

## APPLICATION

Cable for power supply, for rated voltage up to 0.6/1kV. Suitable for outdoor fixed installations when it is necessary to protect the cable against mechanical aggression or against rodents threat. Can be laid in free air, installed in ducts or directly buried. Excellent mechanical protection during laying, installation and service.

## CABLE DESIGNATION

Cu / PVC / PVC / SWA / PVC

SWA – Steel wire armour

AWA – Aluminium wire armour

## CONSTRUCTION CHARACTERISTICS

### Conductor

Copper (plain annealed): solid class 1 or rigid stranded class 2 or class 5 (flexible), circular or sector shaped.

### Insulation

PVC – (Polyvinyl chloride)

### Bedding /Inner Sheath

PVC – (Polyvinyl chloride)

### Armour

Steel galvanized wires helical applied.

For single core cables steel is substituted by aluminium wires.

### Oversheath

PVC (Polyvinyl chloride)

## GENERAL CHARACTERISTICS

|  |   |
|--|---|
| Construction and test standards          | IEC 60228<br>IEC 60502-1  |
| Rated voltage $U_0/U$                    | 0.6 / 1 kV  |
| Test voltage                             | 3.5 kV a.c. 5 minutes   |
| Conductor maximum operating temperature  | 70°C  |
| Maximum short-circuit temperature        | 160°C (t ≤ 5s)  |
| Minimum bending radius (mm)              | 8 x d   |
| Maximum pulling force over conductor (N) | Copper – 50 x S   |
| Flame retardant                          | IEC 60332-1-2 · EN 60332-1-2 (cable vertically mounted, length of charred cable ≤ 540 mm) |

S – conductor cross-section (mm<sup>2</sup>) • d – cable outer diameter (mm).

## ADDITIONAL CHARACTERISTICS \*

|                      |  |
|----------------------|--|
| Fire retardant (frt) | IEC 60332-3-24 · EN 60332-3-24 (bunch of cables vertically mounted on a ladder, length of charred cable ≤ 2.5 m) |
|----------------------|--|



**ELECTRICAL AND DIMENSIONAL CHARACTERISTICS**

| Cable composition<br>n.º cond. x cross-section<br>(mm <sup>2</sup> ) | Approximate<br>outer diameter<br>(mm) | Approximate<br>weight<br>(kg/km) | Current carrying capacity<br>Installation directly buried <sup>(1)</sup> Ts= 20°C<br>(A) |                      |
|--|---------------------------------------|----------------------------------|--|----------------------|
|  |                                       |                                  | 2 charged conductors   | 3 charged conductors |
| <b>Cu / PVC / PVC / AWA / PVC</b>                                    |                                       |                                  |  |                      |
| 1x10   | 13.0                                  | 286                              |  |                      |
| 1x16   | 14.1                                  | 364                              |  |                      |
| 1x25   | 16.6                                  | 518                              |  |                      |
| 1x35   | 17.6                                  | 627                              |  |                      |
| 1x50   | 19.3                                  | 794                              | 205  | 181                  |
| 1x70   | 21.6                                  | 1059                             | 259  | 231                  |
| 1x95   | 23.9                                  | 1367                             | 313  | 280                  |
| 1x120  | 25.6                                  | 1644                             | 360  | 324                  |
| 1x150  | 27.5                                  | 1955                             | 413  | 373                  |
| 1x185  | 29.8                                  | 2366                             | 469  | 425                  |
| 1x240  | 33.6                                  | 3068                             | 550  | 501                  |
| 1x300  | 36.5                                  | 3766                             | 624  | 567                  |
| 1x400  | 40.4                                  | 5006                             | 723  | 657                  |
| 1x500  | 45.1                                  | 5890                             | 805  | 731                  |
| 1x630  | 50.6                                  | 7430                             | 891  | 809                  |
| <b>Cu / PVC / PVC / SWA / PVC</b>                                    |                                       |                                  |  |                      |
| 2x1.5  | 13.8                                  | 342                              | 22   |                      |
| 2x2.5  | 14.6                                  | 395                              | 31   |                      |
| 2x4.0  | 17.2                                  | 562                              | 41   |                      |
| 2x6.0  | 18.3                                  | 647                              | 53   |                      |
| 2x10   | 20.1                                  | 798                              | 72   |                      |
| 2x16   | 23.0                                  | 1109                             | 97   |                      |
| 2x25   | 26.2                                  | 1417                             | 128  |                      |
| 2x35   | 28.4                                  | 1700                             | 157  |                      |
| 2x50   | 32.4                                  | 2079                             | 190  |                      |
| 2x70   | 36.2                                  | 2446                             | 241  |                      |
| 3x1.5  | 14.3                                  | 381                              |  | 19                   |
| 3x2.5  | 15.2                                  | 449                              |  | 26                   |
| 3x4.0  | 17.9                                  | 640                              |  | 35                   |
| 3x6.0  | 19.2                                  | 755                              |  | 45                   |
| 3x10   | 21.1                                  | 937                              |  | 62                   |
| 3x16   | 24.1                                  | 1324                             |  | 83                   |
| 3x25   | 25.5                                  | 1591                             |  | 110                  |
| 3x35   | 26.5                                  | 1953                             |  | 135                  |
| 3x50   | 30.0                                  | 2494                             |  | 163                  |
| 3x70   | 33.7                                  | 3392                             |  | 207                  |

