



# XLPE INSULATED HEAVY DUTY CABLES



# SBEE 1.1 KV POWERPLUS ALUMINIUM XLPE SINGLE CORE UN-ARMoured (A2XY)



## TECHNICAL DATA

|  |   |   |
|--|---|---|
| BIS Certified as per IS 7098 Part-1  | Core Colours: As per IS 7098 (Part-1)                     | Specific Insulation Resistance: As Per IS 7098 (Part 1) |
| Conductor Bunching: Short lay, Class 2 as per IS 8130  | Rated Voltage: 1100 volts grade                           | Test Voltage: 4kV                                       |
| Protective Conductor: As Per IS 7098 Optional  | Minimum Bending Radius: Occasional Flexing 15 x Cable Dia |   |
| -30°C to +90°C XLPE Insulation, ST2 sheathing, higher current carrying capacity for given area |   |   |

### APPLICATIONS

- L.T Power Distribution
- Fixed, Rugged Installation
- Dry or Damp or Under Ground Application
- Power Circuits, Power Stations, Substations.

### PRODUCT MAKEUP

- Strands of Electrolytic Grade, Oxygen free Bare Aluminium wire class 2
- Specially Formulated Crosslinked Polyethylene
- Cores are layed up in sequence and in layers
- Outer sheath colour Black to RAL 9005 or Grey RAL 7001

### PRODUCT FEATURES

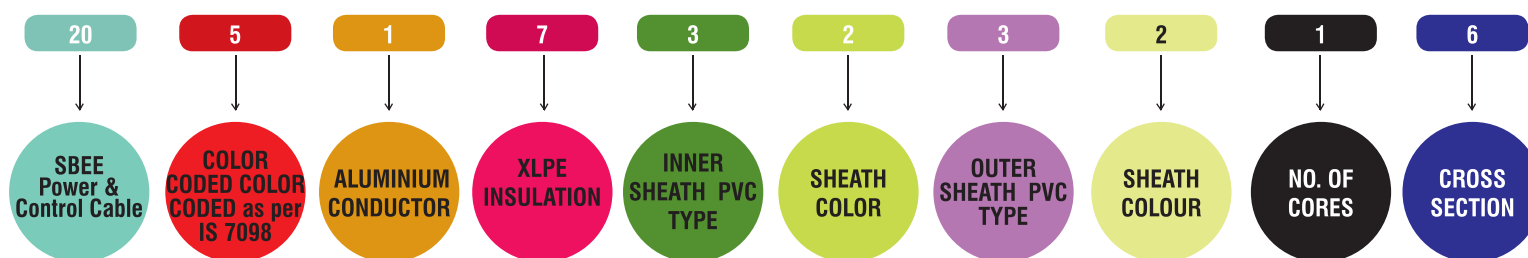
- Flame retardent as per IEC 60332-1-2
- Flamability test as per IS 10810-53
- Resistant to certain Industrial Oils and Mud resistant
- Organic & Inorganic Chemical Resistance of Certain type

\* Energy efficient product optional and available on request. \* Anti-rodent & anti-termite properties optional on request. \* In-built UV protection

| Article No.  | Crossection  | Outer diameter in mm approx | Aluminium index kg/km | Approx Weight of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|--------------|--------------|-----------------------------|-----------------------|------------------------------|----------------------------------|---------|--------|
|              |              |                             |                       |                              | In Ground                        | In Duct | In Air |
| 20517323216  | 1C X 4Sqmm   | 8.00                        | 11                    | 67                           | 42                               | 38      | 34     |
| 20517323217  | 1C X 6Sqmm   | 9.00                        | 18                    | 79                           | 52                               | 47      | 43     |
| 20517323218  | 1C X 10Sqmm  | 9.50                        | 28                    | 96                           | 69                               | 62      | 60     |
| 20517323219  | 1C X 16Sqmm  | 11.50                       | 45                    | 119                          | 90                               | 81      | 82     |
| 205173232110 | 1C X 25Sqmm  | 13.00                       | 71                    | 162                          | 116                              | 104     | 108    |
| 205173232111 | 1C X 35Sqmm  | 14.50                       | 100                   | 198                          | 139                              | 125     | 136    |
| 205173232112 | 1C X 50Sqmm  | 15.50                       | 136                   | 247                          | 162                              | 146     | 163    |
| 205173232113 | 1C X 70Sqmm  | 17.50                       | 194                   | 325                          | 199                              | 179     | 208    |
| 205173232114 | 1C X 95Sqmm  | 19.50                       | 271                   | 417                          | 241                              | 217     | 258    |
| 205173232115 | 1C X 120Sqmm | 21.50                       | 351                   | 499                          | 273                              | 246     | 303    |
| 205173232116 | 1C X 150Sqmm | 23.50                       | 434                   | 620                          | 305                              | 275     | 348    |
| 205173232117 | 1C X 185Sqmm | 25.50                       | 528                   | 755                          | 347                              | 312     | 407    |
| 205173232118 | 1C X 240Sqmm | 28.30                       | 684                   | 942                          | 407                              | 366     | 488    |
| 205173232119 | 1C X 300Sqmm | 30.50                       | 845                   | 1136                         | 458                              | 412     | 569    |
| 205173232120 | 1C X 400Sqmm | 34.50                       | 1128                  | 1451                         | 518                              | 466     | 669    |
| 205173232121 | 1C X 500Sqmm | 38.00                       | 1419                  | 1809                         | 592                              | 533     | 786    |
| 205173232122 | 1C X 630Sqmm | 42.50                       | 1778                  | 2273                         | 666                              | 599     | 922    |

### Example to find out Part Number, XLPE & ST2 PVC 1 CORE OF 4mm², CLASS 2, Aluminium

Single Core  
Un-armoured












- Note:
1. Packing of 500 and 1000mtrs in Wooden Drums
  2. Packing of 100mtr Rings
  3. Packing of odd lengths based on cable size

# SBEE 1.1 KV POWERPLUS ALUMINIUM XLPE MULTICORE UN-ARMoured (A2XY)



## TECHNICAL DATA

|  |  |   |
|--|--|---|
|  BIS Certified as per IS 7098 Part-1                          |  Core Colours: As per IS 7098 (part 1)          |  Temperature Range: Fixed Installation<br>-30° C TO +90° C XLPE Insulation, ST2<br>Sheathing, Higher Current Carrying<br>capacity for given crosssection |
|  Conductor Bunching: Short lay, Class 2 as per IS 8130        |  Test Voltage: 4kV                              |   |
|  Protective Conductor: As Per IS 7098 Optional                |  Specific Insulation Resistance: As Per IS 7098 |  Rated Voltage: 1100 volts grade   |
|  Minimum Bending Radius: Occasional Flexing<br>12 x Cable Dia |  |   |

### APPLICATIONS

- L.T Power Distribution
- Fixed, Rugged Installation
- Dry or Damp or Under Ground Application
- Power Circuits, Power Stations, Substations.

### PRODUCT MAKEUP

- Strands of Electrolytic Grade, Oxygen free Bare Aluminium wire class 2
- Specially Formulated Crosslinked Polyethylene & PVC sheath
- Cores are layed up in sequence and in layers
- Outer sheath colour Black to RAL 9005 or Grey RAL 7001

### PRODUCT FEATURES

- Flame retardent as per IEC 60332-1-2
- Flamability test as per IS 10810-53
- Resistant to certain Industrial Oils and Mud resistant
- Organic & Inorganic Chemical Resistance of Certain type

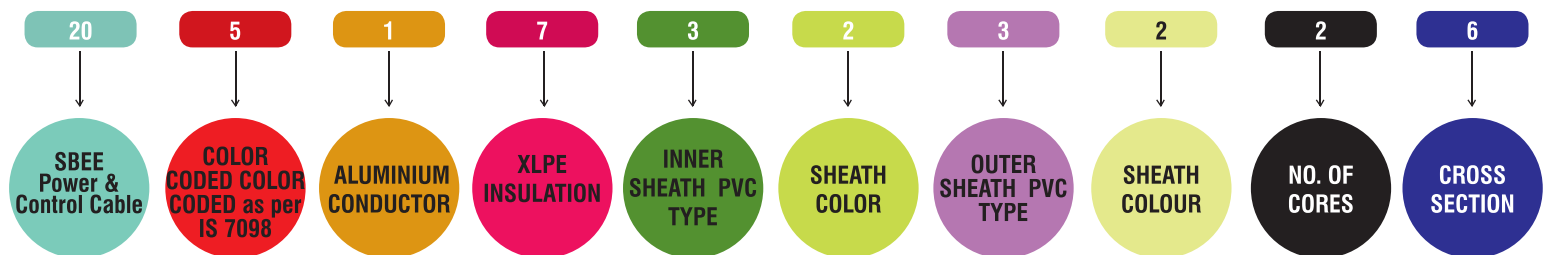
\* Energy efficient product optional and available on request. \* Anti-rodent & anti-termite properties optional on request. \* In-built UV protection

| Article No.  | Crossection    | Outer diameter<br>in mm approx | Aluminium index<br>kg/km | Approx Weight<br>of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|--------------|----------------|--------------------------------|--------------------------|---------------------------------|----------------------------------|---------|--------|
|              |                |                                |                          |                                 | In Ground                        | In Duct | In Air |
| 20517323226  | 2C X 4Sqmm     | 13.00                          | 22                       | 171                             | 43                               | 39      | 39     |
| 20517323227  | 2C X 6Sqmm     | 14.00                          | 32                       | 210                             | 55                               | 50      | 50     |
| 20517323228  | 2C X 10Sqmm    | 15.50                          | 54                       | 260                             | 71                               | 64      | 67     |
| 20517323229  | 2C X 16Sqmm    | 17.00                          | 86                       | 253                             | 91                               | 82      | 88     |
| 205173232210 | 2C X 25Sqmm    | 17.50                          | 135                      | 365                             | 120                              | 108     | 117    |
| 205173232211 | 2C X 35Sqmm    | 20.50                          | 189                      | 449                             | 143                              | 129     | 145    |
| 205173232212 | 2C X 50Sqmm    | 22.50                          | 270                      | 548                             | 167                              | 150     | 176    |
| 205173232213 | 2C X 70Sqmm    | 25.50                          | 378                      | 708                             | 204                              | 184     | 221    |
| 205173232214 | 2C X 95Sqmm    | 28.50                          | 514                      | 991                             | 245                              | 221     | 271    |
| 205173232215 | 2C X 120Sqmm   | 31.00                          | 649                      | 1176                            | 278                              | 250     | 316    |
| 205173232216 | 2C X 150Sqmm   | 34.00                          | 811                      | 1417                            | 315                              | 284     | 362    |
| 205173232217 | 2C X 185Sqmm   | 38.50                          | 1000                     | 1789                            | 356                              | 320     | 420    |
| 205173232218 | 2C X 240Sqmm   | 42.00                          | 1297                     | 2254                            | 407                              | 366     | 497    |
| 205173232219 | 2C X 300Sqmm   | 46.50                          | 1622                     | 2731                            | 463                              | 417     | 578    |
| 205173232220 | 2C X 400Sqmm   | 52.50                          | 2162                     | 3454                            | 523                              | 475     | 678    |
| 205173232221 | 2C X 500Sqmm   | 59.50                          | 2703                     | 4387                            | 592                              | 533     | 786    |
| 205173232222 | 2C X 630Sqmm   | 66.00                          | 3406                     | 5479                            | 676                              | 608     | 913    |
| 20517323236  | 3C X 4Sqmm     | 13.50                          | 33                       | 215                             | 34                               | 31      | 31     |
| 20517323237  | 3C X 6Sqmm     | 15.00                          | 50                       | 253                             | 43                               | 39      | 40     |
| 20517323238  | 3C X 10Sqmm    | 16.50                          | 83                       | 319                             | 57                               | 51      | 53     |
| 20517323239  | 3C X 16Sqmm    | 17.00                          | 133                      | 320                             | 73                               | 66      | 70     |
| 205173232310 | 3C X 25Sqmm    | 20.60                          | 208                      | 463                             | 94                               | 85      | 96     |
| 205173232311 | 3C X 35Sqmm    | 22.30                          | 289                      | 570                             | 113                              | 102     | 117    |
| 205173232312 | 3C X 50Sqmm    | 25.00                          | 415                      | 716                             | 133                              | 120     | 142    |
| 205173232313 | 3C X 70Sqmm    | 29.00                          | 576                      | 986                             | 164                              | 148     | 179    |
| 205173232314 | 3C X 95Sqmm    | 32.00                          | 784                      | 1261                            | 196                              | 176     | 221    |
| 205173232315 | 3C X 120Sqmm   | 35.00                          | 989                      | 1515                            | 223                              | 201     | 257    |
| 205173232316 | 3C X 150Sqmm   | 39.00                          | 1241                     | 1881                            | 249                              | 224     | 292    |
| 205173232317 | 3C X 185Sqmm   | 43.50                          | 1527                     | 2335                            | 282                              | 254     | 337    |
| 205173232318 | 3C X 240Sqmm   | 48.00                          | 1981                     | 2973                            | 326                              | 293     | 399    |
| 205173232319 | 3C X 300Sqmm   | 53.00                          | 2462                     | 3627                            | 367                              | 330     | 455    |
| 205173232320 | 3C X 400Sqmm   | 60.00                          | 3311                     | 4603                            | 418                              | 376     | 530    |
| 205173232321 | 3C X 500Sqmm   | 67.00                          | 4122                     | 5863                            | 470                              | 423     | 612    |
| 205173232322 | 3C X 630Sqmm   | 76.00                          | 5496                     | 7399                            | 529                              | 476     | 707    |
| 205173232010 | 3 1/2 X 25Sqmm | 22.00                          | 246                      | 537                             | 94                               | 85      | 96     |
| 205173232011 | 3 1/2 X 35Sqmm | 24.00                          | 327                      | 647                             | 113                              | 102     | 117    |
| 205173232012 | 3 1/2 X 50Sqmm | 27.00                          | 473                      | 831                             | 133                              | 120     | 142    |

