



## CABLE STRUCTURE

|                      |                                                                      |
|----------------------|----------------------------------------------------------------------|
| <b>Conductor</b>     | Electrolytic annealed, class 5 stranded plain or tinned copper wires |
| <b>Seperator</b>     | A suitable tape may be applied over the conductor                    |
| <b>Insulation</b>    | 3GI3 type cross-linked elastomeric compound (VDE 0207 - Part 20)     |
| <b>Inner Sheath</b>  | GM1b type cross-linked elastomeric compound (VDE 0207 - Part 21)     |
| <b>Reinforcement</b> | Antitorsion textile braided embedded sheath                          |
| <b>Outer Sheath</b>  | 5GM3 type cross-linked elastomeric compound (VDE 0207 - Part 21)     |
| <b>Color</b>         | Black                                                                |

## MAIN CHARACTERISTICS

|                             |                                  |
|-----------------------------|----------------------------------|
| <b>Construction</b>         | VDE 0250-814, TSE K 371          |
| <b>General Requirements</b> | VDE 0250-1                       |
| <b>Guide to Use</b>         | VDE 0298-3, VDE 0298-4           |
| <b>Electrical Tests</b>     | VDE 0472-501, 502, 503, 508      |
| <b>Non-electrical Tests</b> | VDE 0472-401, 402, 602, 303, 615 |
| <b>Conductor Resistance</b> | VDE 0295, IEC 60228              |
| <b>Flame Retardant</b>      | IEC 60332-1-2, VDE 0482-332-1-2  |
| <b>Oil Resistant</b>        | VDE 0473-811-404, EN 60811-404   |

## OPERATING CHARACTERISTICS

|                                       |                          |
|---------------------------------------|--------------------------|
| <b>Rated Voltage</b>                  | 600 / 1000 V ( $U_0/U$ ) |
| <b>AC Test Voltage</b>                | 3,5 kV                   |
| <b>Operating Temperature</b>          |                          |
| <i>In Flexing Use</i>                 | -25°C to +80°C           |
| <i>In Fixed Use</i>                   | -40°C to +80°C           |
| <b>Max. Conductor Operating Temp.</b> | 90°C                     |
| <b>Conductor Short-Circuit Temp.</b>  | 250°C (Max. 5 sec)       |
| <b>Min. Installation Temp.</b>        | -15°C                    |
| <b>Min. Bending Radius</b>            | VDE 0298-3 Tab.3         |
| <b>Current Carrying Capacities</b>    | VDE 0298-4 Tab.11        |

## APPLICATIONS

As reeling cable for winding operation with tensile stress and/or torsional stress and for connection and control cable in lifting devices, hoisting plants and transporting machines for heavy mechanical load and as drum and drag cable in dry, damp or wet rooms and wet industrial conditions.



| Cross Section (mm²) | Nominal Overall Diameter (mm) | Approximate Weight (kg / km) | Min.Bending Radius (free movement) (mm) | Max. Resistance of Conductors at 20°C (ohm / km) |
|---------------------|-------------------------------|------------------------------|-----------------------------------------|--------------------------------------------------|
| 3x1,5               | 11,90                         | 200                          | 48                                      | 13,70                                            |
| 3x2,5               | 13,40                         | 255                          | 67                                      | 8,21                                             |
| 3x4                 | 16,10                         | 378                          | 81                                      | 5,09                                             |
| 3x6                 | 17,20                         | 455                          | 86                                      | 3,39                                             |
| 3x10                | 21,30                         | 713                          | 107                                     | 1,95                                             |
| 3x16                | 23,40                         | 930                          | 117                                     | 1,24                                             |
| 3x25                | 29,30                         | 1426                         | 147                                     | 0,795                                            |
| 3x35                | 32,70                         | 1868                         | 164                                     | 0,565                                            |
| 3x50                | 38,20                         | 2573                         | 191                                     | 0,393                                            |
| 3x70                | 42,30                         | 3374                         | 212                                     | 0,277                                            |
| 3x95                | 48,40                         | 4410                         | 242                                     | 0,206                                            |
| 3x120               | 52,10                         | 5321                         | 261                                     | 0,164                                            |
| 3x150               | 55,90                         | 6354                         | 280                                     | 0,132                                            |
| 3x185               | 62,70                         | 7836                         | 314                                     | 0,108                                            |
| 3x240               | 71,60                         | 10396                        | 358                                     | 0,0817                                           |
| 3x16+10             | 25,70                         | 1163                         | 129                                     | 1,24                                             |
| 3x25+16             | 31,60                         | 1736                         | 158                                     | 0,795                                            |
| 3x35+16             | 35,10                         | 2219                         | 176                                     | 0,554                                            |
| 3x50+25             | 41,10                         | 3073                         | 206                                     | 0,386                                            |
| 3x70+35             | 45,60                         | 4035                         | 228                                     | 0,272                                            |
| 3x95+50             | 50,40                         | 5077                         | 252                                     | 0,206                                            |
| 3x120+70            | 56,30                         | 6471                         | 282                                     | 0,161                                            |
| 3x150+70            | 60,50                         | 7628                         | 303                                     | 0,129                                            |
| 3x185+95            | 66,00                         | 9155                         | 330                                     | 0,106                                            |
| 3x240+120           | 77,30                         | 12466                        | 387                                     | 0,0801                                           |
| 3x35+3x25/3         | 35,90                         | 2417                         | 180                                     | 0,554                                            |
| 3x50+3x25/3         | 38,40                         | 2862                         | 192                                     | 0,386                                            |
| 3x70+3x35/3         | 43,70                         | 3859                         | 219                                     | 0,272                                            |
| 3x95+3x50/3         | 48,30                         | 4860                         | 242                                     | 0,206                                            |
| 3x120+3x70/3        | 53,90                         | 6171                         | 270                                     | 0,161                                            |
| 3x150+3x70/3        | 56,30                         | 7018                         | 282                                     | 0,129                                            |
| 3x185+3x95/3        | 64,90                         | 8958                         | 325                                     | 0,106                                            |
| 3x240+3x120/3       | 71,10                         | 11343                        | 356                                     | 0,0801                                           |

