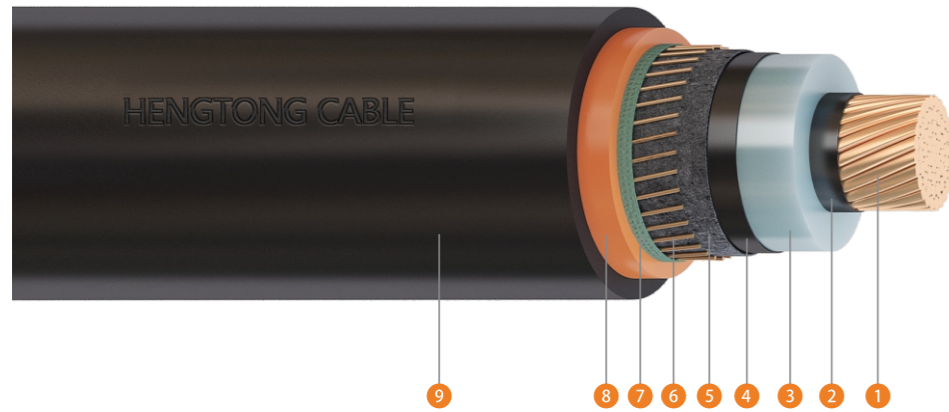


19/33kV Single Core Cu/XLPE/CWS/PVC/HDPE



- 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	19/33kV
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
50	8.1	8.0	27.0	49.5	28/1.5	30.9	1.0	1.0	37.3	1821	3.5	930	550
70	9.8	8.0	28.7	68.9	39/1.5	32.6	1.0	1.1	39.0	2261	4.9	970	580
95	11.4	8.0	30.3	68.9	39/1.5	34.2	1.0	1.2	40.6	2563	6.7	1010	600
120	12.9	8.0	31.8	68.9	39/1.5	35.7	1.1	1.1	42.1	2845	8.4	1050	630
150	14.4	8.0	33.3	68.9	39/1.5	37.2	1.1	1.2	43.6	3155	10.5	1080	650
185	16.0	8.0	34.9	68.9	39/1.5	38.8	1.1	1.2	45.2	3549	13.0	1120	670
240	18.4	8.0	37.3	68.9	39/1.5	41.2	1.1	1.3	47.6	4162	16.8	1180	710
300	20.6	8.0	39.5	68.9	39/1.5	43.4	1.2	1.3	49.8	4799	21.0	1240	740
400	23.4	8.0	42.3	68.9	39/1.5	46.2	1.2	1.4	52.6	5666	28.0	1310	780
500	26.2	8.0	45.5	68.9	39/1.5	49.4	1.3	1.4	55.7	6785	35.0	1390	830
630	29.8	8.0	49.1	68.9	39/1.5	53.0	1.3	1.5	59.3	8232	44.1	1480	880
800	33.6	8.0	51.4	68.9	39/1.5	56.6	1.5	1.5	63.2	9827	54.4	1580	940
1000	38.5	8.0	56.3	68.9	39/1.5	61.5	1.6	1.6	68.5	11864	68.0	1710	1020

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			
50	0.387	0.494	0.494	0.494	7.2	7.4	17000	0.142	0.847	64.4	4.04	0.155	0.170	0.213	0.383	0.770	0.1012
70	0.268	0.342	0.342	0.342	10.0	10.2	15300	0.158	0.942	71.6	3.81	0.146	0.160	0.204	0.275	0.543	0.0912
95	0.193	0.247	0.247	0.246	13.6	10.2	14000	0.173	1.03	78.3	3.65	0.139	0.154	0.197	0.275	0.468	0.0850
120	0.153	0.196	0.196	0.196	17.2	10.2	12900	0.186	1.11	84.5	3.53	0.134	0.148	0.192	0.275	0.428	0.0802
150	0.124	0.159	0.159	0.159	21.5	10.2	12000	0.200	1.19	90.7	3.43	0.129	0.143	0.187	0.275	0.399	0.0761
185	0.0991	0.127	0.127	0.127	26.5	10.2	11200	0.214	1.28	97.2	3.34	0.124	0.139	0.183	0.275	0.374	0.0724
240	0.0754	0.0975	0.0973	0.0971	34.3	10.2	10200	0.236	1.41	107.0	3.24	0.119	0.133	0.177	0.275	0.351	0.0677
300	0.0601	0.0785	0.0782	0.0778	42.9	10.2	9400	0.256	1.53	115.9	3.16	0.115	0.129	0.173	0.275	0.335	0.0641
400	0.0470	0.0624	0.0620	0.0614	57.2	10.2	8600	0.280	1.67	127.2	3.08	0.110	0.125	0.168	0.275	0.322	0.0603
500	0.0366	0.0499	0.0493	0.0486	71.5	10.2	7800	0.308	1.84	139.9	3.00	0.107	0.121	0.165	0.275	0.312	0.0576
630	0.0283	0.0403	0.0395	0.0386	90.1	10.2	7100	0.340	2.03	154.3	2.93	0.103	0.117	0.161	0.275	0.304	0.0542
800	0.0221	0.0328	0.0328	0.0315	114.2	10.2	6100	0.360	2.23	164.2	2.54	0.0932	0.108	0.136	0.275	0.285	0.0442
1000	0.0176	0.0296	0.0296	0.0291	143.1	10.2	5400	0.385	2.46	178.4	2.10	0.0892	0.104	0.130	0.275	0.281	0.0422

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
50	224	250	210	220	160	209	209	205	186	185	185	174
70	275	308	259	274	203	250	249	249	224	219	224	215
95	334	369	315	331	241	298	293	296	265	256	266	259
120	380	420	360	380	275	335	328	335	295	286	300	291
150	429	469	406	430	309	371	359	375	326	314	334	325
185	485	528	464	490	349	414	398	420	363	344	373	365
240	564	605	543	574	403	470	444	485	409	383	425	420
300	634	677	618	654	453	523	485	543	448	414	470	469
400	719	758	708	750	534	579	533	610	493	449	528	548
500	808	841	804	854	600	638	577	683	542	484	587	613
630	903	927	913	969	673	698	622	759	578	514	635	680
800	1017	1028	1037	1108	747	757	668	837	632	553	708	747
1000	1167	1138	1218	1307	887	848	717	967	692	593	792	883