



Cu(Al) 19/33 kV – Three Core Heavy Duty Screened Unarmoured 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)

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:

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)

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
3 × 50	8.0	25.5	19/0.85	63.3	3550	7.5	1230	820
3 × 70	8.0	27.0	27/0.85	66.5	4150	11	1310	870
3 × 95	8.0	28.6	36/0.85	70.0	4800	14	1380	920
3 × 120	8.0	30.2	40/0.85	73.5	5250	18	1440	960
3 × 150	8.0	31.5	40/0.85	76.3	5800	23	1500	1000
3 × 185	8.0	33.3	40/0.85	80.1	6350	25	1570	1050
3 × 240	8.0	35.5	40/0.85	84.9	7300	25	1670	1110
3 × 300	8.0	37.7	40/0.85	89.7	8200	25	1750	1170
3 × 400	8.0	40.8	40/0.85	96.4	9550	25	1870	1250
3 × 500	8.0	44.0	40/0.85	103.3	11200	25	2130	1420

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	18000	158	158
3 × 70	0.443	0.570	0.135	16000	194	197
3 × 95	0.320	0.411	0.125	15000	231	238
3 × 120	0.253	0.325	0.124	13000	263	273
3 × 150	0.206	0.265	0.120	12000	295	309
3 × 185	0.164	0.211	0.113	11000	334	354
3 × 240	0.125	0.161	0.108	10000	387	416
3 × 300	0.100	0.130	0.106	9600	437	475
3 × 400	0.0778	0.102	0.0995	8700	501	552
3 × 500	0.0617	0.082	0.0969	7700	557	616



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mm ²	mm	mm	nb x mm ∅	mm	kg/km	kN	mm	mm
3 × 50	8.0	25.5	29/0.85	70.6	4600	11	1230	820
3 × 70	8.0	27.0	40/0.85	74.1	5600	15	1310	870
3 × 95	8.0	28.6	40/0.85	77.8	6650	20	1380	920
3 × 120	8.0	30.2	40/0.85	81.4	7650	25	1430	950
3 × 150	8.0	31.5	40/0.85	84.4	8750	25	1500	1000
3 × 185	8.0	33.3	40/0.85	88.8	9900	25	1560	1050
3 × 240	8.0	35.5	40/0.85	93.7	11900	25	1670	1110
3 × 300	8.0	37.7	40/0.85	98.9	14100	25	1760	1170
3 × 400	8.0	40.8	40/0.85	106.1	17300	25	1870	1250
3 × 500	8.0	44.0	40/0.85	113.4	20700	25	2130	1420

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	204
3 × 70	0.268	0.342	0.131	16000	245	254
3 × 95	0.193	0.247	0.125	14000	299	307
3 × 120	0.153	0.196	0.123	13000	330	350
3 × 150	0.124	0.159	0.117	12000	381	399
3 × 185	0.0991	0.128	0.112	11000	430	456
3 × 240	0.0754	0.0980	0.108	10000	497	534
3 × 300	0.0601	0.0790	0.107	9800	548	621
3 × 400	0.0470	0.0630	0.0999	8900	637	702
3 × 500	0.0373	0.0512	0.0960	7900	703	776