

## Aerial Bundle Conductor Alloy support

Phase core(s) aluminium HD, XLPE insulated + aluminium alloy, XLPE Insulated neutral / support + (auxiliary aluminium XLPE Insulated) + (earth aluminium XLPE Insulated)

## Application:

For use in power circuits of 600 / 1 000V. Installed in air suspended by Aluminium Alloy neutral/support core.

Voltage Rating: 600 / 1 000V

Specification: SANS 1418

| Phase Cores                                               | Conductor size      | Conductor diameter  | Insulation diameter | Insulated Alloy Neutral / Support | Cable diameter | Cable mass | Gross Mass                                   | Breaking force of support conductor Min. | Current rating | Resistance |           | Capacitance | Reactance | Impedance | Short circuit ratings | Single phase volt drop (mV) | Three phase volt drop (mV) |
|-----------------------------------------------------------|---------------------|---------------------|---------------------|-----------------------------------|----------------|------------|----------------------------------------------|------------------------------------------|----------------|------------|-----------|-------------|-----------|-----------|-----------------------|-----------------------------|----------------------------|
|                                                           |                     |                     |                     |                                   |                |            |                                              |                                          |                | dc @ 20°C  | ac @ 90°C |             |           |           |                       |                             |                            |
|                                                           | mm <sup>2</sup> nom | mm <sup>2</sup> nom | mm Nom.             | mm <sup>2</sup> nom               | mm Nom.        | kg/m Nom.  | kg Nom.                                      | kN                                       | Amps           | Ω/km max   | Ω/km max  | μF/km       | Ω/km      | Ω/km      | kA (1sec)             | A/m/(mV)                    |                            |
| 1 Phase Core + Aluminium alloy Insulated neutral/support  |                     |                     |                     |                                   |                |            | AS1x(conductor size)+(alloy conductor size)N |                                          |                |            |           |             |           |           |                       |                             |                            |
| 1x25                                                      | 25                  | 6.3                 | 9.4                 | 54.6                              | 21.9           | 0.31       | 542                                          | 16.60                                    | 115            | 1.200      | 1.539     | 0.347       | 0.090     | 1.541     | 2.2                   | 3.08                        |                            |
| 1x35                                                      | 35                  | 7.1                 | 10.7                | 54.6                              | 23.4           | 0.35       | 579                                          | 16.60                                    | 138            | 0.868      | 1.113     | 0.339       | 0.084     | 1.117     | 3.2                   | 2.23                        |                            |
| 1x50                                                      | 50                  | 8.2                 | 11.8                | 54.6                              | 24.5           | 0.39       | 617                                          | 16.60                                    | 168            | 0.641      | 0.822     | 0.382       | 0.084     | 0.826     | 4.6                   | 1.64                        |                            |
| 1x70                                                      | 70                  | 9.9                 | 14.1                | 54.6                              | 26.6           | 0.46       | 812                                          | 16.60                                    | 213            | 0.443      | 0.568     | 0.393       | 0.083     | 0.574     | 6.4                   | 1.14                        |                            |
| 1x95                                                      | 95                  | 11.8                | 15.8                | 54.6                              | 28.5           | 0.54       | 854                                          | 16.60                                    | 258            | 0.320      | 0.411     | 0.476       | 0.080     | 0.419     | 8.7                   | 0.82                        |                            |
| 1x120                                                     | 120                 | 13.1                | 17.5                | 70                                | 30.6           | 0.66       | 1167                                         | 20.10                                    | 300            | 0.253      | 0.325     | 0.480       | 0.078     | 0.334     | 11.0                  | 0.65                        |                            |
| 1x150                                                     | 150                 | 14.8                | 18.6                | 95                                | 34.6           | 0.81       | 1320                                         | 27.28                                    | 340            | 0.206      | 0.226     | 0.6077      | 0.080     | 0.419     | 13.8                  | 0.45                        |                            |
| 2 Phase Cores + Aluminium alloy Insulated neutral/support |                     |                     |                     |                                   |                |            | AS2x(conductor size)+(alloy conductor size)N |                                          |                |            |           |             |           |           |                       |                             |                            |
| 2x25                                                      | 25                  | 6.3                 | 9.4                 | 54.6                              | 22.3           | 0.42       | 417                                          | 16.60                                    | 115            | 1.200      | 1.539     | 0.347       | 0.090     | 1.541     | 2.2                   | 3.08                        |                            |
