2	120	1.2	27.9	36.1	4020	40
21003x001.5	3	1.5	0.6	7.8	12.6	330	20
21003x002.5	3	2.5	0.7	9.2	14.1	390	20s
21003x004	3	4	0.7	10.0	15.3	464	20s
21003x006	3	6	0.7	11.2	16.6	568	20
21003x010	3	10	0.7	13.1	19.5	866	20
21003x016	3	16	0.7	15.3	21.6	1152	25
21003x025	3	25	0.9	18.9	23.6	1800	25
21003x035	3	35	0.9	21.3	25.7	2230	32
21003x050	3	50	1.0	21.7	28.5	2490	32
21003x070	3	70	1.1	25.2	32.2	3290	32
21003x095	3	95	1.1	28.8	37.0	4440	40
21003x120	3	120	1.2	32.0	40.4	5470	40
21003x150	3	150	1.4	35.9	45.5	6930	50s
21003x185	3	185	1.6	40	49.8	8350	63s
21003x240	3	240	1.7	44.9	55.1	10400	63s
21003x300	3	300	1.8	49.8	60.2	12600	63s
21003x400	3	400	2.0	55.8	66.6	14600	75s

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21004x001.5	4	1.5	0.6	8.5	13.3	365	20s
21004x002.5	4	2.5	0.7	9.9	15.0	438	20
21004x004	4	4	0.7	11.0	16.4	532	20
21004x006	4	6	0.7	12.3	19.7	764	20
21004x010	4	10	0.7	14.5	21.1	1013	25
21004x016	4	16	0.7	17.0	23.4	1360	25
21004x025	4	25	0.9	21.0	26.1	216	32
21004x035	4	35	0.9	23.6	28.6	2690	32
21004x050	4	50	1.0	25.0	32.0	3130	32
21004x070	4	70	1.1	29.5	37.7	4500	40
21004x095	4	95	1.1	33.3	41.7	5600	50s
21004x120	4	120	1.2	37.5	47.1	7400	50
21004x150	4	150	1.4	41.6	51.4	8780	50
21004x185	4	185	1.6	46.4	56.6	10630	63s
21004x240	4	240	1.7	52.6	63.0	13390	63
21004x300	4	300	1.8	58	68.8	16290	75s
21004x400	4	400	2.0	65.4	78.1	19800	90
21005x001.5	5	1.5	0.6	9.7	14.3	410	20s
21005x002.5	5	2.5	0.7	11.7	16.1	470	20
21005x004	5	4	0.7	14.5	20.0	876	25
21005x010	5	10	0.7	17.2	22.9	1165	25
21005x016	5	16	0.7	20.0	26.6	1742	32
21005x025	5	25	0.9	24.7	31.5	2323	32
21005x035	5	35	0.9	27.8	34.8	2932	40
21005x050	5	50	1.0	32.4	40.4	4192	50s
21007x00.15	7	1.5	0.6	10.2	15.2	470.0	20
21007x002.5	7	2.5	0.7	12.3	17.1	600.0	20
21007x004	7	4	0.7	13.6	19.1	81.0	20

Premier Part No	No of Cores	Nominal cross-section (mm^2)	Nominal Thickness of Insulation (mm^2)	Nominal Diameter under armour (mm^2)	Nominal overall diameter (mm^2)	Approx. net weight (kg/km)	CW/BW LSOH Glands metric
21012x001.5	12	1.5	0.6	13.7	19.4	780	20
21012x002.5	12	2.5	0.7	16.3	22.4	1000	25
21019x001.5	19	1.5	0.6	16.2	22.2	1000	25
21019x002.5	19	2.5	0.7	19.9	26.6	1540	32
210027x001.5	27	1.5	0.6	20.0	26.7	1500	32
210027x002.5	27	2.5	0.7	24.0	30.7	1950	32
210037x001.5	37	1.5	0.6	22.3	29.0	1800	32
210037x002.5	37	2.5	0.7	26.9	33.8	2350	40

Class 2 Stranded Copper Conductors for Single & Multi-Core Cables				
Nominal Cross Sectional Area mm^2	Min. No. of Wires in Conductor Circular	Min. No. of Wires in Conductor Circular Compacted	Min. No. of Wires in Conductor Shaped	Max. Resistance of Conductor at 20°C Ohms/km
1.5	7	6		12.1
2.5	7	6		7.41
4	7	6		4.61
6	7	6		3.08
10	7	6		1.83
16	7	6		1.15
25	7	6	6	0.727
35	7	6	6	05.24
50	19	6	6	0.387
70	19	12	6	0.268
95	19	15	15	0.193
120	37	18	18	0.153
150	37	18	18	0.124
185	37	30	30	0.0991
240	37	34	34	0.0754

In accordance with BS EN 60228.

Current Carrying Capacity						
Nominal Cross Sectional Area mm²	Clipped Direct Single Phase 2 Core AC or DC	Three Phase 3 or 4 Core	Free Air or Perforated Tray Single Phase 2 Core AC or DC	Free Air or Perforated Tray Three Phase 3 or 4 Core AC or DC	Direct in Ground Single Phase 2 Core AC or DC	Three Phase 3 or 4 Core
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	43	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		

Air ambient temperature 30°C
Ground ambient temperature 20°C
Conductor operating temperature 90°C
Notes.

1. 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
2. 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 cable

Voltage Drop							
Nominal Cross Sectional Area mm²		Two Core DC		Two Core Single Phase DC mV/A/m		Three or Four Core Three Phase AC mV/A/m	
1.5		31		31		27	
2.5		19		19		16	
4		12		12		10	
6		739		7.9		6.8	
10		407		4.7		4	
16		2.9		2.9		2.5	
		r	x	z	r	x	z
25	1.85	1.85	0.160	1.900	1.600	0.140	1.650
35	1.35	1.35	0.155	1.350	1.150	01.35	1.150
50	0.98	0.99	0.155	1.000	0.860	0.135	0.870
70	0.67	0.67	0.150	0.690	0.590	0.130	0.600
95	0.49	0.5	0.150	0.520	0.430	0.130	0.450
120	0.39	0.4	0.145	0.420	0.340	0.130	0.370
150	0.31	0.32	0.145	0.350	0.280	0.125	0.300
185	0.25	0.26	0.145	0.290	0.220	0.125	0.260
240	0.192	0.2	0.140	0.240	0.175	0.125	0.210
300	0.155	0.16	0.140	0.210	0.140	0.120	0.185
400	0.12	0.13	0.140	0.190	0.115	0.120	0.165

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 the IEE wiring regs.
For cable having conductors of 16mm² or less cross sectional area their inductances can be ignored and (mV/A/m)r values only are tabulated.
For cable 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.