

Single Core Cu 3.8/6.6kV XLPE Insulated HD Cu Screened PVC Sheathed

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 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 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
1MV035C06HP	35	2.5	13.1	24/1.35	20.8	950	2.5	370	250
1MV050C06HP	50	2.5	14.3	34/1.35	22.5	1200	3.5	410	270
1MV070C06HP	70	2.5	16.1	30/1.70	25.2	1650	4.9	450	300
1MV095C06HP	95	2.5	17.7	38/1.52	26.5	1900	6.7	480	320
1MV120C06HP	120	2.5	19.2	48/1.35	28.2	2150	8.4	510	340
1MV150C06HP	150	2.5	20.7	48/1.35	29.4	2450	11	530	350
1MV185C06HP	185	2.5	22.5	48/1.35	31.3	2800	13	560	380
1MV240C06HP	240	2.6	24.9	48/1.35	33.4	3350	17	600	400
1MV300C06HP	300	2.8	27.4	48/1.35	36.1	3400	21	650	430
1MV400C06HP	400	3.0	30.7	48/1.35	39.6	4850	25	710	480

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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 ²	Ω/km	Ω/km	Ω/km	MΩ.km	A/km	W/km	Ω/km	Ω/km
1MV035C06HP	35	0.524	0.668	0.133	8400	0.345	5.24	1.04	0.0724
1MV050C06HP	50	0.387	0.494	0.128	7500	0.385	5.86	0.759	0.0677
1MV070C06HP	70	0.268	0.342	0.120	6500	0.446	6.78	0.534	0.0597
1MV095C06HP	95	0.193	0.247	0.113	5800	0.499	7.59	0.456	0.0547
1MV120C06HP	120	0.153	0.196	0.109	5200	0.550	8.35	0.416	0.0514
1MV150C06HP	150	0.124	0.159	0.105	4800	0.600	9.12	0.388	0.0482
1MV185C06HP	185	0.0991	0.128	0.102	4400	0.660	10.0	0.363	0.0454
1MV240C06HP	240	0.0754	0.0981	0.0981	4100	0.708	10.8	0.341	0.0427
1MV300C06HP	300	0.0601	0.0792	0.0962	4000	0.725	11.0	0.326	0.0414
1MV400C06HP	400	0.0470	0.0632	0.0929	3800	0.762	11.6	0.313	0.0388

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 ²	A 	A 	A 	kA	kA
35	177	178	161	5.0	5.2
50	208	214	187	7.1	7.2
70	251	268	223	10.0	10.1
95	296	321	260	13.6	10.2
120	332	367	290	17.1	10.2
150	368	413	320	21.4	10.2
185	410	469	354	26.4	10.2
240	464	542	397	34.3	10.2
300	512	612	436	42.9	10.2
400	567	696	479	57.2	10.2