



Cu(Al) 19/33 kV – Three Core Heavy Duty Screened Armoured MV CABLE

APPLICATION:

Distribution network cables serve as primary power supply for commercial, industrial and urban residential networks, suitable for high fault level systems (up to 10kA/1sec); higher fault current rated versions are available on request.

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)

Inner sheath: Black PVC

Amour: Galvanised steel wires

Outer sheath:

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

CERTIFICATES:

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

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:

19/33 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)





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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	Diameter of steel wire	Approx. overall diameter	Approx. weight	Maximum pulling tension	Minimum Bending Radius During installation	Minimum Bending Radius Installed
mm ²	mm	mm	nb x mm Ø	mm	mm	kg/km	kN	mm	mm
3 × 50	8.0	25.5	19/0.85	3.15	80.3	8400	7.5	1440	960
3 × 70	8.0	27.0	27/0.85	3.15	84.0	9300	11	1500	1000
3 × 95	8.0	28.6	36/0.85	3.15	87.7	10400	14	1580	1050
3 × 120	8.0	30.2	40/0.85	3.15	91.5	11200	18	1640	1090
3 × 150	8.0	31.5	40/0.85	3.15	94.7	11600	23	1700	1140
3 × 185	8.0	33.3	40/0.85	3.15	99.1	12900	25	1780	1190
3 × 240	8.0	35.5	40/0.85	3.15	104.2	14200	25	1880	1250
3 × 300	8.0	37.7	40/0.85	3.15	109.6	15500	25	1970	1300

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
3 × 50	0.641	0.822	0.143	17000	156	153
3 × 70	0.443	0.568	0.131	16000	190	195
3 × 95	0.320	0.411	0.126	14500	227	234
3 × 120	0.253	0.325	0.120	13000	257	270
3 × 150	0.206	0.265	0.118	12500	285	304
3 × 185	0.164	0.211	0.112	11000	322	343
3 × 240	0.125	0.161	0.108	10000	370	399
3 × 300	0.100	0.130	0.104	9600	413	450



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mm ²	mm	mm	nb x mm ∅	mm	kg/km	kg/km	kN	mm	mm
3 × 50	8.0	25.5	29/0.85	3.15	80.4	9600	11	1430	950
3 × 70	8.0	27.0	40/0.85	3.15	84.0	11000	15	1500	1000
3 × 95	8.0	28.6	40/0.85	3.15	87.7	12000	20	1580	1060
3 × 120	8.0	30.2	40/0.85	3.15	91.5	13400	25	1640	1090
3 × 150	8.0	31.5	40/0.85	3.15	94.7	14800	25	1710	1140
3 × 185	8.0	33.3	40/0.85	3.15	99.1	16300	25	1780	1190
3 × 240	8.0	35.5	40/0.85	3.15	104.2	18600	25	1880	1250
3 × 300	8.0	37.7	40/0.85	3.15	109.6	21100	25	1970	1300

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
3 × 50	0.387	0.494	0.143	17000	200	200
3 × 70	0.268	0.342	0.131	16000	241	250
3 × 95	0.193	0.247	0.125	14000	290	300
3 × 120	0.153	0.196	0.121	13200	327	342
3 × 150	0.124	0.159	0.117	12100	368	395
3 × 185	0.0991	0.128	0.112	11000	407	435
3 × 240	0.0754	0.0978	0.108	10000	465	503
3 × 300	0.0601	0.0788	0.104	9600	515	564