| Cross Section (mm²) | Nominal Overall Diameter (mm) | Approximate Weight (kg / km) | Min.Bending Radius (free movement) (mm) | Max. Resistance of Conductors at 20°C (ohm / km) |
|---------------------|-------------------------------|------------------------------|-----------------------------------------|--------------------------------------------------|
| 4x1,5               | 12,70                         | 225                          | 64                                      | 13,30                                            |
| 4x2,5               | 15,60                         | 344                          | 78                                      | 7,98                                             |
| 4x4                 | 17,30                         | 448                          | 87                                      | 4,95                                             |
| 4x6                 | 18,50                         | 545                          | 93                                      | 3,30                                             |
| 4x10                | 22,00                         | 810                          | 115                                     | 1,91                                             |
| 4x16                | 26,40                         | 1202                         | 132                                     | 1,21                                             |
| 4x25                | 33,30                         | 1860                         | 167                                     | 0,78                                             |
| 4x35                | 35,50                         | 2298                         | 178                                     | 0,554                                            |
| 4x50                | 41,50                         | 3171                         | 208                                     | 0,386                                            |
| 4x70                | 46,10                         | 4195                         | 231                                     | 0,272                                            |
| 4x95                | 52,70                         | 5478                         | 264                                     | 0,206                                            |
| 4x120               | 58,60                         | 6883                         | 293                                     | 0,161                                            |
| 4x150               | 62,90                         | 8231                         | 315                                     | 0,129                                            |
| 4x185               | 70,30                         | 10104                        | 352                                     | 0,106                                            |
| 4x240               | 80,10                         | 13381                        | 401                                     | 0,0801                                           |
| 5x1,5               | 13,60                         | 261                          | 68                                      | 13,30                                            |
| 5x2,5               | 16,70                         | 400                          | 84                                      | 7,98                                             |
| 5x4                 | 18,60                         | 525                          | 93                                      | 4,95                                             |
| 5x6                 | 20,80                         | 683                          | 104                                     | 3,30                                             |
| 5x10                | 24,80                         | 1015                         | 124                                     | 1,91                                             |
| 5x16                | 28,50                         | 1424                         | 143                                     | 1,21                                             |
| 5x25                | 36,10                         | 2212                         | 181                                     | 0,78                                             |
| 5x35                | 40,00                         | 2881                         | 200                                     | 0,554                                            |
| 5x50                | 45,10                         | 3795                         | 226                                     | 0,386                                            |
| 5x70                | 52,10                         | 5270                         | 261                                     | 0,272                                            |
| 5x95                | 58,40                         | 6789                         | 292                                     | 0,206                                            |
| 7x1,5               | 16,70                         | 397                          | 84                                      | 13,30                                            |
| 7x2,5               | 19,00                         | 537                          | 95                                      | 7,98                                             |
| 7x4                 | 22,10                         | 760                          | 111                                     | 4,95                                             |
| 7x6                 | 23,80                         | 935                          | 119                                     | 3,30                                             |
| 7x10                | 29,80                         | 1493                         | 149                                     | 1,91                                             |
| 7x16                | 34,50                         | 2116                         | 173                                     | 1,21                                             |

| Cross Section (mm²) | Nominal Overall Diameter (mm) | Approximate Weight (kg / km) | Min.Bending Radius (free movement) (mm) | Max. Resistance of Conductors at 20°C (ohm / km) |
|---------------------|-------------------------------|------------------------------|-----------------------------------------|--------------------------------------------------|
| 7x25                | 43,50                         | 3271                         | 218                                     | 0,78                                             |
| 7x35                | 46,50                         | 4069                         | 233                                     | 0,554                                            |
| 12x1,5              | 20,10                         | 570                          | 101                                     | 13,30                                            |
| 12x2,5              | 23,10                         | 782                          | 116                                     | 7,98                                             |
| 12x4                | 27,00                         | 1117                         | 135                                     | 4,95                                             |
| 18x1,5              | 22,80                         | 757                          | 114                                     | 13,30                                            |
| 18x2,5              | 27,20                         | 1116                         | 136                                     | 7,98                                             |
| 18x4                | 32,10                         | 1596                         | 161                                     | 4,95                                             |
| 24x1,5              | 25,90                         | 941                          | 130                                     | 13,30                                            |
| 24x2,5              | 31,00                         | 1396                         | 155                                     | 7,98                                             |
| 30x2,5              | 35,7                          | 1921                         | 179                                     | 7,98                                             |
| 36x1,5              | 30,00                         | 1328                         | 150                                     | 13,30                                            |
| 36x2,5              | 36,20                         | 2004                         | 181                                     | 7,98                                             |