

Single Core Cu 19/33kV XLPE Insulated HD Cu Screened PVC Sheathed

STANDARD: AS/NZS 1429.1

RATED VOLTAGE: 19/33 (36) 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	Nominal insulation thickness	Diameter over insulation	Number & diameter of screen wires	Overall Diameter	Mass (approx.)	Maximum pulling tension	Minimum Bending Radius	
	mm ²							During installation	Installed
	mm ²	mm	mm	no./mm	mm	kg/km	kN	mm	mm
1MV050C33HP	50	8.0	25.3	34/1.35	33.9	1700	3.5	610	410
1MV070C33HP	70	8.0	27.1	48/1.35	35.8	2100	4.9	640	430
1MV095C33HP	95	8.0	28.7	48/1.35	37.5	2400	6.7	680	450
1MV120C33HP	120	8.0	30.2	48/1.35	39.1	2700	8.4	700	470
1MV150C33HP	150	8.0	31.7	48/1.35	40.7	3000	11	730	490
1MV185C33HP	185	8.0	33.5	48/1.35	42.6	3400	13	770	510
1MV240C33HP	240	8.0	35.7	48/1.35	45.0	4000	17	810	540
1MV300C33HP	300	8.0	37.8	48/1.35	47.2	4650	21	850	570
1MV400C33HP	400	8.0	40.7	48/1.35	50.3	5500	25	910	600
1MV500C33HP	500	8.0	44.5	48/1.35	54.4	6850	25	980	650
1MV630C33HP	630	8.0	47.9	48/1.35	58.1	8300	25	1050	700

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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
1MV050C33HP	50	0.387	0.494	0.153	17000	0.828	15.7	0.756	0.0982
1MV070C33HP	70	0.268	0.342	0.142	16000	0.929	17.6	0.533	0.0868
1MV095C33HP	95	0.193	0.247	0.135	14000	1.02	19.3	0.458	0.0806
1MV120C33HP	120	0.153	0.196	0.130	13000	1.10	20.9	0.418	0.0759
1MV150C33HP	150	0.124	0.159	0.126	12000	1.18	22.4	0.389	0.0718
1MV185C33HP	185	0.0991	0.127	0.121	11000	1.28	24.3	0.364	0.0676
1MV240C33HP	240	0.0754	0.0976	0.117	10000	1.39	26.5	0.341	0.0634
1MV300C33HP	300	0.0601	0.0785	0.113	9600	1.51	28.6	0.326	0.0600
1MV400C33HP	400	0.0470	0.0625	0.108	8700	1.66	31.5	0.313	0.0552
1MV500C33HP	500	0.0366	0.0500	0.105	7700	1.86	35.4	0.303	0.0527
1MV630C33HP	630	0.0283	0.0404	0.102	7100	2.04	38.8	0.295	0.0495

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 	Current rating at core temp. 90°C in underground ducts A 	Max. short circuit current rating on the conductor during 1 sec at initial temp. 90°C C kA	Short circuit current rating of the screen 1 sec. kA
50	207	224	191	7.1	7.3
70	251	277	228	10.0	10.2
95	296	333	267	13.6	10.2
120	333	380	301	17.1	10.2
150	370	428	332	21.4	10.2
185	413	486	367	26.4	10.2
240	469	562	413	34.3	10.2
300	518	633	450	42.9	10.2
400	575	719	496	57.2	10.2
500	634	811	545	71.5	10.2
630	693	907	580	90.0	10.2