



Cu(Al) 6.35/11 kV – Single Core Heavy Duty Screened Unarmoured MV CABLE

APPLICATION:

Cables for electricity distribution networks are commonly employed as the main power supply for commercial, industrial, and urban residential grids. They are suitable for high fault-level systems with a rating of up to 10kA/1sec.

CABLE STRUCTURE:

Conductor:

Stranded compacted conductor(copper or aluminum)

Semi-conductive conductor screen:

Extruded cross-linked compound

Insulation: XLPE

Semi-conductive insulation screen:

Extruded hand strippable semi-conductive cross-linked compound

Metallic screen:

Copper wire screen

(nominal 10kA for 1 second)

Outer sheath:

PVC. Optional: HDPE, halogen-free, flame-retardant, plus termite protection (nylon, double brass tape or chemical additive).

STANDARDS:

Product:

AS/NZS 1429.1

Electric cables - Polymeric insulated

For working voltages 1.9/3.3 (3.6) kV up to and including 19/33 (36) kV

Conductor:

AS/NZS 1125

Conductors in insulated electric cables and flexible cords

Insulation & Sheath:

AS/NZS 3808

Insulating and sheathing materials for electric cables

TECHNICAL DATA:

Rated volatge:

6.35/11 kV

Temperature range:

Minimum installation temperature: 0°C

Maximum operating temperature: +90°C

Minimum operating temperature: -25°C

Fault level:

Up to 10kA for 1 sec

Bending radius:

Installed cables:

12D (PVC) 15D (HDPE)

During installation:

18D (PVC) 25D (HDPE)

CERTIFICATES:

We hold SAA certifications for our product categories. Additionally, we possess authoritative certifications recognized in other countries and regions.





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Physical Character Sheet (AL Conductor)

Nominal conductor area	Nominal insulation thickness	Diameter over insulation	Number of screen wires and diameter of screen wires	Overall Diameter	Approx. weight	Maximum pulling tension	Minimum Bending Radius During installation	Minimum Bending Radius Installed
mm ²	mm	mm	nb x mm ∅	mm	kg/km	kN	mm	mm
1 × 50	3.4	16.3	24/1.35	24.7	800.0	2.5	450	300
1 × 70	3.4	17.8	34/1.35	26.2	1050.0	3.5	480	320
1 × 95	3.4	19.4	43/1.35	27.8	1300.0	4.8	510	340
1 × 120	3.4	21.0	48/1.35	29.6	1500.0	6.0	530	350
1 × 150	3.4	22.3	48/1.35	30.9	1550.0	7.5	560	370
1 × 185	3.4	24.1	48/1.35	32.9	1700.0	9.3	590	390
1 × 240	3.4	26.3	48/1.35	35.3	1900.0	12.0	630	420
1 × 300	3.4	28.5	48/1.35	37.5	2150.0	15.0	670	450
1 × 400	3.4	31.6	48/1.35	40.9	2500.0	20.0	730	490
1 × 500	3.4	34.8	48/1.35	44.3	2950.0	25.0	800	540
1 × 630	3.4	38.7	48/1.35	48.4	3450.0	25.0	870	580

Electrical Data Sheet (AL Conductor)

Nominal conductor area	Max. conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz and 90°C	Min insulation resistance at 20°C	Current rating at core temp. 90°C in ground	Current rating at core temp. 90°C in air
mm ²	Ohm/km	Ohm/km	Ohm/km	MOhm/km	A	A
1 × 50	0.641	0.822	0.141	10000	160	165
1 × 70	0.443	0.568	0.129	8900	195	210
1 × 95	0.320	0.410	0.123	7900	230	250
1 × 120	0.253	0.325	0.119	7200	260	290
1 × 150	0.206	0.265	0.116	6600	290	330
1 × 185	0.164	0.211	0.111	6000	330	375
1 × 240	0.125	0.161	0.107	5400	380	440
1 × 300	0.100	0.130	0.104	4900	425	510
1 × 400	0.0778	0.102	0.101	4300	480	590
1 × 500	0.0605	0.080	0.0979	3900	545	685
1 × 630	0.0469	0.064	0.0948	3400	584	790



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Physical Character Sheet (CU Conductor)

Nominal conductor area	Nominal insulation thickness	Diameter over insulation	Number of screen wires and diameter of screen wires	Overall Diameter	Approx. weight	Maximum pulling tension	Minimum Bending Radius During installation	Minimum Bending Radius Installed
mm ²	mm	mm	nb x mm ∅	mm	kg/km	kN	mm	mm
1 × 35	3.4	15.0	24/1.35	23.4	990	2.5	430	280
1 × 50	3.4	16.3	34/1.35	24.7	1250	3.5	450	300
1 × 70	3.4	17.8	30/1.70	26.9	1650	4.9	490	330
1 × 95	3.4	19.4	48/1.35	27.8	1950	6.7	510	340
1 × 120	3.4	21.0	48/1.35	29.6	2250	8.4	530	350
1 × 150	3.4	22.3	48/1.35	30.9	2550	11	560	370
1 × 185	3.4	24.1	48/1.35	32.9	2850	13	590	390
1 × 240	3.4	26.3	48/1.35	35.3	3450	17	630	420
1 × 300	3.4	28.5	48/1.35	37.5	4100	21	670	450
1 × 400	3.4	31.6	48/1.35	40.9	5050	25	730	490
1 × 500	3.4	34.8	48/1.35	44.3	6050	25	800	540
1 × 630	3.4	38.7	48/1.35	48.4	7300	25	870	580

Electrical Data Sheet (CU Conductor)

Nominal conductor area	Max. conductor DC resistance at 20°C	Conductor AC resistance at 50Hz and 90°C	Inductive reactance at 50Hz and 90°C	Min insulation resistance at 20°C	Current rating at core temp. 90°C in ground	Current rating at core temp. 90°C in air
mm ²	Ohm/km	Ohm/km	Ohm/km	MOhm/km	A	A
1 × 35	0.524	0.068	0.147	11000	175	180
1 × 50	0.387	0.494	0.14	10000	205	215
1 × 70	0.268	0.342	0.131	8900	250	270
1 × 95	0.193	0.247	0.123	7900	295	320
1 × 120	0.153	0.195	0.118	7200	335	370
1 × 150	0.124	0.159	0.114	6600	370	420
1 × 185	0.0991	0.127	0.11	6000	415	480
1 × 240	0.0754	0.097	0.107	5400	475	560
1 × 300	0.0601	0.078	0.104	4900	530	640
1 × 400	0.047	0.062	0.101	4300	595	735
1 × 500	0.0366	0.049	0.0974	3900	665	835
1 × 630	0.0283	0.039	0.0948	3400	735	950