

# Uninyvin Cable



## Standards

BSG - 177, IS 8130, IS 10241

## Design

|                        |                            |
|------------------------|----------------------------|
| <b>Conductor</b>       | Multi strand tinned copper |
|                        | As per IS 10241 Part 3     |
|                        | As per IS 8130 Class 5     |
| <b>Insulation</b>      | HR PVC 105 °C              |
| <b>Primary Braid</b>   | Glass Fiber                |
|                        | 100% coverage              |
| <b>Secondary Braid</b> | Nylon Fiber                |
|                        | 100% coverage              |
| <b>Lacquer</b>         | Special Nylon varnish      |

## Characteristics

|                           |                  |
|---------------------------|------------------|
| <b>Voltage Rating</b>     | 600 V            |
| <b>Temperature Rating</b> | -30°C to + 105°C |

## Application

The cables have been designed for using in UPS, Server rooms & Aircrafts.

# Uninyvin Cable



| Udey Pyro<br>Part No | Conductor Nominal Cross Section |          | Nominal Conductor<br>Diameter<br>(In mm.) | Overall Diameter<br>(In mm.) |
|----------------------|---------------------------------|----------|-------------------------------------------|------------------------------|
|                      | (AWG)                           | (sq.mm.) |                                           |                              |
| UP36A22              | 22                              | 0.347    | 0.84                                      | 2.0                          |
| UP36A20              | 20                              | 0.566    | 1.04                                      | 2.3                          |
| UP36A18              | 18                              | 0.966    | 1.32                                      | 2.5                          |
| UP36A16              | 16                              | 1.170    | 1.55                                      | 2.8                          |
| UP36A25              | 14                              | 2.050    | 1.95                                      | 3.4                          |
| UP36A12              | 12                              | 3.220    | 2.43                                      | 3.8                          |
| UP36A10              | 10                              | 5.330    | 3.15                                      | 5.0                          |
| UP36A8               | 8                               | 8.760    | 4.24                                      | 6.3                          |
| UP36A6               | 6                               | 13.30    | 5.54                                      | 7.5                          |
| UP36A4               | 4                               | 21.50    | 6.90                                      | 9.3                          |
| UP36A2               | 2                               | 33.30    | 8.76                                      | 11.0                         |
| UP36A1               | 1                               | 40.70    | 9.75                                      | 12.2                         |
| UP36A0               | 0                               | 53.00    | 11.0                                      | 13.7                         |
| UP36A00              | 00                              | 68.30    | 12.4                                      | 15.4                         |
| UP36A000             | 000                             | 84.20    | 13.9                                      | 16.9                         |
| UP36A0000            | 0000                            | 109.0    | 15.6                                      | 18.9                         |

## Conductor & Electrical Details

| Nominal Cross<br>Sectional Area<br>(AWG) | Max. Resistance<br>of conductor at<br>20 °C<br>(Ω/ 900m) | Max. Current Carrying Capacity in Air (Amps) |                 |                 |                  |
|------------------------------------------|----------------------------------------------------------|----------------------------------------------|-----------------|-----------------|------------------|
|                                          |                                                          | Single Cable                                 | 3 Bunched Cable | 7 Bunched Cable | 12 Bunched Cable |
| 22                                       | 49.66                                                    | 11                                           | 7               | 5               | 4                |
| 20                                       | 30.95                                                    | 14                                           | 9               | 7               | 5                |
| 18                                       | 17.82                                                    | 18                                           | 13              | 10              | 6                |
| 16                                       | 14.70                                                    | 21                                           | 15              | 11              | 7                |
| 14                                       | 8.410                                                    | 31                                           | 24              | 17              | 12               |
| 12                                       | 5.350                                                    | 43                                           | 30              | 22              | 15               |
| 10                                       | 3.230                                                    | 61                                           | 47              | 36              | 25               |
| 8                                        | 1.970                                                    | 87                                           | 65              | 49              | 36               |
| 6                                        | 1.300                                                    | 115                                          | 87              | 65              | –                |
| 4                                        | 0.802                                                    | 160                                          | 120             | 92              | –                |
| 2                                        | 0.517                                                    | 200                                          | 155             | 120             | –                |
| 1                                        | 0.423                                                    | 220                                          | 165             | 130             | –                |
| 0                                        | 0.325                                                    | 240                                          | 185             | 168             | –                |
| 00                                       | 0.252                                                    | 270                                          | 210             | 190             | –                |
| 000                                      | 0.204                                                    | 300                                          | 235             | 210             | –                |
| 0000                                     | 0.158                                                    | 350                                          | 270             | 245             | –                |

## De-rating Factor of cable at different ambient temperatures

| Ambient Temperature (°C) | 40   | 45   | 50   | 55   | 60   | 65   | 70   | 75   | 80   | 85   | 90   | 95   | 100 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| Derating Factor          | 1.00 | 0.96 | 0.92 | 0.88 | 0.83 | 0.78 | 0.75 | 0.73 | 0.68 | 0.62 | 0.53 | 0.48 | 0.3 |

## PVC VS Uninyvin Cable

| PVC                                  |                           |                                     | Uninyvin                             |                           |                                     |
|--------------------------------------|---------------------------|-------------------------------------|--------------------------------------|---------------------------|-------------------------------------|
| Nominal Cross Sectional Area (sq.mm) | Overall Diameter (In mm.) | Max. Current Carrying in Air (Amps) | Nominal Cross Sectional Area (sq.mm) | Overall Diameter (In mm.) | Max. Current Carrying in Air (Amps) |
| 2.5                                  | 3.5                       | 20                                  | 0.966                                | 2.5                       | 23                                  |
| 4                                    | 4.3                       | 27                                  | 1.170                                | 2.8                       | 27                                  |
| 6                                    | 5.3                       | 35                                  | 2.050                                | 3.4                       | 40                                  |
| 10                                   | 6.7                       | 46                                  | 3.220                                | 3.8                       | 55                                  |
| 16                                   | 8.2                       | 62                                  | 5.330                                | 5.0                       | 78                                  |
| 25                                   | 10.0                      | 80                                  | 8.760                                | 6.3                       | 111                                 |
| 35                                   | 11.3                      | 102                                 | 13.30                                | 7.5                       | 148                                 |
| 50                                   | 13.5                      | 138                                 | 21.50                                | 9.3                       | 205                                 |
| 70                                   | 15.5                      | 214                                 | 33.30                                | 11.0                      | 256                                 |
| 95                                   | 18.5                      | 260                                 | 40.70                                | 12.2                      | 282                                 |
| 120                                  | 20.9                      | 305                                 | 53.00                                | 13.7                      | 308                                 |
| 150                                  | 22.5                      | 350                                 | 68.30                                | 15.4                      | 346                                 |
| 185                                  | 24.6                      | 415                                 | 84.20                                | 16.9                      | 386                                 |
| 240                                  | 27.6                      | 450                                 | 109.0                                | 18.9                      | 450                                 |

\* The information mentioned in this document is for guidance only and is subjected to change without notice or liability. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.