

BS6622 SWA 3-Core 6.35/11kV (12)kV

Armoured 3-core XLPE insulated PVC outer sheath - medium voltage power cable



Application

Electric cable with copper conductors, semi conductive conductor screen, XLPE insulation, semi conductive insulation screen, copper tape metallic screen of each core, PVC bedding, galvanized steel wires armour (SWA) and PVC outer sheath. For energy networks where mechanical stresses are expected. Suitable for underground installation or in ducts.

Construction

Conductor	: Class 2 stranded copper conductor according to BS EN 60228.
Conductor screen	: Semi conductive XLPE (cross linked polyethylene)
Insulation	: XLPE, cross linked polyethylene Type GP8 (BS7655)
Insulation screen	: Semi conductive XLPE (cross linked polyethylene)
Metallic screen	: Individual or collective overall copper tape screen (BS6622)
Filler	: PET (polyethylene Terephthalate)
Separator	: Binding tape
Bedding	: PVC (polyvinyl chloride) type MT1 (BS7655)
Armour	: SWA, steel wire armoured
Sheath	: PVC (polyvinyl chloride) type MT1 (BS7655)
Marking text	: E.g. "BS6622 SWA 3-Core 1x25 mm ² 6,35/11kv IEC60502- 2 year xxxm"
Rated voltage	: 6.35/11 kV

Outer Sheath Colours

Available colours : Red or Black*

*other colours available on request

Installation recommendations

Minimum Bending Radius	: 12xD*
Permissible operating temp. of conductor	: 0°C - 90°C

*10xD possible where bends are positioned adjacent to a joint or termination provided that the bending is carefully controlled by the use of a former.

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Standards applied

IEC60502-2, BS 6622 Cable design
IEC60332-1 Flame Retardant

Range and Dimensions

Article Code	Number of Cores	Cross-Section mm ²	Nominal Diameter			Approx. Weight kg/km
			Under armour mm	Over armour mm	Overall mm	
P1403C025BAK**7	3	25	39.0	44.0	48.4	4300
P1403C035BAK**7	3	35	41.6	46.6	51.6	4700
P1403C050BAK**7	3	50	44.4	49.4	54.6	5300
P1403C070BAK**7	3	70	48.1	53.1	58.5	6300
P1403C095BAK**7	3	95	52.0	57.0	62.6	7300
P1403C120BAK**7	3	120	55.6	60.6	66.6	8400
P1403C150BAK**7	3	150	58.6	63.6	69.8	9600
P1403C185BAK**7	3	185	62.7	67.7	74.1	11000
P1403C240BAK**7	3	240	68.1	74.4	81.2	14000
P1403C300BAK**7	3	300	73.5	79.8	87.0	16600

** BK for Black and RD for Red outer sheath; example P14B01C070BAKBK11 or P14B01C070BAKRD11

Electrical characteristics / current carrying capacity

Number of Cores	Cross-Section mm ²	Continuous current rating					
		In ground Amps		In ducts Amps		In air Amps	
		Trefoil	Flat	Trefoil	Flat	Trefoil	Flat
3	25	140	140	125	125	145	145
3	35	170	170	150	150	175	175
3	50	210	210	180	180	220	220
3	70	250	250	215	215	270	270
3	95	300	300	255	255	330	330
3	120	340	340	290	290	380	380
3	150	380	380	330	330	430	430
3	185	430	430	370	370	490	490
3	240	500	500	430	430	570	570
3	300	540	540	470	470	650	650

De-rating factors

Air temperature °C	25	30	35	40	45	50	55
De-rating factor	1.00	0.96	0.92	0.88	0.83	0.78	0.73
Ground temperature °C	10	15	20	25	30	35	40
De-rating factor	1.03	1.00	0.97	0.93	0.89	0.86	0.82
Ground Thermal resistivity km/W	0.9	1.0	1.2	1.5	2.0	2.5	3.0
De-rating factor	1.06	1.04	1.00	0.92	0.85	0.74	0.68
Dept of laying mtr	0.8	1.00	1.25	1.50	1.75	2.00	2.50
De-rating factor	1.00	0.97	0.95	0.94	0.93	0.91	0.90

NOTICE

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