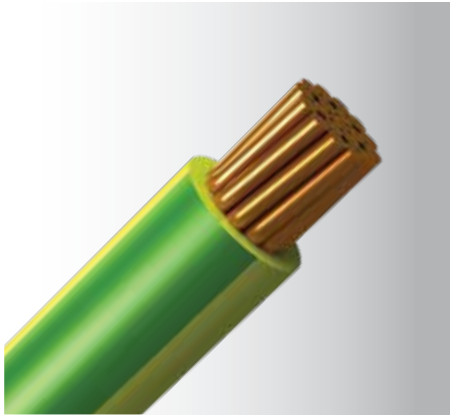


PVC-Insulated Cables

450/750V Single-Core
 PVC Insulated, Non-Sheathed Cable
 Description: CU/PVC
 Model Code: PVC



| | |
|------------------------|---|
| Application : | This cable is used in light fitting, and in switching and control equipment. It can be installed in conduit, in cable trunking and on cable trays |
| Voltage rating : | 450/750V |
| Construction : | Plain annealed copper, PVC insulated cable |
| Insulation colour : | Brown, Black, Grey, Blue, Green/Yellow (other colour upon request) |
| Specification : | SS358-3, IEC60227-3, BS EN 50525-2-31 |
| Operating temperature: | 70°C |

| Part No. | Conductor | | | Insulation | Approx. Overall Diam. | Approx. Weight |
|----------|--------------------|---------------------|---------------|------------|-----------------------|----------------|
| | Nominal Area | No./Diam. of Strand | Approx. Diam. | Thickness | | |
| | (mm ²) | (no./mm) | (mm) | (mm) | | |
| 0701**30 | 1.5 | 7/0.53 | 1.59 | 0.7 | 3.1 | 22 |
| 0801**30 | 2.5 | 7/0.67 | 2.01 | 0.8 | 3.7 | 34 |
| 0901**30 | 4 | 7/0.85 | 2.55 | 0.8 | 4.3 | 50 |
| 1001**30 | 6 | 7/1.04 | 3.12 | 0.8 | 4.8 | 70 |
| 1101**30 | 10 | 7/1.35 | 4.05 | 1.0 | 6.2 | 124 |
| 1201**30 | 16 | 7/1.70 | 5.10 | 1.0 | 7.2 | 183 |
| 1301**30 | 25 | 7/2.14 | 6.42 | 1.2 | 9.0 | 280 |
| 1401**30 | 35 | 19/1.53 | 7.65 | 1.2 | 10.0 | 380 |
| 1501**30 | 50 | 19/1.78 | 8.90 | 1.4 | 12.0 | 500 |
| 1601**30 | 70 | 19/2.14 | 10.70 | 1.4 | 13.7 | 715 |
| 1701**30 | 95 | 19/2.52 | 12.60 | 1.6 | 16.0 | 990 |
| 1801**30 | 120 | 37/2.03 | 14.21 | 1.6 | 17.5 | 1,220 |
| 1901**30 | 150 | 37/2.25 | 15.75 | 1.8 | 19.5 | 1,500 |
| 2001**30 | 185 | 37/2.52 | 17.64 | 2.0 | 22.0 | 1,890 |
| 2101**30 | 240 | 61/2.25 | 20.25 | 2.2 | 25.0 | 2,460 |
| 2201**30 | 300 | 61/2.52 | 22.68 | 2.4 | 28.0 | 3,080 |
| 2301**30 | 400 | 61/2.85 | 25.65 | 2.6 | 31.5 | 3,920 |
| 2401**30 | 500 | 61/3.20 | 28.80 | 2.8 | 35.0 | 4,920 |
| 2501**30 | 630 | 127/2.52 | 32.76 | 2.8 | 39.0 | 6,260 |

**Stands for colour code: ■ Brown (01) ■ Black (02) ■ Grey (03) ■ Blue (04) ■ Green/Yellow (05)
 For current rating and voltage drop please refer to Tables 2 & 3 (Page 45)

Current Rating and Voltage Drop



PVC Insulated Cables
Single-Core, Unarmoured

tel (65) 6367 0107 fax (65) 6365 2963
www.keystone-cable.com

Single-Core Cables with PVC Insulation, Unarmoured, with or without Sheath 450/750V or 600/1000V

Table 2 : Current-Carrying Capacities (Amp) [CU/PVC or CU/PVC/PVC Cables]

BS EN 50525-2-31 (BS 6004)

IEC 60502 (BS 6346)

