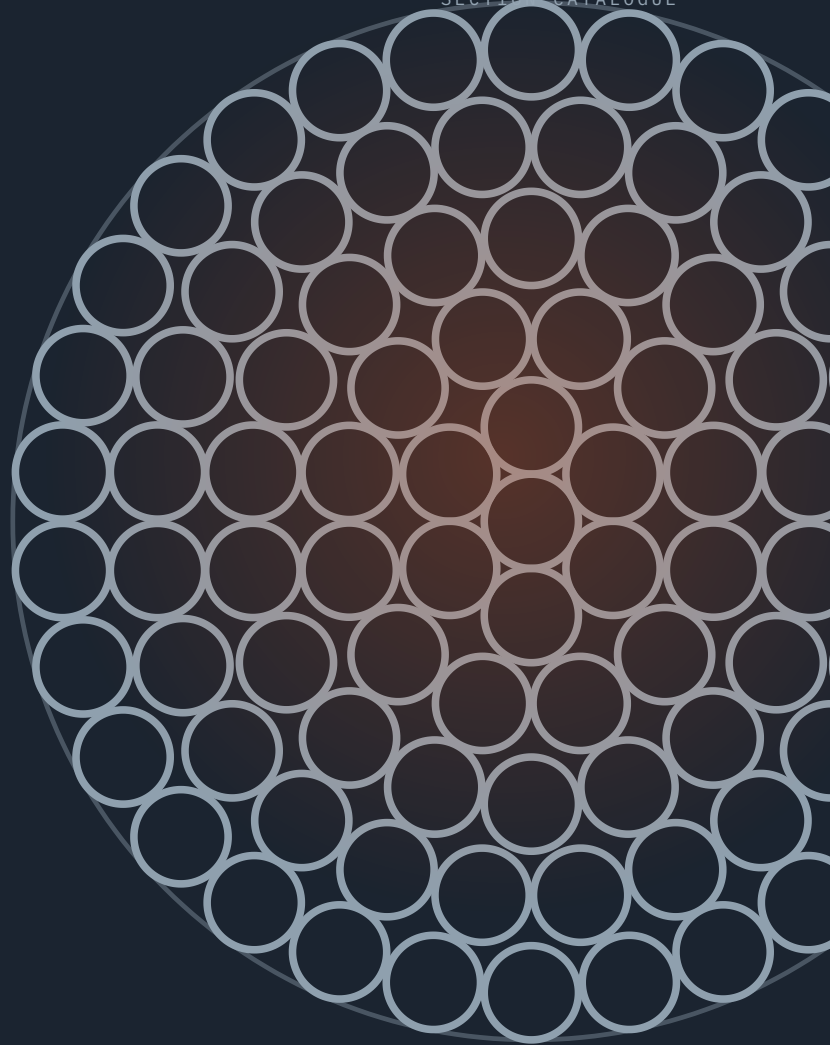




**AKZ**

ALUMINIUM KOOHRANG ZAGROS

SECTION CATALOGUE



# 04

## AAAC – all- aluminium-alloy conductor

هادی تمام آلومینیومی آلیاژی

BS 3242

ASTM B399

IEC 61089

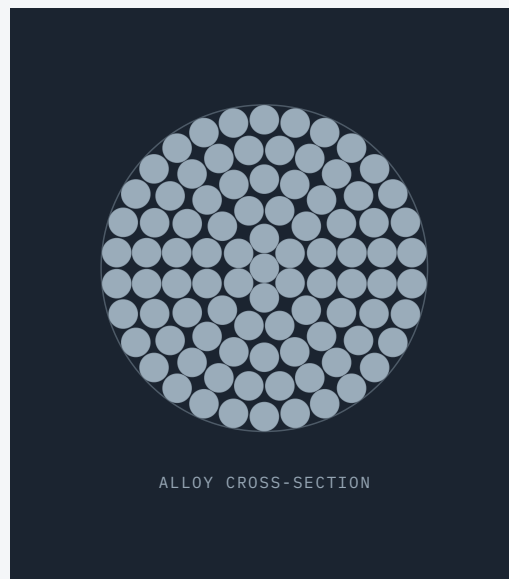
EN 50182

## OVERVIEW

# More strength, better corrosion resistance.

Hard-drawn 6201 aluminium-alloy strands. Compared with AAC, AAAC trades a little conductivity for higher strength-to-weight and better corrosion resistance — well suited to long spans and coastal or industrial environments.

