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# Conductor resistances acc. to IEC 60228 / HD 383

| cross section | bare copper conductor (Ω / km) | | tinned copper conductor (Ω / km) | |
|---|---|---|---|---|
| mm² | class 1 + 2 | class 5 + 6 | class 1 + 2 | class 5 + 6 |
| 0,05 | | 380,00 | | 392,00 |
| 0,08 | | 237,00 | | 244,00 |
| 0,14 | | 134,00 | | 138,00 |
| 0,22 | | 96,00 | | 99,00 |
| 0,25 | | 76,00 | | 79,00 |
| 0,34 | | 53,00 | | 56,00 |
| 0,50 | 36,00 | 39,00 | 36,70 | 40,10 |
| 0,75 | 24,50 | 26,00 | 24,80 | 26,70 |
| 1,00 | 18,10 | 19,50 | 18,20 | 20,00 |
| 1,50 | 12,10 | 13,30 | 12,20 | 13,70 |
| 2,50 | 7,41 | 7,98 | 7,56 | 8,21 |
| 4,00 | 4,61 | 4,95 | 4,70 | 5,09 |
| 6,00 | 3,08 | 3,30 | 3,11 | 3,39 |
| 10,00 | 1,83 | 1,91 | 1,84 | 1,95 |
| 16,00 | 1,15 | 1,21 | 1,16 | 1,24 |
| 25,00 | 0,727* | 0,780 | 0,734 | 0,795 |
| 35,00 | 0,524* | 0,554 | 0,529 | 0,565 |
| 50,00 | 0,387* | 0,386 | 0,391 | 0,393 |
| 70,00 | 0,268* | 0,272 | 0,270 | 0,277 |
| 95,00 | 0,193* | 0,206 | 0,195 | 0,210 |
| 120,00 | 0,153* | 0,161 | 0,154 | 0,164 |
| 150,00 | 0,124* | 0,129 | 0,126 | 0,132 |
| 185,00 | 0,0991 | 0,106 | 0,100 | 0,108 |
| 240,00 | 0,0754 | 0,0801 | 0,0762 | 0,0817 |
| 300,00 | 0,0601 | 0,0641 | 0,0607 | 0,0654 |
| 400,00 | 0,0470 | 0,0486 | 0,0475 | 0,0495 |
| 500,00 | 0,0366 | 0,0384 | 0,0369 | 0,0391 |
| 630,00 | 0,0283 | 0,0287 | 0,0286 | 0,0292 |

## Classes

| | |
|---|---|
| class 1 | solid wire for single- and multi-core cables |
| class 2 | multi-wire strands for single- and multi-core cables |
| class 5 | fine-wire strands for single- and multi-core cables |
| class 6 | super-fine-wire strands for single- and multi-core cables |

## Remark

* for mineral (or mineral fibre) insulated cables (only for class 1).

The values according to IEC 60228 are listed according to the cross section and the class of conductor make-up. The diameter of the individual wires of each conductor, beginning with 0.50 mm², shall not exceed the maximum values (see IEC 60228), which are required by the maximum conductor resistance at 20° C.