

Single Core Al 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 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 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 & nom. 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
1MV050A11HP	50	3.4	16.1	23/1.35	23.4	800	2.5	420	280
1MV070A11HP	70	3.4	17.9	32/1.35	25.9	1050	3.5	470	310
1MV095A11HP	95	3.4	19.5	43/1.35	28.1	1300	4.8	510	340
1MV120A11HP	120	3.4	21.0	48/1.35	29.7	1500	6.0	530	360
1MV150A11HP	150	3.4	22.5	48/1.35	31.3	1600	7.5	560	380
1MV185A11HP	185	3.4	24.3	48/1.35	32.8	1750	9.3	590	390
1MV240A11HP	240	3.4	26.5	48/1.35	35.1	1950	12	630	420
1MV300A11HP	300	3.4	28.6	48/1.35	37.4	2200	15	670	450
1MV400A11HP	400	3.4	31.5	48/1.35	40.5	2500	20	730	490
1MV500A11HP	500	3.4	35.3	48/1.35	44.6	3150	25	800	540
1MV630A11HP	630	3.4	38.7	48/1.35	48.2	3850	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 ²	Ω/km	Ω/km	Ω/km	MΩ.km	A/km	W/km	Ω/km	Ω/km
1MV050A11HP	50	0.641	0.822	0.130	9500	0.505	12.8	1.19	0.0722
1MV070A11HP	70	0.443	0.568	0.121	8300	0.580	14.7	0.837	0.0636
1MV095A11HP	95	0.320	0.411	0.117	7400	0.646	16.4	0.614	0.0595
1MV120A11HP	120	0.253	0.325	0.113	6800	0.708	18.0	0.516	0.0558
1MV150A11HP	150	0.206	0.265	0.109	6300	0.770	19.6	0.469	0.0528
1MV185A11HP	185	0.164	0.211	0.105	5700	0.844	21.4	0.429	0.0492
1MV240A11HP	240	0.125	0.161	0.101	5200	0.934	23.7	0.390	0.0462
1MV300A11HP	300	0.100	0.130	0.0984	4700	1.02	25.9	0.365	0.0438
1MV400A11HP	400	0.0778	0.102	0.0943	4200	1.14	28.9	0.343	0.0403
1MV500A11HP	500	0.0605	0.0802	0.0925	3700	1.30	32.9	0.326	0.0391
1MV630A11HP	630	0.0469	0.0636	0.0899	3400	1.43	36.4	0.313	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 ²	A	A	A	kA	kA
50	162	167	148	4.7	4.9
70	197	210	179	6.6	6.8
95	234	255	209	9.0	9.1
120	263	292	234	11.3	10.2
150	293	331	262	14.2	10.2
185	329	377	291	17.5	10.2
240	376	440	330	22.7	10.2
300	418	499	366	28.4	10.2
400	470	576	409	37.8	10.2
500	526	660	456	47.3	10.2
630	584	751	500	59.5	10.2