

# Single Core Cu 6.35/11kV XLPE Insulated HD Cu Screened PVC Sheathed

STANDARD: AS/NZS 1429.1

RATED VOLTAGE: 6.35/11 (12) 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 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 with non-hygroscopic binder tape

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	Overall Diameter mm	Mass (approx.) kg/km	Maximum pulling tension kN	Minimum Bending Radius	
								During installation mm	Installed mm
1MV035C11HP	35	3.4	14.9	24/1.35	22.7	1000	2.5	410	270
1MV050C11HP	50	3.4	16.1	34/1.35	24.0	1250	3.5	430	290
1MV070C11HP	70	3.4	17.9	38/1.52	26.8	1700	4.9	480	320
1MV095C11HP	95	3.4	19.5	48/1.35	28.1	1950	6.7	510	340
1MV120C11HP	120	3.4	21.0	48/1.35	29.7	2300	8.4	530	360
1MV150C11HP	150	3.4	22.5	48/1.35	31.3	2500	11	560	380
1MV185C11HP	185	3.4	24.3	48/1.35	32.8	2850	13	590	390
1MV240C11HP	240	3.4	26.5	48/1.35	35.1	3450	17	630	420
1MV300C11HP	300	3.4	28.6	48/1.35	37.4	4050	21	670	450
1MV400C11HP	400	3.4	31.5	48/1.35	40.5	4850	25	730	490
1MV500C11HP	500	3.4	35.3	48/1.35	44.6	6200	25	800	540
1MV630C11HP	630	3.4	38.7	48/1.35	48.2	7800	25	870	580

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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
1MV035C11HP	35	0.524	0.668	0.139	11000	0.455	11.5	1.04	0.0792
1MV050C11HP	50	0.387	0.494	0.132	9500	0.505	12.8	0.756	0.0732
1MV070C11HP	70	0.268	0.342	0.123	8300	0.580	14.7	0.530	0.0648
1MV095C11HP	95	0.193	0.247	0.117	7400	0.646	16.4	0.456	0.0595
1MV120C11HP	120	0.153	0.196	0.113	6800	0.708	18.0	0.417	0.0558
1MV150C11HP	150	0.124	0.159	0.109	6300	0.770	19.6	0.388	0.0528
1MV185C11HP	185	0.0991	0.128	0.105	5700	0.844	21.4	0.364	0.0492
1MV240C11HP	240	0.0754	0.0980	0.101	5200	0.934	23.7	0.341	0.0462
1MV300C11HP	300	0.0601	0.0791	0.0984	4700	1.02	25.9	0.326	0.0438
1MV400C11HP	400	0.0470	0.0632	0.0943	4200	1.14	28.9	0.313	0.0403
1MV500C11HP	500	0.0366	0.0508	0.0925	3700	1.30	32.9	0.303	0.0391
1MV630C11HP	630	0.0283	0.0414	0.0899	3400	1.43	36.4	0.295	0.0370

## Current Ratings

Conductor Size	Current rating at core temp. 90°C in ground	Current rating at core temp. 90°C in air	Current rating at core temp. 90°C in underground ducts	Max. short circuit current rating on the conductor during 1 sec at initial temp. 90°C	Short circuit current rating of the screen 1 sec.
mm <sup>2</sup>	A 	A 	A 	kA	kA
35	177	181	161	5.00	5.2
50	207	216	187	7.1	7.3
70	251	269	223	10.0	10.2
95	296	323	261	13.6	10.2
120	332	370	292	17.1	10.2
150	369	417	322	21.4	10.2
185	410	472	356	26.4	10.2
240	465	546	400	34.3	10.2
300	513	615	439	42.9	10.2
400	568	698	481	57.2	10.2
500	625	788	529	71.5	10.2
630	680	880	567	90.0	10.2