| Article No.  | Crossection     | Outer diameter in mm approx | Aluminium index kg/km | Approx Weight of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|--------------|-----------------|-----------------------------|-----------------------|------------------------------|----------------------------------|---------|--------|
|              |                 |                             |                       |                              | In Ground                        | In Duct | In Air |
| 205173232013 | 3 1/2 X 70Sqmm  | 31.50                       | 662                   | 1142                         | 164                              | 148     | 179    |
| 205173232014 | 3 1/2 X 95Sqmm  | 34.50                       | 818                   | 1452                         | 196                              | 176     | 221    |
| 205173232015 | 3 1/2 X 120Sqmm | 38.00                       | 1162                  | 1785                         | 223                              | 201     | 257    |
| 205173232016 | 3 1/2 X 150Sqmm | 42.50                       | 1406                  | 2167                         | 249                              | 224     | 292    |
| 205173232017 | 3 1/2 X 185Sqmm | 46.50                       | 1757                  | 2683                         | 282                              | 254     | 337    |
| 205173232018 | 3 1/2 X 240Sqmm | 53.00                       | 2271                  | 3430                         | 326                              | 293     | 399    |
| 205173232019 | 3 1/2 X 300Sqmm | 58.50                       | 2838                  | 4220                         | 367                              | 330     | 455    |
| 205173232020 | 3 1/2 X 400Sqmm | 65.50                       | 3744                  | 5348                         | 418                              | 376     | 530    |
| 205173232021 | 3 1/2 X 500Sqmm | 74.00                       | 4703                  | 6772                         | 470                              | 423     | 612    |
| 205173232022 | 3 1/2 X 630Sqmm | 83.00                       | 5920                  | 8585                         | 529                              | 476     | 707    |
| 20517323246  | 4C X 4Sqmm      | 14.50                       | 43                    | 248                          | 34                               | 31      | 31     |
| 20517323247  | 4C X 6Sqmm      | 16.50                       | 65                    | 296                          | 43                               | 39      | 40     |
| 20517323248  | 4C X 10Sqmm     | 18.50                       | 108                   | 376                          | 57                               | 51      | 53     |
| 20517323249  | 4C X 16Sqmm     | 20.30                       | 173                   | 401                          | 73                               | 66      | 70     |
| 205173232410 | 4C X 25Sqmm     | 23.50                       | 270                   | 581                          | 94                               | 85      | 96     |
| 205173232411 | 4C X 35Sqmm     | 25.50                       | 378                   | 712                          | 113                              | 102     | 117    |
| 205173232412 | 4C X 50Sqmm     | 28.50                       | 541                   | 911                          | 133                              | 120     | 142    |
| 205173232413 | 4C X 70Sqmm     | 33.50                       | 757                   | 1260                         | 164                              | 148     | 179    |
| 205173232414 | 4C X 95Sqmm     | 37.00                       | 1027                  | 1612                         | 196                              | 176     | 221    |
| 205173232415 | 4C X 120Sqmm    | 41.00                       | 1297                  | 2017                         | 223                              | 201     | 257    |
| 205173232416 | 4C X 150Sqmm    | 45.50                       | 1622                  | 2472                         | 249                              | 224     | 292    |
| 205173232417 | 4C X 185Sqmm    | 50.50                       | 2000                  | 3071                         | 282                              | 254     | 337    |
| 205173232418 | 4C X 240Sqmm    | 57.00                       | 2595                  | 3902                         | 326                              | 293     | 399    |
| 205173232419 | 4C X 300Sqmm    | 63.00                       | 3244                  | 4813                         | 367                              | 330     | 455    |
| 205173232420 | 4C X 400Sqmm    | 70.50                       | 4325                  | 6906                         | 418                              | 376     | 530    |
| 205173232421 | 4C X 500Sqmm    | 79.50                       | 5406                  | 7604                         | 470                              | 423     | 612    |
| 205173232422 | 4C X 630Sqmm    | 88.50                       | 6812                  | 9710                         | 529                              | 476     | 707    |

**Example to find out Part Number, XLPE & ST2 PVC 2 CORE OF 4mm<sup>2</sup>, CLASS 2, Aluminium**

Unarmoured












Note:

1. Packing of 500 and 1000mtrs in Wooden Drums
2. Packing of 100mtrs in Rings
3. Packing of odd lengths based on cable size

# SBEE POWERPLUS ALUMINIUM XLPE MULTICORE WIRE ARMoured (A2XWY)



## TECHNICAL DATA

|  |  |   |
|--|--|---|
|  BIS Certified as per IS 7098 Part-1                          |  Core Colours: As per IS 7098 (part 1)                    |  Temperature Range: Fixed Installation<br>-30° C TO +90° C XLPE Insulation, ST2<br>Sheathing, Higher Current Carrying<br>capacity for given crosssection |
|  Conductor Bunching: Short lay, Class 2 as per IS 8130        |  Test Voltage: 4kV  |   |
|  Protective Conductor: As Per IS 7098 Part-1 Optional         |  Specific Insulation Resistance:<br>As Per IS 7098 Part-1 |  Rated Voltage: 1100 volts grade   |
|  Minimum Bending Radius: Occasional Flexing<br>12 x Cable Dia |  |   |

## APPLICATIONS

- L.T Power Distribution
- Fixed, Rugged Installation
- Dry or Damp or Under Ground Application
- Power Circuits, Power Stations, Substations.

## PRODUCT MAKEUP

- Strands of Electrolytic Grade, Oxygen free Bare Aluminium wire class 2
- Specially Formulated Crosslinked Polyethylene & PVC sheath
- Cores are layed up in sequence and in layers
- Outer sheath colour Black to RAL 9005 or Grey RAL 7001
- G.I.Wire for additional Mechanical Protection

## PRODUCT FEATURES

- Flame retardent as per IEC 60332-1-2
- Flamability test as per IS 10810-53
- Resistant to certain Industrial Oils and Mud resistant
- Organic & Inorganic Chemical Resistance of Certain type

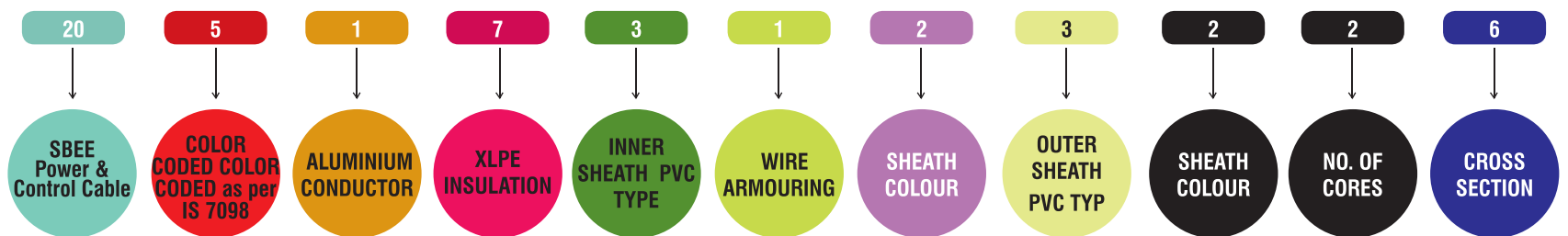
\* Energy efficient product optional and available on request. \* Anti-rodent & anti-termite properties optional on request.

| Article No.   | Crossection    | Outer diameter<br>in mm approx | Aluminium index<br>kg/km | Approx Weight<br>of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|---------------|----------------|--------------------------------|--------------------------|---------------------------------|----------------------------------|---------|--------|
|               |                |                                |                          |                                 | In Ground                        | In Duct | In Air |
| 205173123226  | 2C X 4Sqmm     | 15.00                          | 22                       | 456                             | 43                               | 39      | 39     |
| 205173123227  | 2C X 6Sqmm     | 16.00                          | 32                       | 512                             | 55                               | 50      | 50     |
| 205173123228  | 2C X 10Sqmm    | 18.00                          | 54                       | 605                             | 71                               | 64      | 67     |
| 205173123229  | 2C X 16Sqmm    | 20.00                          | 86                       | 724                             | 91                               | 82      | 88     |
| 2051731232210 | 2C X 25Sqmm    | 21.50                          | 135                      | 803                             | 120                              | 108     | 117    |
| 2051731232211 | 2C X 35Sqmm    | 22.50                          | 189                      | 900                             | 143                              | 129     | 145    |
| 2051731232212 | 2C X 50Sqmm    | 25.00                          | 270                      | 1077                            | 167                              | 150     | 176    |
| 2051731232213 | 2C X 70Sqmm    | 28.00                          | 378                      | 1338                            | 204                              | 184     | 221    |
| 2051731232214 | 2C X 95Sqmm    | 31.50                          | 514                      | 1701                            | 245                              | 221     | 271    |
| 2051731232215 | 2C X 120Sqmm   | 33.50                          | 649                      | 2130                            | 278                              | 250     | 316    |
| 2051731232216 | 2C X 150Sqmm   | 38.00                          | 811                      | 2520                            | 315                              | 284     | 362    |
| 2051731232217 | 2C X 185Sqmm   | 41.50                          | 1000                     | 3024                            | 356                              | 320     | 420    |
| 2051731232218 | 2C X 240Sqmm   | 46.50                          | 1297                     | 3990                            | 407                              | 366     | 497    |
| 2051731232219 | 2C X 300Sqmm   | 51.00                          | 1622                     | 4584                            | 463                              | 417     | 578    |
| 2051731232220 | 2C X 400Sqmm   | 57.00                          | 2162                     | 5624                            | 523                              | 475     | 678    |
| 2051731232221 | 2C X 500Sqmm   | 65.50                          | 2703                     | 7449                            | 592                              | 533     | 786    |
| 2051731232222 | 2C X 630Sqmm   | 71.50                          | 3406                     | 8909                            | 676                              | 608     | 913    |
| 205173123236  | 3C X 4Sqmm     | 16.00                          | 33                       | 439                             | 34                               | 31      | 31     |
| 205173123237  | 3C X 6Sqmm     | 17.00                          | 50                       | 520                             | 43                               | 39      | 40     |
| 205173123238  | 3C X 10Sqmm    | 18.50                          | 83                       | 615                             | 57                               | 51      | 53     |
| 205173123239  | 3C X 16Sqmm    | 20.00                          | 133                      | 742                             | 73                               | 66      | 70     |
| 2051731232310 | 3C X 25Sqmm    | 22.50                          | 208                      | 947                             | 94                               | 85      | 96     |
| 2051731232311 | 3C X 35Sqmm    | 24.50                          | 289                      | 1098                            | 113                              | 102     | 117    |
| 2051731232312 | 3C X 50Sqmm    | 27.50                          | 415                      | 1330                            | 133                              | 120     | 142    |
| 2051731232313 | 3C X 70Sqmm    | 32.00                          | 576                      | 1874                            | 164                              | 148     | 179    |
| 2051731232314 | 3C X 95Sqmm    | 35.00                          | 784                      | 2267                            | 196                              | 176     | 221    |
| 2051731232315 | 3C X 120Sqmm   | 38.50                          | 989                      | 2625                            | 223                              | 201     | 257    |
| 2051731232316 | 3C X 150Sqmm   | 42.50                          | 1241                     | 3141                            | 249                              | 224     | 292    |
| 2051731232317 | 3C X 185Sqmm   | 47.50                          | 1527                     | 4111                            | 282                              | 254     | 337    |
| 2051731232318 | 3C X 240Sqmm   | 52.00                          | 1981                     | 4944                            | 326                              | 293     | 399    |
| 2051731232319 | 3C X 300Sqmm   | 57.50                          | 2462                     | 5793                            | 367                              | 330     | 455    |
| 2051731232320 | 3C X 400Sqmm   | 66.00                          | 3311                     | 7790                            | 418                              | 376     | 530    |
| 2051731232321 | 3C X 500Sqmm   | 73.00                          | 4122                     | 9357                            | 470                              | 423     | 612    |
| 2051731232322 | 3C X 630Sqmm   | 82.00                          | 5496                     | 12440                           | 529                              | 476     | 707    |
| 2051731232010 | 3 1/2 X 25Sqmm | 24.50                          | 246                      | 1067                            | 94                               | 85      | 96     |
| 2051731232011 | 3 1/2 X 35Sqmm | 26.50                          | 327                      | 1225                            | 113                              | 102     | 117    |
| 2051731232012 | 3 1/2 X 50Sqmm | 30.00                          | 473                      | 1508                            | 133                              | 120     | 142    |

| Article No.   | Crossection     | Outer diameter in mm approx | Aluminium index kg/km | Approx Weight of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|---------------|-----------------|-----------------------------|-----------------------|------------------------------|----------------------------------|---------|--------|
|               |                 |                             |                       |                              | In Ground                        | In Duct | In Air |
| 2051731232013 | 3 1/2 X 70Sqmm  | 34.50                       | 662                   | 2160                         | 164                              | 148     | 179    |
| 2051731232014 | 3 1/2 X 95Sqmm  | 37.50                       | 818                   | 2550                         | 196                              | 176     | 221    |
| 2051731232015 | 3 1/2 X 120Sqmm | 41.50                       | 1162                  | 3021                         | 223                              | 201     | 257    |
| 2051731232016 | 3 1/2 X 150Sqmm | 45.50                       | 1406                  | 3553                         | 249                              | 224     | 292    |
| 2051731232017 | 3 1/2 X 185Sqmm | 51.00                       | 1757                  | 4515                         | 282                              | 254     | 337    |
| 2051731232018 | 3 1/2 X 240Sqmm | 57.00                       | 2271                  | 5590                         | 326                              | 293     | 399    |
| 2051731232019 | 3 1/2 X 300Sqmm | 61.50                       | 2838                  | 6600                         | 367                              | 330     | 455    |
| 2051731232020 | 3 1/2 X 400Sqmm | 70.50                       | 3744                  | 8725                         | 418                              | 376     | 530    |
| 2051731232021 | 3 1/2 X 500Sqmm | 79.00                       | 4703                  | 10639                        | 470                              | 423     | 612    |
| 2051731232022 | 3 1/2 X 630Sqmm | 89.00                       | 5920                  | 14052                        | 529                              | 476     | 707    |
| 205173123246  | 4C X 4Sqmm      | 17.00                       | 43                    | 495                          | 34                               | 31      | 31     |
| 205173123247  | 4C X 6Sqmm      | 18.50                       | 65                    | 585                          | 43                               | 39      | 40     |
| 205173123248  | 4C X 10Sqmm     | 20.50                       | 108                   | 707                          | 57                               | 51      | 53     |
| 205173123249  | 4C X 16Sqmm     | 22.00                       | 173                   | 886                          | 73                               | 66      | 70     |
| 2051731232410 | 4C X 25Sqmm     | 25.00                       | 270                   | 1126                         | 94                               | 85      | 96     |
| 2051731232411 | 4C X 35Sqmm     | 27.00                       | 378                   | 1304                         | 113                              | 102     | 117    |
| 2051731232412 | 4C X 50Sqmm     | 30.50                       | 541                   | 1620                         | 133                              | 120     | 142    |
| 2051731232413 | 4C X 70Sqmm     | 35.50                       | 757                   | 2291                         | 164                              | 148     | 179    |
| 2051731232414 | 4C X 95Sqmm     | 39.00                       | 1027                  | 2772                         | 196                              | 176     | 221    |
| 2051731232415 | 4C X 120Sqmm    | 43.00                       | 1297                  | 3328                         | 223                              | 201     | 257    |
| 2051731232416 | 4C X 150Sqmm    | 48.50                       | 1622                  | 4326                         | 249                              | 224     | 292    |
| 2051731232417 | 4C X 185Sqmm    | 53.50                       | 2000                  | 5121                         | 282                              | 254     | 337    |
| 2051731232418 | 4C X 240Sqmm    | 59.50                       | 2595                  | 6185                         | 326                              | 293     | 399    |
| 2051731232419 | 4C X 300Sqmm    | 67.00                       | 3244                  | 8071                         | 367                              | 330     | 455    |
| 2051731232420 | 4C X 400Sqmm    | 75.00                       | 4325                  | 9650                         | 418                              | 376     | 530    |
| 2051731232421 | 4C X 500Sqmm    | 85.00                       | 5406                  | 12926                        | 470                              | 423     | 612    |
| 2051731232422 | 4C X 630Sqmm    | 93.00                       | 6812                  | 15579                        | 529                              | 476     | 707    |

