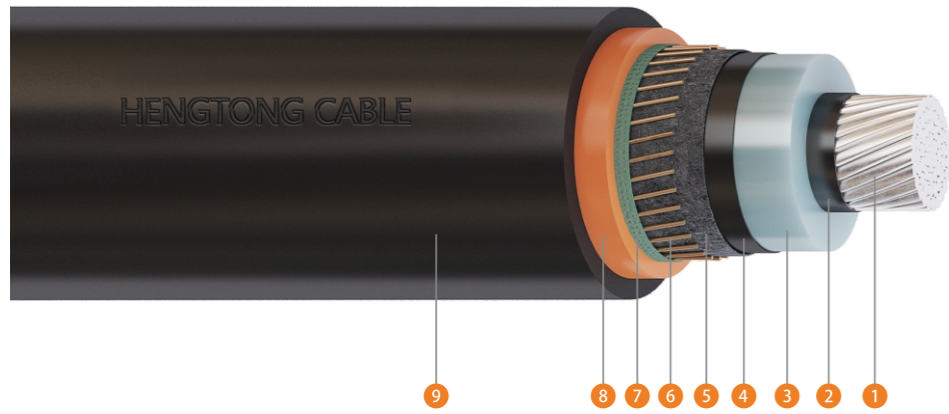


1.9/3.3kV Single Core Al/XLPE/CWS/PVC/HDPE



- 1 Compacted Al conductor
- 2 Conductor screen
- 3 XLPE insulation
- 4 Insulation screen
- 5 Semi conductive water-blocking tape
- 6 Copper wire screen
- 7 Non-hygroscopic tape
- 8 PVC inner sheath
- 9 HDPE outer sheath

Properties:

Rated voltage	1.9/3.3kV
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 1429.1
Fault Level	up to 10kA/s or 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 mm ²	Approx. diameter of conductor mm	Nominal thickness of insulation mm	Nominal diameter over insulation mm	Nominal screen area mm ²	No. & diameter of screen wire No./mm	Nominal diameter over wire screen mm	Nominal thickness of outer sheath		Approx. overall diameter of cable mm	Approx. weight of cable kg/km	Max. allowable pulling force of conductor kN	Min. bending radius	
							Inner layer mm	Outer layer mm				During installation mm	Installed mm
25	6.0	2.0	12.9	15.9	28/0.85	15.5	1.0	1.0	21.9	558	1.0	540	320
35	7.0	2.0	13.9	22.1	39/0.85	16.5	1.0	1.0	22.9	667	1.4	570	340
50	8.1	2.0	15.0	31.5	22/1.35	18.6	1.0	1.0	25.0	826	2.0	620	370
70	9.8	2.0	16.7	44.4	31/1.35	20.3	1.0	1.0	26.7	1045	2.8	660	400
95	11.4	2.0	18.3	61.5	43/1.35	21.9	1.0	1.0	28.3	1316	3.8	700	420
120	12.9	2.0	19.8	68.7	48/1.35	23.4	1.0	1.0	29.8	1486	4.8	740	440
150	14.4	2.0	21.3	68.7	48/1.35	24.9	1.0	1.0	31.3	1595	6.0	780	460
185	16.0	2.0	22.9	68.7	48/1.35	26.5	1.0	1.0	32.9	1734	7.4	820	490
240	18.4	2.0	25.3	68.7	48/1.35	28.9	1.0	1.0	35.3	1945	9.6	880	520
300	20.6	2.0	27.5	68.7	48/1.35	31.1	1.0	1.0	37.5	2159	12.0	930	560
400	23.4	2.0	30.3	68.7	48/1.35	33.9	1.0	1.1	40.3	2455	16.0	1000	600
500	26.2	2.0	33.9	68.7	48/1.35	37.5	1.1	1.2	43.9	2863	20.0	1090	650
630	29.8	2.2	37.9	68.7	48/1.35	41.5	1.2	1.2	47.9	3365	25.2	1190	710
800	33.8	2.4	42.3	68.7	48/1.35	45.9	1.2	1.3	52.3	3973	32.0	1300	780
1000	38.5	2.6	45.9	68.7	48/1.35	50.8	1.4	1.4	57.0	4597	39.0	1430	850

Electrical Characteristics:

