Cu(Al) 3.8/6.6 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:

3.8/6.6 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
mm2	mm	mm	nb x mm ⌀	mm	mm	kg/km	kN	mm	mm
3 × 50	2.5	14.5	19/0.85	2.5	52.4	4200	7.5	930	610
3 × 70	2.5	16	27/0.85	2.5	56.0	4900	11	1000	670
3 × 95	2.5	17.6	36/0.85	2.5	59.9	5700	14	1070	720
3 × 120	2.5	19.2	40/0.85	2.5	63.6	6250	18	1140	750
3 × 150	2.5	20.5	40/0.85	2.5	66.8	6900	23	1200	800
3 × 185	2.5	22.3	40/0.85	2.5	71.7	7600	25	1280	840
3 × 240	2.6	24.7	40/0.85	3.15	78.4	9550	25	1410	940
3 × 300	2.8	27.3	40/0.85	3.15	84.6	11000	25	1520	1000

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
mm2	Ohm/km	Ohm/km	Ohm/km	MOhm/km	A	A
3 × 50	0.641	0.822	0.112	7600	156	151
3 × 70	0.443	0.569	0.104	6700	190	183
3 × 95	0.320	0.411	0.0988	5850	227	226
3 × 120	0.253	0.325	0.0962	5350	257	259
3 × 150	0.206	0.265	0.0931	4800	287	293
3 × 185	0.164	0.211	0.0898	4420	325	338
3 × 240	0.125	0.162	0.0872	4170	371	396
3 × 300	0.100	0.130	0.0860	4000	414	444

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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	Diameter of steel wire	Approx. overall diameter	Approx. weight	Maximum pulling tension	Minimum Bending Radius During installation	Minimum Bending Radius Installed
mm2	mm	mm	nb x mm ⌀	mm	mm	kg/km	kN	mm	mm
3×35	2.5	13.2	20/0.85	2.5	48.9	4500	7.4	880	590
3×50	2.5	14.5	29/0.85	2.5	51.7	5200	11	940	620
3×70	2.5	16.0	40/0.85	2.5	55.9	6350	15	1010	670
3×95	2.5	17.6	40/0.85	2.5	59.6	7400	20	1070	720
3×120	2.5	19.2	40/0.85	2.5	63.3	8600	25	1140	760
3×150	2.5	20.5	40/0.85	2.5	66.8	9700	25	1200	800
3×185	2.5	22.3	40/0.85	2.5	71.1	11000	25	1280	850
3×240	2.6	24.7	40/0.85	3.15	78.3	13900	25	1410	940
3×300	2.8	27.3	40/0.85	3.15	84.3	16600	25	1520	1010

Electrical Data Sheet (Cu Conductor)

Nominal conductor area	Max. conductor DC resistance at 20℃	Conductor AC resistance at 50Hz and 90℃	Inductive reactance at 50Hz and 90℃	Min insulation resistance at 20℃	Current rating at core temp. 90℃ in ground	Current rating at core temp. 90℃ in air
mm2	Ohm/km	Ohm/km	Ohm/km	MOhm/km	A	A
3×35	0.524	0.668	0.118	8400	171	164
3×50	0.387	0.494	0.112	7700	200	194
3×70	0.268	0.342	0.104	6500	245	242
3×95	0.193	0.247	0.0987	5800	291	290
3×120	0.153	0.196	0.0954	5300	328	335
3×150	0.124	0.159	0.0927	4850	368	374
3×185	0.0991	0.128	0.0898	4400	410	425
3×240	0.0754	0.099	0.0875	4120	469	498
3×300	0.0601	0.08	0.0860	4000	517	554