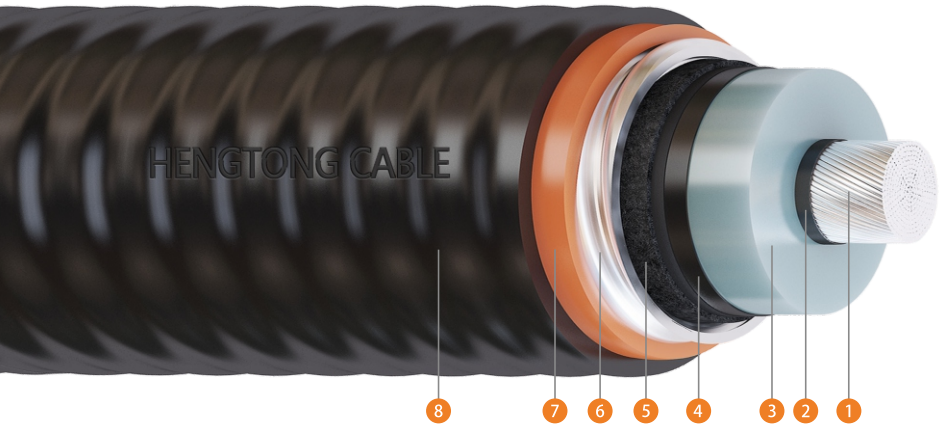


190/330kV Single Core AI/XLPE/CAS/PVC/HDPE



- 1 Compacted or Milliken AI conductor
- 2 Semi conductive screen tape and conductor screen
- 3 XLPE insulation
- 4 Insulation screen
- 5 Semi conductive water-blocking tape
- 6 Corrugated aluminium
- 7 PVC inner sheath
- 8 HDPE outer sheath with graphite coating

Properties:

Rated voltage	190/330kV
Max. operating temperature of conductor	90°C
Max. short-circuit operation temperature of conductor (5s Max. duration)	250°C
Ambient temperature range for operating	from -40°C to +50°C
Relative air humidity at temperature lower than +35°C	up to 95%
Min. temperature for installing without preheating	+0°C
Standard	AS/NZS 1429.2
Fault Level	as per customer requirements

Application:

Cables are designed for fixed installation, for laying in the ground, for indoor application and in cable ducts.

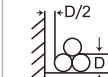
Structural Parameters:

Nominal conductor area	Approx. diameter of conductor	Nominal thickness of insulation	Nominal thickness of aluminium sheath	Nominal thickness of outer sheath		Approx. overall diameter of cable	Approx. weight of cable	Max. allowable pulling force of conductor	Min. bending radius during installation	Min. bending radius after installed
				Inner layer	Outer layer					
mm²	mm	mm	mm	mm	mm	mm	kg/km	kN	mm	mm
500	26.6	29	2.4	2.5	2.5	124.0	12383	19.5	2480	1860
630	29.9	29	2.4	2.5	2.5	126.9	13197	24.6	2538	1904
800	33.6	28	2.4	2.5	2.5	129.4	13821	31.2	2588	1941
1000	39.2	27	2.6	2.5	2.5	132.5	15178	39.0	2650	1988
1200	43.4	27	2.6	2.5	2.5	139.0	16419	46.8	2780	2085
1600	49.6	26	2.6	2.5	2.5	143.5	17981	62.4	2870	2153
2000	55.0	26	2.8	2.5	2.5	150.5	20171	78.0	3010	2258
2500	61.5	26	2.8	3.0	3.0	163.5	23301	97.5	3270	2453

Electrical Characteristics:

Nominal conductor area	Max. DC resistance of conductor at 20°C	Max. AC resistance of conductor at 90°C			Fault current carrying of conductor for 1 second	Fault current carrying of screen for 1 second	Conductor to screen capacitance	Charging current per phase	Maximum dielectric stress	Inductive reactance at 50Hz and 90°C			Zero sequence resistance at 20°C	Zero sequence reactance at 50Hz
		Trefoil touching	Flat touching	Flat spaced						Trefoil touching	Flat touching	Flat spaced		
mm²	Ω/km	Ω/km	Ω/km	Ω/km	kA	kA	μF/km	A/km	kV/mm	Ω/km	Ω/km	Ω/km	Ω/km	Ω/km
500	0.0605	0.0788	0.0788	0.0787	47.2	71.5	0.120	7.2	11.7	0.156	0.170	0.214	0.208	0.433
630	0.0469	0.0617	0.0617	0.0615	59.5	90.1	0.128	7.7	11.2	0.150	0.165	0.208	0.195	0.423
800	0.0367	0.0491	0.0491	0.0488	75.6	106	0.140	8.4	11.1	0.144	0.158	0.202	0.185	0.413
1000	0.0291	0.0375	0.0375	0.0375	94.5	106	0.159	9.5	10.8	0.136	0.150	0.194	0.177	0.402
1200	0.0247	0.0319	0.0319	0.0319	113.4	106	0.169	10.1	10.5	0.132	0.147	0.190	0.173	0.388
1600	0.0186	0.0241	0.0241	0.0241	151.2	106	0.189	11.3	10.4	0.126	0.141	0.184	0.167	0.376
2000	0.0149	0.0195	0.0195	0.0194	189.0	106	0.203	12.1	10.2	0.123	0.137	0.181	0.163	0.363
2500	0.0127	0.0167	0.0167	0.0166	236.3	106	0.220	13.1	9.9	0.121	0.135	0.179	0.161	0.346

Current Ratings:

Nominal conductor area	Continuous current-carrying capacity, A								
	In air			In ground			In underground ducts		
									
mm²	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding
500	678	745	679	551	595	555	551	567	534
630	777	837	780	618	662	627	618	637	618
800	882	998	891	685	773	702	686	737	692
1000	1017	1167	1043	765	882	798	767	840	788
1200	1114	1299	1147	817	964	861	821	918	851
1600	1278	1540	1334	903	1109	971	909	1055	961
2000	1407	1751	1492	963	1232	1058	971	1173	1049
2500	1516	1930	1626	1016	1336	1129	1030	1272	1122