**Example to find out Part Number, XLPE & ST2 PVC 2 CORE OF 4mm², CLASS 2, ALUMINIUM**

Wire Armoured




Note:


1. Packing of 500 and 1000mtrs in Wooden Drums
2. Packing of 100mtrs in Rings
3. Packing of odd lengths based on cable size


# SBEE 1.1 KV POWERPLUS ALUMINIUM XLPE MULTICORE STRIP ARMoured (A2XFY)





## TECHNICAL DATA


 BIS Certified as per IS 7098 Part-1


 Core Colours: As per IS 7098 Part-1


 Temperature Range: Fixed Installation  
-30° C TO +90° C XLPE Insulation, ST2  
Sheathing, Higher Current Carrying  
capacity for given crosssection


 Conductor Bunching: Short lay, Class 2 as per IS 8130

 Test Voltage: 4kV

 Protective Conductor: As Per IS 7098 Part-1 Optional

 Specific Insulation Resistance:  
As Per IS 7098 Part-1

 Rated Voltage: 1100 volts grade

 Minimum Bending Radius: Occasional Flexing  
12 x Cable Dia

## APPLICATIONS

- L.T Power Distribution
- Fixed, Rugged Installation
- Dry or Damp or Under Ground Application
- Power Circuits, Power Stations, Substations.

## PRODUCT MAKEUP

- Aluminium wire class 2
- Specially Formulated Crosslinked Polyethylene
- Cores are layed up in sequence and in layers
- Outer sheath colour Black to RAL 9005 or Grey RAL 7001
- G.I./Strip for additional Mechanical Protection

## PRODUCT FEATURES

- Flame retardent as per IEC 60332-1-2
- Flamability test as per IS 10810-53
- Resistant to certain Industrial Oils and Mud resistant
- Organic & Inorganic Chemical Resistance of Certain type

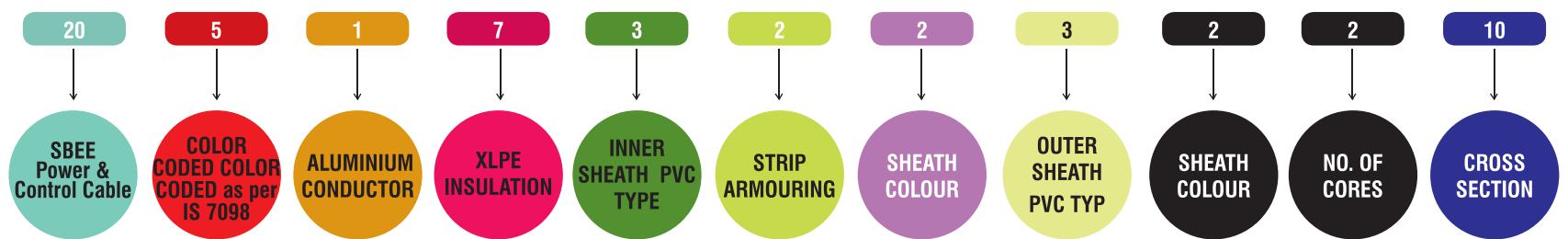
\* Energy efficient product optional and available on request. \* Anti-rodent & anti-termite properties optional on request

| Article No.   | Crossection     | Outer diameter<br>in mm approx | Aluminium index<br>kg/km | Approx Weight<br>of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|---------------|-----------------|--------------------------------|--------------------------|---------------------------------|----------------------------------|---------|--------|
|               |                 |                                |                          |                                 | In Ground                        | In Duct | In Air |
| 2051732232210 | 2C X 25Sqmm     | 19.50                          | 135                      | 608                             | 120                              | 108     | 117    |
| 2051732232211 | 2C X 35Sqmm     | 21.00                          | 189                      | 680                             | 143                              | 129     | 145    |
| 2051732232212 | 2C X 50Sqmm     | 23.00                          | 270                      | 836                             | 167                              | 150     | 176    |
| 2051732232213 | 2C X 70Sqmm     | 26.00                          | 378                      | 1063                            | 204                              | 184     | 221    |
| 2051732232214 | 2C X 95Sqmm     | 29.00                          | 514                      | 1370                            | 245                              | 221     | 271    |
| 2051732232215 | 2C X 120Sqmm    | 31.00                          | 649                      | 1600                            | 278                              | 250     | 316    |
| 2051732232216 | 2C X 150Sqmm    | 35.00                          | 811                      | 1919                            | 315                              | 284     | 362    |
| 2051732232217 | 2C X 185Sqmm    | 38.50                          | 1000                     | 2305                            | 356                              | 320     | 420    |
| 2051732232218 | 2C X 240Sqmm    | 42.50                          | 1297                     | 2813                            | 407                              | 366     | 497    |
| 2051732232219 | 2C X 300Sqmm    | 50.50                          | 1622                     | 3681                            | 463                              | 417     | 578    |
| 2051732232220 | 2C X 400Sqmm    | 52.50                          | 2162                     | 4213                            | 523                              | 475     | 678    |
| 2051732232221 | 2C X 500Sqmm    | 60.00                          | 2703                     | 5176                            | 592                              | 533     | 786    |
| 2051732232222 | 2C X 630Sqmm    | 66.00                          | 3406                     | 6347                            | 676                              | 608     | 913    |
| 205173223239  | 3C X 16Sqmm     | 18.50                          | 133                      | 577                             | 73                               | 66      | 70     |
| 2051732232310 | 3C X 25Sqmm     | 21.00                          | 208                      | 727                             | 94                               | 85      | 96     |
| 2051732232311 | 3C X 35Sqmm     | 23.00                          | 289                      | 870                             | 113                              | 102     | 117    |
| 2051732232312 | 3C X 50Sqmm     | 25.50                          | 415                      | 1052                            | 133                              | 120     | 142    |
| 2051732232313 | 3C X 70Sqmm     | 29.50                          | 576                      | 1380                            | 164                              | 148     | 179    |
| 2051732232314 | 3C X 95Sqmm     | 32.50                          | 784                      | 1713                            | 196                              | 176     | 221    |
| 2051732232315 | 3C X 120Sqmm    | 35.00                          | 989                      | 2000                            | 223                              | 201     | 257    |
| 2051732232316 | 3C X 150Sqmm    | 39.50                          | 1241                     | 2400                            | 249                              | 224     | 292    |
| 2051732232317 | 3C X 185Sqmm    | 43.50                          | 1527                     | 2919                            | 282                              | 254     | 337    |
| 2051732232318 | 3C X 240Sqmm    | 48.50                          | 1981                     | 3620                            | 326                              | 293     | 399    |
| 2051732232319 | 3C X 300Sqmm    | 53.00                          | 2462                     | 4339                            | 367                              | 330     | 455    |
| 2051732232320 | 3C X 400Sqmm    | 60.50                          | 3311                     | 5452                            | 418                              | 376     | 530    |
| 2051732232321 | 3C X 500Sqmm    | 67.50                          | 4122                     | 6754                            | 470                              | 423     | 612    |
| 2051732232322 | 3C X 630Sqmm    | 75.50                          | 5496                     | 8390                            | 529                              | 476     | 707    |
| 2051732232010 | 3 1/2 X 25Sqmm  | 22.50                          | 246                      | 826                             | 94                               | 85      | 96     |
| 2051732232011 | 3 1/2 X 35Sqmm  | 24.50                          | 327                      | 957                             | 113                              | 102     | 117    |
| 2051732232012 | 3 1/2 X 50Sqmm  | 27.50                          | 473                      | 1189                            | 133                              | 120     | 142    |
| 2051732232013 | 3 1/2 X 70Sqmm  | 32.00                          | 662                      | 1568                            | 164                              | 148     | 179    |
| 2051732232014 | 3 1/2 X 95Sqmm  | 35.00                          | 818                      | 1926                            | 196                              | 176     | 221    |
| 2051732232015 | 3 1/2 X 120Sqmm | 38.50                          | 1162                     | 2336                            | 223                              | 201     | 257    |
| 2051732232016 | 3 1/2 X 150Sqmm | 43.00                          | 1406                     | 2255                            | 249                              | 224     | 292    |
| 2051732232017 | 3 1/2 X 185Sqmm | 47.50                          | 1757                     | 3312                            | 282                              | 254     | 337    |
| 2051732232018 | 3 1/2 X 240Sqmm | 53.00                          | 2271                     | 4146                            | 326                              | 293     | 399    |
| 2051732232019 | 3 1/2 X 300Sqmm | 58.00                          | 2838                     | 4977                            | 367                              | 330     | 455    |

| Article No.   | Crossection     | Outer diameter in mm approx | Aluminium index kg/km | Approx Weight of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|---------------|-----------------|-----------------------------|-----------------------|------------------------------|----------------------------------|---------|--------|
|               |                 |                             |                       |                              | In Ground                        | In Duct | In Air |
| 2051732232020 | 3 1/2 X 400Sqmm | 66.00                       | 3744                  | 6205                         | 418                              | 376     | 530    |
| 2051732232021 | 3 1/2 X 500Sqmm | 74.00                       | 4703                  | 7753                         | 470                              | 423     | 612    |
| 2051732232022 | 3 1/2 X 630Sqmm | 83.00                       | 5920                  | 9670                         | 529                              | 476     | 707    |
| 205173223249  | 4C X 16Sqmm     | 20.50                       | 173                   | 762                          | 73                               | 66      | 70     |
| 2051732232410 | 4C X 25Sqmm     | 23.50                       | 270                   | 921                          | 94                               | 85      | 96     |
| 2051732232411 | 4C X 35Sqmm     | 25.50                       | 378                   | 1102                         | 113                              | 102     | 117    |
| 2051732232412 | 4C X 50Sqmm     | 29.00                       | 541                   | 1384                         | 133                              | 120     | 142    |
| 2051732232413 | 4C X 70Sqmm     | 33.00                       | 757                   | 1784                         | 164                              | 148     | 179    |
| 2051732232414 | 4C X 95Sqmm     | 36.00                       | 1027                  | 2202                         | 196                              | 176     | 221    |
| 2051732232415 | 4C X 120Sqmm    | 40.50                       | 1297                  | 2683                         | 223                              | 201     | 257    |
| 2051732232416 | 4C X 150Sqmm    | 45.00                       | 1622                  | 3183                         | 249                              | 224     | 292    |
| 2051732232417 | 4C X 185Sqmm    | 50.00                       | 2000                  | 3879                         | 282                              | 254     | 337    |
| 2051732232418 | 4C X 240Sqmm    | 55.50                       | 2595                  | 4872                         | 326                              | 293     | 399    |
| 2051732232419 | 4C X 300Sqmm    | 62.00                       | 3244                  | 5900                         | 367                              | 330     | 455    |
| 2051732232420 | 4C X 300Sqmm    | 69.50                       | 4325                  | 7316                         | 418                              | 376     | 530    |
| 2051732232421 | 4C X 500Sqmm    | 78.50                       | 5406                  | 8721                         | 470                              | 423     | 612    |
| 2051732232422 | 4C X 630Sqmm    | 86.00                       | 6812                  | 10861                        | 529                              | 476     | 707    |

**Example to find out Part Number, XLPE & ST2 PVC 2 CORE OF 25mm², CLASS 2, Aluminium**

Strip Armoured



Note:

1. Packing of 500 and 1000mtrs in Wooden Drums
2. Packing of 100mtrs in Rings
3. Packing of odd lengths based on cable size



# SBEE 1.1 KV POWERPLUS COPPER XLPE SINGLE CORE UN-ARMoured (2XY)



## TECHNICAL DATA

|  |   |   |
|--|---|---|
| BIS Certified as per IS 7098 Part-1                          | Core Colours: As per IS 7098 Part-1                   | Temperature Range: Fixed Installation<br>-30° C TO +90° C XLPE Insulation, ST2 Sheathing, Higher Current Carrying capacity for given crosssection |
| Conductor Bunching: Short lay, Class 2 as per IS 8130        | Test Voltage: 4kV                                     |   |
| Protective Conductor: As Per IS 7098 Part-1 Optional         | Specific Insulation Resistance: As Per IS 7098 Part-1 | Rated Voltage: 1100 volts grade   |
| Minimum Bending Radius: Occasional Flexing<br>15 x Cable Dia |   |   |

### APPLICATIONS

- L.T Power Distribution
- Fixed, Rugged Installation
- Dry or Damp or Under Ground Application
- Power Circuits, Power Stations, Substations.