SS 358

Conductor Operating Temperature :70°C

Ambient Temperature :30°C

| Conductor cross-sectional area | Reference Method 4 (enclosed in conduit in thermally insulating wall etc.) | | Reference Method 3 (enclosed in conduit on a wall or in trunking etc.) | | Reference Method 1 (clipped direct) | | Reference Method 11 (on a perforated cable tray horizontal or vertical) | | Reference Method 12 (free air) | | |
|--------------------------------|--|---------------------------------|--|---------------------------------|--|--|---|---|--|--|------------------------------------|
| | 2 cables, single-phase a.c. or d.c. | 3 or 4 cables, three phase a.c. | 2 cables, single-phase a.c. or d.c. | 3 or 4 cables, three-phase a.c. | 2 cables, single-phase a.c. or d.c.flat and touching | 3 or 4 cables, three-phase a.c. flat and touching or trefoil | 2 cables, single-phase a.c.or d.c. or flat and touching | 3 or 4 cable three -phase a.c. flat and touching or trefoil | Horizontal flat spaced | Vertical flat spaced | Trefoil |
| | | | | | | | | | single-phase a.c. or d.c. or 3 cables three-phase a.c. | single-phase a.c. or d.c. or 3 cables three phase a.c. | 3 cables, trefoil three phase a.c. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| mm ² | A | A | A | A | A | A | A | A | A | A | A |
| BS 6004 | | | | | | | | | | | |
| 1 | 11 | 10.5 | 13.5 | 12 | 15.5 | 14 | - | - | - | - | - |
| 1.5 | 14.5 | 13.5 | 17.5 | 15.5 | 20 | 18 | - | - | - | - | - |
| 2.5 | 19.5 | 18 | 24 | 21 | 27 | 25 | - | - | - | - | - |
| 4 | 26 | 24 | 32 | 28 | 37 | 33 | - | - | - | - | - |
| 6 | 34 | 31 | 41 | 36 | 47 | 43 | - | - | - | - | - |
| 10 | 46 | 42 | 57 | 50 | 65 | 59 | - | - | - | - | - |
| 16 | 61 | 56 | 76 | 68 | 87 | 79 | - | - | - | - | - |
| 25 | 80 | 73 | 101 | 89 | 114 | 104 | 126 | 112 | 146 | 130 | 110 |
| 35 | 99 | 89 | 125 | 110 | 141 | 129 | 156 | 141 | 181 | 162 | 137 |
| BS 6346 | | | | | | | | | | | |
| 50 | 119 | 108 | 151 | 134 | 182 | 167 | 191 | 172 | 219 | 197 | 167 |
| 70 | 151 | 136 | 192 | 171 | 234 | 214 | 246 | 223 | 281 | 254 | 216 |
| 95 | 182 | 164 | 232 | 207 | 284 | 261 | 300 | 273 | 341 | 311 | 264 |
| 120 | 210 | 188 | 269 | 239 | 330 | 303 | 349 | 318 | 396 | 362 | 308 |
| 150 | 240 | 216 | 300 | 262 | 381 | 349 | 404 | 369 | 456 | 419 | 356 |
| 185 | 273 | 245 | 341 | 296 | 436 | 400 | 463 | 424 | 521 | 480 | 409 |
| 240 | 320 | 286 | 400 | 346 | 515 | 472 | 549 | 504 | 615 | 569 | 485 |
| 300 | 367 | 328 | 458 | 394 | 594 | 545 | 635 | 584 | 709 | 659 | 561 |
| 400 | - | - | 546 | 467 | 694 | 634 | 732 | 679 | 852 | 795 | 656 |
| 500 | - | - | 626 | 533 | 792 | 723 | 835 | 778 | 982 | 920 | 749 |
| 630 | - | - | 720 | 611 | 904 | 826 | 953 | 892 | 1138 | 1070 | 855 |
| 800 | - | - | - | - | 1030 | 943 | 1086 | 1020 | 1265 | 1188 | 971 |
| 1000 | - | - | - | - | 1154 | 1058 | 1216 | 1149 | 1420 | 1337 | 1079 |

Note : For rating factors of ambient temperature other than 30°C please refer to Table 25

Table 3 : Voltage Drop (Per Amp, Per Meter) [CU/PVC or CU/PVC/PVC Cables]

BS EN 50525-2-31 (BS 6004)

IEC 60502-1 (BS 6346)

