Application

The BS 6622 3.8/6.6kV Aluminium AWA/SWA PVC Armoured Cable is designed for external and direct burial applications in power networks. AWA/SWA cable, which stands for aluminium wire armoured and steel wire armoured cable, offers robust protection and is suitable for use in demanding environments.

Performance

Electrical Performance: U_0/U: 3.8/6.6 (7.2) kV
Test Voltage (AC): 12.5kV
Mechanical Performance:
Minimum Bending Radius:
Single Core: 15x overall diameter
Multi Core: 12 x overall diameter
Single Core (adjacent to joint or termination): 12 x overall diameter
Three Core (adjacent to joint or termination): 10 x overall diameter
Thermal Performance:
Maximum Service Temperature: 90℃
Maximum Short-Circuit Temperature: 250℃ (Max. 5s)
Minimum Service Temperature: -10℃
Fire Performance:
Flame Retardant according to IEC/EN 60332-1-2

Construction

Conductor: Class 2 stranded compacted aluminium conductor
Insulation: Semi-conductive XLPE (Cross-Linked Polyethylene)
Insulation Screen: Semi-conductive XLPE (Cross-Linked Polyethylene)
Metallic Screen: Concentric copper wires and copper tape
Separator: Binding tape
Inner Sheath: PVC (Polyvinyl Chloride)
Armour:
Single Core: AWA (Aluminium Wire)
Multi Core: SWA (Galvanised Steel Wire)
Sheath: PVC (Polyvinyl Chloride)
Sheath Colour: Red

Specification

-BS 6622, IEC 60502-2, IEC/EN 60228, HD 620 Standard

Eastful Cable Lab

We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.
CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TÜV Rhineland and CCS.

National Green Factory

Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China.
We are committed to the development of high-end, intelligent and green manufacturing industry.

*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

Technical Parameters

Physical Performance			
No. of Cores	Nominal Cross Section Area	Nominal Overall Dia.	Nominal Weight
-	mm^2	mm	kg/km
1	35	24.4	823
1	50	25.6	894
1	70	27.7	1.034
1	95	29.6	1.179
1	120	30.8	1.285
1	150	32.5	1.508
1	185	35.2	1.773
1	240	37.9	2.038
1	300	40.8	2.357
1	400	45	2.893
1	500	49.8	3.553
1	630	56.2	4.614
3	50	49	3750
3	70	54	4500
3	95	57	5000
3	120	60	5500
3	150	64	6000
3	185	68	6750
3	240	76	8750
3	300	82	10000
3	400	90	12000
3	500	97	14000

Technical Parameters

Electrical Performance (Current Carrying Capacity of Copper Conductor)									
No. of Cores	Nominal Cross Section Area	Max. Resistance of Conductor at 20°c	Operating Inductance		Operating Capacity	Continuous Current Rating			
						in Ground at 20OC		in Air at 30OC	
			Flat	Trefoil		Flat	Trefoil	Flat	Trefoil
-	mm^2	Ω/km	mH/km	mH/km	μF/km	A	A	A	A
1	50	0.641	0.719	0.381	0.297	186	178	233	188
1	70	0.443	0.684	0.357	0.339	234	217	280	235
1	95	0.32	0.659	0.342	0.381	287	259	344	286
1	120	0.253	0.636	0.327	0.416	338	298	392	329
1	150	0.206	0.62	0.319	0.454	388	333	441	376
1	185	0.164	0.602	0.31	0.495	449	377	510	428
1	240	0.125	0.579	0.3	0.556	530	438	587	508
1	300	0.1	0.562	0.295	0.617	605	495	682	586
1	400	0.0788	0.543	0.29	0.681	678	562	781	676
1	500	0.0605	0.525	0.283	0.758	762	633	883	772
1	630	0.0469	0.507	0.276	0.853	858	712	1007	882

No. of Cores	Nominal Cross Section Area	Max. Resistance Of Conductor At 20°C	Operating Inductance	Operating Capacity	Continuous Current Rating	
					in Ground at 20OC	in Air at 30OC
-	mm^2	Ω/km	mH/km	μF/km	A	A
3	50	0.641	0.33	0.31	162	160
3	70	0.443	0.31	0.37	199	199
3	95	0.32	0.3	0.41	238	242
3	120	0.253	0.29	0.44	271	280
3	150	0.206	0.28	0.49	304	318
3	185	0.164	0.27	0.53	345	365
3	240	0.125	0.27	0.57	401	431
3	300	0.1	0.26	0.58	516	649
3	400	0.0778	0.26	0.61	572	737
3	500	0.0605	0.25	0.65	638	835