### PRODUCT MAKEUP

- Strands of Electrolytic Grade, Oxygen free, High Conductivity Bare Copper wire class 2
- Specially formulated cross linked Polyethylene and PVC sheath
- Cores are layed up in sequence and in layers
- Outer sheath colour Black to RAL 9005 or GREY RAL 7001

### PRODUCT FEATURES

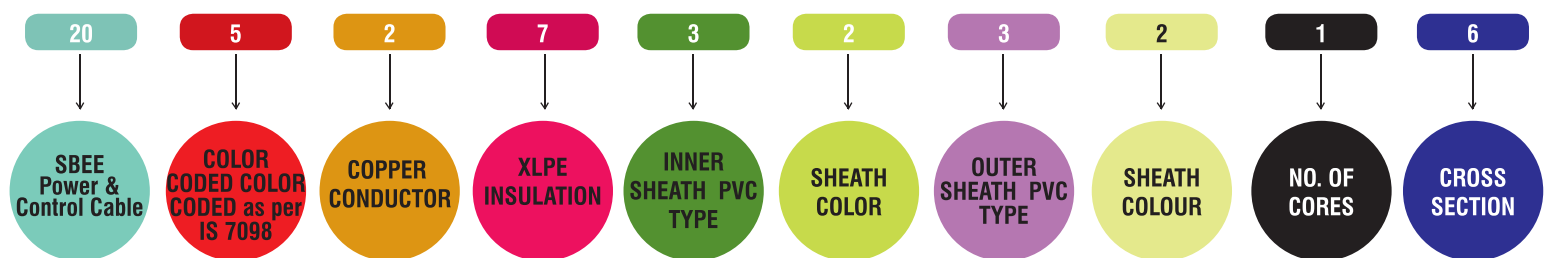
- Flame retardent as per IEC 60332-1-2
- Flamability test as per IS 10810-53
- Resistant to certain Industrial Oils and Mud resistant
- Organic & Inorganic Chemical Resistance of Certain type

\* Energy efficient product optional and available on request. \* Anti-rodent & anti-termite properties optional on request

| Article No.  | Crossection  | Outer diameter in mm approx | Copper index kg/km | Approx Weight of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|--------------|--------------|-----------------------------|--------------------|------------------------------|----------------------------------|---------|--------|
|              |              |                             |                    |                              | In Ground                        | In Duct | In Air |
| 20527323216  | 1C X 4Sqmm   | 8.50                        | 36                 | 91                           | 54                               | 49      | 44     |
| 20527323217  | 1C X 6Sqmm   | 9.00                        | 53                 | 115                          | 68                               | 61      | 55     |
| 20527323218  | 1C X 10Sqmm  | 9.50                        | 89                 | 156                          | 89                               | 80      | 80     |
| 20527323219  | 1C X 16Sqmm  | 10.50                       | 142                | 216                          | 116                              | 104     | 104    |
| 205273232110 | 1C X 25Sqmm  | 12.00                       | 222                | 313                          | 148                              | 133     | 139    |
| 205273232111 | 1C X 35Sqmm  | 13.00                       | 311                | 409                          | 181                              | 163     | 172    |
| 205273232112 | 1C X 50Sqmm  | 14.50                       | 445                | 556                          | 213                              | 192     | 213    |
| 205273232113 | 1C X 70Sqmm  | 16.00                       | 622                | 753                          | 259                              | 233     | 271    |
| 205273232114 | 1C X 95Sqmm  | 18.50                       | 845                | 990                          | 310                              | 279     | 335    |
| 205273232115 | 1C X 120Sqmm | 19.50                       | 1067               | 1214                         | 352                              | 317     | 389    |
| 205273232116 | 1C X 150Sqmm | 22.00                       | 1334               | 1520                         | 393                              | 354     | 447    |
| 205273232117 | 1C X 185Sqmm | 24.00                       | 1645               | 1872                         | 444                              | 400     | 524    |
| 205273232118 | 1C X 240Sqmm | 26.50                       | 2134               | 2391                         | 518                              | 466     | 623    |
| 205273232119 | 1C X 300Sqmm | 28.50                       | 2667               | 2958                         | 583                              | 525     | 722    |
| 205273232120 | 1C X 400Sqmm | 32.50                       | 3556               | 3879                         | 657                              | 591     | 850    |
| 205273232121 | 1C X 500Sqmm | 36.00                       | 4445               | 4835                         | 731                              | 658     | 976    |
| 205273232122 | 1C X 630Sqmm | 40.00                       | 5601               | 6096                         | 823                              | 741     | 1130   |

### Example to find out Part Number, XLPE & ST2 PVC 1 Core of 4mm², CLASS 2, BARE CU

Un Armoured



Note:

1. Packing of 500 and 1000mtrs in Wooden Drums
2. Packing of 100mtrs in Rings
3. Packing of odd lengths based on cable size

# SBEE 1.1 KV SBEE POWERPLUS COPPER XLPE SINGLE CORE WIRE ARMoured (2XWaY)



## TECHNICAL DATA

|   |   |   |
|---|---|---|
| BIS Certified as per IS 7098 Part-1                       | Core Colours: As per IS 7098 (part 1)                 | Temperature Range: Fixed Installation -30° C to +90° C XLPE insulation, ST2 sheathing, higher current carrying capacity for given cross section |
| Conductor Bunching: Short lay, Class 2 as per IS 8130     | Test Voltage: 4kV                                     | Rated Voltage: 1100 volts grade   |
| Protective Conductor: As Per IS 7098 Part-1 Optional      | Specific Insulation Resistance: As Per IS 7098 Part-1 |   |
| Minimum Bending Radius: Occasional Flexing 15 x Cable Dia |   |   |

### APPLICATIONS

- L.T Power Distribution
- Fixed, Rugged Installation
- Dry or Damp or Under Ground Application
- Power Circuits, Power Stations, Substations.

### PRODUCT MAKEUP

- Strands of Electrolytic Grade, Oxygen free, High Conductivity Bare Copper wire class 2
- Specially formulated cross linked Polyethylene and PVC sheath
- Cores are layed up in sequence and in layers
- Outer sheath colour Black to RAL 9005 or GREY RAL 7001
- Aluminium wire armoured

### PRODUCT FEATURES

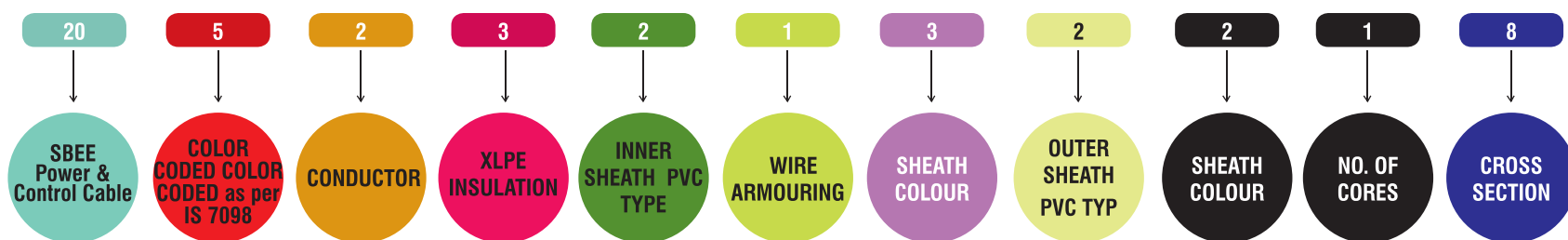
- Flame retardent as per IEC 60332-1-2
- Flamability test as per IS 10810-53
- Resistant to certain Industrial Oils and Mud resistant
- Organic & Inorganic Chemical Resistance of Certain type

\* Energy efficient product optional and available on request. \* Anti-rodent & anti-termite properties optional on request

| Article No.   | Crossection  | Outer diameter in mm approx | Aluminium index kg/km | Approx Weight of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|---------------|--------------|-----------------------------|-----------------------|------------------------------|----------------------------------|---------|--------|
|               |              |                             |                       |                              | In Ground                        | In Duct | In Air |
| 205273213218  | 1C X 10Sqmm  | 12.00                       | 89                    | 228                          | 89                               | 80      | 80     |
| 205273213219  | 1C X 16Sqmm  | 13.00                       | 142                   | 292                          | 116                              | 104     | 104    |
| 2052732132110 | 1C X 25Sqmm  | 14.50                       | 222                   | 406                          | 148                              | 133     | 139    |
| 2052732132111 | 1C X 35Sqmm  | 15.50                       | 311                   | 509                          | 181                              | 163     | 172    |
| 2052732132112 | 1C X 50Sqmm  | 17.00                       | 445                   | 663                          | 213                              | 192     | 213    |
| 2052732132113 | 1C X 70Sqmm  | 19.00                       | 622                   | 876                          | 259                              | 233     | 271    |
| 2052732132114 | 1C X 95Sqmm  | 21.50                       | 845                   | 1167.00*                     | 310                              | 279     | 335    |
| 2052732132115 | 1C X 120Sqmm | 23.00                       | 1067                  | 1409.00*                     | 352                              | 317     | 389    |
| 2052732132116 | 1C X 150Sqmm | 25.00                       | 1334                  | 1711.00*                     | 393                              | 354     | 447    |
| 2052732132117 | 1C X 185Sqmm | 27.00                       | 1645                  | 2078.00*                     | 444                              | 400     | 524    |
| 2052732132118 | 1C X 240Sqmm | 29.50                       | 2134                  | 2624.00*                     | 518                              | 466     | 623    |
| 2052732132119 | 1C X 300Sqmm | 32.00                       | 2667                  | 3231.00*                     | 583                              | 525     | 722    |
| 2052732132120 | 1C X 400Sqmm | 36.50                       | 3556                  | 4253.00*                     | 657                              | 591     | 850    |
| 2052732132121 | 1C X 500Sqmm | 40.00                       | 4445                  | 5252.00*                     | 731                              | 658     | 976    |
| 2052732132122 | 1C X 630Sqmm | 44.00                       | 5601                  | 6589.00*                     | 823                              | 741     | 1130   |

### Example to find out Part Number, XLPE & ST2 PVC 1 CORE of 10mm², CLASS 2, BARE CU

Wire Armoured



Note:


1. Packing of 500 and 1000mtrs in Wooden Drums
2. Packing of 100mtrs in Rings
3. Packing of odd lengths based cable size


\*We can also manufacture Aluminium strip armoured cable.


# SBEE POWERPLUS COPPER XLPE MULTICORE UN-ARMoured (2XY)





## TECHNICAL DATA


 BIS Certified as per IS 7098 Part-1


 Core Colours: As per IS 7098 (part 1)


 Temperature Range: Fixed Installation  
-30° C to +90° C XLPE insulation, ST2  
sheathing, higher current carrying capacity  
for given cross section


 Conductor Bunching: Short lay, Class 2 as per IS 8130

 Test Voltage: 4kV

 Protective Conductor: As Per IS 7098 Part-1

 Specific Insulation Resistance:  
As Per IS 7098 Part-1

 Rated Voltage: 1100 volts grade

 Minimum Bending Radius: Occasional Flexing  
12 x Cable Dia

## APPLICATIONS

- L.T Power Distribution
- Fixed, Rugged Installation
- Dry or Damp or Under Ground Application
- Power Circuits, Power Stations, Substations.

## PRODUCT MAKEUP

- Strands of Electrolytic Grade, Oxygen free, High Conductivity Bare Copper wire class 2
- Specially formulated cross linked Polyethylene and PVC sheath
- Cores are layed up in sequence and in layers
- Outer sheath colour Black to RAL 9005 or GREY RAL 7001

## PRODUCT FEATURES

- Flame retardent as per IEC 60332-1-2
- Flamability test as per IS 10810-53
- Resistant to certain Industrial Oils and Mud resistant
- Organic & Inorganic Chemical Resistance of Certain type

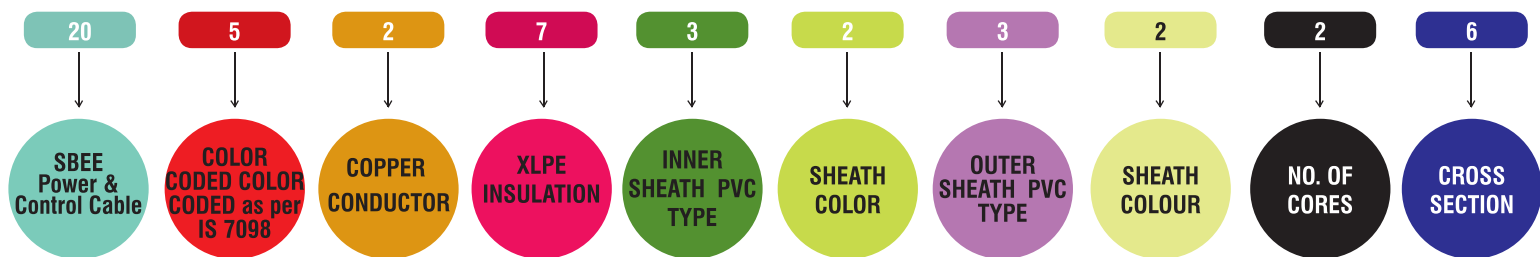
\* Energy efficient product optional and available on request. \* Anti-rodent & anti-termite properties optional on request

