

# Product Specifications



## ACAR CONDUCTOR

Aluminum Conductor Alloy Reinforced (ACAR) cable has aluminum wires concentrically stranded around a aluminum alloy core.

### Standard

- IEC61089
- ASTM B-524

### Construction

- Concentrically stranded
- Max. Size 3500MCM, Max. str. No. 91

### Application

- Used as bare overhead transmission cable and as primary and secondary distribution cable.

| ACAR-ASTM B524  |                 |                       |      |           |       |                |                      |                |                            |
|-----------------|-----------------|-----------------------|------|-----------|-------|----------------|----------------------|----------------|----------------------------|
| Cross Selection |                 | Stranding- No. & Dia. |      |           |       | Approx. weight | Approx. Overall Dia. | Rated Strength | Max. DC Resistance at 20°C |
|                 |                 | Al wire               |      | AAAC Wire |       |                |                      |                |                            |
| kcmil/<br>AWG   | mm <sup>2</sup> | No.                   | mm   | No.       | mm    | kg/km          | mm                   | kN             | Ω/km                       |
| 250             | 126.64          | 12                    | 2.91 | 7         | 2.913 | 349.3          | 14.58                | 27.58          | 0.23989                    |
| 300             | 152.13          | 12                    | 3.19 | 7         | 3.193 | 419.2          | 15.977               | 32.83          | 0.19964                    |
| 350             | 177.29          | 12                    | 3.45 | 7         | 3.447 | 489            | 17.247               | 37.41          | 0.17089                    |
| 400             | 202.71          | 12                    | 3.69 | 7         | 3.686 | 558.8          | 18.44                | 42.35          | 0.14941                    |
| 450             | 228             | 12                    | 3.91 | 7         | 3.909 | 628.6          | 19.558               | 47.15          | 0.133                      |
| 500             | 253.16          | 30                    | 2.95 | 7         | 2.951 | 698.5          | 20.65                | 48.04          | 0.11738                    |
| 550             | 278.58          | 12                    | 4.32 | 7         | 4.321 | 768.3          | 21.615               | 57.83          | 0.10891                    |

# Product Specifications

|     |        |    |      |    |       |        |        |       |         |
|-----|--------|----|------|----|-------|--------|--------|-------|---------|
| 600 | 304    | 12 | 4.51 | 7  | 4.514 | 838.1  | 22.581 | 62.72 | 0.09988 |
| 700 | 354.45 | 30 | 3.49 | 7  | 3.493 | 977.9  | 24.46  | 65.39 | 0.08385 |
| 700 | 354.45 | 18 | 3.49 | 19 | 3.493 | 977.9  | 24.46  | 79.62 | 0.08719 |
| 800 | 405.16 | 30 | 3.73 | 7  | 3.734 | 1117.6 | 26.137 | 73.84 | 0.0734  |
| 850 | 430.9  | 30 | 3.85 | 7  | 3.851 | 1187.4 | 26.949 | 77.4  | 0.06892 |
| 900 | 456.26 | 30 | 3.96 | 7  | 3.962 | 1257.3 | 27.737 | 81.85 | 0.06514 |

| ACAR-ASTM B524  |         |                       |      |      |       |                |                      |                |                            |
|-----------------|---------|-----------------------|------|------|-------|----------------|----------------------|----------------|----------------------------|
| Cross Selection |         | Stranding- No. & Dia. |      |      |       | Approx. weight | Approx. Overall Dia. | Rated Strength | Max. DC Resistance at 20°C |
|                 |         | Al wire               | AAAC | Wire |       |                |                      |                |                            |
| 950             | 481.16  | 30                    | 4.07 | 7    | 4.069 | 1327.1         | 28.473               | 86.3           | 0.06168                    |
| 1000            | 506.64  | 18                    | 4.18 | 19   | 4.176 | 1396.9         | 29.235               | 112.1          | 0.06089                    |
| 1100            | 557.22  | 30                    | 4.38 | 7    | 4.379 | 1537.3         | 30.658               | 100.08         | 0.05326                    |
| 1200            | 608.13  | 30                    | 4.58 | 7    | 4.575 | 1677.2         | 32.029               | 108.98         | 0.04872                    |
| 1250            | 633.35  | 30                    | 4.67 | 7    | 4.669 | 1745.6         | 32.69                | 113.87         | 0.04685                    |
| 1300            | 658.39  | 30                    | 4.76 | 7    | 4.76  | 1815.6         | 33.325               | 118.32         | 0.04509                    |
| 1500            | 759.93  | 42                    | 3.98 | 19   | 3.983 | 2095.3         | 35.839               | 146.79         | 0.03966                    |
| 1700            | 860.97  | 42                    | 4.24 | 19   | 4.239 | 2375.1         | 38.151               | 166.36         | 0.03497                    |
| 1750            | 887.1   | 42                    | 4.3  | 19   | 4.303 | 2445.1         | 38.735               | 171.26         | 0.03398                    |
| 1800            | 912.26  | 42                    | 4.36 | 19   | 4.364 | 2515           | 39.268               | 176.15         | 0.03305                    |
| 1900            | 962.84  | 42                    | 4.48 | 19   | 4.483 | 2654.9         | 40.361               | 185.94         | 0.0313                     |
| 2000            | 1013.74 | 42                    | 4.6  | 19   | 4.6   | 2793.3         | 41.402               | 195.72         | 0.0297                     |
| 2500            | 1265.8  | 72                    | 4.21 | 19   | 4.209 | 3526.9         | 46.304               | 225.08         | 0.0233                     |
| 2500            | 1265.8  | 54                    | 4.21 | 37   | 4.209 | 3526.9         | 46.304               | 256.66         | 0.02387                    |