

# Fire Resistant Cable Characteristics

## Round 600V (Single Core)

| Conductor                  |                         |              | Thickness of Fire-resistant Layer (Note) | Thickness of Insulation | Thickness of Sheath | Cable O.D (Approx.) | Max. Conductor Resistance (20°C) | A.C. Test Voltage | Min. Insulation Resistance (20°C) | Standard Length |
|----------------------------|-------------------------|--------------|--|-------------------------|---------------------|---------------------|----------------------------------|-------------------|-----------------------------------|-----------------|
| Nominal Cross Section Area | Number and Nominal Dia. | O.D (Approx) |  |                         |                     |                     |                                  |                   |                                   |                 |
| mm <sup>2</sup>            | Num. / mm               | mm           | mm                                       | mm                      | mm                  | mm                  | Ω/Km                             | Kv/1 min          | MΩKm                              | m               |
| -                          | 1/1.0                   | 1.0          | 0.4                                      | 0.8                     | 1.5                 | 6.4                 | 22.8                             | 1.5               | 2500                              | 300             |
| -                          | 1/1.2                   | 1.2          | 0.4                                      | 0.8                     | 1.5                 | 6.6                 | 15.8                             | 1.5               | 2500                              | 300             |
| -                          | 1/1.6                   | 1.6          | 0.4                                      | 0.8                     | 1.5                 | 7.0                 | 8.92                             | 1.5               | 2500                              | 300             |
| -                          | 1/2.0                   | 2.0          | 0.4                                      | 0.8                     | 1.5                 | 7.4                 | 5.65                             | 1.5               | 2500                              | 300             |
| -                          | 1/2.6                   | 2.6          | 0.4                                      | 1.0                     | 1.5                 | 8.4                 | 3.35                             | 1.5               | 2500                              | 300             |
| 1.25                       | 7/0.45                  | 1.35         | 0.4                                      | 0.8                     | 1.5                 | 6.8                 | 16.5                             | 1.5               | 2500                              | 300             |
| 2                          | 7/0.6                   | 1.8          | 0.4                                      | 0.8                     | 1.5                 | 7.2                 | 9.24                             | 1.5               | 2500                              | 300             |
| 3.5                        | 7/0.8                   | 2.4          | 0.4                                      | 0.8                     | 1.5                 | 7.8                 | 5.20                             | 1.5               | 2500                              | 300             |
| 5.5                        | 7/1.0                   | 3.0          | 0.4                                      | 1.0                     | 1.5                 | 8.8                 | 3.33                             | 1.5               | 2500                              | 300             |
| 8                          | 7/1.2                   | 3.6          | 0.4                                      | 1.0                     | 1.5                 | 9.4                 | 2.31                             | 1.5               | 2000                              | 300             |
|                            | Compressed (Round)      | 3.4          |  |                         | 1.5                 | 9.2                 | 2.29                             |                   | 2000                              |                 |
| 14                         | 7/1.6                   | 4.8          | 0.6                                      | 1.0                     | 1.5                 | 11.0                | 1.30                             | 1.5               | 1500                              | 300             |
|                            | Compressed (Round)      | 4.4          |  |                         | 1.5                 | 10.5                | 1.31                             |                   | 1500                              |                 |
| 22                         | 7/2.0                   | 6.0          | 0.6                                      | 1.2                     | 1.5                 | 12.5                | 0.824                            | 2.0               | 1500                              | 300             |
|                            | Compressed (Round)      | 5.5          |  |                         | 1.5                 | 12.0                | 0.832                            |                   | 1500                              |                 |
| 30                         | 7/2.3                   | 6.9          | 0.6                                      | 1.2                     | 1.5                 | 13.5                | 0.623                            | 2.0               | 1500                              | 300             |
|                            | Compressed (Round)      | 6.5          |  |                         | 1.5                 | 13.0                | 0.610                            |                   | 1500                              |                 |
| 38                         | 7/2.6                   | 7.8          | 0.6                                      | 1.2                     | 1.5                 | 14.5                | 0.487                            | 2.0               | 1500                              | 300             |
|                            | Compressed (Round)      | 7.3          |  |                         | 1.5                 | 14.0                | 0.481                            |                   | 1500                              |                 |
| 50                         | 19/1.8                  | 9.0          | 0.6                                      | 1.5                     | 1.5                 | 16.5                | 0.378                            | 2.5               | 1500                              | 300             |
|                            | Compressed (Round)      | 8.5          |  |                         | 1.5                 | 16.0                | 0.366                            |                   | 1500                              |                 |
