

Three Core Al 12.7/22kV XLPE Insulated HD Cu Screened PVC Sheathed

STANDARD: AS/NZS 1429.1

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: 18 x D. When installed: 12 x D (PVC sheathed cables)

D = Overall diameter of 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

OUTER SHEATH:

Black PVC as standard. HDPE, halogen free, flame retardant, termite protection in the form of nylon, double brass tape or chemical additive also available.





Product Code	Conductor size mm ²	Nominal insulation thickness mm	Diameter over insulation mm	Number & diameter of screen wires no./mm	Overall Diameter mm	Mass (approx.) kg/km	Maximum pulling tension kN	Minimum Bending Radius	
								During installation mm	Installed mm
3MV050A22HP	50	5.5	20.3	19/0.85	57.0	2700	7.5	1030	680
3MV070A22HP	70	5.5	22.1	27/0.85	61.2	3200	11	1100	730
3MV095A22HP	95	5.5	23.7	36/0.85	64.9	3800	14	1170	780
3MV120A22HP	120	5.5	25.2	40/0.85	68.3	4300	18	1230	820
3MV150A22HP	150	5.5	26.7	40/0.85	71.8	4700	23	1290	860
3MV185A22HP	185	5.5	28.5	40/0.85	75.9	5300	25	1370	910
3MV240A22HP	240	5.5	30.7	40/0.85	81.0	6100	25	1460	970
3MV300A22HP	300	5.5	32.8	40/0.85	85.8	6900	25	1550	1030
3MV400A22HP	400	5.5	35.7	40/0.85	92.5	8100	25	1670	1110
3MV500A22HP	500	5.5	41.8	40/0.85	106.0	10300	25	1920	1280

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Electrical Data

Product Code	Conductor size mm ²	Max. conductor DC resistance at 20°C Ω/km	Conductor AC resistance at 50Hz and 90°C Ω/km	Inductive reactance at 50Hz and 90°C Ω/km	Insulation resistance at 20°C MΩ.km	Charging current per phase A/km	Dielectric loss per phase W/km	Zero sequence resistance at 20°C Ω/km	Zero sequence reactance at 50Hz Ω/km
3MV050A22HP	50	0.641	0.822	0.131	14000	0.710	36.1	2.32	0.0851
3MV070A22HP	70	0.443	0.568	0.120	12000	0.805	40.9	1.62	0.0745
3MV095A22HP	95	0.320	0.411	0.115	11000	0.888	45.1	1.20	0.0691
3MV120A22HP	120	0.253	0.325	0.110	10000	0.966	49.1	1.05	0.0649
3MV150A22HP	150	0.206	0.265	0.107	9200	1.04	53.0	1.00	0.0613
3MV185A22HP	185	0.164	0.211	0.103	8500	1.14	57.7	0.961	0.0577
3MV240A22HP	240	0.125	0.161	0.0991	7700	1.25	63.5	0.922	0.0541
3MV300A22HP	300	0.100	0.130	0.0961	7100	1.36	68.9	0.897	0.0512
3MV400A22HP	400	0.0778	0.102	0.0919	6400	1.50	76.4	0.875	0.0471
3MV500A22HP	500	0.0617	0.0818	0.0900	5700	1.70	86.2	0.859	0.0452

Current Ratings

Conductor Size mm ²	Current rating at core temp. 90°C in ground A 	Current rating at core temp. 90°C in air A 	Max. short-circuit current on the conductor during 1sec at initial temp. 90°C kA	Short circuit current rating of the screen 1 sec. kA
50	158	155	4.7	4.8
70	194	193	6.6	6.8
95	231	233	9.0	9.1
120	263	269	11.3	10.1
150	295	305	14.2	10.1
185	334	350	17.5	10.1
240	387	411	22.7	10.1
300	436	470	28.4	10.1
400	500	547	37.8	10.1
500	555	610	47.3	10.1