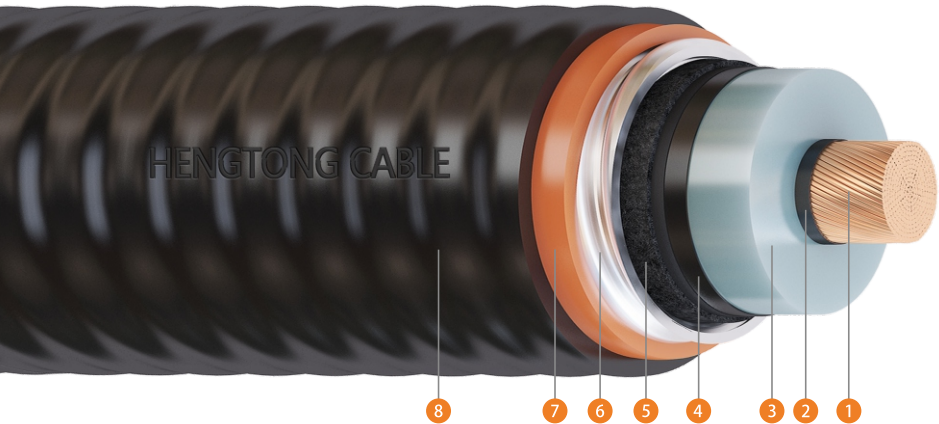


220/400kV Single Core Cu/XLPE/CAS/PVC/HDPE



- 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	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	18888	42.8	2772	2079
800	33.6	31	2.6	2.5	2.5	140.3	20634	54.4	2806	2105
1000	39.2	30	2.8	2.5	2.5	145.6	23297	68	2912	2184
1200	43.4	30	2.8	2.5	2.5	149.8	25648	81.6	2996	2247
1600	49.6	29	2.8	3.0	3.0	156.0	30345	108.8	3120	2340
2000	55.0	28	3.0	3.0	3.0	161.8	34686	136.0	3236	2427
2500	61.5	28	3.0	3.0	3.0	168.3	40129	170.0	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	0.0283	0.0386	0.0386	0.0384	90.1	90.1	0.122	8.4	12.2	0.156	0.170	0.214	0.176	0.412
800	0.0221	0.0314	0.0314	0.0310	114.5	114.5	0.132	9.1	12.0	0.149	0.164	0.207	0.170	0.403
1000	0.0176	0.0248	0.0248	0.0246	143.1	120	0.149	10.3	11.6	0.142	0.156	0.200	0.166	0.389
1200	0.0151	0.0219	0.0219	0.0218	171.7	120	0.158	10.9	11.3	0.137	0.152	0.195	0.163	0.379
1600	0.0113	0.0177	0.0177	0.0175	229.0	120	0.176	12.2	11.1	0.131	0.146	0.189	0.159	0.365
2000	0.009	0.0153	0.0153	0.0150	286.2	120	0.193	13.4	11.1	0.127	0.142	0.185	0.157	0.354
2500	0.0072	0.0135	0.0135	0.0131	357.8	120	0.209	14.4	10.8	0.123	0.137	0.181	0.155	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	939	1060	957	765	843	765	740	807	757
800	1049	1208	1077	800	942	842	805	901	834
1000	1186	1398	1234	873	1063	936	881	1015	928
1200	1268	1519	1328	912	1136	989	923	1085	982
1600	1406	1737	1492	982	1268	1081	997	1211	1074
2000	1507	1913	1618	1027	1369	1146	1045	1308	1140
2500	1605	2096	1743	1066	1486	1206	1088	1402	1203