Nominal conductor area mm ²	Max. DC resistance of conductor at 20°C Ω/km	Max. AC resistance of conductor at 90°C Ω/km			Fault current carrying of conductor for 1 second kA	Fault current carrying of screen for 1 second kA	Insulation resistance at 20°C MΩ/km	Conductor to screen capacitance μF/km	Charging current per phase A/km	Dielectric loss per phase W/km	Maximum dielectric stress kV/mm	Inductive reactance at 50Hz and 90°C Ω/km			Screen DC resistance at 20°C Ω/km	Zero sequence resistance at 20°C Ω/km	Zero sequence reactance at 50Hz Ω/km
		Trefoil touching	Flat touching	Flat spaced								Trefoil touching	Flat touching	Flat spaced			
25	1.20	1.54	1.54	1.54	2.4	2.4	7400	0.326	0.195	1.48	1.19	0.141	0.155	0.199	1.19	2.39	0.0754
35	0.868	1.11	1.11	1.11	3.3	3.3	6600	0.361	0.215	1.64	1.16	0.134	0.148	0.192	0.859	1.73	0.0691
50	0.641	0.822	0.822	0.822	4.7	4.7	6000	0.400	0.239	1.81	1.14	0.130	0.145	0.188	0.602	1.24	0.0660
70	0.443	0.568	0.568	0.568	6.6	6.6	5200	0.459	0.274	2.08	1.11	0.122	0.137	0.180	0.427	0.873	0.0597
95	0.320	0.411	0.411	0.410	9.0	9.1	4600	0.515	0.307	2.34	1.09	0.116	0.131	0.174	0.309	0.630	0.0534
120	0.253	0.325	0.325	0.325	11.3	10.2	4200	0.568	0.339	2.58	1.08	0.112	0.126	0.170	0.276	0.533	0.0503
150	0.206	0.265	0.265	0.264	14.2	10.2	3800	0.620	0.370	2.81	1.07	0.108	0.123	0.166	0.276	0.486	0.0471
185	0.164	0.211	0.211	0.211	17.5	10.2	3500	0.676	0.404	3.07	1.05	0.105	0.119	0.163	0.276	0.444	0.0471
240	0.125	0.161	0.161	0.161	22.7	10.2	3100	0.760	0.454	3.45	1.04	0.100	0.115	0.158	0.276	0.405	0.0440
300	0.100	0.130	0.129	0.129	28.3	10.2	2800	0.837	0.500	3.80	1.03	0.0968	0.112	0.155	0.276	0.380	0.0408
400	0.0778	0.102	0.101	0.101	37.8	10.2	2500	0.934	0.558	4.24	1.02	0.0933	0.108	0.151	0.276	0.358	0.0377
500	0.0605	0.0802	0.0796	0.0789	47.2	10.2	2500	0.957	0.571	4.34	0.930	0.0917	0.106	0.150	0.276	0.341	0.0377
630	0.0469	0.0636	0.0628	0.0618	59.5	10.2	2400	0.987	0.589	4.48	0.850	0.0892	0.104	0.147	0.276	0.327	0.0377
800	0.0367	0.0516	0.0505	0.0492	75.6	10.2	2300	1.02	0.611	4.64	0.783	0.0867	0.101	0.145	0.276	0.317	0.0377
1000	0.0291	0.0434	0.0434	0.0412	94.6	10.2	2100	1.13	0.723	5.52	0.650	0.0865	0.100	0.126	0.276	0.293	0.0369

Current Ratings:

Nominal conductor area mm ²	Continuous current-carrying capacity, A											
	In air					In ground			In underground ducts			
	Solid bond	Solid bond	Solid bond	Solid bond	Solid bond	Solid bond	Solid bond	Solid bond	Solid bond	Solid bond	Solid bond	Solid bond
25	110	130	100	105	75	110	110	105	95	100	95	85
35	135	160	120	130	90	135	135	130	115	115	115	100
50	160	190	150	160	110	160	160	155	135	140	135	125
70	205	240	185	200	135	195	195	190	165	165	165	150
95	245	290	230	245	165	230	230	225	195	195	195	185
120	285	330	265	280	190	260	255	255	220	215	220	210
150	320	370	300	320	220	290	285	285	245	240	250	235
185	365	420	340	365	250	325	315	325	275	265	280	270
240	430	490	405	435	290	370	360	375	315	300	325	310
300	490	550	465	495	330	415	395	420	350	335	365	350
400	570	625	540	580	390	465	440	480	395	370	415	410
500	655	715	635	680	450	525	485	545	445	410	470	470
630	745	800	730	780	510	580	535	615	490	445	525	530
800	845	890	835	895	605	640	580	685	540	485	585	615
1000	985	1005	995	1065	705	725	635	795	590	525	655	705