Offered in the BS 3242 tree code names, the ASTM B399 city code names and the IEC metric series, plus a 6201 messenger / catenary subset.



## APPLICATIONS

Long transmission spans

Coastal & industrial

River crossings

Messenger / catenary

## STANDARDS

BS 3242

ASTM B399

IEC 61089

EN 50182

## 4.1 · Tree-name series

BS 3242 / EN 50182.

| Code      | Nom.<br>mm <sup>2</sup> | Stranding<br>n × mm | Ø<br>mm | Weight<br>kg/km | DC R<br>Ω/km | Break<br>kN |
|-----------|-------------------------|---------------------|---------|-----------------|--------------|-------------|
| BOX       | 19                      | 7 × 1.85            | 5.55    | 51              | 1.7658       | 5.28        |
| ACACIA    | 24                      | 7 × 2.08            | 6.24    | 65              | 1.3969       | 6.68        |
| ALMOND    | 30                      | 7 × 2.34            | 7.02    | 82              | 1.1037       | 8.44        |
| CEDAR     | 36                      | 7 × 2.54            | 7.62    | 97              | 0.9367       | 9.94        |
| DEODAR    | 42                      | 7 × 2.77            | 8.31    | 115             | 0.7876       | 11.82       |
| FIR       | 48                      | 7 × 2.95            | 8.85    | 131             | 0.6944       | 13.41       |
| HAZEL     | 60                      | 7 × 3.30            | 9.90    | 164             | 0.5549       | 16.78       |
| PINE      | 72                      | 7 × 3.61            | 10.83   | 196             | 0.4637       | 20.08       |
| HOLLY     | 84                      | 7 × 3.91            | 11.73   | 230             | 0.3953       | 23.56       |
| WILLOW    | 90                      | 7 × 4.04            | 12.12   | 245             | 0.3702       | 25.15       |
| OAK       | 119                     | 7 × 4.65            | 13.95   | 325             | 0.2795       | 33.32       |
| MULBERRY  | 151                     | 19 × 3.18           | 15.90   | 415             | 0.2212       | 42.30       |
| ASH       | 181                     | 19 × 3.48           | 17.40   | 497             | 0.1847       | 50.65       |
| ELM       | 211                     | 19 × 3.76           | 18.80   | 580             | 0.1582       | 59.13       |
| POPLAR    | 239                     | 37 × 2.87           | 20.09   | 659             | 0.1397       | 67.10       |
| SYCAMORE  | 303                     | 37 × 3.23           | 22.61   | 835             | 0.1103       | 84.98       |
| UPAS      | 362                     | 37 × 3.53           | 24.71   | 997             | 0.0923       | 101.50      |
| YEW       | 479                     | 37 × 4.06           | 28.42   | 1319            | 0.0698       | 134.26      |
| TOTARA    | 489                     | 37 × 4.14           | 29.0    | 1372            | 0.0660       | 146.93      |
| RUBUS     | 587                     | 61 × 3.50           | 31.50   | 1622            | 0.0567       | 173.13      |
| SORBUS    | 659                     | 61 × 3.71           | 33.4    | 1822            | 0.0505       | 194.53      |
| ARAUCARIA | 821                     | 61 × 4.14           | 37.30   | 2269            | 0.0406       | 242.24      |
| REDWOOD   | 996                     | 61 × 4.56           | 41.0    | 2753            | 0.0334       | 293.88      |

## 4.2 · City-name series

ASTM B399 / IEC 61089.

| Code     | Nom.<br>mm <sup>2</sup> | Stranding<br>n × mm | Ø<br>mm | Weight<br>kg/km | DC R<br>Ω/km | Break<br>kN |
|----------|-------------------------|---------------------|---------|-----------------|--------------|-------------|
| ALTON    | 24.7                    | 7 × 2.12            | 6.4     | 68              | 1.3576       | 7.84        |
| AMES     | 39.3                    | 7 × 2.67            | 8.00    | 108             | 0.8533       | 12.40       |
| AZUSA    | 62.5                    | 7 × 3.37            | 10.1    | 172             | 0.5364       | 19.00       |
| ANAHEIM  | 78.7                    | 7 × 3.78            | 11.4    | 217             | 0.4255       | 24.00       |
| AMHERST  | 99.2                    | 7 × 4.25            | 12.8    | 273             | 0.3379       | 30.20       |
| ALLIANCE | 125.1                   | 7 × 4.77            | 14.3    | 345             | 0.2658       | 38.10       |
| BUTTE    | 158.5                   | 19 × 3.26           | 16.3    | 437             | 0.2114       | 46.70       |
| CANTON   | 199.9                   | 19 × 3.66           | 18.3    | 551             | 0.1675       | 59.00       |
| CAIRO    | 235.8                   | 19 × 3.98           | 19.9    | 650             | 0.1421       | 69.60       |
| DARIEN   | 283.5                   | 19 × 4.36           | 21.8    | 781             | 0.1181       | 83.60       |
| ELGIN    | 330.6                   | 19 × 4.71           | 23.5    | 911             | 0.1013       | 97.50       |
| FLINT    | 375.4                   | 37 × 3.59           | 25.2    | 1035            | 0.0892       | 108.00      |
| GREELEY  | 469.8                   | 37 × 4.02           | 28.1    | 1295            | 0.0712       | 136.00      |

