

TABLE 4F2A Multicore, sheathed and non-armoured cables having 85°C rubber insulation. (Copper Conductors). BS6883.

CURRENT-CARRYING CAPACITY (amperes):

Ambient temperature : 30°C
Conductor operating temperature:85°C

| Conductor cross-sectional area | Reference Method 3 (enclosed) | | Reference Method 1 (clipped direct) | | Reference Method 11 (on a perforated cable tray) or Reference Method 13 (free air) | |
|--------------------------------|---|--|---|---|--|---|
| | 1 two core cable, single-phase a.c. or d.c. | 1 three- or four-core cable three-phase a.c. | 1 two-core cable, single-phase a.c. or d.c. | 1 three- or four-core cable, three-phase a.c. | 1 two-core cable, single-phase a.c. or d.c. | 1 three- or four-core cable, three phase a.c. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (mm ²) | (A) | (A) | (A) | (A) | (A) | (A) |
| 1 | 16.5 | 14.5 | 18 | 16 | 19.5 | 17.5 |
| 1.5 | 21 | 18.5 | 23 | 20 | 25 | 22 |
| 2.5 | 29 | 25 | 32 | 28 | 34 | 30 |
| 4 | 38 | 33 | 43 | 37 | 46 | 40 |
| 6 | 48 | 43 | 55 | 48 | 59 | 52 |
| 10 | 66 | 58 | 76 | 66 | 81 | 71 |
| 16 | 87 | 77 | 103 | 88 | 109 | 94 |
| 25 | 114 | 100 | 136 | 117 | 144 | 123 |
| 35 | 139 | 122 | 168 | 144 | 177 | 151 |
| 50 | 167 | 147 | 201 | 174 | 213 | 186 |
| 70 | 211 | 185 | 256 | 222 | 272 | 237 |
| 95 | 254 | 222 | 310 | 269 | 329 | 287 |
| 120 | 292 | 256 | 359 | 312 | 381 | 333 |
| 150 | 320 | 287 | 413 | 359 | 438 | 383 |
| 185 | 368 | 326 | 470 | 409 | 499 | 437 |
| 240 | 439 | 381 | 553 | 482 | 587 | 515 |
| 300 | 509 | 436 | 636 | 555 | 675 | 593 |

NOTES:

- Where the conductor is to be protected by a semi-enclosed fuse to BS3036, see item 6.2 of the preface to this appendix within the 16th edition regs.
- Where a conductor operates at a temperature exceeding 70°C it shall be ascertained that the equipment connected to the conductor is suitable for the conductor operating temperature (see Regulation 512-02).
- For cables in rigid pvc conduit the values stated in table 4D2, 16th edition regs, are applicable (see Regulation 521-05).
- Where cables in this table are connected to equipment or accessories designed to operate at a temperature not exceeding 70°C, the current ratings given in the equivalent table for 70°C pvc insulated cables (BS6004, BS6346) shall be used (see also Regulation 523-01-01).

VOLTAGE DROP (per ampere per metre) **TABLE 4F2B** Conductor operating tempera-

| Conductor cross-sectional area | Two-core cable, d.c. | Two-core cable, single-phase a.c. | | | Three- or four-core cable, three-phase a.c. | | |
|--------------------------------|----------------------|-----------------------------------|-------|------|---|-------|-------|
| | | 3 | | | 4 | | |
| 1 | 2 | 3 | | | 4 | | |
| (mm ²) | (mV/A/m) | (mV/A/m) | | | (mV/A/m) | | |
| 1 | 46 | 46 | | | 40 | | |
| 1.5 | 31 | 31 | | | 26 | | |
| 2.5 | 19 | 19 | | | 16 | | |
| 4 | 12 | 12 | | | 10 | | |
| 6 | 7.7 | 7.7 | | | 6.7 | | |
| 10 | 4.6 | 4.6 | | | 4.0 | | |
| 16 | 2.9 | 2.9 | | | 2.5 | | |
| | | r | x | z | r | x | z |
| 25 | 1.80 | 1.85 | 0.175 | 1.85 | 1.60 | 0.150 | 1.60 |
| 35 | 1.30 | 1.30 | 0.170 | 1.35 | 1.15 | 0.150 | 1.15 |
| 50 | 0.95 | 0.97 | 0.170 | 0.99 | 0.84 | 0.145 | 0.86 |
| 70 | 0.65 | 0.66 | 0.165 | 0.68 | 0.58 | 0.140 | 0.59 |
| 95 | 0.48 | 0.49 | 0.160 | 0.52 | 0.43 | 0.140 | 0.45 |
| 120 | 0.38 | 0.39 | 0.160 | 0.42 | 0.34 | 0.135 | 0.36 |
| 150 | 0.30 | 0.31 | 0.155 | 0.35 | 0.27 | 0.135 | 0.30 |
| 185 | 0.25 | 0.25 | 0.155 | 0.30 | 0.22 | 0.130 | 0.26 |
| 240 | 0.190 | 0.195 | 0.150 | 0.25 | 0.170 | 0.130 | 0.22 |
| 300 | 0.150 | 0.155 | 0.150 | 0.22 | 0.135 | 0.130 | 0.185 |

NOTE: Tables 4F2A and 4F2B are extracted from IEE Regs, 16th Edition

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