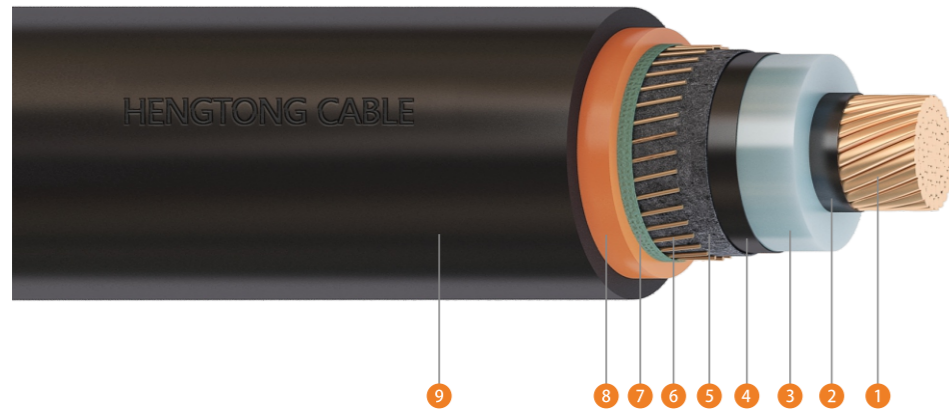


3.8/6.6kV Single Core Cu/XLPE/CWS/PVC/HDPE



- 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	3.8/6.6kV
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	2.5	12.7	15.3	27/0.85	15.3	1.0	1.0	21.7	628	1.1	540	320
25	6.0	2.5	13.9	23.8	42/0.85	16.5	1.0	1.0	22.9	821	1.8	570	340
35	7.0	2.5	14.9	34.0	40/1.04	17.9	1.0	1.0	24.2	1033	2.5	600	360
50	8.1	2.5	16.0	49.5	28/1.5	19.9	1.0	1.0	26.3	1328	3.5	650	390
70	9.8	2.5	17.7	68.9	39/1.5	21.6	1.0	1.0	28.0	1740	4.9	690	410
95	11.4	2.5	19.3	68.9	39/1.5	23.2	1.0	1.0	29.6	2016	6.7	730	440
120	12.9	2.5	20.8	68.9	39/1.5	24.7	1.0	1.0	31.1	2274	8.4	770	460
150	14.4	2.5	22.3	68.9	39/1.5	26.2	1.0	1.0	32.6	2560	10.5	810	480
185	16.0	2.5	23.9	68.9	39/1.5	27.8	1.0	1.0	34.2	2928	13.0	850	510
240	18.4	2.6	26.5	68.9	39/1.5	30.4	1.0	1.0	36.8	3513	16.8	910	550
300	20.6	2.8	29.1	68.9	39/1.5	33.0	1.0	1.1	39.4	4138	21.0	980	590
400	23.4	3.0	32.3	68.9	39/1.5	36.2	1.1	1.1	42.6	4986	28.0	1060	630
500	26.2	3.2	35.9	68.9	39/1.5	39.8	1.1	1.2	46.1	6086	35.0	1150	690
630	29.8	3.2	39.5	68.9	39/1.5	43.4	1.2	1.2	49.7	7482	44.1	1240	740
800	33.6	3.2	41.8	68.9	39/1.5	47.0	1.4	1.4	53.0	8963	54.4	1320	790
1000	38.5	3.2	46.7	68.9	39/1.5	51.9	1.4	1.4	58.1	10889	68.0	1450	870

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			
16	1.15	1.47	1.47	1.47	2.3	2.3	10100	0.238	0.284	4.32	2.06	0.154	0.168	0.212	1.24	2.39	0.0891
25	0.727	0.927	0.927	0.927	3.6	3.5	8800	0.272	0.325	4.94	1.98	0.143	0.158	0.201	0.796	1.52	0.0782
35	0.524	0.668	0.668	0.668	5.0	5.0	8000	0.301	0.359	5.46	1.93	0.137	0.152	0.195	0.558	1.08	0.0728
50	0.387	0.494	0.494	0.494	7.2	7.4	7200	0.332	0.396	6.02	1.89	0.133	0.148	0.191	0.383	0.770	0.0697
70	0.268	0.342	0.342	0.342	10.0	10.2	6300	0.380	0.453	6.89	1.84	0.125	0.140	0.183	0.275	0.543	0.0620
95	0.193	0.247	0.247	0.246	13.6	10.2	5600	0.425	0.507	7.71	1.80	0.119	0.134	0.177	0.275	0.468	0.0577
120	0.153	0.196	0.196	0.196	17.2	10.2	5100	0.467	0.557	8.47	1.77	0.114	0.129	0.173	0.275	0.428	0.0544
150	0.124	0.159	0.159	0.159	21.5	10.2	4700	0.509	0.608	9.24	1.75	0.111	0.125	0.169	0.275	0.399	0.0517
185	0.0991	0.128	0.127	0.127	26.5	10.2	4300	0.554	0.661	10.0	1.73	0.107	0.121	0.165	0.275	0.374	0.0493
240	0.0754	0.0979	0.0976	0.0971	34.3	10.2	4000	0.599	0.716	10.9	1.65	0.103	0.117	0.161	0.275	0.351	0.0468
300	0.0601	0.0789	0.0785	0.0779	42.9	10.2	3900	0.616	0.736	11.2	1.52	0.100	0.114	0.158	0.275	0.335	0.0454
400	0.0470	0.0630	0.0623	0.0615	57.2	10.2	3700	0.645	0.770	11.7	1.41	0.0968	0.111	0.155	0.275	0.322	0.0437
500	0.0366	0.0506	0.0497	0.0487	71.5	10.2	3500	0.677	0.809	12.3	1.32	0.0948	0.109	0.153	0.275	0.312	0.0430
630	0.0283	0.0411	0.0400	0.0387	90.1	10.2	3100	0.756	0.902	13.7	1.30	0.0914	0.106	0.149	0.275	0.304	0.0408
800	0.0221	0.0349	0.0349	0.0317	114.2	10.2	2600	0.888	1.09	15.9	1.20	0.0880	0.104	0.149	0.275	0.285	0.0396
1000	0.0176	0.0298	0.0298	0.0293	143.1	10.2	2300	0.982	1.18	18.3	1.18	0.0870	0.103	0.151	0.275	0.281	0.0372

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	113	133	104	110	79	116	118	113	102	103	101	91
25	145	173	135	144	101	149	150	145	130	130	129	115
35	180	210	165	175	124	179	179	174	155	155	154	139
50	214	250	199	210	145	209	209	204	180	179	179	164
70	265	308	249	264	183	250	249	249	215	210	215	203
95	321	370	300	320	219	296	290	295	251	245	255	240
120	365	419	344	366	246	334	324	335	281	270	286	274
150	411	466	389	415	285	369	355	374	310	295	319	309
185	468	524	444	474	321	410	390	419	344	325	355	349
240	544	602	523	559	374	465	438	480	389	363	408	400
300	614	669	595	638	435	515	478	538	429	394	454	460
400	699	749	684	733	495	570	523	604	473	429	508	519
500	788	833	783	838	559	628	567	674	520	468	569	580
630	878	915	885	949	624	684	608	748	560	495	620	643
800	987	1017	1007	1078	727	742	653	822	617	537	692	732
1000	1143	1127	1208	1287	853	837	702	958	657	567	752	853