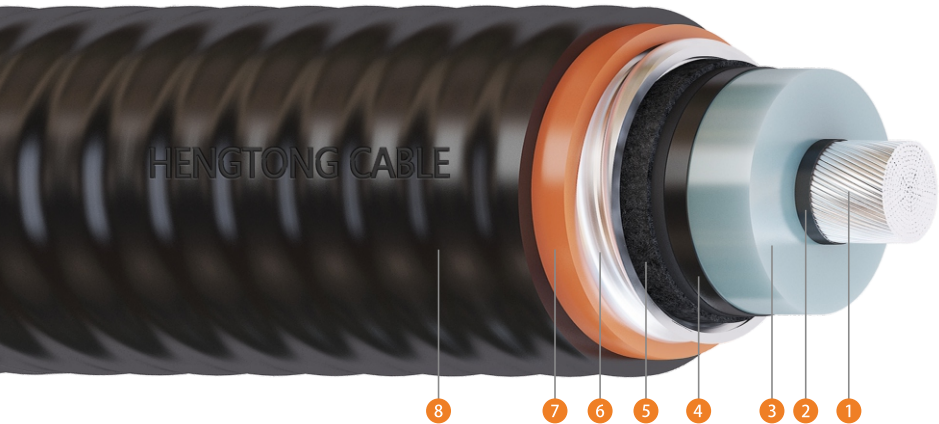


220/400kV Single Core Al/XLPE/CAS/PVC/HDPE



- 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	220/400kV
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.

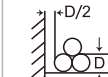
Structural Parameters:

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					
mm ²	mm	mm	mm	mm	mm	mm	kg/km	kN	mm	mm
630	29.9	32	2.6	2.5	2.5	138.6	15008	24.6	2772	2079
800	33.6	31	2.6	2.5	2.5	140.3	15640	31.2	2806	2105
1000	39.2	30	2.8	2.5	2.5	145.6	17065	39.0	2912	2184
1200	43.4	30	2.8	2.5	2.5	149.8	18224	46.8	2996	2247
1600	49.6	29	2.8	3.0	3.0	156.0	20446	62.4	3120	2340
2000	55.0	28	3.0	3.0	3.0	161.8	22312	78.0	3236	2427
2500	61.5	28	3.0	3.0	3.0	168.3	24662	97.5	3366	2525

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		
mm ²	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
630	0.0469	0.0616	0.0616	0.0615	59.5	59.5	0.122	8.4	12.2	0.156	0.170	0.214	0.195	0.412
800	0.0367	0.0490	0.0490	0.0488	75.6	75.6	0.132	9.1	12.0	0.149	0.164	0.207	0.185	0.403
1000	0.0291	0.0375	0.0375	0.0375	94.5	94.5	0.149	10.3	11.6	0.142	0.156	0.200	0.177	0.389
1200	0.0247	0.0319	0.0319	0.0318	113.4	113.4	0.158	10.9	11.3	0.137	0.152	0.195	0.173	0.379
1600	0.0186	0.0241	0.0241	0.0241	151.2	120	0.176	12.2	11.1	0.131	0.146	0.189	0.167	0.365
2000	0.0149	0.0194	0.0194	0.0194	189.0	120	0.193	13.4	11.1	0.127	0.142	0.185	0.163	0.354
2500	0.0127	0.0167	0.0167	0.0166	236.3	120	0.209	14.4	10.8	0.123	0.137	0.181	0.161	0.342

Current Ratings:

Nominal conductor area	Continuous current-carrying capacity, A								
	In air			In ground			In underground ducts		
									
mm ²	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
630	764	842	770	612	675	623	615	647	617
800	867	970	879	678	763	697	682	730	691
1000	1004	1144	1027	758	879	793	765	841	786
1200	1096	1268	1129	809	959	855	818	917	850
1600	1257	1498	1314	898	1105	967	911	1056	961
2000	1389	1703	1472	964	1231	1056	981	1176	1051
2500	1499	1883	1605	1012	1333	1125	1033	1274	1122