

## Aerial Bundle Conductor Bare Alloy Support

Phase core(s) aluminium HD, XLPE insulated + bare aluminium alloy neutral / support

## Application:

For use in power circuits of 600 / 1 000V. Installed in air suspended by a bare aluminium alloy neutral / support core.

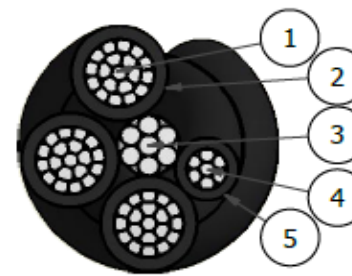
Voltage rating: 600 / 1 000V

Specification: ESKOM DSP 34-1803, SANS 1418

| Phase<br>cores /<br>cable                             | Conductor<br>size | Conductor<br>diameter | Insulation<br>diameter | Bare<br>Al alloy<br>neutral /<br>support | Cable<br>diameter                             | Cable<br>mass | Gross<br>Mass | Breaking<br>force<br>of support<br>conductor<br>Min. | Current<br>rating | Resistance   |              | Capacitance | Reactance | Impedance | Short<br>circuit<br>ratings | Volt drop       |                |  |
|-------------------------------------------------------|-------------------|-----------------------|------------------------|------------------------------------------|-----------------------------------------------|---------------|---------------|------------------------------------------------------|-------------------|--------------|--------------|-------------|-----------|-----------|-----------------------------|-----------------|----------------|--|
|                                                       |                   |                       |                        |                                          |                                               |               | 1000m         |                                                      |                   | dc @<br>20°C | ac @<br>90°C |             |           |           |                             | Single<br>phase | Three<br>phase |  |
|                                                       | mm²<br>nom        | mm²<br>nom            | mm<br>Nom.             | mm² nom                                  | mm<br>Nom.                                    | kg/m<br>Nom.  | kg<br>Nom.    | kN                                                   | Amps              | Ω/km<br>max  | Ω/km<br>max  | µF/km       | Ω/km      | Ω/km      | kA (1sec)                   | A/m/(mV)        |                |  |
| 1 Phase core + bare Aluminium alloy neutral / support |                   |                       |                        |                                          | AS1x(conductor size)+(alloy conductor size)NB |               |               |                                                      |                   |              |              |             |           |           |                             |                 |                |  |
| 1x25                                                  | 25                | 6.3                   | 9.4                    | 35                                       | 17                                            | 0.20          | 350           | 10.30                                                | 115               | 1.200        | 1.535        | 0.347       | 0.091     | 1.541     | 2.3                         | 3.07            |                |  |
| 1x35                                                  | 35                | 7.1                   | 10.5                   | 35                                       | 24                                            | 0.35          | 502           | 10.30                                                | 138               | 0.868        | 1.113        | 0.355       | 0.090     | 1.117     | 3.2                         | 2.23            |                |  |
| 1x50                                                  | 50                | 8.2                   | 11.7                   | 35                                       | 25                                            | 0.39          | 541           | 10.30                                                | 168               | 0.641        | 0.822        | 0.391       | 0.084     | 0.826     | 4.6                         | 1.64            |                |  |
| 1x70                                                  | 70                | 10.0                  | 13.7                   | 50                                       | 27                                            | 0.47          | 669           | 14.20                                                | 213               | 0.443        | 0.568        | 0.441       | 0.083     | 0.574     | 6.4                         | 1.14            |                |  |
| 1x95                                                  | 95                | 11.5                  | 15.4                   | 50                                       | 29                                            | 0.55          | 746           | 14.20                                                | 258               | 0.320        | 0.411        | 0.476       | 0.080     | 0.419     | 8.7                         | 0.82            |                |  |
| 2 Phase core + bare Aluminium alloy neutral / support |                   |                       |                        |                                          | AS2x(conductor size)+(alloy conductor size)NB |               |               |                                                      |                   |              |              |             |           |           |                             |                 |                |  |
| 2x35                                                  | 35                | 7.1                   | 10.8                   | 35                                       | 26                                            | 0.48          | 634           | 10.30                                                | 138               | 0.868        | 1.113        | 0.331       | 0.090     | 1.117     | 3.2                         | 2.23            |                |  |
| 2x50                                                  | 50                | 8.2                   | 11.9                   | 50                                       | 29                                            | 0.57          | 723           | 10.30                                                | 168               | 0.641        | 0.822        | 0.373       | 0.084     | 0.826     | 4.6                         | 1.64            |                |  |
| 2x70                                                  | 70                | 10.0                  | 14.1                   | 50                                       | 34                                            | 0.73          | 926           | 14.20                                                | 213               | 0.443        | 0.568        | 0.404       | 0.083     | 0.574     | 6.4                         | 1.14            |                |  |
| 2x95                                                  | 95                | 11.5                  | 15.9                   | 50                                       | 39                                            | 0.00          | 200           | 14.20                                                | 258               | 0.320        | 0.411        | 0.429       | 0.080     | 0.419     | 8.7                         | 0.82            |                |  |
| 3 Phase core + bare Aluminium alloy neutral / support |                   |                       |                        |                                          | AS3x(conductor size)+(alloy conductor size)NB |               |               |                                                      |                   |              |              |             |           |           |                             |                 |                |  |
| 3x35                                                  | 35                | 7.1                   | 10.8                   | 35                                       | 23                                            | 0.62          | 818           | 10.30                                                | 138               | 0.868        | 1.113        | 0.331       | 0.090     | 1.117     | 3.2                         |                 | 1.93           |  |
| 3x50                                                  | 50                | 8.2                   | 11.9                   | 50                                       | 26                                            | 0.75          | 954           | 14.20                                                | 168               | 0.641        | 0.822        | 0.373       | 0.084     | 0.826     | 4.6                         |                 | 1.42           |  |
| 3x70                                                  | 70                | 10.0                  | 14.1                   | 50                                       | 34                                            | 0.98          | 1184          | 14.20                                                | 213               | 0.443        | 0.568        | 0.404       | 0.083     | 0.574     | 6.4                         |                 | 0.98           |  |
| 3x95                                                  | 95                | 11.5                  | 15.9                   | 50                                       | 39                                            | 1.22          | 1423          | 14.20                                                | 258               | 0.320        | 0.411        | 0.429       | 0.080     | 0.419     | 8.7                         |                 | 0.71           |  |

If 25mm<sup>2</sup> Street light is required. (code)+25A

|                       |           |      |
|-----------------------|-----------|------|
| Conductor diameter    | mm app.   | 6.3  |
| Insulation diameter   | mm app.   | 9.4  |
| Additional Cable mass | kg/m app. | 0.10 |



| Item | Description                                      |
|------|--------------------------------------------------|
| 1    | Phase Conductor Aluminium                        |
| 2    | Phase Core LV XLPE Insulation                    |
| 3    | Bare Neutral / Support Conductor Aluminium Alloy |
| 4    | Street light Conductor Aluminium                 |
| 5    | Street light Core LV XLPE Insulation             |

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