

# Three Core Al 3.8/6.6kV XLPE Insulated HD Cu Screened PVC SWA PVC

STANDARD: AS/NZS 1429.1

RATED VOLTAGE: 3.8/6.6 (7.2) 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

INNER SHEATH:

Black PVC

AMOUR:

Galvanised steel wires complying with AS/NZS 3863

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 <sup>2</sup>	Nominal insulation thickness mm	Diameter over insulation mm	Number & diameter of screen wires no./mm	Diameter over inner sheath (approx.) mm	Diameter of steel wires mm	Overall diameter (approx.) mm	Mass (approx.) kg/km	Maximum pulling tension kN	Minimum Bending Radius	
										During installation mm	Installed mm
3MV050A06HS	50	2.5	14.3	19/0.85	41.3	2.5	51.5	4200	7.5	930	620
3MV070A06HS	70	2.5	16.1	27 /0.85	45.3	2.5	55.8	5000	11	1000	670
3MV095A06HS	95	2.5	17.7	36/0.85	48.9	2.5	59.6	5700	14	1070	720
3MV120A06HS	120	2.5	19.2	40/0.85	52.2	2.5	63.2	6300	18	1140	760
3MV150A06HS	150	2.5	20.7	40/0.85	55.6	2.5	66.8	6900	23	1200	800
3MV185A06HS	185	2.5	22.5	40/0.85	59.6	2.5	71.1	7700	25	1280	850
3MV240A06HS	240	2.6	24.9	40/0.85	65.0	3.15	78.3	9700	25	1410	940
3MV300A06HS	300	2.8	27.4	40/0.85	70.6	3.15	84.3	11000	25	1520	1010

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## Electrical Data

Product Code	Conductor size mm <sup>2</sup>	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
3MV050A06HS	50	0.641	0.822	0.112	7500	0.385	5.86	1.49	0.0658
3MV070A06HS	70	0.443	0.568	0.103	6500	0.446	6.78	1.12	0.0569
3MV095A06HS	95	0.320	0.411	0.0987	5800	0.499	7.59	0.873	0.0527
3MV120A06HS	120	0.253	0.325	0.0954	5200	0.550	8.35	0.758	0.0495
3MV150A06HS	150	0.206	0.265	0.0926	4800	0.600	9.12	0.700	0.0468
3MV185A06HS	185	0.164	0.211	0.0898	4400	0.660	10.0	0.645	0.0442
3MV240A06HS	240	0.125	0.162	0.0874	4100	0.708	10.8	0.541	0.0420
3MV300A06HS	300	0.100	0.130	0.0860	4000	0.725	11.0	0.502	0.0407

## Current Ratings

Conductor Size mm <sup>2</sup>	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	156	151	4.7	4.8
70	191	187	6.6	6.8
95	227	226	9.0	9.1
120	257	259	11.3	10.1
150	287	293	14.2	10.1
185	323	335	17.5	10.1
240	371	391	22.7	10.1
300	414	444	28.4	10.1