

# Three Core Triplex Cu 12.7/22kV XLPE Insulated HD Cu Screened HDPE Sheathed

STANDARD: AS/NZS 1429.1 & AS/NZS 4026

RATED VOLTAGE: 12.7/22 (24) kV

FAULT LEVEL: Up to 10kA for 1 sec or to customer requirements

IMPULSE VOLTAGE: 95kV

TEMPERATURE RANGE:

In continuous operations Max. conductor temp 90°C

Lowest cable temperature during installation: -10°C and below 0°C special precautions must be taken.

BENDING RADIUS:

During installation: 25 x CD. When installed: 15 x CD (HDPE sheathed cables)  
CD = Diameter of phase cable

## DESIGN

CONDUCTOR:

Stranded, round and compacted copper complying with AS/NZS 1125

SEMI-CONDUCTIVE CONDUCTOR SCREEN:

Extruded cross-linked compound

INSULATION:

XLPE complying with AS/NZS 3808

SEMI-CONDUCTIVE INSULATION SCREEN:

Extruded hand strippable semi-conductive cross-linked compound

METALLIC SCREEN:

Circular copper wires

BINDER: Water blocking taped.

OUTER SHEATH: Black HDPE as standard.





Product Code	Conductor size mm <sup>2</sup>	Nominal insulation thickness mm	Diameter over insulation mm	Number & diameter of screen wires no./mm	Diameter of phase cable mm	Overall diameter (approx.) mm	Mass (approx.) kg/km	Max. pulling tension kN	Minimum bending radius			
									Phase Cable		Cable bundle	
									During installation	Installed	During installation	Installed
									mm	mm	mm	mm
3MV035C22TH	35	5.5	19.1	24/1.35	26.6	57.3	3400	7.4	670	400	860	570
3MV050C22TH	50	5.5	20.3	34/1.35	28.5	61.4	4300	11	710	430	920	610
3MV070C22TH	70	5.5	22.1	30/1.70	30.9	66.5	5700	15	770	460	1000	670
3MV095C22TH	95	5.5	23.7	38/1.52	32.2	69.3	6500	20	800	480	1040	690
3MV120C22TH	120	5.5	25.2	48/1.53	33.8	72.7	7300	25	840	510	1090	730
3MV150C22TH	150	5.5	26.7	48/1.53	35.4	76.2	8200	25	880	530	1140	760
3MV185C22TH	185	5.5	28.5	48/1.53	37.3	80.3	9400	25	930	560	1200	800
3MV240C22TH	240	5.5	30.7	48/1.53	39.6	85.4	11200	25	990	590	1280	850
3MV300C22TH	300	5.5	32.8	48/1.53	41.9	90.2	13000	25	1050	630	1350	900
3MV400C22TH	400	5.5	35.7	48/1.53	45.0	96.9	15600	25	1120	670	1450	970
3MV500C22TH	500	5.5	39.5	48/1.53	49.1	105.7	20000	25	1230	740	1590	1060

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## Electrical Data

Product Code	Conductor size	Max. conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz and 90°C	Insulation resistance at 20°C	Charging current per phase	Dielectric loss per phase	Zero sequence resistance at 20°C	Zero sequence reactance at 50Hz
	mm <sup>2</sup>	Ω/km	Ω/km	Ω/km	MΩ.km	A/km	W/km	Ω/km	Ω/km
3MV035C22TH	35	0.524	0.668	0.148	15000	0.646	32.8	1.05	0.0917
3MV050C22TH	50	0.387	0.494	0.143	14000	0.710	36.1	0.756	0.0859
3MV070C22TH	70	0.268	0.342	0.132	12000	0.805	40.9	0.531	0.0758
3MV095C22TH	95	0.193	0.247	0.125	11000	0.888	45.1	0.458	0.0698
3MV120C22TH	120	0.153	0.196	0.121	10000	0.966	49.1	0.418	0.0655
3MV150C22TH	150	0.124	0.159	0.117	9200	1.04	53.0	0.389	0.0619
3MV185C22TH	185	0.0991	0.128	0.113	8500	1.14	57.7	0.364	0.0583
3MV240C22TH	240	0.0754	0.0978	0.109	7700	1.25	63.5	0.341	0.0546
3MV300C22TH	300	0.0601	0.0788	0.105	7100	1.36	68.9	0.326	0.0517
3MV400C22TH	400	0.0470	0.0628	0.101	6400	1.50	76.4	0.313	0.0475
3MV500C22TH	500	0.0373	0.0512	0.0986	5700	1.70	86.3	0.304	0.0457

## Current Ratings

Conductor Size mm <sup>2</sup>	Continuous current carrying capacity A		Conductor fault current carrying capacity for 1 second kA	Short circuit current rating of the screen 1 sec. kA
	in ground 	in air 		
35	147	140	5.0	5.0
50	176	171	7.1	7.1
70	214	210	10.0	10.0
95	254	250	13.6	10.0
120	286	283	17.1	10.0
150	319	317	21.4	10.0
185	367	372	26.4	10.0
240	421	429	34.3	10.0
300	470	481	42.9	10.0
400	527	543	57.2	10.0
500	584	605	71.5	10.0