| Article No.  | Crossection    | Outer diameter<br>in mm approx | Copper index<br>kg/km | Approx Weight<br>of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|--------------|----------------|--------------------------------|-----------------------|---------------------------------|----------------------------------|---------|--------|
|              |                |                                |                       |                                 | In Ground                        | In Duct | In Air |
| 20527323226  | 2C X 4Sqmm     | 14.00                          | 71                    | 244                             | 56                               | 50      | 51     |
| 20527323227  | 2C X 6Sqmm     | 15.00                          | 106                   | 301                             | 71                               | 64      | 64     |
| 20527323228  | 2C X 10Sqmm    | 16.00                          | 177                   | 407                             | 92                               | 83      | 88     |
| 20527323229  | 2C X 16Sqmm    | 18.00                          | 284                   | 550                             | 116                              | 104     | 113    |
| 205273232210 | 2C X 25Sqmm    | 19.00                          | 444                   | 675                             | 152                              | 137     | 153    |
| 205273232211 | 2C X 35Sqmm    | 20.00                          | 622                   | 865                             | 180                              | 162     | 186    |
| 205273232212 | 2C X 50Sqmm    | 23.00                          | 889                   | 1166                            | 218                              | 196     | 226    |
| 205273232213 | 2C X 70Sqmm    | 25.00                          | 1244                  | 1574                            | 264                              | 238     | 284    |
| 205273232214 | 2C X 95Sqmm    | 29.00                          | 1689                  | 2166                            | 314                              | 283     | 348    |
| 205273232215 | 2C X 120Sqmm   | 31.00                          | 2133                  | 2656                            | 357                              | 321     | 402    |
| 205273232216 | 2C X 150Sqmm   | 34.00                          | 2667                  | 3272                            | 403                              | 363     | 461    |
| 205273232217 | 2C X 185Sqmm   | 39.00                          | 3289                  | 4078                            | 453                              | 408     | 533    |
| 205273232218 | 2C X 240Sqmm   | 43.00                          | 4267                  | 5223                            | 518                              | 466     | 633    |
| 205273232219 | 2C X 300Sqmm   | 46.00                          | 5334                  | 6443                            | 583                              | 525     | 732    |
| 205273232220 | 2C X 400Sqmm   | 54.00                          | 7112                  | 8408                            | 658                              | 592     | 841    |
| 205273232221 | 2C X 500Sqmm   | 60.00                          | 8890                  | 10571                           | 730                              | 657     | 967    |
| 205273232222 | 2C X 630Sqmm   | 67.00                          | 11201                 | 13274                           | 814                              | 733     | 1103   |
| 20527323236  | 3C X 4Sqmm     | 15.00                          | 106                   | 574                             | 44                               | 40      | 40     |
| 20527323237  | 3C X 6Sqmm     | 16.00                          | 160                   | 660                             | 55                               | 50      | 51     |
| 20527323238  | 3C X 10Sqmm    | 17.00                          | 266                   | 847                             | 73                               | 66      | 70     |
| 20527323239  | 3C X 16Sqmm    | 17.00                          | 426                   | 1038                            | 97                               | 87      | 90     |
| 205273232310 | 3C X 25Sqmm    | 20.00                          | 666                   | 1411                            | 122                              | 110     | 123    |
| 205273232311 | 3C X 35Sqmm    | 22.00                          | 933                   | 1748                            | 146                              | 131     | 151    |
| 205273232312 | 3C X 50Sqmm    | 25.00                          | 1333                  | 2258                            | 172                              | 155     | 183    |
| 205273232313 | 3C X 70Sqmm    | 29.00                          | 1866                  | 3170                            | 211                              | 190     | 231    |
| 205273232314 | 3C X 95Sqmm    | 32.00                          | 2533                  | 4030                            | 253                              | 228     | 285    |
| 205273232315 | 3C X 120Sqmm   | 35.00                          | 3200                  | 4852                            | 287                              | 258     | 330    |
| 205273232316 | 3C X 150Sqmm   | 39.00                          | 4000                  | 5925                            | 321                              | 289     | 375    |
| 205273232317 | 3C X 185Sqmm   | 43.00                          | 4933                  | 7544                            | 361                              | 325     | 430    |
| 205273232318 | 3C X 240Sqmm   | 48.00                          | 6400                  | 9398                            | 416                              | 374     | 508    |
| 205273232319 | 3C X 300Sqmm   | 53.00                          | 8001                  | 11361                           | 464                              | 418     | 575    |
| 205273232320 | 3C X 400Sqmm   | 60.00                          | 10668                 | 15214                           | 521                              | 469     | 661    |
| 205273232321 | 3C X 500Sqmm   | 68.00                          | 13335                 | 18634                           | 582                              | 524     | 753    |
| 205273232322 | 3C X 630Sqmm   | 76.00                          | 16802                 | 24133                           | 644                              | 580     | 851    |
| 205273232010 | 3 1/2 X 25Sqmm | 22.00                          | 808                   | 1630                            | 122                              | 110     | 123    |
| 205273232011 | 3 1/2 X 35Sqmm | 24.00                          | 1075                  | 1971                            | 146                              | 131     | 151    |
| 205273232012 | 3 1/2 X 50Sqmm | 27.00                          | 1555                  | 2590                            | 172                              | 155     | 183    |
| 205273232013 | 3 1/2 X 70Sqmm | 32.00                          | 2178                  | 3638                            | 211                              | 190     | 231    |
| 205273232014 | 3 1/2 X 95Sqmm | 34.00                          | 2978                  | 4604                            | 253                              | 228     | 285    |

| Article No.  | Crossection     | Outer diameter in mm approx | Aluminium index kg/km | Approx Weight of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|--------------|-----------------|-----------------------------|-----------------------|------------------------------|----------------------------------|---------|--------|
|              |                 |                             |                       |                              | In Ground                        | In Duct | In Air |
| 205273232015 | 3 1/2 X 120Sqmm | 38.00                       | 3822                  | 5681                         | 287                              | 258     | 330    |
| 205273232016 | 3 1/2 X 150Sqmm | 43.00                       | 4622                  | 6770                         | 321                              | 289     | 375    |
| 205273232017 | 3 1/2 X 185Sqmm | 46.00                       | 5778                  | 8596                         | 361                              | 325     | 430    |
| 205273232018 | 3 1/2 X 240Sqmm | 53.00                       | 7467                  | 10794                        | 416                              | 374     | 508    |
| 205273232019 | 3 1/2 X 300Sqmm | 58.00                       | 9334                  | 13096                        | 464                              | 418     | 575    |
| 205273232020 | 3 1/2 X 400Sqmm | 65.00                       | 12312                 | 17294                        | 521                              | 469     | 661    |
| 205273232021 | 3 1/2 X 500Sqmm | 74.00                       | 15468                 | 21404                        | 582                              | 524     | 753    |
| 205273232022 | 3 1/2 X 630Sqmm | 84.00                       | 19469                 | 27601                        | 644                              | 580     | 851    |
| 20527323246  | 4C X 4Sqmm      | 16.00                       | 142                   | 346                          | 44                               | 40      | 40     |
| 20527323247  | 4C X 6Sqmm      | 17.00                       | 213                   | 444                          | 55                               | 50      | 51     |
| 20527323248  | 4C X 10Sqmm     | 19.00                       | 355                   | 623                          | 73                               | 66      | 70     |
| 20527323249  | 4C X 16Sqmm     | 20.00                       | 568                   | 796                          | 97                               | 87      | 90     |
| 205273232410 | 4C X 25Sqmm     | 23.00                       | 889                   | 1199                         | 122                              | 110     | 123    |
| 205273232411 | 4C X 35Sqmm     | 25.00                       | 1244                  | 1578                         | 146                              | 131     | 151    |
| 205273232412 | 4C X 50Sqmm     | 28.00                       | 1778                  | 2148                         | 172                              | 155     | 183    |
| 205273232413 | 4C X 70Sqmm     | 33.00                       | 2489                  | 2992                         | 211                              | 190     | 231    |
| 205273232414 | 4C X 95Sqmm     | 36.00                       | 3378                  | 3963                         | 253                              | 228     | 285    |
| 205273232415 | 4C X 120Sqmm    | 40.00                       | 4267                  | 4986                         | 287                              | 258     | 330    |
| 205273232416 | 4C X 150Sqmm    | 45.00                       | 5334                  | 6184                         | 321                              | 289     | 375    |
| 205273232417 | 4C X 185Sqmm    | 50.00                       | 6578                  | 7649                         | 361                              | 325     | 430    |
| 205273232418 | 4C X 240Sqmm    | 56.00                       | 8534                  | 9841                         | 416                              | 374     | 508    |
| 205273232419 | 4C X 300Sqmm    | 62.00                       | 10668                 | 12235                        | 464                              | 418     | 575    |
| 205273232420 | 4C X 400Sqmm    | 70.00                       | 14224                 | 15995                        | 521                              | 469     | 661    |
| 205273232421 | 4C X 500Sqmm    | 78.00                       | 17780                 | 20058                        | 582                              | 524     | 753    |
| 205273232422 | 4C X 630Sqmm    | 89.00                       | 22402                 | 25301                        | 644                              | 580     | 851    |

**Example to find out Part Number, XLPE & ST2 PVC 2 Core of 4mm², CLASS 2, BARE CU**

Un Armoured












Note:

1. Packing of 500 and 1000mtrs in Wooden Drums
2. Packing of 100mtrs in Rings
3. Packing of odd lengths based on cable size

# SBEE POWERPLUS COPPER XLPE MULTICORE WIRE ARMoured (2XWY)



## TECHNICAL DATA

|  |  |  |
|--|--|--|
|  BIS Certified as per IS 7098 Part-1                          |  Core Colours: As per IS 7098 (part 1)                    |  Temperature Range: Fixed Installation<br>-30° C to +90° C XLPE insulation, ST2<br>Sheathing, Higher current carrying<br>capacity for given cross section |
|  Conductor Bunching: Short lay, Class 2 as per IS 8130        |  Test Voltage: 4kV  |  |
|  Protective Conductor: As Per IS 7098 Part-1 Optional         |  Specific Insulation Resistance:<br>As Per IS 7098 Part-1 |  Rated Voltage: 1100 volts grade  |
|  Minimum Bending Radius: Occasional Flexing<br>12 x Cable Dia |  |  |

## APPLICATIONS

- L.T Power Distribution
- Fixed, Rugged Installation
- Dry or Damp or Under Ground Application
- Power Circuits, Power Stations, Substations.

## PRODUCT MAKEUP

- Strands of Electrolytic Grade, Oxygen free, High Conductivity Bare Copper wire class 2
- Specially formulated cross linked Polyethylene and PVC sheath
- Cores are layed up in sequence and in layers
- Outer sheath colour Black to RAL 9005 or GREY RAL 7001
- G.I.Wire for additional Mechanical Protection

## PRODUCT FEATURES

- Flame retardent as per IEC 60332-1-2
- Flamability test as per IS 10810-53
- Resistant to certain Industrial Oils and Mud resistant
- Organic & Inorganic Chemical Resistance of Certain type

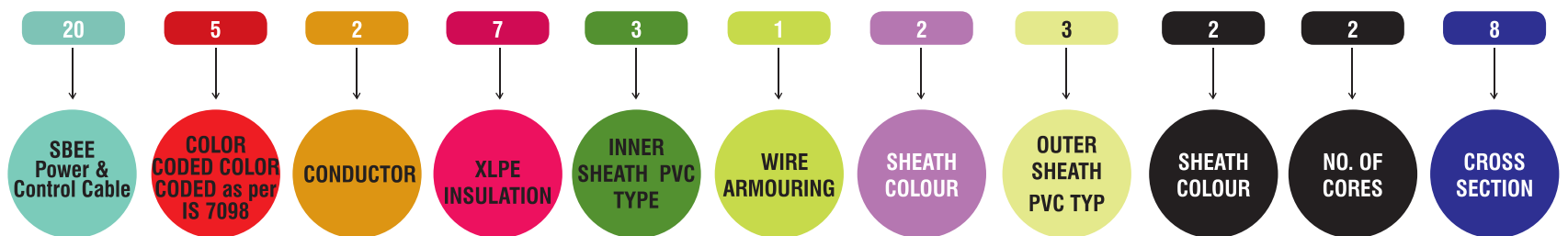
\* Energy efficient product optional and available on request. \* Anti-rodent & anti-termite properties optional on request. \* In-built UV protection

| Article No.   | Crossection    | Outer diameter<br>in mm approx | Aluminium index<br>kg/km | Approx Weight<br>of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|---------------|----------------|--------------------------------|--------------------------|---------------------------------|----------------------------------|---------|--------|
|               |                |                                |                          |                                 | In Ground                        | In Duct | In Air |
| 205273123226  | 2C X 4Sqmm     | 16.50                          | 71                       | 505                             | 56                               | 50      | 51     |
| 205273123227  | 2C X 6Sqmm     | 17.50                          | 106                      | 586                             | 71                               | 64      | 64     |
| 205273123228  | 2C X 10Sqmm    | 18.50                          | 177                      | 728                             | 92                               | 83      | 88     |
| 205273123229  | 2C X 16Sqmm    | 20.00                          | 284                      | 921                             | 116                              | 104     | 113    |
| 2052731232120 | 2C X 25Sqmm    | 22.00                          | 444                      | 1112                            | 152                              | 137     | 153    |
| 2052731232121 | 2C X 35Sqmm    | 23.00                          | 622                      | 1333                            | 180                              | 162     | 186    |
| 2052731232122 | 2C X 50Sqmm    | 25.50                          | 889                      | 1695                            | 218                              | 196     | 226    |
| 2052731232123 | 2C X 70Sqmm    | 28.50                          | 1244                     | 2204                            | 264                              | 238     | 284    |
| 2052731232124 | 2C X 95Sqmm    | 32.00                          | 1689                     | 3076                            | 314                              | 283     | 348    |
| 2052731232125 | 2C X 120Sqmm   | 34.00                          | 2133                     | 3614                            | 357                              | 321     | 402    |
| 2052731232126 | 2C X 150Sqmm   | 38.50                          | 2667                     | 4383                            | 403                              | 363     | 461    |
| 2052731232127 | 2C X 185Sqmm   | 42.00                          | 3289                     | 5313                            | 453                              | 408     | 533    |
| 2052731232128 | 2C X 240Sqmm   | 47.00                          | 4267                     | 6959                            | 518                              | 466     | 633    |
| 2052731232129 | 2C X 300Sqmm   | 51.50                          | 5334                     | 8296                            | 583                              | 525     | 732    |
| 2052731232220 | 2C X 400Sqmm   | 57.50                          | 7112                     | 10573                           | 658                              | 592     | 841    |
| 2052731232221 | 2C X 500Sqmm   | 66.00                          | 8890                     | 13636                           | 730                              | 657     | 967    |
| 2052731232222 | 2C X 630Sqmm   | 72.00                          | 11201                    | 16704                           | 814                              | 733     | 1103   |
| 205273123236  | 3C X 4Sqmm     | 16.00                          | 106                      | 574                             | 44                               | 40      | 40     |
| 205273123237  | 3C X 6Sqmm     | 17.00                          | 160                      | 660                             | 55                               | 50      | 51     |
| 205273123238  | 3C X 10Sqmm    | 19.00                          | 266                      | 847                             | 73                               | 66      | 70     |
| 205273123239  | 3C X 16Sqmm    | 20.00                          | 426                      | 1038                            | 97                               | 87      | 90     |
| 2052731232310 | 3C X 25Sqmm    | 22.00                          | 666                      | 1411                            | 122                              | 110     | 123    |
| 2052731232311 | 3C X 35Sqmm    | 24.00                          | 933                      | 1748                            | 146                              | 131     | 151    |
| 2052731232312 | 3C X 50Sqmm    | 27.00                          | 1333                     | 2258                            | 172                              | 155     | 183    |
| 2052731232313 | 3C X 70Sqmm    | 31.00                          | 1866                     | 3170                            | 211                              | 190     | 231    |
| 2052731232314 | 3C X 95Sqmm    | 35.00                          | 2533                     | 4030                            | 253                              | 228     | 285    |
| 2052731232315 | 3C X 120Sqmm   | 38.00                          | 3200                     | 4852                            | 287                              | 258     | 330    |
| 2052731232316 | 3C X 150Sqmm   | 42.00                          | 4000                     | 5925                            | 321                              | 289     | 375    |
| 2052731232317 | 3C X 185Sqmm   | 47.00                          | 4933                     | 7544                            | 361                              | 325     | 430    |
| 2052731232318 | 3C X 240Sqmm   | 52.00                          | 6400                     | 9398                            | 416                              | 374     | 508    |
| 2052731232319 | 3C X 300Sqmm   | 57.00                          | 8001                     | 11361                           | 464                              | 418     | 575    |
| 2052731232320 | 3C X 400Sqmm   | 65.00                          | 10668                    | 15214                           | 521                              | 469     | 661    |
| 2052731232321 | 3C X 500Sqmm   | 73.00                          | 13335                    | 18634                           | 582                              | 524     | 753    |
| 2052731232322 | 3C X 630Sqmm   | 83.00                          | 16802                    | 24133                           | 644                              | 580     | 851    |
| 2052731232010 | 3 1/2 X 25Sqmm | 24.00                          | 808                      | 1630                            | 122                              | 110     | 123    |
| 2052731232011 | 3 1/2 X 35Sqmm | 26.00                          | 1075                     | 1971                            | 146                              | 131     | 151    |
| 2052731232012 | 3 1/2 X 50Sqmm | 29.00                          | 1555                     | 2590                            | 172                              | 155     | 183    |
| 2052731232013 | 3 1/2 X 70Sqmm | 35.00                          | 2178                     | 3638                            | 211                              | 190     | 231    |
| 2052731232014 | 3 1/2 X 95Sqmm | 37.00                          | 2978                     | 4604                            | 253                              | 228     | 285    |

