



## Cu(Al) 6.35/11 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:

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)





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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 <sup>2</sup>        | mm                           | mm                       | nb x mm ∅                                           | mm                     | mm                       | kg/km          | kN                      | mm                                         | mm                               |
| 3 × 50                 | 3.4                          | 16.3                     | 19/0.85                                             | 2.5                    | 56.7                     | 4600           | 7.5                     | 1010                                       | 670                              |
| 3 × 70                 | 3.4                          | 17.8                     | 27/0.85                                             | 2.5                    | 60.3                     | 5300           | 11                      | 1090                                       | 720                              |
| 3 × 95                 | 3.4                          | 19.4                     | 36/0.85                                             | 2.5                    | 64.2                     | 6100           | 14                      | 1160                                       | 770                              |
| 3 × 120                | 3.4                          | 21.0                     | 40/0.85                                             | 2.5                    | 68.1                     | 6750           | 18                      | 1220                                       | 810                              |
| 3 × 150                | 3.4                          | 22.3                     | 40/0.85                                             | 2.5                    | 71.3                     | 7300           | 23                      | 1280                                       | 850                              |
| 3 × 185                | 3.4                          | 24.1                     | 40/0.85                                             | 3.2                    | 76.7                     | 8000           | 25                      | 1380                                       | 920                              |
| 3 × 240                | 3.4                          | 26.3                     | 40/0.85                                             | 3.15                   | 82.1                     | 9900           | 25                      | 1470                                       | 980                              |
| 3 × 300                | 3.4                          | 28.5                     | 40/0.85                                             | 3.15                   | 87.4                     | 11100          | 25                      |                                            |                                  |

### 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 <sup>2</sup>        | Ohm/km                               | Ohm/km                                   | Ohm/km                               | MOhm/km                           | A                                           | A                                        |
| 3 × 50                 | 0.641                                | 0.822                                    | 0.1130                               | 9900                              | 155                                         | 151                                      |
| 3 × 70                 | 0.443                                | 0.569                                    | 0.1040                               | 8700                              | 191                                         | 184                                      |
| 3 × 95                 | 0.320                                | 0.411                                    | 0.0987                               | 7800                              | 227                                         | 226                                      |
| 3 × 120                | 0.253                                | 0.325                                    | 0.0954                               | 7100                              | 257                                         | 260                                      |
| 3 × 150                | 0.206                                | 0.265                                    | 0.0926                               | 6600                              | 286                                         | 293                                      |
| 3 × 185                | 0.164                                | 0.211                                    | 0.0900                               | 6100                              | 323                                         | 335                                      |
| 3 × 240                | 0.125                                | 0.162                                    | 0.0875                               | 5400                              | 374                                         | 398                                      |
| 3 × 300                | 0.100                                | 0.130                                    | 0.0860                               | 4900                              | 414                                         | 444                                      |



## Cu(Al) 6.35/11 kV – Three Core Heavy Duty Screened Armoured MV CABLE

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 |
|------------------------|------------------------------|--------------------------|-----------------------------------------------------|------------------------|--------------------------|----------------|-------------------------|--------------------------------------------|----------------------------------|
| mm <sup>2</sup>        | mm                           | mm                       | nb x mm ∅                                           | mm                     | mm                       | kg/km          | kN                      | mm                                         | mm                               |
| 3 × 35                 | 3.4                          | 15.0                     | 20/0.85                                             | 2.5                    | 53.7                     | 4950           | 7.4                     | 970                                        | 64                               |
| 3 × 50                 | 3.4                          | 16.3                     | 29/0.85                                             | 2.5                    | 56.7                     | 5600           | 11                      | 1010                                       | 680                              |
| 3 × 70                 | 3.4                          | 17.8                     | 40/0.85                                             | 2.5                    | 60.3                     | 6800           | 15                      | 1090                                       | 720                              |
| 3 × 95                 | 3.4                          | 19.4                     | 40/0.85                                             | 2.5                    | 64.2                     | 7950           | 20                      | 1160                                       | 770                              |
| 3 × 120                | 3.4                          | 21.0                     | 40/0.85                                             | 2.5                    | 68.1                     | 9100           | 25                      | 1220                                       | 810                              |
| 3 × 150                | 3.4                          | 22.3                     | 40/0.85                                             | 2.5                    | 71.3                     | 10200          | 25                      | 1280                                       | 860                              |
| 3 × 185                | 3.4                          | 24.1                     | 40/0.85                                             | 3.2                    | 76.6                     | 11500          | 25                      | 1380                                       | 920                              |
| 3 × 240                | 3.4                          | 26.3                     | 40/0.85                                             | 3.15                   | 82.1                     | 14700          | 25                      | 1480                                       | 980                              |
| 3 × 300                | 3.4                          | 28.5                     | 40/0.85                                             | 3.15                   | 87.4                     | 17100          | 25                      |                                            |                                  |

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 <sup>2</sup>        | Ohm/km                               | Ohm/km                                   | Ohm/km                               | MOhm/km                           | A                                           | A                                        |
| 3 × 35                 | 0.524                                | 0.668                                    | 0.118                                | 11000                             | 170                                         | 162                                      |
| 3 × 50                 | 0.387                                | 0.494                                    | 0.113                                | 10000                             | 200                                         | 195                                      |
| 3 × 70                 | 0.268                                | 0.342                                    | 0.103                                | 8900                              | 245                                         | 240                                      |
| 3 × 95                 | 0.193                                | 0.247                                    | 0.0989                               | 7900                              | 291                                         | 290                                      |
| 3 × 120                | 0.153                                | 0.196                                    | 0.0954                               | 7200                              | 327                                         | 336                                      |
| 3 × 150                | 0.124                                | 0.159                                    | 0.0927                               | 6600                              | 366                                         | 374                                      |
| 3 × 185                | 0.0991                               | 0.128                                    | 0.0898                               | 6000                              | 410                                         | 427                                      |
| 3 × 240                | 0.0754                               | 0.099                                    | 0.0874                               | 5400                              | 469                                         | 493                                      |
| 3 × 300                | 0.0601                               | 0.08                                     | 0.0860                               | 4800                              | 517                                         | 554                                      |