**ELECTRICAL AND DIMENSIONAL CHARACTERISTICS**

| Cable composition<br>n.º cond. x cross-section<br>(mm <sup>2</sup> ) | Approximate<br>outer diameter<br>(mm) | Approximate<br>weight<br>(kg/km) | Current carrying capacity<br>Installation directly buried <sup>(1)</sup> Ts= 20°C<br>(A) |                      |
|--|---------------------------------------|----------------------------------|--|----------------------|
|  |                                       |                                  | 2 charged conductors   | 3 charged conductors |
| 3x95   | 38.3                                  | 4438                             |  | 251                  |
| 3x120  | 41.0                                  | 5281                             |  | 290                  |
| 3x150  | 45.8                                  | 6641                             |  | 332                  |
| 3x185  | 50.3                                  | 8061                             |  | 378                  |
| 3x240  | 55.6                                  | 10034                            |  | 445                  |
| 3x300  | 60.9                                  | 12254                            |  | 510                  |
| 3x400  | 68.0                                  | 15027                            |  | 590                  |
| 3x16+1x10  | 26.0                                  | 1557                             |  | 83                   |
| 3x25+1x16  | 28.3                                  | 1961                             |  | 110                  |
| 3x35+1x16  | 31.0                                  | 2364                             |  | 135                  |
| 3x50+1x25  | 36.7                                  | 3287                             |  | 163                  |
| 3x70+1x35  | 40.0                                  | 4157                             |  | 207                  |
| 3x95+1x50  | 43.7                                  | 5349                             |  | 251                  |
| 3x120+1x70   | 50.0                                  | 6888                             |  | 290                  |
| 3x150+1x70   | 55.0                                  | 8032                             |  | 332                  |
| 3x185+1x95   | 60.0                                  | 9811                             |  | 378                  |
| 3x240+1x120  | 66.0                                  | 12146                            |  | 445                  |
| 3x300+1x150  | 73.0                                  | 14716                            |  | 510                  |
| 3x400+1x185  | 83.0                                  | 18972                            |  | 590                  |
| 4x1.5  | 15.1                                  | 449                              |  | 19                   |
| 4x2.5  | 16.8                                  | 621                              |  | 26                   |
| 4x4.0  | 19.1                                  | 773                              |  | 35                   |
| 4x6.0  | 20.5                                  | 927                              |  | 45                   |
| 4x10   | 23.3                                  | 1292                             |  | 62                   |
| 4x16   | 26.0                                  | 1620                             |  | 83                   |
| 4x25   | 28.3                                  | 2060                             |  | 110                  |
| 4x35   | 31.0                                  | 2540                             |  | 135                  |
| 4x50   | 36.7                                  | 3516                             |  | 163                  |
| 4x70   | 40.0                                  | 4486                             |  | 207                  |
| 4x95   | 43.7                                  | 5805                             |  | 251                  |
| 4x120  | 50.0                                  | 7380                             |  | 290                  |
| 4x150  | 55.0                                  | 8794                             |  | 332                  |
| 4x185  | 60.0                                  | 10684                            |  | 378                  |
| 4x240  | 66.0                                  | 13332                            |  | 445                  |
| 4x300  | 73.0                                  | 16242                            |  | 510                  |
| 4x400  | 83.0                                  | 20891                            |  | 590                  |