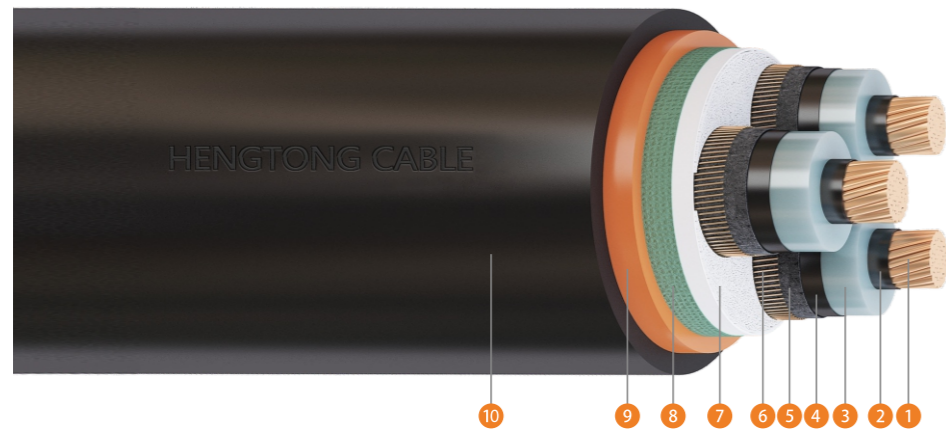


19/33kV Three Core Cu/XLPE/CWS/PVC/HDPE



- 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 filler
- 8 Non-hygroscopic tape
- 9 PVC inner sheath
- 10 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.

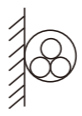
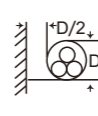



Structural Parameters:

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	49.4	29/0.85	29.6	1.5	1.7	70.5	4732	10.5	1760	1050
70	9.8	8.0	28.7	68.1	40/0.85	31.3	1.6	1.7	74.3	5769	14.7	1850	1110
95	11.4	8.0	30.3	68.1	40/0.85	32.9	1.7	1.7	78.0	6770	20.0	1950	1170
120	12.9	8.0	31.8	68.1	40/0.85	34.4	1.7	1.8	81.5	7700	25.2	2030	1220
150	14.4	8.0	33.3	68.1	40/0.85	35.9	1.8	1.8	84.9	8731	31.5	2120	1270
185	16.0	8.0	34.9	68.1	40/0.85	37.5	1.8	1.9	88.6	10017	38.9	2210	1320
240	18.4	8.0	37.3	68.1	40/0.85	39.9	1.9	2.0	94.1	12033	50.4	2350	1410
300	20.6	8.0	39.5	68.1	40/0.85	42.1	2.0	2.0	99.1	14122	63.0	2470	1480
400	23.4	8.0	42.3	68.1	40/0.85	44.9	2.1	2.2	105.6	16974	84.0	2640	1580
500	26.2	8.0	45.5	68.1	40/0.85	48.1	2.2	2.3	112.8	20619	105.0	2820	1690

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
50	0.387	0.494	7.2	7.3	17000	0.142	0.847	64.4	4.04	0.141	0.384	0.771	0.1010
70	0.268	0.342	10.0	10.1	15300	0.158	0.942	71.6	3.81	0.132	0.279	0.547	0.0911
95	0.193	0.247	13.6	10.1	14000	0.173	1.03	78.3	3.65	0.126	0.279	0.472	0.0849
120	0.153	0.196	17.2	10.1	12900	0.186	1.11	84.5	3.53	0.121	0.279	0.432	0.0801
150	0.124	0.159	21.5	10.1	12000	0.200	1.19	90.7	3.43	0.117	0.279	0.403	0.0760
185	0.0991	0.128	26.5	10.1	11200	0.214	1.28	97.2	3.34	0.113	0.279	0.378	0.0723
240	0.0754	0.0978	34.3	10.1	10200	0.236	1.41	107.0	3.24	0.108	0.279	0.354	0.0675
300	0.0601	0.0788	42.9	10.1	9400	0.256	1.53	115.9	3.16	0.104	0.279	0.339	0.0640
400	0.0470	0.0628	57.2	10.1	8600	0.280	1.67	127.2	3.08	0.100	0.279	0.326	0.0602
500	0.0366	0.0504	71.5	10.1	7800	0.308	1.84	139.9	3.00	0.097	0.279	0.315	0.0575

Current Ratings:

Nominal conductor area mm ²	Continuous current-carrying capacity, A				
	In air		In ground		
					
50	204	217	156	205	170
70	252	269	198	250	213
95	306	328	238	299	255
120	352	377	271	341	290
150	397	427	304	381	324
185	454	488	345	431	366
240	533	575	402	499	424
300	609	658	456	563	478
400	701	759	542	640	562
500	797	864	610	718	630