| Article No.   | Crossection     | Outer diameter in mm approx | Aluminium index kg/km | Approx Weight of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|---------------|-----------------|-----------------------------|-----------------------|------------------------------|----------------------------------|---------|--------|
|               |                 |                             |                       |                              | In Ground                        | In Duct | In Air |
| 2052731232015 | 3 1/2 X 120Sqmm | 41.00                       | 3822                  | 5681                         | 287                              | 258     | 330    |
| 2052731232016 | 3 1/2 X 150Sqmm | 46.00                       | 4622                  | 6770                         | 321                              | 289     | 375    |
| 2052731232017 | 3 1/2 X 185Sqmm | 50.00                       | 5778                  | 8596                         | 361                              | 325     | 430    |
| 2052731232018 | 3 1/2 X 240Sqmm | 57.00                       | 7467                  | 10794                        | 416                              | 374     | 508    |
| 2052731232019 | 3 1/2 X 300Sqmm | 62.00                       | 9334                  | 13096                        | 464                              | 418     | 575    |
| 2052731232020 | 3 1/2 X 400Sqmm | 70.00                       | 12312                 | 17294                        | 521                              | 469     | 661    |
| 2052731232021 | 3 1/2 X 500Sqmm | 79.00                       | 15468                 | 21404                        | 582                              | 524     | 753    |
| 2052731232022 | 3 1/2 X 630Sqmm | 90.00                       | 19469                 | 27601                        | 644                              | 580     | 851    |
| 205273123246  | 4C X 4Sqmm      | 17.00                       | 142                   | 655                          | 44                               | 40      | 40     |
| 205273123247  | 4C X 6Sqmm      | 19.00                       | 213                   | 776                          | 55                               | 50      | 51     |
| 205273123248  | 4C X 10Sqmm     | 21.00                       | 355                   | 1019                         | 73                               | 66      | 70     |
| 205273123249  | 4C X 16Sqmm     | 22.00                       | 568                   | 1281                         | 97                               | 87      | 90     |
| 2052731232410 | 4C X 25Sqmm     | 25.00                       | 889                   | 1744                         | 122                              | 110     | 123    |
| 2052731232411 | 4C X 35Sqmm     | 27.00                       | 1244                  | 2170                         | 146                              | 131     | 151    |
| 2052731232412 | 4C X 50Sqmm     | 31.00                       | 1778                  | 2857                         | 172                              | 155     | 183    |
| 2052731232413 | 4C X 70Sqmm     | 36.00                       | 2489                  | 4023                         | 211                              | 190     | 231    |
| 2052731232414 | 4C X 95Sqmm     | 39.00                       | 3378                  | 5123                         | 253                              | 228     | 285    |
| 2052731232415 | 4C X 120Sqmm    | 43.00                       | 4267                  | 6297                         | 287                              | 258     | 330    |
| 2052731232416 | 4C X 150Sqmm    | 49.00                       | 5334                  | 8038                         | 321                              | 289     | 375    |
| 2052731232417 | 4C X 185Sqmm    | 54.00                       | 6578                  | 9699                         | 361                              | 325     | 430    |
| 2052731232418 | 4C X 240Sqmm    | 60.00                       | 8534                  | 12124                        | 416                              | 374     | 508    |
| 2052731232419 | 4C X 300Sqmm    | 67.00                       | 10668                 | 15495                        | 464                              | 418     | 575    |
| 2052731232420 | 4C X 400Sqmm    | 75.00                       | 14224                 | 19549                        | 521                              | 469     | 661    |
| 2052731232421 | 4C X 500Sqmm    | 85.00                       | 17780                 | 25300                        | 582                              | 524     | 753    |
| 2052731232422 | 4C X 630Sqmm    | 97.00                       | 22402                 | 31170                        | 644                              | 580     | 851    |

**Example to find out Part Number, XLPE & ST2 PVC 2 Core of 10mm², CLASS 2, BARE CU**

Wire Armoured




Note:


1. Packing of 500 and 1000mtrs in Wooden Drums
2. Packing of 100mtrs in Rings
3. Packing of odd lengths based on cable size


# SBEE 1.1 KV POWERPLUS COPPER XLPE MULTICORE STRIP ARMoured (2XFY)





## TECHNICAL DATA


 BIS Certified as per IS 7098 Part-1


 Core Colours: As per IS 7098 (part 1)


 Temperature Range: Fixed Installation  
-30° C to +90° C XLPE insulation, ST2  
Sheathing, Higher current carrying  
capacity for given cross section


 Conductor Bunching: Short lay, Class 2 as per IS 8130

 Test Voltage: 4kV

 Protective Conductor: As Per IS 7098 Part-1 Optional

 Specific Insulation Resistance:  
As Per IS 7098 Part-1

 Rated Voltage: 1100 volts grade

 Minimum Bending Radius: Occasional Flexing  
12 x Cable Dia

## APPLICATIONS

- L.T Power Distribution
- Fixed, Rugged Installation
- Dry or Damp or Under Ground Application
- Power Circuits, Power Stations, Substations.

## PRODUCT MAKEUP

- Strands of Electrolytic Grade, Oxygen free, High Conductivity Bare Copper wire class 2
- Specially formulated cross linked Polyethylene and PVC sheath
- Cores are layed up in sequence and in layers
- Outer sheath colour Black to RAL 9005 or GREY RAL 7001
- GI Strip for additional Mechanical protection

## PRODUCT FEATURES

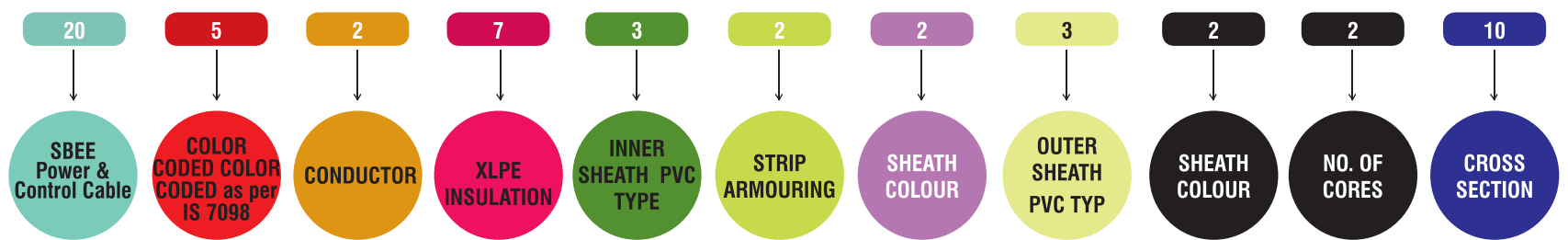
- Flame retardent as per IEC 60332-1-2
- Flamability test as per IS 10810-53
- Resistant to certain Industrial Oils and Mud resistant
- Organic & Inorganic Chemical Resistance of Certain type

\* Energy efficient product optional and available on request. \* Anti-rodent & anti-termite properties optional on request. \* In-built UV protection

| Article No.   | Crossection     | Outer diameter<br>in mm approx | Aluminium index<br>kg/km | Approx Weight<br>of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|---------------|-----------------|--------------------------------|--------------------------|---------------------------------|----------------------------------|---------|--------|
|               |                 |                                |                          |                                 | In Ground                        | In Duct | In Air |
| 2052732232210 | 2C X 25Sqmm     | 19.00                          | 444                      | 917                             | 152                              | 137     | 153    |
| 2052732232211 | 2C X 35Sqmm     | 20.00                          | 622                      | 1105                            | 180                              | 162     | 186    |
| 2052732232212 | 2C X 50Sqmm     | 23.00                          | 889                      | 1454                            | 218                              | 196     | 226    |
| 2052732232213 | 2C X 70Sqmm     | 26.00                          | 1244                     | 1929                            | 264                              | 238     | 284    |
| 2052732232214 | 2C X 95Sqmm     | 29.00                          | 1689                     | 2545                            | 314                              | 283     | 348    |
| 2052732232215 | 2C X 120Sqmm    | 31.00                          | 2133                     | 3084                            | 357                              | 321     | 402    |
| 2052732232216 | 2C X 150Sqmm    | 35.00                          | 2667                     | 3775                            | 403                              | 363     | 461    |
| 2052732232217 | 2C X 185Sqmm    | 39.00                          | 3289                     | 4594                            | 453                              | 408     | 533    |
| 2052732232218 | 2C X 240Sqmm    | 43.00                          | 4267                     | 5782                            | 518                              | 466     | 633    |
| 2052732232219 | 2C X 300Sqmm    | 46.00                          | 5334                     | 7042                            | 583                              | 525     | 732    |
| 2052732232220 | 2C X 400Sqmm    | 54.00                          | 7112                     | 9162                            | 658                              | 592     | 841    |
| 2052732232221 | 2C X 500Sqmm    | 60.00                          | 8890                     | 11363                           | 730                              | 657     | 967    |
| 2052732232222 | 2C X 630Sqmm    | 67.00                          | 11201                    | 14142                           | 814                              | 733     | 1103   |
| 205273223239  | 3C X 16Sqmm     | 18.00                          | 426                      | 834                             | 97                               | 87      | 90     |
| 2052732232310 | 3C X 25Sqmm     | 21.00                          | 666                      | 1191                            | 122                              | 110     | 123    |
| 2052732232311 | 3C X 35Sqmm     | 23.00                          | 933                      | 1507                            | 146                              | 131     | 151    |
| 2052732232312 | 3C X 50Sqmm     | 25.00                          | 1333                     | 1980                            | 172                              | 155     | 183    |
| 2052732232313 | 3C X 70Sqmm     | 29.00                          | 1866                     | 2665                            | 211                              | 190     | 231    |
| 2052732232314 | 3C X 95Sqmm     | 32.00                          | 2533                     | 3476                            | 253                              | 228     | 285    |
| 2052732232315 | 3C X 120Sqmm    | 35.00                          | 3200                     | 4215                            | 287                              | 258     | 330    |
| 2052732232316 | 3C X 150Sqmm    | 39.00                          | 4000                     | 5180                            | 321                              | 289     | 375    |
| 2052732232317 | 3C X 185Sqmm    | 43.00                          | 4933                     | 6352                            | 361                              | 325     | 430    |
| 2052732232318 | 3C X 240Sqmm    | 48.00                          | 6400                     | 8074                            | 416                              | 374     | 508    |
| 2052732232319 | 3C X 300Sqmm    | 53.00                          | 8001                     | 9907                            | 464                              | 418     | 575    |
| 2052732232320 | 3C X 400Sqmm    | 60.00                          | 10668                    | 12876                           | 521                              | 469     | 661    |
| 2052732232321 | 3C X 500Sqmm    | 68.00                          | 13335                    | 16034                           | 582                              | 524     | 753    |
| 2052732232322 | 3C X 630Sqmm    | 76.00                          | 16802                    | 20083                           | 644                              | 580     | 851    |
| 2052732232010 | 3 1/2 X 25Sqmm  | 23.00                          | 808                      | 1389                            | 122                              | 110     | 123    |
| 2052732232011 | 3 1/2 X 35Sqmm  | 25.00                          | 1075                     | 1705                            | 146                              | 131     | 151    |
| 2052732232012 | 3 1/2 X 50Sqmm  | 27.00                          | 1555                     | 2271                            | 172                              | 155     | 183    |
| 2052732232013 | 3 1/2 X 70Sqmm  | 32.00                          | 2178                     | 3083                            | 211                              | 190     | 231    |
| 2052732232014 | 3 1/2 X 95Sqmm  | 35.00                          | 2978                     | 3998                            | 253                              | 228     | 285    |
| 2052732232015 | 3 1/2 X 120Sqmm | 38.00                          | 3822                     | 4996                            | 287                              | 258     | 330    |
| 2052732232016 | 3 1/2 X 150Sqmm | 43.00                          | 4622                     | 5972                            | 321                              | 289     | 375    |
| 2052732232017 | 3 1/2 X 185Sqmm | 47.00                          | 5778                     | 7333                            | 361                              | 325     | 430    |
| 2052732232018 | 3 1/2 X 240Sqmm | 53.00                          | 7467                     | 9343                            | 416                              | 374     | 508    |
| 2052732232019 | 3 1/2 X 300Sqmm | 58.00                          | 9334                     | 11473                           | 464                              | 418     | 575    |
| 2052732232020 | 3 1/2 X 400Sqmm | 65.00                          | 12312                    | 14774                           | 521                              | 469     | 661    |
| 2052732232021 | 3 1/2 X 500Sqmm | 74.00                          | 15468                    | 18518                           | 582                              | 524     | 753    |