## 4.3 · Metric series

ASTM B399 / IEC 61089.

| Al-eq<br>mm <sup>2</sup> | Alloy<br>mm <sup>2</sup> | Stranding<br>n × mm | Ø<br>mm | Weight<br>kg/km | DC R<br>Ω/km | Break<br>kN |
|--------------------------|--------------------------|---------------------|---------|-----------------|--------------|-------------|
| 16                       | 18.4                     | 7 × 1.83            | 5.5     | 50              | 1.7896       | 5.43        |
| 25                       | 28.8                     | 7 × 2.29            | 6.90    | 79              | 1.1453       | 8.49        |
| 40                       | 46                       | 7 × 2.89            | 8.7     | 126             | 0.7158       | 13.58       |
| 63                       | 72.5                     | 7 × 3.63            | 10.90   | 198             | 0.4545       | 21.39       |
| 100                      | 115                      | 19 × 2.78           | 13.9    | 316             | 0.2877       | 33.95       |
| 125                      | 144                      | 19 × 3.10           | 15.50   | 395             | 0.2302       | 42.44       |
| 160                      | 184                      | 19 × 3.51           | 17.6    | 506             | 0.1798       | 54.32       |
| 200                      | 230                      | 19 × 3.93           | 19.60   | 633             | 0.1439       | 67.91       |
| 250                      | 288                      | 19 × 4.39           | 22      | 791             | 0.1151       | 84.88       |
| 315                      | 363                      | 37 × 3.53           | 24.70   | 999             | 0.0916       | 106.95      |
| 400                      | 460                      | 37 × 3.98           | 27.9    | 1268            | 0.0721       | 135.81      |
| 450                      | 518                      | 37 × 4.22           | 29.60   | 1427            | 0.0641       | 152.79      |
| 500                      | 575                      | 37 × 4.45           | 31.2    | 1586            | 0.0577       | 169.76      |
| 560                      | 645                      | 61 × 3.67           | 33.00   | 1778            | 0.0516       | 190.14      |
| 630                      | 725                      | 61 × 3.89           | 35      | 2001            | 0.0485       | 213.90      |
| 710                      | 817                      | 61 × 4.13           | 37.20   | 2255            | 0.0407       | 241.07      |
| 800                      | 921                      | 61 × 4.38           | 39.5    | 2541            | 0.0361       | 271.62      |
| 900                      | 1036                     | 91 × 3.81           | 41.80   | 2861            | 0.0321       | 305.58      |
| 1000                     | 1151                     | 91 × 4.01           | 44.1    | 3179            | 0.0289       | 339.53      |
| 1120                     | 1289                     | 91 × 4.25           | 46.70   | 3561            | 0.0258       | 380.27      |
| 1250                     | 1439                     | 91 × 4.49           | 49.4    | 3974            | 0.0231       | 424.41      |

## 4.4 · Alloy messenger conductor

6201 messenger / catenary — takes the mechanical stress in self-supporting cable.

| Nom. area<br>mm <sup>2</sup> | Stranding<br>n × mm | Ø<br>mm | Weight<br>kg/km | DC R @20°C<br>Ω/km | Break<br>kN |
|------------------------------|---------------------|---------|-----------------|--------------------|-------------|
| 35                           | 7 × 2.54            | 7.6     | 97              | 0.9500             | 9.94        |
| 50                           | 7 × 3.15            | 9.5     | 149             | 0.6300             | 15.3        |
| 70                           | 7 × 3.61            | 10.8    | 196             | 0.5000             | 20.0        |

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