

## CURRENT CARRYING CAPACITY

**SINGLE CORE PVC INSULATED CABLE**  
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**SHEATHED CABLE**

**VOLTAGE 300/500 V, 450/750V OR 600/1000V**  
**AMBIENT TEMPERATURE 30°C**  
**CONDUCTOR OPERATING TEMPERATURE 70°C**

### CURRENT CARRYING CAPACITY

| Size of Conductor<br>(mm <sup>2</sup> ) | Enclosed In Conduit or In Trunking     |                                       | On Perforated Cable Tray                                    |                                        |                  |
|-----------------------------------------|----------------------------------------|---------------------------------------|-------------------------------------------------------------|----------------------------------------|------------------|
|                                         | 2 cables 1- phase<br>ac or dc<br>(amp) | 3 or 4 cables 3- phase<br>ac<br>(amp) | 2 cables 1- phase<br>ac or dc<br>flat and touching<br>(amp) | 3 or 4 cables 3- phase<br>ac, touching |                  |
|                                         |                                        |                                       |                                                             | Flat<br>(amp)                          | Trefoil<br>(amp) |
| 1.0                                     | 13.5                                   | 12                                    |                                                             |                                        |                  |
| 1.5                                     | 17.5                                   | 15.5                                  |                                                             |                                        |                  |
| 2.5                                     | 24                                     | 21                                    |                                                             |                                        |                  |
| 4                                       | 32                                     | 28                                    |                                                             |                                        |                  |
| 6                                       | 41                                     | 36                                    |                                                             |                                        |                  |
| 10                                      | 57                                     | 50                                    |                                                             |                                        |                  |
| 16                                      | 76                                     | 68                                    |                                                             |                                        |                  |
| 25                                      | 101                                    | 89                                    | 131                                                         | 114                                    | 110              |
| 35                                      | 125                                    | 110                                   | 162                                                         | 143                                    | 137              |
| 50                                      | 151                                    | 134                                   | 196                                                         | 174                                    | 167              |
| 70                                      | 192                                    | 171                                   | 251                                                         | 225                                    | 216              |
| 95                                      | 232                                    | 207                                   | 304                                                         | 275                                    | 264              |
| 120                                     | 269                                    | 239                                   | 352                                                         | 321                                    | 308              |
| 150                                     | 300                                    | 262                                   | 406                                                         | 372                                    | 356              |
| 185                                     | 341                                    | 296                                   | 463                                                         | 427                                    | 409              |
| 240                                     | 400                                    | 346                                   | 546                                                         | 507                                    | 485              |
| 300                                     | 458                                    | 394                                   | 629                                                         | 587                                    | 561              |
| 400                                     | 546                                    | 467                                   | 754                                                         | 689                                    | 656              |
| 500                                     | 626                                    | 533                                   | 868                                                         | 789                                    | 749              |
| 630                                     | 720                                    | 611                                   | 1005                                                        | 905                                    | 855              |
| 800                                     |                                        |                                       | 1086                                                        | 1020                                   | 971              |
| 1000                                    |                                        |                                       | 1216                                                        | 1149                                   | 1079             |

### VOLTAGE DROP

#### VOLTAGE DROP ( PER AMP PER METER )

| Size of Conductor<br>(mm <sup>2</sup> ) | 2 cables<br>dc<br>(Mv/A/m) | 2 cables 1- phase ac               |                                        | 3 or 4 cables 3 - phase ac         |                                                 |                                       |
|-----------------------------------------|----------------------------|------------------------------------|----------------------------------------|------------------------------------|-------------------------------------------------|---------------------------------------|
|                                         |                            | Enclosed in<br>conduit<br>(Mv/A/m) | on cable tray,<br>touching<br>(Mv/A/m) | Enclosed in<br>conduit<br>(Mv/A/m) | on cable tray,<br>flat and touching<br>(Mv/A/m) | on cable tray,<br>trefoil<br>(Mv/A/m) |
| 1.0                                     | 44                         | 44                                 | 44                                     | 38                                 | 38                                              | 38                                    |
| 1.5                                     | 29                         | 29                                 | 29                                     | 25                                 | 25                                              | 25                                    |
| 2.5                                     | 18                         | 18                                 | 18                                     | 15                                 | 15                                              | 15                                    |
| 4                                       | 11                         | 11                                 | 11                                     | 9.5                                | 9.5                                             | 9.5                                   |
| 6                                       | 7.3                        | 7.3                                | 7.3                                    | 6.4                                | 6.4                                             | 6.4                                   |
| 10                                      | 4.4                        | 4.4                                | 4.4                                    | 3.8                                | 3.8                                             | 3.8                                   |
| 16                                      | 2.8                        | 2.8                                | 2.8                                    | 2.4                                | 2.4                                             | 2.4                                   |
| 25                                      | 1.75                       | 1.80                               | 1.75                                   | 1.55                               | 1.55                                            | 1.50                                  |
| 35                                      | 1.25                       | 1.30                               | 1.25                                   | 1.10                               | 1.10                                            | 1.10                                  |
| 50                                      | 0.93                       | 1.00                               | 0.95                                   | 0.85                               | 0.84                                            | 0.82                                  |
| 70                                      | 0.63                       | 0.72                               | 0.66                                   | 0.61                               | 0.60                                            | 0.57                                  |
| 95                                      | 0.46                       | 0.56                               | 0.50                                   | 0.48                               | 0.47                                            | 0.43                                  |
| 120                                     | 0.36                       | 0.47                               | 0.41                                   | 0.41                               | 0.40                                            | 0.36                                  |
| 150                                     | 0.29                       | 0.41                               | 0.34                                   | 0.36                               | 0.34                                            | 0.30                                  |
| 185                                     | 0.23                       | 0.37                               | 0.29                                   | 0.32                               | 0.31                                            | 0.26                                  |
| 240                                     | 0.180                      | 0.33                               | 0.25                                   | 0.29                               | 0.27                                            | 0.22                                  |
| 300                                     | 0.145                      | 0.31                               | 0.22                                   | 0.27                               | 0.25                                            | 0.190                                 |
| 400                                     | 0.105                      | 0.29                               | 0.20                                   | 0.25                               | 0.24                                            | 0.175                                 |
| 500                                     | 0.086                      | 0.28                               | 0.185                                  | 0.25                               | 0.23                                            | 0.160                                 |
| 630                                     | 0.068                      | 0.27                               | 0.175                                  | 0.24                               | 0.22                                            | 0.150                                 |
| 800                                     | 0.053                      |                                    | 0.165                                  |                                    | 0.22                                            | 0.145                                 |
| 1000                                    | 0.042                      |                                    | 0.160                                  |                                    | 0.21                                            | 0.140                                 |

Note : Correction factors for ambient temperature and group installation, please refer Page B-1