| Article No.   | Crossection     | Outer diameter in mm approx | Aluminium index kg/km | Approx Weight of Cable Kg/km | Current Carrying Capacity (AMPS) |         |        |
|---------------|-----------------|-----------------------------|-----------------------|------------------------------|----------------------------------|---------|--------|
|               |                 |                             |                       |                              | In Ground                        | In Duct | In Air |
| 2052732232022 | 3 1/2 X 630Sqmm | 84.00                       | 19469                 | 23219                        | 644                              | 580     | 851    |
| 205273223249  | 4C X 16Sqmm     | 20.00                       | 568                   | 1053                         | 97                               | 87      | 90     |
| 2052732232410 | 4C X 25Sqmm     | 23.00                       | 889                   | 1511                         | 122                              | 110     | 123    |
| 2052732232411 | 4C X 35Sqmm     | 25.00                       | 1244                  | 1913                         | 146                              | 131     | 151    |
| 2052732232412 | 4C X 50Sqmm     | 29.00                       | 1778                  | 2553                         | 172                              | 155     | 183    |
| 2052732232413 | 4C X 70Sqmm     | 33.00                       | 2489                  | 3443                         | 211                              | 190     | 231    |
| 2052732232414 | 4C X 95Sqmm     | 36.00                       | 3378                  | 4433                         | 253                              | 228     | 285    |
| 2052732232415 | 4C X 120Sqmm    | 41.00                       | 4267                  | 5526                         | 287                              | 258     | 330    |
| 2052732232416 | 4C X 150Sqmm    | 45.00                       | 5334                  | 6790                         | 321                              | 289     | 375    |
| 2052732232417 | 4C X 185Sqmm    | 50.00                       | 6578                  | 8317                         | 361                              | 325     | 430    |
| 2052732232418 | 4C X 240Sqmm    | 56.00                       | 8534                  | 10598                        | 416                              | 374     | 508    |
| 2052732232419 | 4C X 300Sqmm    | 62.00                       | 10668                 | 13079                        | 464                              | 418     | 575    |
| 2052732232420 | 4C X 400Sqmm    | 70.00                       | 14224                 | 16910                        | 521                              | 469     | 661    |
| 2052732232421 | 4C X 500Sqmm    | 78.00                       | 17780                 | 21095                        | 582                              | 524     | 753    |
| 2052732232422 | 4C X 630Sqmm    | 88.00                       | 22402                 | 26452                        | 644                              | 580     | 851    |

Example to find out Part Number, XLPE & ST2 PVC 2 Core of 25mm<sup>2</sup>, CLASS 2, BARE CU Strip Armoured



- Note:
1. Packing of 500 and 1000mtrs in Wooden Drums
  2. Packing of 100mtrs in Rings
  3. Packing of odd lengths based on cable size



## TECHNICAL TABLES OF XLPE CABLE

### CONDUCTOR DATA

**Table 1:** IS-7098 Part-1-1988 copper & aluminium conductor for single core & multicore cables conforming to IS-8130 1984

| Nominal Cross Sectional Area | Minimum Number of Wires in the Stranded Conductor (class - 2) |           | Max DC Resistance @ 20°C |                 |
|------------------------------|---|-----------|--------------------------|-----------------|
|                              | Circular Conductor (Non Compacted)                            |           | Plain Copper             | Plain Aluminium |
|                              | Copper  | Aluminium | Conductor                | Conductor       |
| Sq.mm                        | Copper  | Aluminium | Ohm/Km                   | Ohm/Km          |
| 1.5                          | 3   | 3         | 12.1                     | 18.1            |
| 2.5                          | 3   | 3         | 7.41                     | 12.1            |
| 4                            | 7   | 3         | 4.61                     | 7.41            |
| 6                            | 7   | 3         | 3.08                     | 4.61            |
| 10                           | 7   | 7         | 1.83                     | 3.08            |
| 16                           | 7   | 7         | 1.15                     | 1.91            |
| 25                           | 7   | 7         | 0.727                    | 1.20            |
| 35                           | 7   | 7         | 0.524                    | 0.868           |
| 50                           | 19  | 19        | 0.387                    | 0.641           |
| 70                           | 19  | 19        | 0.268                    | 0.443           |
| 95                           | 19  | 19        | 0.193                    | 0.320           |
| 120                          | 37  | 37        | 0.153                    | 0.253           |
| 150                          | 37  | 37        | 0.124                    | 0.206           |
| 185                          | 37  | 37        | 0.0991                   | 0.164           |
| 240                          | 61  | 37        | 0.0754                   | 0.125           |
| 300                          | 61  | 61        | 0.0601                   | 0.100           |
| 400                          | 61  | 61        | 0.0470                   | 0.0778          |
| 500                          | 61  | 61        | 0.0366                   | 0.0605          |
| 830                          | 91  | 91        | 0.0283                   | 0.0469          |
| 800                          | 91  | 91        | 0.0221                   | 0.0367          |
| 1000                         | 91  | 91        | 0.0176                   | 0.0291          |

**Table 2 :** IS-7098 Part-1-1988 ac resistance calculated value of a.c. resistance of conductor (ohm/km) at maximum operating conductor temperature

| Nominal Area of Conductor | XLPE Insulated Cables (90°C) |        |
|---------------------------|------------------------------|--------|
|                           | Aluminium                    | Copper |
| 1.5                       | 23.2                         | 15.5   |
| 2.5                       | 15.5                         | 9.50   |
| 4                         | 9.50                         | 5.90   |
| 6                         | 5.90                         | 3.94   |
| 10                        | 3.94                         | 2.34   |
| 16                        | 2.44                         | 1.470  |
| 25                        | 1.53                         | 0.931  |
| 35                        | 1.11                         | 0.671  |
| 50                        | 0.818                        | 0.496  |
| 70                        | 0.565                        | 0.344  |
| 95                        | 0.409                        | 0.248  |
| 120                       | 0.323                        | 0.197  |
| 150                       | 0.264                        | 0.160  |
| 185                       | 0.210                        | 0.129  |
| 240                       | 0.161                        | 0.099  |
| 300                       | 0.129                        | 0.080  |
| 400                       | 0.102                        | 0.064  |
| 500                       | 0.082                        | 0.052  |
| 630                       | 0.065                        | 0.043  |

**Table 3:** IS-7098 Part-1-1988 a) RATING FACTORS FOR air & ground temperature a) rating factor for variation in ambient air temperature

| AMBIENT TEMP deg C | 25.0 | 30.0 | 35.0 | 40.0 | 45.0 | 50.0 |
|--------------------|------|------|------|------|------|------|
| RATING FACTOR      | 1.16 | 1.11 | 1.06 | 1.00 | 0.94 | 0.88 |

B) RATING FACTOR FOR VARIATION IN GROUND TEMPERATURE

| GROUND TEMP deg C | 15.0 | 20.0 | 25.0 | 30.0 | 35.0 | 40.0 |
|-------------------|------|------|------|------|------|------|
| RATING FACTORS    | 1.12 | 1.08 | 1.04 | 1.00 | 0.96 | 0.91 |

**Table 4:** IS-7098 Part-1-1988 RATING FACTORS: FOR DEPTH OF CABLES LAID DIRECT IN THE GROUND

| Depth of Laying CM | SIZE Upto & Including 1.1 kV |                               |                 |
|--------------------|------------------------------|-------------------------------|-----------------|
|                    | Upto 25 Sq.mm                | Above 25 Sq.mm Upto 300 Sq.mm | Above 300 Sq.mm |
| 75                 | 1.0                          | 1.0                           | 1.0             |
| 90                 | 0.99                         | 0.98                          | 0.97            |
| 105                | 0.98                         | 0.97                          | 0.96            |
| 120                | 0.97                         | 0.96                          | 0.95            |
| 150                | 0.96                         | 0.94                          | 0.92            |
| 180 or more        | 0.95                         | 0.93                          | 0.91            |

**Table 5:** IS-7098 Part-1-1988 RATING FACTORS FOR VARIATION IN THERMAL RESISTIVITY OF SOIL TWIN & MULTICORE CABLES LAID DIRECT IN THE GROUND

| Nominal Area of Conductor | For Value of thermal resistivity of soil in deg C cm/w |      |      |      |      |      |
|---------------------------|--|------|------|------|------|------|
|                           | Sq.mm  | 100  | 120  | 150  | 200  | 250  |
| 1.5                       | 1.10   | 1.05 | 1.00 | 0.92 | 0.86 | 0.81 |
| 2.5                       | 1.10   | 1.05 | 1.00 | 0.92 | 0.86 | 0.81 |
| 4.0                       | 1.10   | 1.05 | 1.00 | 0.92 | 0.86 | 0.81 |
| 6.0                       | 1.10   | 1.05 | 1.00 | 0.92 | 0.86 | 0.81 |
| 10                        | 1.10   | 1.06 | 1.00 | 0.92 | 0.85 | 0.80 |
| 16                        | 1.12   | 1.06 | 1.00 | 0.91 | 0.84 | 0.79 |
| 25                        | 1.14   | 1.08 | 1.00 | 0.91 | 0.84 | 0.78 |
| 35                        | 1.15   | 1.08 | 1.00 | 0.91 | 0.84 | 0.77 |
| 50                        | 1.15   | 1.08 | 1.00 | 0.91 | 0.84 | 0.77 |
| 70                        | 1.15   | 1.00 | 1.00 | 0.90 | 0.83 | 0.76 |
| 95                        | 1.15   | 1.08 | 1.00 | 0.90 | 0.83 | 0.76 |
| 120                       | 1.17   | 1.09 | 1.00 | 0.90 | 0.82 | 0.76 |
| 150                       | 1.17   | 1.09 | 1.00 | 0.90 | 0.82 | 0.76 |
| 185                       | 1.18   | 1.09 | 1.00 | 0.89 | 0.81 | 0.75 |
| 240                       | 1.18   | 1.09 | 1.00 | 0.89 | 0.81 | 0.75 |
| 300                       | 1.18   | 1.09 | 1.00 | 0.89 | 0.81 | 0.75 |
| 400                       | 1.19   | 1.10 | 1.00 | 0.89 | 0.81 | 0.75 |
| 500                       | 1.19   | 1.10 | 1.00 | 0.89 | 0.81 | 0.75 |
| 630                       | 1.19   | 1.10 | 1.00 | 0.89 | 0.81 | 0.75 |

**Table 6:** IS-7098 Part-1-1988 group rating factors FOR A) SINGLE CORE CABLE LAID IN GROUND TREFOIL FORMATION

| No. of Trefoil in Groups | SPACING BETWEEN TREFOILS |        |        |        |
|--------------------------|--------------------------|--------|--------|--------|
|                          | TOUCHING                 | 15 cms | 30 cms | 45 cms |
| 2                        | 0.78                     | 0.81   | 0.85   | 0.88   |
| 3                        | 0.68                     | 0.71   | 0.77   | 0.81   |
| 4                        | 0.61                     | 0.65   | 0.72   | 0.76   |
| 5                        | 0.56                     | 0.61   | 0.68   | 0.73   |

B) CABLES LAID IN TREFOIL DUCT IN HORIZONTAL FORMATION

| No. of Trefoil in Groups | SPACING BETWEEN TREFOILS |        |        |
|--------------------------|--------------------------|--------|--------|
|                          | TOUCHING                 | 45 cms | 60 cms |
| 2                        | 0.87                     | 0.90   | 0.91   |
| 3                        | 0.79                     | 0.83   | 0.86   |
| 4                        | 0.74                     | 0.79   | 0.82   |
| 5                        | 0.71                     | 0.76   | 0.80   |

C) CABLES LAID IN racks/trays in covered trench with removable covers where air circulation is restricted trefoils are separated two cable dia horizontally & the trays are in tiers with 30 cm gap

| No. of Rack / Trays in Tiers | No. of Trefoil in Horizontal Formation |      |      |
|------------------------------|--|------|------|
|                              | 1                                      | 2    | 3    |
| 1                            | 0.95                                   | 0.90 | 0.88 |
| 2                            | 0.90                                   | 0.85 | 0.83 |
| 3                            | 0.88                                   | 0.83 | 0.81 |
| 6                            | 0.86                                   | 0.81 | 0.79 |

CABLES LAID AS IN 'C' BUST IN OPEN AIR

|   |      |      |      |
|---|------|------|------|
| 1 | 1.00 | 0.98 | 0.96 |
| 2 | 0.90 | 0.95 | 0.93 |
| 3 | 0.88 | 0.94 | 0.92 |
| 6 | 0.86 | 0.93 | 0.90 |

