

Cable Almelec AAAC Application

Almelec Cable, it named AAAC conductor (All aluminum alloy conductor), it is aluminum alloy 6201 wires stranded Conductor. AAAC conductors involved in this standard belongs to ASTER family. These cables are mainly used for overhead lines, in transmission and distribution electrical networks, requiring a high mechanical tension. They are also used as carrier for holding overhead electrical cables. AAAC can be used in Medium and High transmission lines of various voltage levels. Now it has been widely used in power lines across large rivers, heavy ice areas and other special geographical features.

Cable Almelec AAAC Construction

Conductor : All Aluminium alloy(ALMELEC) wires, are stranded in successi-ve layers, in opposite direction to form the stranded conductor.

Cable Almelec AAAC Characteristics

Rated voltage :H.VA:>1kV&<50kV H.VB:>50kV

Cable Almelec Performance

| name | name | actual section | no. of wire | wire diameter | conductor diameter | conductor weight appr. | calc. breaking force | calc. conductor resistance |
|-------------|----------|-----------------|-------------|---------------|--------------------|------------------------|----------------------|----------------------------|
| NF-C 34125 | EN 50182 | mm ² | | mm | mm | kg/km | kN | Ohm/km |
| ASTER 22 | 22-AL4 | 22,0 | 7 | 2,00 | 6,00 | 60,0 | 7,15 | 1,498 |
| ASTER 34,4 | 34-AL4 | 34,4 | 7 | 2,50 | 7,50 | 93,5 | 11,17 | 0,959 |
| ASTER 54,6 | 55-AL4 | 54,6 | 7 | 3,15 | 9,45 | 148,9 | 17,73 | 0,604 |
| ASTER 75,5 | 76-AL4 | 75,5 | 19 | 2,25 | 11,3 | 207,4 | 24,55 | 0,438 |
| ASTER 117 | 117-AL4 | 117,0 | 19 | 2,80 | 14,0 | 321,2 | 38,02 | 0,283 |
| ASTER 148 | 148-AL4 | 148,1 | 19 | 3,15 | 15,8 | 406,6 | 48,12 | 0,223 |
| ASTER 181,6 | 182-AL4 | 181,6 | 37 | 2,50 | 17,5 | 500,3 | 59,03 | 0,183 |
| ASTER 228 | 228-AL4 | 227,8 | 37 | 2,80 | 19,6 | 627,6 | 74,04 | 0,146 |
| ASTER 288 | 288-AL4 | 288,3 | 37 | 3,15 | 22,1 | 794,3 | 93,71 | 0,115 |
| ASTER 366 | 366-AL4 | 366,2 | 37 | 3,55 | 24,9 | 1.008,9 | 115,36 | 0,090 |
| ASTER 570 | 570-AL4 | 570,2 | 61 | 3,45 | 31,1 | 1.576,0 | 185,33 | 0,058 |
| ASTER 851 | 851-AL4 | 850,7 | 91 | 3,45 | 38,0 | 2.360,7 | 276,47 | 0,039 |
| ASTER 1144 | 1144-AL4 | 1.143,5 | 91 | 4,00 | 44,0 | 3.173,4 | 360,22 | 0,029 |
| ASTER 1600 | 1600-AL4 | 1.595,9 | 127 | 4,00 | 52,0 | 4.427,5 | 502,72 | 0,021 |

AGS CÂBLE NU ALLIAGE D'ALUMINIUM (AAAC)

| Code Imacab | Section (mm ²) | Intensité admissible en ampères (1) | | Diamètre extérieur du câble (mm) | Charge de rupture assignée (daN) | Masse (Kg/Km) du câble sans graisse | approx | | Résistance électrique Maxi 20°C (Ω/Km) | Intensité (A)(2) | Module d'élasticité (daN/mm ²) | Conditionnement standard T : Touret (m) |
|-------------|----------------------------|-------------------------------------|-----------------|----------------------------------|----------------------------------|-------------------------------------|--------|----------------|--|------------------|--|---|
| | | Nb fils | Ø des fils (mm) | | | | de la | de graisse (1) | | | | |
| AGS 22 | 22 | 7 | 2.00 | 6.0 | 715 | 60.2 | 4 | 1.5 | 115 | 62 | T 7000 | |
| AGS 34.4 | 34.4 | 7 | 2.50 | 7.5 | 1115 | 94 | 6 | 0.958 | 145 | 62 | T 10000 | |
| AGS 54.6 | 54.6 | 7 | 3.15 | 9.45 | 1775 | 149 | 8 | 0.603 | 190 | 62 | T 6500 | |
| AGS 75.5 | 75.5 | 19 | 2.25 | 11.25 | 2455 | 208 | 5 | 0.438 | 240 | 62 | T 6500 | |
| AGS 93.3 | 93.3 | 19 | 2.50 | 12.5 | 3031 | 252 | 6 | 0.354 | 270 | 60 | T 5000 | |
| AGS 117 | 117 | 19 | 2.80 | 14 | 3800 | 322 | 7 | 0.283 | 315 | 60 | T 4000 | |
| AGS 148 | 148 | 19 | 3.15 | 15.75 | 4810 | 407 | 8 | 0.224 | 365 | 60 | T 3000 | |
| AGS 181.6 | 181.6 | 37 | 2.50 | 17.5 | 5900 | 500 | 17 | 0.183 | 415 | 57 | T 2500 | |
| AGS 226 | 226 | 37 | 2.80 | 19.6 | 7405 | 627 | 21 | 0.146 | 480 | 57 | T 2000 | |

| | | | | | | | | | | | |
|---------|-----|----|------|-------|-------|------|----|--------|-----|----|--------|
| AGS 288 | 288 | 37 | 3.15 | 22.05 | 9370 | 794 | 25 | 0.115 | 550 | 57 | T 1500 |
| AGS 366 | 366 | 37 | 3.55 | 24.85 | 11535 | 1009 | 31 | 0.0905 | 630 | 57 | T 2500 |
| AGS 570 | 570 | 61 | 3.45 | 31.05 | 18530 | 1574 | 57 | 0.0583 | 840 | 54 | T 1700 |