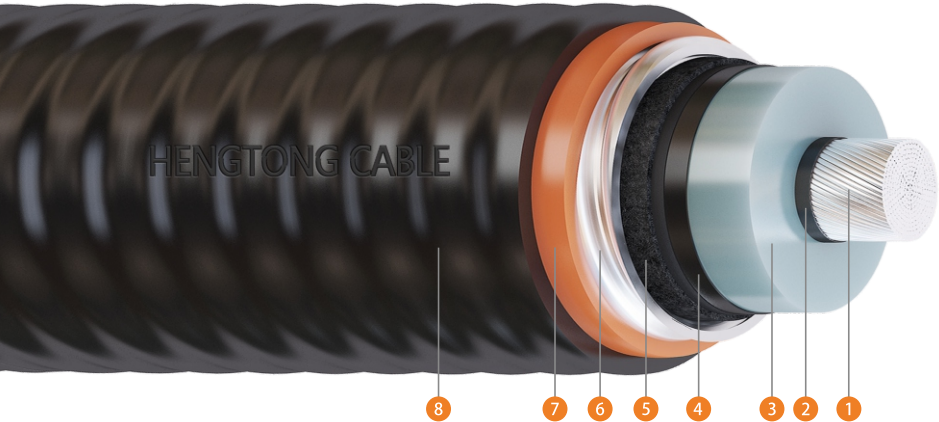


290/500kV Single Core Al/XLPE/CAS/PVC/HDPE



- 1 Compacted or Milliken Al 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	290/500kV
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.

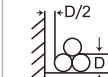
Structural Parameters:

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
800	33.6	34	2.9	3.0	3.0	149.9	17929	31.2	2998	2248
1000	39.2	33	3.0	3.0	3.0	155.0	19261	39.0	3100	2325
1200	43.4	33	3.0	3.0	3.0	160.2	20586	46.8	3204	2403
1600	49.6	32	3.1	3.0	3.0	164.6	22362	62.4	3292	2469
2000	55.0	31	3.2	3.0	3.0	170.2	24140	78.0	3404	2553
2500	61.5	31	3.3	3.0	3.0	176.9	26715	97.5	3538	2654

Electrical Characteristics:

Nominal conductor area	Max. DC resistance of conductor at 20°C	Max. A.C 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
800	0.0367	0.0490	0.0490	0.0488	75.6	75.6	0.125	11.4	14.9	0.153	0.168	0.211	0.185	0.395
1000	0.0291	0.0375	0.0375	0.0375	94.5	94.5	0.139	12.7	14.4	0.146	0.160	0.204	0.177	0.381
1200	0.0247	0.0319	0.0319	0.0318	113.4	113.4	0.148	13.5	14.0	0.141	0.156	0.199	0.173	0.370
1600	0.0186	0.0241	0.0241	0.0241	151.2	120	0.164	15.0	13.7	0.135	0.149	0.193	0.167	0.359
2000	0.0149	0.0194	0.0194	0.0194	189.0	120	0.180	16.4	13.6	0.130	0.145	0.188	0.163	0.348
2500	0.0127	0.0167	0.0167	0.0166	236.3	120	0.194	17.6	13.3	0.126	0.140	0.184	0.161	0.336

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
800	853	950	864	666	751	684	673	719	678
1000	987	1121	1010	745	864	777	755	827	772
1200	1077	1240	1109	795	943	839	808	902	834
1600	1237	1468	1291	878	1085	945	894	1037	942
2000	1368	1668	1447	943	1207	1032	963	1154	1030
2500	1478	1846	1580	990	1308	1100	1015	1250	1101