

6.35/11kV Triplex 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	6.35/11kV
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.

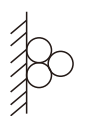
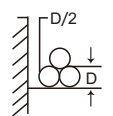
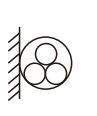
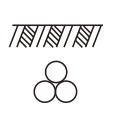
Structural Parameters:

Nominal conductor area	Approx. diameter of conductor	Nominal thickness of insulation	Nominal diameter over insulation	Nominal screen area	No. & diameter of screen wire	Nominal diameter over wire screen	Nominal thickness of outer sheath		Approx. overall diameter of cable	Max. overall diameter of cable	Approx. weight of cable	Max. allowable pulling force of conductor	Min. bending radius	
							Inner layer	Outer layer					During installation	Installed
mm ²	mm	mm	mm	mm ²	No/mm	mm	mm	mm	mm	kg/m	kN	mm	mm	mm
16	4.8	3.4	14.5	15.3	27/0.85	17.1	1.0	1.0	24.1	51.6	2.0	3.4	920	610
25	6.0	3.4	15.7	23.8	42/0.85	18.3	1.0	1.0	25.3	54.2	2.6	5.3	970	650
35	7.0	3.4	16.7	34.0	40/1.04	19.7	1.0	1.0	26.7	57.1	3.2	7.4	1020	680
50	8.1	3.4	17.8	49.5	28/1.5	21.7	1.0	1.0	28.7	61.5	4.1	10.5	1100	730
70	9.8	3.4	19.5	68.9	39/1.5	23.4	1.0	1.0	30.4	65.1	5.3	14.7	1170	780
95	11.4	3.4	21.1	68.9	39/1.5	25.0	1.0	1.0	32.0	68.5	6.2	20.0	1230	820
120	12.9	3.4	22.6	68.9	39/1.5	26.5	1.0	1.0	33.5	71.7	7.0	25.2	1290	860
150	14.4	3.4	24.1	68.9	39/1.5	28.0	1.0	1.0	35.0	74.9	7.8	31.5	1340	890
185	16.0	3.4	25.7	68.9	39/1.5	29.6	1.0	1.0	36.6	78.4	8.9	38.9	1410	940
240	18.4	3.4	28.1	68.9	39/1.5	32.0	1.0	1.1	39.0	83.5	10.1	50.4	1500	1000
300	20.6	3.4	30.3	68.9	39/1.5	34.2	1.0	1.1	41.2	88.2	12.5	63.0	1580	1050
400	23.4	3.4	33.1	68.9	39/1.5	37.0	1.1	1.2	44.0	94.2	14.9	84.0	1690	1130
500	26.2	3.4	36.3	68.9	39/1.5	40.2	1.1	1.2	47.2	101.0	18.2	105.0	1810	1210

Electrical Characteristics:

Nominal conductor area	Max. DC resistance of conductor at 20°C	Max. AC resistance of conductor at 90°C			Fault current carrying of conductor for 1 second	Fault current carrying of screen for 1 second	Insulation resistance at 20°C	Conductor to screen capacitance	Charging current per phase	Dielectric loss per phase	Maximum dielectric stress	Inductive reactance at 50Hz and 90°C			Screen DC resistance at 20°C	Zero sequence resistance at 20°C	Zero sequence reactance at 50Hz
		Trefoil touching	Flat touching	Flat spaced								Trefoil touching	Flat touching	Flat spaced			
mm ²	Ω/km	Ω/km	Ω/km	Ω/km	kA	kA	MΩ/km	μF/km	A/km	W/km	kV/mm	Ω/km	Ω/km	Ω/km	Ω/km	Ω/km	Ω/km
16	1.15	1.47	1.47	1.47	2.3	2.3	12700	0.190	0.379	9.63	2.75	0.161	0.175	0.219	1.24	2.39	0.0969
25	0.727	0.927	0.927	0.927	3.6	3.5	11200	0.216	0.430	10.9	2.62	0.150	0.164	0.208	0.796	1.52	0.0854
35	0.524	0.668	0.668	0.668	5.0	5.0	10200	0.237	0.472	12.0	2.54	0.143	0.158	0.201	0.558	1.08	0.0796
50	0.387	0.494	0.494	0.494	7.2	7.4	9300	0.260	0.518	13.2	2.47	0.139	0.153	0.197	0.383	0.770	0.0760
70	0.268	0.342	0.342	0.342	10.0	10.2	8100	0.295	0.589	15.0	2.39	0.130	0.145	0.189	0.275	0.543	0.0678
95	0.193	0.247	0.247	0.246	13.6	10.2	7300	0.329	0.656	16.7	2.33	0.124	0.139	0.182	0.275	0.468	0.0631
120	0.153	0.196	0.196	0.196	17.2	10.2	6700	0.360	0.718	18.2	2.28	0.119	0.134	0.177	0.275	0.428	0.0595
150	0.124	0.159	0.159	0.159	21.5	10.2	6100	0.391	0.780	19.8	2.24	0.115	0.130	0.173	0.275	0.399	0.0564
185	0.0991	0.128	0.127	0.127	26.5	10.2	5700	0.424	0.846	21.5	2.21	0.111	0.126	0.169	0.275	0.374	0.0537
240	0.0754	0.0978	0.0975	0.0971	34.3	10.2	5100	0.473	0.945	24.0	2.17	0.106	0.121	0.165	0.275	0.351	0.0504
300	0.0601	0.0788	0.0784	0.0779	42.9	10.2	4600	0.519	1.04	26.3	2.14	0.103	0.117	0.161	0.275	0.335	0.0478
400	0.0470	0.0628	0.0623	0.0615	57.2	10.2	4100	0.576	1.15	29.2	2.11	0.0990	0.113	0.157	0.275	0.322	0.0452
500	0.0366	0.0505	0.0497	0.0487	71.5	10.2	3700	0.641	1.28	32.5	2.09	0.0962	0.111	0.154	0.275	0.312	0.0437

Current Ratings:

Nominal conductor area	Continuous current-carrying capacity, A				
	In air			In ground	
					
mm ²	Solid bond	Solid bond	Solid bond	Solid bond	Solid bond
16	106	112	81	113	91
25	138	145	104	145	116
35	169	179	125	174	140
50	200	214	150	204	166
70	250	268	184	249	204
95	301	320	219	295	241
120	349	370	256	335	279
150	394	419	289	374	310
185	449	479	325	420	350
240	525	563	375	483	403
300	599	639	439	539	463
400	688	735	498	605	519
500	783	838	559	674	580