

38/66kV Single Core Cu/XLPE/CAS/PVC/HDPE



Properties:

Rated voltage	38/66kV
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 1429.2
Fault Level	as per 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 thickness of aluminium sheath 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 during installation mm	Min. bending radius after installed mm
				Inner layer	Outer layer					
95	11.6	13	2.0	1.7	1.8	66.2	4284	6.5	1324	993
120	13.0	13	2.0	1.7	1.8	67.6	4614	8.2	1352	1014
150	14.6	12	2.0	1.7	1.8	67.2	4810	10.2	1344	1008
185	16.2	12	2.0	1.7	1.8	68.8	5251	12.6	1376	1032
240	18.4	12	2.0	1.7	1.8	72.0	5951	16.3	1440	1080
300	20.6	11	2.0	1.7	1.8	72.2	6455	20.4	1444	1083
400	23.4	11	2.0	1.7	1.8	75.0	7490	27.2	1500	1125
500	26.6	11	2.0	1.7	1.8	78.2	8673	34.0	1564	1173
630	29.9	11	2.0	2.0	2.0	82.5	10281	42.8	1650	1238
800	33.6	10	2.0	2.0	2.0	85.2	11934	54.4	1704	1278
1000	39.2	10	2.3	2.0	2.0	93.7	14669	68	1874	1406
1200	43.4	10	2.3	2.2	2.3	98.9	16939	81.6	1978	1484
1600	49.6	10	2.3	2.2	2.3	105.1	21022	108.8	2102	1577
2000	55.0	10	2.3	2.5	2.5	111.5	25263	136.0	2230	1673
2500	61.5	10	2.3	2.5	2.5	118.0	30227	170.0	2360	1770

Electrical Characteristics:

Nominal conductor area mm ²	Max. D.C resistance of conductor at 20°C Ω/km	Max. A.C resistance of conductor at 90°C			Fault current carrying of conductor for 1 second kA	Fault current carrying of screen for 1 second kA	Conductor to screen capacitance μF/km	Conductor capacitance per phase A/km	Charging current per phase KV/mm	Inductive reactance at 50Hz and 90°C			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		
95	0.193	0.247	0.247	0.246	13.6	13.6	0.125	1.5	5.1	0.169	0.227	0.183	0.341	0.680
120	0.153	0.196	0.196	0.196	17.2	17.2	0.133	1.6	4.9	0.163	0.221	0.177	0.301	0.671
150	0.124	0.159	0.159	0.159	21.5	21.5	0.149	1.8	5.0	0.155	0.213	0.170	0.272	0.664
185	0.0991	0.127	0.127	0.127	26.5	26.5	0.158	1.9	4.9	0.150	0.208	0.165	0.247	0.655
240	0.0754	0.0972	0.0972	0.0971	34.3	34.3	0.170	2.0	4.7	0.145	0.203	0.159	0.223	0.641
300	0.0601	0.0781	0.0781	0.0778	42.9	42.9	0.195	2.3	4.9	0.138	0.196	0.153	0.208	0.633
400	0.047	0.0618	0.0618	0.0614	57.2	57.2	0.211	2.5	4.7	0.132	0.191	0.147	0.195	0.621
500	0.0366	0.0492	0.0492	0.0486	71.5	64.0	0.231	2.8	4.6	0.127	0.185	0.142	0.185	0.607
630	0.0283	0.0393	0.0393	0.0385	90.1	64.0	0.250	3.0	4.5	0.123	0.181	0.138	0.176	0.593
800	0.0221	0.0323	0.0323	0.0312	114.5	64.0	0.294	3.5	4.8	0.118	0.176	0.132	0.170	0.582
1000	0.0176	0.0250	0.0250	0.0247	143.1	64.0	0.338	4.0	4.6	0.114	0.172	0.129	0.166	0.560
1200	0.0151	0.0222	0.0222	0.0218	171.7	64.0	0.366	4.4	4.5	0.111	0.169	0.126	0.163	0.547
1600	0.0113	0.0181	0.0181	0.0176	229.0	64.0	0.406	4.8	4.5	0.106	0.165	0.121	0.159	0.531
2000	0.009	0.0157	0.0157	0.0151	286.2	64.0	0.440	5.3	4.4	0.104	0.162	0.118	0.157	0.517
2500	0.0072	0.0139	0.0139	0.0132	357.8	64.0	0.482	5.8	4.4	0.100	0.158	0.115	0.155	0.503

Current Ratings:

Nominal conductor area mm ²	Continuous current-carrying capacity, A								
	In air			In ground			In underground ducts		
	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding	Single point bonding or cross-bonding	
95	350	380	345	307	316	302	298	296	289
120	400	436	395	347	359	342	338	336	328
150	453	497	447	389	403	383	377	377	367
185	514	567	509	436	455	431	424	425	413
240	600	665	595	501	526	497	488	493	477
300	682	764	678	561	594	559	546	555	536
400	780	885	779	630	676	631	613	632	606
500</td									