

Technical characteristics

Strand construction

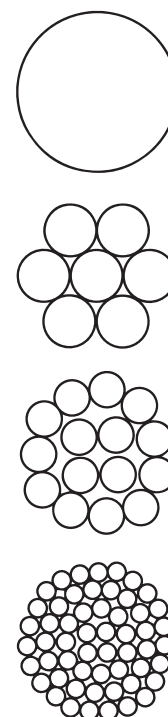
Data cables - strand construction

for example, item groups 0305, 0315, 0345, 5305, 5315, 5345, 6305, 6315, 6345, ...

| nominal cross section in mm ² | no. of wires x diameter of wires in mm Ø |
|--|--|
| 0,14 | ≈ 18 x 0,11 |
| 0,25 | ≈ 14 x 0,16 |
| 0,34 | ≈ 7 x 0,26 |
| 0,50 | ≈ 15 x 0,21 |
| 0,75 | ≈ 23 x 0,21 |
| 1,00 | ≈ 30 x 0,21 |
| 1,50 | ≈ 28 x 0,26 |

European strand construction acc. to IEC 60228, VDE 0295

| crosssection mm ² | IEC 60228 class 5/DIN VDE 0295 | | IEC 60228 class 6/DIN VDE 0295 | |
|------------------------------|-----------------------------------|----------------|-----------------------------------|----------------|
| | no. of wires | max. wire-Ø mm | no. of wires | max. wire-Ø mm |
| 0.14* | | | ≈ 18 | x 0.11 |
| 0.25* | ≈ 14 | x 0.16 | ≈ 32 | x 0.11 |
| 0.34* | ≈ 19 | x 0.16 | ≈ 42 | x 0.11 |
| 0.50 | ≈ 15/17 | x 0.21 | ≈ 28 | x 0.16 |
| 0.75 | ≈ 23 | x 0.21 | ≈ 42 | x 0.16 |
| 1.00 | ≈ 30 | x 0.21 | ≈ 56 | x 0.16 |
| 1.50 | ≈ 27-29 | x 0.26 | ≈ 84 | x 0.16 |
| 2.50 | ≈ 46 | x 0.26 | ≈ 140 | x 0.16 |
| 4.00 | ≈ 52 | x 0.31 | ≈ 224 | x 0.16 |
| 6.00 | ≈ 78 | x 0.31 | ≈ 186 | x 0.21 |
| 10.00 | ≈ 77 | x 0.41 | ≈ 320 | x 0.21 |
| 16.00 | ≈ 122 | x 0.41 | ≈ 504 | x 0.21 |
| 25.00 | ≈ 190 | x 0.41 | ≈ 760 | x 0.21 |
| 35.00 | ≈ 272 | x 0.41 | ≈ 1083 | x 0.21 |
| 50.00 | ≈ 400 | x 0.41 | ≈ 703 | x 0.31 |
| 70.00 | ≈ 543 | x 0.41 | ≈ 988 | x 0.31 |
| 95.00 | ≈ 484 | x 0.51 | ≈ 1340 | x 0.31 |
| 120.00 | ≈ 589 | x 0.51 | ≈ 1680 | x 0.31 |
| 150.00 | ≈ 740 | x 0.51 | ≈ 2122 | x 0.31 |
| 185.00 | ≈ 902 | x 0.51 | ≈ 1472 | x 0.41 |
| 240.00 | ≈ 1220 | x 0.51 | ≈ 1910 | x 0.41 |
| 300.00 | ≈ 1525 | x 0.51 | | |



* with reference to IEC 60228

Comparison of European and American strands

| Nominal cross section of copper conductors | | | | | | | | | |
|--|---------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|---------|
| mm ² | AWG/MCM | mm ² | AWG/MCM | mm ² | AWG/MCM | mm ² | AWG/MCM | mm ² | AWG/MCM |
| 0.08 | = 28 | 0.50 | = 20 | 2.50 | = 14 | 16.00 | = 6 | 70.00 | = 2/0 |
| 0.14 | = 26 | 0.75 | = 19 | 4.00 | = 12 | 25.00 | = 4 | 95.00 | = 3/0 |
| 0.25 | = 24 | 1.00 | = 18 | 6.00 | = 10 | 35.00 | = 2 | 120.00 | = 4/0 |
| 0.34 | = 22 | 1.50 | = 16 | 10.00 | = 8 | 50.00 | = 1 | 150.00 | = 250 |
| | | | | | | | | 185.00 | = 350 |
| | | | | | | | | 240.00 | = 450 |
| | | | | | | | | 300.00 | = 550 |