| 60                         | 19/2.0                  | 10.0         | 0.6                                      | 1.5                     | 1.5                 | 17.0                | 0.303                            | 2.5               | 1500                              | 300             |
|                            | Compressed (Round)      | 9.3          |  |                         | 1.5                 | 16.5                | 0.305                            |                   | 1500                              |                 |
| 80                         | 19/2.3                  | 11.5         | 0.6                                      | 1.5                     | 1.5                 | 19.0                | 0.229                            | 2.5               | 1500                              | 300             |
|                            | Compressed (Round)      | 10.8         |  |                         | 1.5                 | 18.0                | 0.229                            |                   | 1500                              |                 |
| 100                        | 19/2.6                  | 13.0         | 0.6                                      | 2.0                     | 1.5                 | 21.0                | 0.180                            | 2.5               | 1500                              | 300             |
|                            | Compressed (Round)      | 12.0         |  |                         | 1.5                 | 20.0                | 0.183                            |                   | 1500                              |                 |
| 125                        | 19/2.9                  | 14.5         | 0.6                                      | 2.0                     | 1.6                 | 23.0                | 0.144                            | 3.0               | 1000                              | 300             |
|                            | Compressed (Round)      | 13.5         |  |                         | 1.5                 | 22.0                | 0.146                            |                   | 1000                              |                 |
| 150                        | 37/2.3                  | 16.1         | 0.6                                      | 2.0                     | 1.7                 | 25.0                | 0.118                            | 3.0               | 900                               | 300             |
|                            | Compressed (Round)      | 14.7         |  |                         | 1.6                 | 23.0                | 0.122                            |                   | 1000                              |                 |
| 200                        | 37/2.6                  | 18.2         | 0.6                                      | 2.5                     | 1.8                 | 28.0                | 0.0922                           | 3.0               | 1000                              | 200             |
|                            | Compressed (Round)      | 17.0         |  |                         | 1.7                 | 27.0                | 0.0915                           |                   | 1500                              |                 |
| 250                        | 61/2.3                  | 20.7         | 0.6                                      | 2.5                     | 1.9                 | 31.0                | 0.0722                           | 3.0               | 900                               | 200             |
|                            | Compressed (Round)      | 19.0         |  |                         | 1.8                 | 29.0                | 0.0739                           |                   | 1000                              |                 |
| 325                        | 61/2.6                  | 23.4         | 0.6                                      | 2.5                     | 2.0                 | 33.5                | 0.0565                           | 3.0               | 800                               | 200             |
|                            | Compressed (Round)      | 21.7         |  |                         | 1.9                 | 32.0                | 0.0568                           |                   | 900                               |                 |
| 400                        | 61/2.9                  | 26.1         | 0.6                                      | 2.5                     | 2.1                 | 36.5                | 0.0454                           | 3.0               | 700                               | 150             |
|                            | Compressed (Round)      | 24.1         |  |                         | 2.0                 | 34.5                | 0.0462                           |                   | 800                               |                 |
| 500                        | 61/3.2                  | 28.8         | 0.6                                      | 3.0                     | 2.2                 | 40.0                | 0.0373                           | 3.5               | 800                               | 150             |
|                            | Compressed (Round)      | 26.9         |  |                         | 2.2                 | 38.5                | 0.0369                           |                   | 800                               |                 |
| 600                        | 91/2.9                  | 31.9         | 0.6                                      | 3.0                     | 2.4                 | 44.0                | 0.0304                           | 3.5               | 700                               | 150             |
|                            | Compressed (Round)      | 29.5         |  |                         | 2.3                 | 41.5                | 0.0308                           |                   | 800                               |                 |
| 800                        | 127/2.8                 | 36.4         | 0.6                                      | 3.5                     | 2.6                 | 50.0                | 0.0234                           | 3.5               | 800                               | 150             |
|                            | Compressed (Round)      | 34.0         |  |                         | 2.5                 | 48.0                | 0.0231                           |                   | 800                               |                 |
| 1000                       | 127/3.2                 | 41.6         | 0.6                                      | 3.5                     | 2.8                 | 56.0                | 0.0179                           | 3.5               | 700                               | 150             |
|                            | Compressed (Round)      | 38.0         |  |                         | 2.7                 | 52.0                | 0.0187                           |                   | 700                               |                 |

Note: Thickness of Fire-Resistant is for reference only, it can be adjusted to follow fire resistant level by manufacturers.