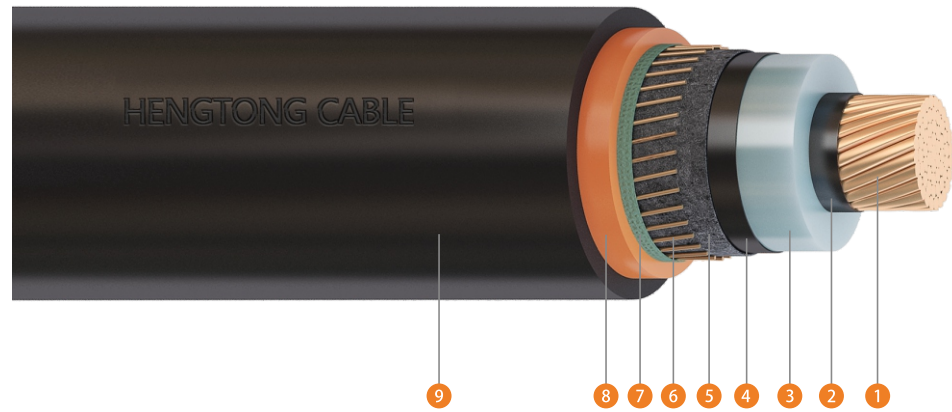


1.9/3.3kV Single Core Cu/XLPE/CWS/PVC/HDPE



- 1 Compacted Cu 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
16	4.8	2.0	11.7	15.3	27/0.85	14.3	1.0	1.0	20.7	597	1.1	510	300
25	6.0	2.0	12.9	23.8	42/0.85	15.5	1.0	1.0	21.9	788	1.8	540	320
35	7.0	2.0	13.9	34.0	40/1.04	16.9	1.0	1.0	23.2	998	2.5	580	340
50	8.1	2.0	15.0	49.5	28/1.5	18.9	1.0	1.0	25.3	1292	3.5	630	370
70	9.8	2.0	16.7	68.9	39/1.5	20.6	1.0	1.0	27.0	1702	4.9	670	400
95	11.4	2.0	18.3	68.9	39/1.5	22.2	1.0	1.0	28.6	1975	6.7	710	420
120	12.9	2.0	19.8	68.9	39/1.5	23.7	1.0	1.0	30.1	2231	8.4	750	450
150	14.4	2.0	21.3	68.9	39/1.5	25.2	1.0	1.0	31.6	2514	10.5	780	470
185	16.0	2.0	22.9	68.9	39/1.5	26.8	1.0	1.0	33.2	2881	13.0	820	490
240	18.4	2.0	25.3	68.9	39/1.5	29.2	1.0	1.0	35.6	3452	16.8	880	530
300	20.6	2.0	27.5	68.9	39/1.5	31.4	1.0	1.0	37.8	4051	21.0	940	560
400	23.4	2.0	30.3	68.9	39/1.5	34.2	1.0	1.1	40.6	4868	28.0	1010	600
500	26.2	2.2	33.9	68.9	39/1.5	37.8	1.1	1.2	44.1	5957	35.0	1100	660
630	29.8	2.4	37.9	68.9	39/1.5	41.8	1.1	1.3	48.1	7370	44.1	1200	720
800	33.6	2.6	40.6	68.9	39/1.5	45.8	1.3	1.3	51.6	8858	54.4	1290	774
1000	38.5	2.8	45.9	68.9	39/1.5	51.1	1.4	1.4	57.3	10833	68.0	1430	860

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			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			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 Ω/km	Flat touching Ω/km	Flat spaced Ω/km								Trefoil touching Ω/km	Flat touching Ω/km	Flat spaced Ω/km			
16	1.15	1.47	1.47	1.47	2.3	2.3	8500	0.283	0.169	1.28	1.23	0.151	0.165	0.209	1.24	2.39	0.0843
25	0.727	0.927	0.927	0.927	3.6	3.5	7400	0.326	0.194	1.48	1.19	0.140	0.155	0.199	0.796	1.52	0.0738
35	0.524	0.668	0.668	0.668	5.0	5.0	6600	0.361	0.215	1.64	1.16	0.135	0.149	0.193	0.558	1.08	0.0687
50	0.387	0.494	0.494	0.494	7.2	7.4	6000	0.400	0.239	1.81	1.14	0.131	0.145	0.189	0.383	0.770	0.0658
70	0.268	0.342	0.342	0.342	10.0	10.2	5200	0.459	0.274	2.08	1.11	0.123	0.137	0.181	0.275	0.543	0.0586
95	0.193	0.247	0.247	0.246	13.6	10.2	4600	0.515	0.308	2.34	1.09	0.117	0.131	0.175	0.275	0.468	0.0545
120	0.153	0.196	0.196	0.196	17.2	10.2	4200	0.568	0.339	2.58	1.08	0.112	0.127	0.170	0.275	0.428	0.0515
150	0.124	0.159	0.159	0.159	21.5	10.2	3800	0.620	0.370	2.81	1.07	0.109	0.123	0.167	0.275	0.399	0.0490
185	0.0991	0.128	0.127	0.127	26.5	10.2	3500	0.676	0.404	3.07	1.05	0.105	0.120	0.163	0.275	0.374	0.0467
240	0.0754	0.0980	0.0976	0.0971	34.3	10.2	3100	0.760	0.454	3.45	1.04	0.101	0.115	0.159	0.275	0.351	0.0440
300	0.0601	0.0790	0.0785	0.0779	42.9	10.2	2800	0.837	0.499	3.80	1.03	0.0973	0.112	0.155	0.275	0.335	0.0419
400	0.0470	0.0631	0.0624	0.0616	57.2	10.2	2500	0.934	0.558	4.24	1.02	0.0938	0.108	0.152	0.275	0.322	0.0398
500	0.0366	0.0508	0.0499	0.0487	71.5	10.2	2500	0.955	0.570	4.33	0.930	0.0920	0.107	0.150	0.275	0.312	0.0395
630	0.0283	0.0413	0.0402	0.0387	90.1	10.2	2400	0.986	0.588	4.47	0.850	0.0894	0.104	0.147	0.275	0.304	0.0383
800	0.0221	0.0354	0.0354	0.0330	114.2	10.2	2200	0.999	0.651	5.01	0.780	0.0880	0.104	0.128	0.275	0.285	0.0375
1000	0.0176	0.0312	0.0312	0.0298	143.1	10.2	2100	1.13	0.723	5.52	0.650	0.0870	0.103	0.126	0.275	0.281	0.0368

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
16	108	128	99	105	74	111	113	108	97	98	96	86
25	140	170	130	140	95	145	145	140	125	125	125	110
35	175	205	160	170	120	175	175	170	150	150	150	135
50	210	245	195	205	140	205	205	200	175	175	175	160
70	260	305	245	260	180	245	245	245	210	205	210	200
95	315	365	295	315	215	290	285	290	245	240	250	235
120	360	415	340	360	240	330	320	330	275	265	280	270
150	405	460	385	410	280	365	350	370	305	290	315	305
185	460	520	440	470	315	405	385	415	340	320	350	345
240	535	600	520	555	370	460	435	475	385	360	405	395
300	605	665	590	635	430	510	475	535	425	390	450	455
400	690	745	680	730	490	565	520	600	470	425	505	515
500	785	830	780	835	555	625	565	670	515	465	565	575
630	875	915	880	945	620	680	605	745	555	490	615	640
800	985	1015	1005	1075	725	740	650	820	615	535	690	730
1000	1145	1125	1205	1285	850	835	700	955	655	565	750	850