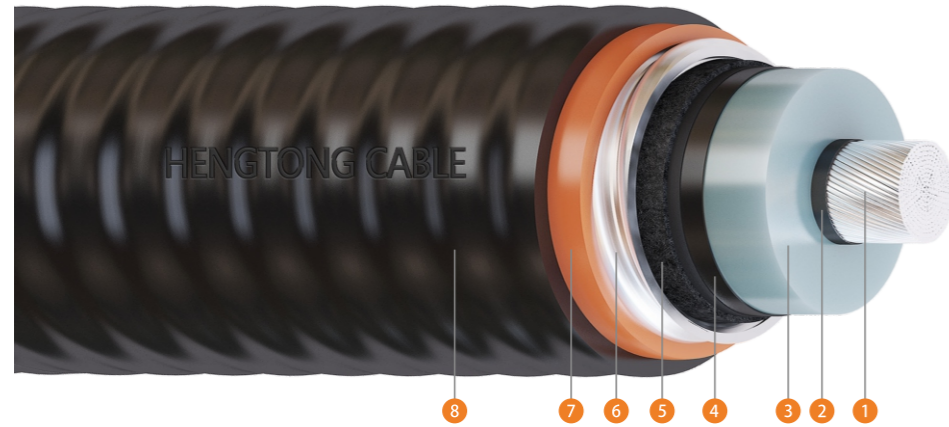


76/132kV Single Core Al/XLPE/CAS/PVC/HDPE



- 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	76/132kV
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
150	14.6	18	2.0	2.0	2.0	81.2	5424	5.9	1624	1218
185	16.2	18	2.0	2.0	2.0	82.8	5679	7.2	1656	1242
240	18.4	18	2.0	2.0	2.0	85.0	6049	9.4	1700	1275
300	20.6	18	2.0	2.0	2.0	87.2	6432	11.7	1744	1308
400	23.4	18	2.0	2.0	2.0	90.0	6983	15.6	1800	1350
500	26.6	18	2.0	2.0	2.0	93.2	7574	19.5	1864	1398
630	29.9	18	2.0	2.2	2.3	98.5	8480	24.6	1970	1477
800	33.6	18	2.0	2.2	2.3	102.2	9318	31.2	2044	1533
1000	39.2	18	2.3	2.2	2.3	111.7	11269	39.0	2234	1676
1200	43.4	18	2.3	2.5	2.5	115.9	12273	46.8	2318	1739
1600	49.6	18	2.3	2.5	2.5	122.1	14038	62.4	2442	1832
2000	55.0	18	2.3	2.5	2.5	128.5	15756	78.0	2570	1928
2500	61.5	18	2.3	2.5	2.5	135.0	17828	97.5	2700	2025

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
150	0.206	0.264	0.264	0.264	14.2	14.2	0.115	2.7	7.7	0.167	0.182	0.225	0.354	0.640
185	0.164	0.211	0.211	0.211	17.5	17.5	0.121	2.9	7.5	0.162	0.176	0.220	0.312	0.631
240	0.125	0.161	0.161	0.161	22.7	22.7	0.130	3.1	7.2	0.155	0.170	0.213	0.273	0.620
300	0.100	0.129	0.129	0.129	28.3	28.3	0.138	3.3	6.9	0.150	0.164	0.208	0.248	0.610
400	0.0778	0.1008	0.1008	0.1006	37.8	37.8	0.149	3.6	6.7	0.144	0.158	0.202	0.226	0.598
500	0.0605	0.079	0.079	0.0787	47.2	47.2	0.161	3.8	6.4	0.138	0.153	0.196	0.208	0.585
630	0.0469	0.062	0.062	0.0616	59.5	59.5	0.173	4.1	6.2	0.134	0.149	0.192	0.195	0.571
800	0.0367	0.0495	0.0495	0.0489	75.6	75.0	0.187	4.5	6.1	0.129	0.144	0.187	0.185	0.559
1000	0.0291	0.0375	0.0375	0.0375	94.5	75.0	0.212	5.1	5.8	0.125	0.140	0.183	0.177	0.538
1200	0.0247	0.0319	0.0319	0.0318	113.4	75.0	0.228	5.4	5.7	0.121	0.135	0.179	0.173	0.527
1600	0.0186	0.0241	0.0241	0.0241	151.2	75.0	0.250	6.0	5.5	0.116	0.130	0.174	0.167	0.512
2000	0.0149	0.0195	0.0195	0.0194	189.0	75.0	0.270	6.4	5.4	0.113	0.127	0.171	0.163	0.499
2500	0.0127	0.0167	0.0167	0.0166	236.3	75.0	0.293	7.0	5.3	0.109	0.123	0.167	0.161	0.486

Current Ratings:

Nominal conductor area	Continuous current-carrying capacity, A								
	In air			In ground			In underground ducts		
	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
150	349	376	344	302	311	297	296	294	287
185	398	430	393	341	353	336	334	333	325
240	465	505	460	393	409	388	386	386	376
300	529	578	524	411	462	437	433	436	423
400	610	672	606	500	529	498	492	499	483
500	703	782	701	565	605	566	557	571	550
630	805	904	806	636	691	641	629	653	624
800	913	1041	920	707	783	719	699	740	700
1000	1055	1224	1076	792	903	820	788	855	802
1200	1151	1358	1184	847	985	886	844	933	868
1600	1318	1605	1375	937	1135	1001	937	1075	983
2000	1453	1832	1537	1006	1270	1094	1009	1204	1077
2500	1563	2015	1674	1054	1365	1164	1060	1296	1149