SS 358

Conductor Operating Temperature :70°C

Ambient Temperature :30°C

| Conductor cross-sectional area | 2 cables d.c. | 2 cables single-phase a.c. | | | | | | 3 or 4 cables three-phase a.c. | | | | | | | | | | | | | | |
|--------------------------------|---------------|--|--------|---|--------|-----------------------------|--|--------------------------------|------|---|------|------|--|-----------------------------------|-------|-------|-------|------|------|-------|------|------|
| | | Reference Methods 3 & 4 (enclosed in conduit etc, in or on a wall) | | Reference Methods 1 & 11 (clipped direct or on trays, touching) | | Reference Method 12 (space) | Reference Methods 3 & 4 (enclosed in conduit etc, in or on a wall) | | | Reference Methods 1, 11 & 12 (in trefoil) | | | Reference Methods 1 & 11 (flat touching) | Reference Method 12 (flat spaced) | | | | | | | | |
| | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | | | | | | | | | | |
| mm ² | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | mV/A/m | | | | | | | | | | | | | | |
| 1 | 44 | 44 | 44 | 44 | 44 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | | | | | | | | |
| 1.5 | 29 | 29 | 29 | 29 | 29 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | | | | | | | | |
| 2.5 | 18 | 18 | 18 | 18 | 18 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | | | | | | | | |
| 4 | 11 | 11 | 11 | 11 | 11 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | | | | | | | | |
| 6 | 7.3 | 7.3 | 7.3 | 7.3 | 7.3 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | | | | | | | | |
| 10 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | | | | | | | | |
| 16 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | | | | | | | | |
| 25 | r | x | z | r | x | z | r | x | z | r | x | z | r | x | z | | | | | | | |
| 35 | 1.75 | 1.80 | 0.33 | 1.80 | 1.75 | 0.20 | 1.75 | 0.29 | 1.80 | 1.50 | 0.29 | 1.55 | 1.50 | 0.175 | 1.50 | 1.50 | 0.25 | 1.55 | 1.50 | 0.32 | 1.55 | |
| 50 | 0.93 | 0.95 | 0.30 | 1.00 | 0.93 | 0.190 | 0.95 | 0.93 | 0.28 | 0.97 | 0.81 | 0.26 | 0.85 | 0.80 | 0.165 | 0.82 | 0.80 | 0.24 | 0.84 | 0.80 | 0.32 | 0.86 |
| 70 | 0.63 | 0.65 | 0.29 | 0.72 | 0.63 | 0.185 | 0.66 | 0.63 | 0.27 | 0.69 | 0.56 | 0.25 | 0.61 | 0.55 | 0.160 | 0.57 | 0.55 | 0.24 | 0.60 | 0.55 | 0.31 | 0.63 |
| 95 | 0.46 | 0.49 | 0.28 | 0.56 | 0.47 | 0.180 | 0.50 | 0.47 | 0.27 | 0.54 | 0.42 | 0.24 | 0.48 | 0.41 | 0.155 | 0.43 | 0.41 | 0.23 | 0.47 | 0.40 | 0.31 | 0.51 |
| 120 | 0.36 | 0.39 | 0.27 | 0.47 | 0.37 | 0.175 | 0.41 | 0.37 | 0.26 | 0.45 | 0.33 | 0.23 | 0.41 | 0.32 | 0.150 | 0.36 | 0.32 | 0.23 | 0.40 | 0.32 | 0.30 | 0.44 |
| 150 | 0.29 | 0.31 | 0.27 | 0.41 | 0.30 | 0.175 | 0.34 | 0.29 | 0.26 | 0.39 | 0.27 | 0.23 | 0.36 | 0.26 | 0.150 | 0.30 | 0.26 | 0.23 | 0.34 | 0.26 | 0.30 | 0.40 |
| 185 | 0.23 | 0.25 | 0.27 | 0.37 | 0.24 | 0.170 | 0.29 | 0.24 | 0.26 | 0.35 | 0.22 | 0.23 | 0.32 | 0.21 | 0.145 | 0.26 | 0.21 | 0.22 | 0.31 | 0.21 | 0.30 | 0.36 |
| 240 | 0.180 | 0.195 | 0.26 | 0.33 | 0.185 | 0.165 | 0.25 | 0.185 | 0.25 | 0.31 | 0.17 | 0.23 | 0.29 | 0.160 | 0.145 | 0.22 | 0.160 | 0.22 | 0.27 | 0.160 | 0.29 | 0.34 |
| 300 | 0.145 | 0.160 | 0.26 | 0.31 | 0.150 | 0.165 | 0.22 | 0.150 | 0.25 | 0.29 | 0.14 | 0.23 | 0.27 | 0.130 | 0.140 | 0.190 | 0.130 | 0.22 | 0.25 | 0.130 | 0.29 | 0.32 |
| 400 | 0.105 | 0.130 | 0.26 | 0.29 | 0.120 | 0.160 | 0.20 | 0.115 | 0.25 | 0.27 | 0.12 | 0.22 | 0.25 | 0.105 | 0.140 | 0.175 | 0.105 | 0.21 | 0.24 | 0.100 | 0.29 | 0.31 |
| 500 | 0.086 | 0.110 | 0.26 | 0.28 | 0.098 | 0.155 | 0.185 | 0.093 | 0.24 | 0.26 | 0.10 | 0.22 | 0.25 | 0.086 | 0.135 | 0.160 | 0.086 | 0.21 | 0.23 | 0.081 | 0.29 | 0.30 |
| 630 | 0.068 | 0.094 | 0.25 | 0.27 | 0.081 | 0.155 | 0.175 | 0.076 | 0.24 | 0.25 | 0.08 | 0.22 | 0.24 | 0.072 | 0.135 | 0.150 | 0.072 | 0.21 | 0.22 | 0.066 | 0.28 | 0.29 |
| 800 | 0.053 | - | - | - | 0.068 | 0.150 | 0.165 | 0.061 | 0.24 | 0.25 | - | - | - | 0.060 | 0.130 | 0.145 | 0.060 | 0.21 | 0.22 | 0.053 | 0.28 | 0.29 |
| 1000 | 0.042 | - | - | - | 0.059 | 0.150 | 0.160 | 0.050 | 0.24 | 0.24 | - | - | - | 0.052 | 0.130 | 0.140 | 0.052 | 0.20 | 0.21 | 0.044 | 0.28 | 0.28 |

Note : r = conductor resistance at operating temperature, x = reactance, z = impedance