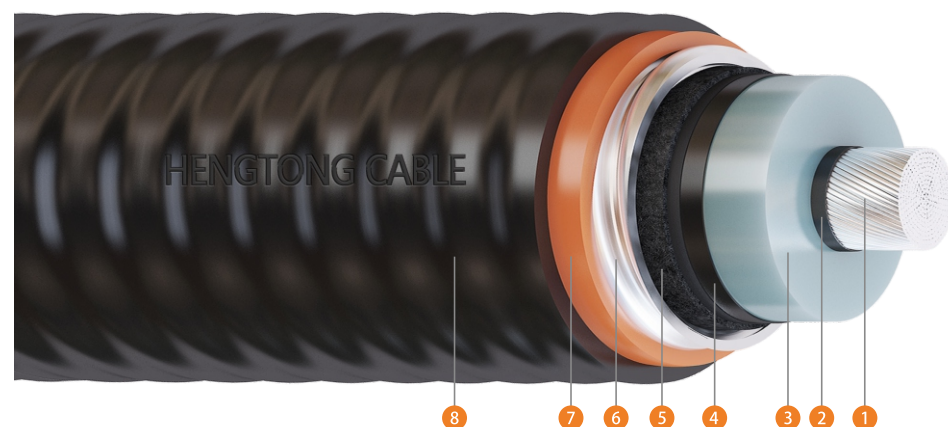


127/220kV Single Core Al/XLPE/CAS/PVC/HDPE



- 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	127/220kV
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.

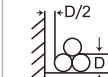
Structural Parameters:

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
400	23.4	27	2.4	2.5	2.5	114.5	10823	15.6	2290	1718
500	26.6	27	2.4	2.5	2.5	118.0	11535	19.5	2360	1770
630	29.9	26	2.4	2.5	2.5	118.9	11945	24.6	2378	1784
800	33.6	25	2.4	2.5	2.5	121.4	12589	31.2	2428	1821
1000	39.2	24	2.6	2.5	2.5	126.5	14133	39.0	2530	1898
1200	43.4	24	2.6	2.5	2.5	133.0	15296	46.8	2660	1995
1600	49.6	24	2.6	2.5	2.5	139.5	17251	62.4	2790	2093
2000	55.0	24	2.8	2.5	2.5	146.5	19368	78.0	2930	2198
2500	61.5	24	2.8	2.5	2.5	157.5	21817	97.5	3150	2363

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
400	0.0778	0.101	0.101	0.101	37.8	37.8	0.118	4.7	8.5	0.159	0.174	0.217	0.226	0.451
500	0.0605	0.0788	0.0788	0.0787	47.2	47.2	0.126	5.0	8.2	0.153	0.167	0.211	0.208	0.440
630	0.0469	0.0617	0.0617	0.0615	59.5	59.5	0.138	5.5	8.1	0.146	0.161	0.204	0.195	0.431
800	0.0367	0.0491	0.0491	0.0488	75.6	75.6	0.151	6.0	8.0	0.140	0.154	0.198	0.185	0.421
1000	0.0291	0.0375	0.0375	0.0375	94.5	94.5	0.172	6.9	7.8	0.133	0.147	0.191	0.177	0.406
1200	0.0247	0.0319	0.0319	0.0318	113.4	106	0.184	7.3	7.6	0.130	0.144	0.188	0.173	0.394
1600	0.0186	0.0241	0.0241	0.0241	151.2	106	0.201	8.0	7.4	0.124	0.139	0.182	0.167	0.379
2000	0.0149	0.0194	0.0194	0.0194	189.0	106	0.216	8.6	7.2	0.121	0.135	0.179	0.163	0.367
2500	0.0127	0.0167	0.0167	0.0166	236.3	106	0.234	9.3	7.0	0.118	0.133	0.176	0.161	0.351

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
400	595	646	594	494	526	494	492	502	485
500	684	750	685	557	601	561	556	574	551
630	785	872	790	625	686	635	624	654	624
800	891	1005	902	694	777	712	694	739	699
1000	1029	1188	1054	772	894	808	773	851	798
1200	1129	1319	1165	836	987	885	840	941	875
1600	1285	1550	1344	913	1124	986	920	1070	977
2000	1414	1759	1502	976	1251	1075	987	1192	1068
2500	1522	1932	1634	1029	1357	1148	1045	1296	1144