| 2x35                                                      | 35                  | 7.1                 | 10.7                | 54.6                              | 24.5           | 0.49       | 718                                          | 16.60                                    | 138            | 0.868      | 1.113     | 0.339       | 0.090     | 1.117     | 3.2                   | 2.23                        |                            |
| 2x50                                                      | 50                  | 8.2                 | 11.8                | 54.6                              | 26.0           | 0.57       | 916                                          | 16.60                                    | 168            | 0.641      | 0.822     | 0.382       | 0.084     | 0.826     | 4.6                   | 1.64                        |                            |
| 2x70                                                      | 70                  | 9.9                 | 14.1                | 54.6 / 70                         | 29.1           | 0.72       | 1223                                         | 16.6 / 20.1                              | 213            | 0.443      | 0.568     | 0.393       | 0.083     | 0.574     | 6.4                   | 1.14                        |                            |
| 2x95                                                      | 95                  | 11.8                | 15.8                | 54.6 / 70                         | 31.8           | 0.88       | 1187                                         | 16.6 / 20.1                              | 258            | 0.320      | 0.411     | 0.476       | 0.080     | 0.419     | 8.7                   | 0.82                        |                            |
| 2x120                                                     | 120                 | 13.1                | 17.5                | 70                                | 30.6           | 1.07       | 1380                                         | 20.10                                    | 300            | 0.253      | 0.325     | 0.480       | 0.078     | 0.334     | 11.0                  | 0.65                        |                            |
| 2x150                                                     | 150                 | 14.8                | 18.6                | 95                                | 44.5           | 1.30       | 2149                                         | 27.28                                    | 340            | 0.206      | 0.226     | 0.608       | 0.080     | 0.419     | 13.8                  | 0.45                        |                            |
| 3 Phase Cores + Aluminium alloy Insulated neutral/support |                     |                     |                     |                                   |                |            | AS3x(conductor size)+(alloy conductor size)N |                                          |                |            |           |             |           |           |                       |                             |                            |
| 3x25                                                      | 25                  | 6.3                 | 9.4                 | 54.6                              | 21.9           | 0.52       | 746                                          | 16.60                                    | 115            | 1.200      | 1.539     | 0.347       | 0.090     | 1.541     | 2.2                   |                             | 2.67                       |
| 3x35                                                      | 35                  | 7.1                 | 10.7                | 54.6 / 70                         | 25.5           | 0.63       | 978                                          | 16.60                                    | 138            | 0.868      | 1.113     | 0.339       | 0.084     | 1.117     | 3.2                   |                             | 1.93                       |
| 3x50                                                      | 50                  | 8.2                 | 11.8                | 54.6 / 70                         | 28.1           | 0.75       | 1056                                         | 16.60                                    | 168            | 0.641      | 0.822     | 0.382       | 0.084     | 0.826     | 4.6                   |                             | 1.42                       |
| 3x70                                                      | 70                  | 9.9                 | 14.1                | 54.6 / 70                         | 33.3           | 0.97       | 1476                                         | 16.6 / 20.1                              | 213            | 0.443      | 0.568     | 0.393       | 0.083     | 0.574     | 6.4                   |                             | 0.98                       |
| 3x95                                                      | 95                  | 11.8                | 15.8                | 54.6 / 70                         | 37.7           | 1.21       | 1719                                         | 16.6 / 20.1                              | 258            | 0.320      | 0.411     | 0.4758      | 0.080     | 0.419     | 8.7                   |                             | 0.71                       |
| 3x120                                                     | 120                 | 13.1                | 17.5                | 70                                | 41.1           | 1.35       | 1906                                         | 20.10                                    | 300            | 0.253      | 0.325     | 0.480       | 0.078     | 0.334     | 11.0                  |                             | 0.56                       |
| 3x150                                                     | 150                 | 14.8                | 18.6                | 95                                | 44.5           | 1.79       | 2635                                         | 27.28                                    | 340            | 0.206      | 0.226     | 0.6077      | 0.080     | 0.419     | 13.8                  |                             | 0.39                       |

If 25mm<sup>2</sup> Street light and or earth is required. (Cable code)+25A+25E

|                       |           |       |
|-----------------------|-----------|-------|
| Conductor diameter    | mm app.   | 6.3   |
| Insulation diameter   | mm app.   | 9.4   |
| Additional Cable mass | kg/m app. | 0.101 |

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| Item | Description                               |
|------|-------------------------------------------|
| 1    | Phase conductor aluminium                 |
| 2    | Phase core insulation LV XLPE             |
| 3    | Neutral/support conductor aluminium alloy |
| 4    | Neutral/support core insulation LV XLPE   |
| 5    | Street light conductor aluminium          |
| 6    | Street light insulation LV XLPE           |

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