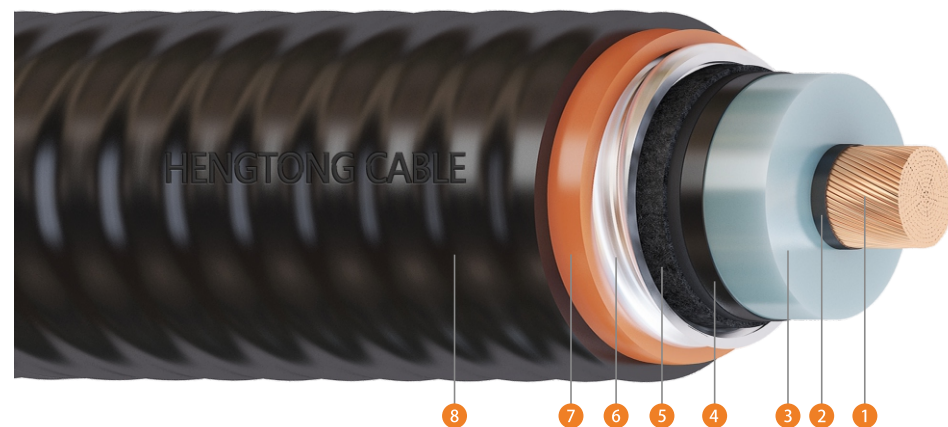


127/220kV Single Core Cu/XLPE/CAS/PVC/HDPE



- 1 Compacted or Milliken Cu 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.

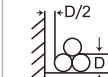
Structural Parameters:

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	13209	27.2	2290	1718
500	26.6	27	2.4	2.5	2.5	118.0	14584	34.0	2360	1770
630	29.9	26	2.4	2.5	2.5	118.9	15825	42.8	2378	1784
800	33.6	25	2.4	2.5	2.5	121.4	17583	54.4	2428	1821
1000	39.2	24	2.6	2.5	2.5	126.5	20365	68	2530	1898
1200	43.4	24	2.6	2.5	2.5	133.0	22720	81.6	2660	1995
1600	49.6	24	2.6	2.5	2.5	139.5	27150	108.8	2790	2093
2000	55.0	24	2.8	2.5	2.5	146.5	31742	136.0	2930	2198
2500	61.5	24	2.8	2.5	2.5	157.5	37284	170.0	3150	2363

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		
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	0.047	0.0615	0.0615	0.0613	57.2	57.2	0.118	4.7	8.5	0.159	0.174	0.217	0.195	0.451
500	0.0366	0.0487	0.0487	0.0485	71.5	71.5	0.126	5.0	8.2	0.153	0.167	0.211	0.185	0.440
630	0.0283	0.0388	0.0388	0.0384	90.1	90.1	0.138	5.5	8.1	0.146	0.161	0.204	0.176	0.431
800	0.0221	0.0316	0.0316	0.0310	114.5	106	0.151	6.0	8.0	0.140	0.154	0.198	0.170	0.421
1000	0.0176	0.0248	0.0248	0.0247	143.1	106	0.172	6.9	7.8	0.133	0.147	0.191	0.166	0.406
1200	0.0151	0.0220	0.0220	0.0218	171.7	106	0.184	7.3	7.6	0.130	0.144	0.188	0.163	0.394
1600	0.0113	0.0178	0.0178	0.0175	229.0	106	0.201	8.0	7.4	0.124	0.139	0.182	0.159	0.379
2000	0.009	0.0154	0.0154	0.0151	286.2	106	0.216	8.6	7.2	0.121	0.135	0.179	0.157	0.367
2500	0.0072	0.0135	0.0135	0.0131	357.8	106	0.234	9.3	7.0	0.118	0.133	0.176	0.155	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	748	824	752	612	668	621	621	637	609
500	851	951	860	682	758	698	698	723	685
630	963	1097	981	753	857	780	780	817	766
800	1075	1250	1103	821	958	860	860	912	844
1000	1213	1449	1263	888	1079	953	953	1026	941
1200	1303	1579	1366	943	1168	1022	1022	1113	1010
1600	1431	1795	1522	996	1287	1099	1099	1225	1089
2000	1528	1973	1646	1037	1388	1163	1163	1323	1155
2500	1626	2147	1769	1082	1492	1228	1228	1424	1223