

# Three Core Triplex Al 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 aluminium 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
3MV050A22TH	50	5.5	20.3	23/1.35	27.9	60.1	3000	7.5	730	440	940	630
3MV070A22TH	70	5.5	22.1	32/1.35	30.4	65.6	3800	11	770	460	1000	670
3MV095A22TH	95	5.5	23.7	43/1.35	32.2	69.3	4600	14	820	490	1060	700
3MV120A22TH	120	5.5	25.2	48/1.53	33.8	72.7	5200	18	860	510	1110	740
3MV150A22TH	150	5.5	26.7	48/1.53	35.4	76.2	5500	23	890	540	1150	770
3MV185A22TH	185	5.5	28.5	48/1.53	37.3	80.3	6000	25	930	560	1210	810
3MV240A22TH	240	5.5	30.7	48/1.53	39.6	85.4	6700	25	1000	600	1290	860
3MV300A22TH	300	5.5	32.8	48/1.53	41.9	90.2	7400	25	1060	640	1320	910
3MV400A22TH	400	5.5	35.7	48/1.53	45.0	96.9	8400	25	1140	690	1480	980
3MV500A22TH	500	5.5	41.8	48/1.53	54.7	117.9	10800	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
3MV050A22TH	50	0.641	0.820	0.144	14000	0.685	34.8	1.19	0.0869
3MV070A22TH	70	0.443	0.567	0.133	13000	0.768	39.0	0.838	0.0769
3MV095A22TH	95	0.320	0.409	0.126	11000	0.855	43.4	0.613	0.0709
3MV120A22TH	120	0.253	0.324	0.122	10000	0.926	47.0	0.516	0.0668
3MV150A22TH	150	0.206	0.263	0.118	9700	0.997	50.7	0.469	0.0633
3MV185A22TH	185	0.164	0.210	0.115	9000	1.07	54.5	0.428	0.0601
3MV240A22TH	240	0.125	0.160	0.110	8100	1.19	60.4	0.388	0.0560
3MV300A22TH	300	0.100	0.128	0.107	7400	1.30	66.3	0.364	0.0536
3MV400A22TH	400	0.0778	0.101	0.103	6700	1.45	73.5	0.342	0.0492
3MV500A22TH	500	0.0617	0.0814	0.0989	5900	1.62	82.4	0.326	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 		
50	158	159	4.7	4.6
70	191	196	6.6	6.5
95	227	237	9.0	8.8
120	257	271	11.3	10.0
150	287	307	14.2	10.0
185	317	344	17.5	10.0
240	372	411	22.7	10.0
300	418	469	28.4	10.0
400	476	546	37.8	10.0
500	538	680	47.3	10.0