**Table 7:** IS-7098 Part-1-1988 RATING FACTORS FOR VARIATION IN THERMAL RESISTIVITY OF SOIL (TWO & THREE SINGLE CORE CABLES LAID DIRECT IN THE GROUND)

| Nominal Area of Conductor | TWO CABLES TOUCHING, FOR VALUES OF THERMAL RESISTIVITY OF SOIL IN deg C cm/w |      |      |      |      |      | THREE CABLES TREFOIL TOUCHING, FOR VALUES THERMAL RESITIVITY OF SOIL IN degC cm/w |      |      |      |      |      |
|---------------------------|--|------|------|------|------|------|---|------|------|------|------|------|
|                           | Sq.mm  | 100  | 120  | 150  | 200  | 250  | 300   | 100  | 120  | 150  | 200  | 250  |
| 1.5                       | 1.15   | 1.08 | 1.00 | 0.91 | 0.84 | 0.78 | 1.18  | 1.09 | 1.00 | 0.90 | 0.82 | 0.76 |
| 2.5                       | 1.15   | 1.08 | 1.00 | 0.91 | 0.84 | 0.78 | 1.18  | 1.09 | 1.00 | 0.90 | 0.82 | 0.76 |
| 4.0                       | 1.15   | 1.08 | 1.00 | 0.91 | 0.84 | 0.78 | 1.18  | 1.09 | 1.00 | 0.90 | 0.82 | 0.76 |
| 6.0                       | 1.15   | 1.08 | 1.00 | 0.91 | 0.84 | 0.78 | 1.18  | 1.09 | 1.00 | 0.90 | 0.82 | 0.76 |
| 10                        | 1.15   | 1.08 | 1.00 | 0.90 | 0.83 | 0.77 | 1.18  | 1.09 | 1.00 | 0.89 | 0.81 | 0.75 |
| 16                        | 1.17   | 1.09 | 1.00 | 0.90 | 0.83 | 0.77 | 1.19  | 1.09 | 1.00 | 0.89 | 0.81 | 0.74 |
| 25                        | 1.18   | 1.09 | 1.00 | 0.90 | 0.82 | 0.76 | 1.19  | 1.09 | 1.00 | 0.88 | 0.80 | 0.74 |
| 35                        | 1.18   | 1.09 | 1.00 | 0.90 | 0.82 | 0.75 | 1.20  | 1.09 | 1.00 | 0.88 | 0.80 | 0.74 |
| 50                        | 1.18   | 1.0  | 0.91 | 0.90 | 0.82 | 0.75 | 1.20  | 1.09 | 1.00 | 0.88 | 0.80 | 0.74 |
| 70                        | 1.19   | 1.09 | 1.00 | 0.89 | 0.81 | 0.74 | 1.21  | 1.10 | 1.00 | 0.88 | 0.80 | 0.74 |
| 95                        | 1.19   | 1.09 | 1.00 | 0.89 | 0.81 | 0.74 | 1.22  | 1.10 | 1.00 | 0.88 | 0.80 | 0.74 |
| 120                       | 1.21   | 1.10 | 1.00 | 0.89 | 0.80 | 0.74 | 1.22  | 1.10 | 1.00 | 0.88 | 0.79 | 0.74 |
| 150                       | 1.21   | 1.10 | 1.00 | 0.89 | 0.80 | 0.74 | 1.22  | 1.10 | 1.00 | 0.88 | 0.79 | 0.73 |
| 185                       | 1.21   | 1.10 | 1.00 | 0.89 | 0.80 | 0.74 | 1.22  | 1.10 | 1.00 | 0.88 | 0.79 | 0.73 |
| 240                       | 1.21   | 1.10 | 1.00 | 0.89 | 0.80 | 0.74 | 1.22  | 1.10 | 1.00 | 0.88 | 0.79 | 0.73 |
| 300                       | 1.21   | 1.10 | 1.00 | 0.89 | 0.80 | 0.74 | 1.22  | 1.10 | 1.00 | 0.88 | 0.79 | 0.72 |
| 400                       | 1.21   | 1.10 | 1.00 | 0.88 | 0.80 | 0.74 | 1.24  | 1.11 | 1.00 | 0.88 | 0.79 | 0.72 |
| 500                       | 1.21   | 1.10 | 1.00 | 0.88 | 0.80 | 0.74 | 1.24  | 1.11 | 1.00 | 0.88 | 0.79 | 0.72 |
| 630                       | 1.22   | 1.10 | 1.00 | 0.88 | 0.80 | 0.74 | 1.24  | 1.11 | 1.00 | 0.88 | 0.79 | 0.72 |

**Table 8:** IS-7098 Part-1-1988 RATING FACTORS FOR VARIATION IN THERMAL RESISTIVITY OF SOIL (TWO & THREE SINGLE CORE CABLES LAID DIRECT IN THE GROUND)

A) GROUP RATING FACTORS - FOR MULTICORE CABLES laid in concrete trench with removalbe cover cable spaced by one cable dia in tiers by 300 mm

| No. of Cable Traces in Tier | No. of Cable |      |      |      |      |
|-----------------------------|--------------|------|------|------|------|
|                             | 1            | 2    | 3    | 6    | 9    |
| 1                           | 0.95         | 0.90 | 0.88 | 0.85 | 0.84 |
| 2                           | 0.90         | 0.85 | 0.83 | 0.81 | 0.80 |
| 3                           | 0.88         | 0.83 | 0.81 | 0.79 | 0.78 |
| 6                           | 0.86         | 0.81 | 0.79 | 0.77 | 0.76 |

B) CABLES laid on cable tray exposed in air. cable spaced by one cable dia in the tray in tier of 300 mm

| No. of Cable Traces in Tier | No. of Cable |      |      |      |      |
|-----------------------------|--------------|------|------|------|------|
|                             | 1            | 3    | 3    | 6    | 9    |
| 1                           | 1.0          | 0.98 | 0.96 | 0.93 | 0.92 |
| 2                           | 1.0          | 0.95 | 0.93 | 0.90 | 0.89 |
| 3                           | 1.0          | 0.94 | 0.92 | 0.89 | 0.88 |
| 6                           | 1.0          | 0.93 | 0.90 | 0.87 | 0.86 |

C) CABLES laid on cable tray exposed in air. cable touching trays in tier of 300 mm

| No. of Cable Traces in Tier | No. of Cable |      |      |      |      |
|-----------------------------|--------------|------|------|------|------|
|                             | 1            | 6    | 6    | 6    | 9    |
| 1                           | 1.0          | 0.84 | 0.84 | 0.75 | 0.73 |
| 2                           | 1.0          | 0.80 | 0.76 | 0.71 | 0.69 |
| 3                           | 1.0          | 0.78 | 0.74 | 0.70 | 0.68 |
| 6                           | 1.0          | 0.76 | 0.72 | 0.68 | 0.66 |

**Table 9:** IS-7098 Part-1-1988 A) CABLES LAID DIRECT IN GROUND IN HORIZONTAL FORMATION

| No. of cables in Groups | SPACING BETWEEN TREFOILS |        |        |        |
|-------------------------|--------------------------|--------|--------|--------|
|                         | TOUCHING                 | 15 cms | 30 cms | 45 cms |
| 2                       | 0.79                     | 0.82   | 0.87   | 0.90   |
| 3                       | 0.69                     | 0.75   | 0.79   | 0.83   |
| 4                       | 0.62                     | 0.69   | 0.74   | 0.79   |
| 5                       | 0.58                     | 0.65   | 0.72   | 0.76   |
| 6                       | 0.54                     | 0.61   | 0.69   | 0.75   |

B) CABLES LAID IN SINGLE WAY DUCT/PIPES IN HORIZONTAL FORMATION

| No. of cables in Groups | SPACING BETWEEN TREFOILS |        |        |        |
|-------------------------|--------------------------|--------|--------|--------|
|                         | TOUCHING                 | 15 cms | 30 cms | 45 cms |
| 2                       | 0.88                     | 0.90   | 0.92   | 0.94   |
| 3                       | 0.82                     | 0.84   | 0.87   | 0.89   |
| 4                       | 0.77                     | 0.80   | 0.84   | 0.87   |
| 5                       | 0.74                     | 0.78   | 0.82   | 0.85   |
| 6                       | 0.71                     | 0.76   | 0.81   | 0.84   |

**SHORT CIRCUIT RATINGS**

**Table 10:** IS-7098 Part-1-1988 short circuit rating of conductor for 1 sec duration (kilo amps)

| Nominal Area of Conductor | XLPE Cables |           |
|---------------------------|-------------|-----------|
|                           | Copper      | Aluminium |
| Sq mm                     |             |           |
| 1.5                       | 0.21        | 0.14      |
| 2.5                       | 0.36        | 0.24      |
| 4.0                       | 0.57        | 0.38      |
| 6.0                       | 0.86        | 0.57      |
| 10                        | 1.40        | 0.94      |
| 16                        | 2.30        | 1.50      |
| 25                        | 3.60        | 2.40      |
| 35                        | 5.00        | 3.30      |
| 50                        | 7.10        | 4.70      |
| 70                        | 10.00       | 6.60      |
| 95                        | 13.60       | 9.00      |
| 120                       | 17.10       | 11.30     |
| 150                       | 21.40       | 14.20     |
| 185                       | 26.40       | 17.50     |
| 240                       | 34.30       | 22.60     |
| 300                       | 42.90       | 28.30     |
| 400                       | 57.10       | 37.70     |
| 500                       | 71.40       | 47.20     |
| 630                       | 90.00       | 59.40     |
| 800                       | 114.30      | 75.50     |
| 1000                      | 142.90      | 94.30     |

- 1) Max. Conductor Temperature Prior to short circuit for XLPE: 90°C
- 2) Max. Conductor Temperature at the termination of short circuit: 250°C

Formula for calculating the short circuit rating for other duration

$$I_k = \frac{I_1}{\sqrt{k}} \text{ where } I_1 = \text{Short circuit rating for one second}$$

Where  $I_k$  = Short circuit rating for 'k' second

Where k = Duration in seconds

The above formula is valid for 'k' from 0.2 to 5 seconds

**BASIC ASSUMPTIONS FOR CURRENT RATINGS:**

- 1) Continuous current ratings given are based on the following Assumptions:
  - a) Max. Conductor Temperature for continuous operation: 90°C
  - b) Thermal Resistivity of Soil: 150°C cm/watt
  - c) Thermal Resistivity of XLPE: 350°C cm/watt
  - d) Depth of Laying (to the highest point of the cable laid direct in the ground or to the top surface of the duct: 75 Cm
- 2) Method of Installation:
  - a) Single Core Cables : a) Two Cables in horizontal touching.
  - b) Multi core cables : b) Three cables in trefoil touching formation
- 3) In case of control cables all cores are assumed to be carrying full load current. - Installed singly.

**Table 10:** IS-7098 Part-1-1988 approximate reactance at 50 hz (ohm/km) & capacitance (micro farads/km) 1.1 kV xlpe insulated cables

| Nominal Area of Conductor<br>Sq.mm. | REACTANCE @ 50Hz (Ohm/km) |           |                  | CAPACITANCE (Micro farads / km) |          |          |                                 |
|-------------------------------------|---------------------------|-----------|------------------|---------------------------------|----------|----------|---------------------------------|
|                                     | SINGLE CORE               |           | TWIN & MULTICORE | Single Core                     |          | Two Core | Three, Three & Half & Four Core |
|                                     | Unarmoured                | Armoured* |                  | Unarmoured                      | Armoured |          |                                 |
| 1.5                                 | 0.155                     |           | 0.107            | 0.19                            |          | 0.051    | 0.15                            |
| 2.5                                 | 0.142                     |           | 0.0985           | 0.24                            |          | 0.058    | 0.18                            |
| 4                                   | 0.132                     | -         | 0.0927           | 0.29                            | -        | 0.065    | 0.22                            |
| 8                                   | 0.123                     | -         | 0.0884           | 0.34                            | -        | 0.071    | 0.25                            |
| 10                                  | 0.114                     | 0.134     | 0.0837           | 0.43                            | 0.32     | 0.081    | 0.31                            |
| 16                                  | 0.108                     | 0.125     | 0.0808           | 0.51                            | 0.38     | 0.088    | 0.36                            |
| 25                                  | 0.103                     | 0.120     | 0.0805           | 0.49                            | 0.38     | 0.089    | 0.41                            |
| 35                                  | 0.0988                    | 0.114     | 0.0783           | 0.57                            | 0.44     | 0.096    | 0.47                            |
| 50                                  | 0.0937                    | 0.108     | 0.0750           | 0.58                            | 0.46     | 0.098    | 0.50                            |
| 70                                  | 0.0900                    | 0.102     | 0.0740           | 0.63                            | 0.51     | 0.10     | 0.53                            |
| 95                                  | 0.0865                    | 0.100     | 0.0724           | 0.73                            | 0.59     | 0.11     | 0.61                            |
| 120                                 | 0.0841                    | 0.0988    | 0.0712           | 0.74                            | 0.61     | 0.11     | 0.63                            |
| 150                                 | 0.0839                    | 0.0941    | 0.0716           | 0.73                            | 0.61     | 0.11     | 0.60                            |
| 185                                 | 0.0836                    | 0.0932    | 0.0718           | 0.69                            | 0.59     | 0.11     | 0.60                            |
| 240                                 | 0.0813                    | 0.0900    | 0.0710           | 0.74                            | 0.64     | 0.11     | 0.63                            |
| 300                                 | 0.0795                    | 0.0881    | 0.0705           | 0.80                            | 0.69     | 0.12     | 0.67                            |
| 400                                 | 0.0787                    | 0.0873    | 0.0704           | 0.83                            | 0.70     | 0.12     | 0.67                            |
| 500                                 | 0.0779                    | 0.0859    | 0.0702           | 0.83                            | 0.71     | 0.12     | 0.69                            |
| 630                                 | 0.0765                    | 0.0643    | 0.0698           | 0.87                            | 0.75     | 0.11     | 0.73                            |
| BOO                                 | 0.0755                    | 0.0826    | -                | 0.92                            | 0.78     | -        | -                               |
| 1000                                | 0.0752                    | 0.0829    | -                | 0.94                            | 0.81     | -        | -                               |

**Table 11:** IS-7098 Part-1-1988 copper & aluminium conductor for single core & multicore cables confirming to IS-8130 1984

| NOMINAL CROSS SECTIONAL AREA<br>Sqmm | MINIMUM NUMBER OF WIRES IN THE STRANDED CONDUCTOR (CLASS-2) |           |                                     |           | MAXIMUM DC RESISTANCE AT 20 deg C |                     |
|--------------------------------------|---|-----------|-------------------------------------|-----------|-----------------------------------|---------------------|
|                                      | CIRCULAR CONDUCTOR (NON COMPACTED )                         |           | CIRCULAR CONDUCTOR SHAPED CONDUCTOR |           | PLAIN COPPER CONDUCTOR            | ALUMINIUM CONDUCTOR |
|                                      | COPPER  | ALUMINIUM | COPPER                              | ALUMINIUM | Ohm / Km                          | Ohm / Km            |
| 1.5                                  | 3   | 3         | -                                   | -         | 12.1                              | 18.1                |
| 2.5                                  | 3   | 3         | -                                   | -         | 7.41                              | 12.1                |
| 4                                    | 7   | 3         | -                                   | -         | 4.61                              | 7.41                |
| 6                                    | 7   | 3         | -                                   | -         | 3.08                              | 4.61                |
| 10                                   | 7   | 7         | 6                                   | -         | 1.83                              | 3.08                |
| 16                                   | 7   | 7         | 6                                   | 6         | 1.15                              | 1.91                |
| 25                                   | 7   | 7         | 6                                   | 6         | 0.727                             | 1.20                |
| 35                                   | 7   | 7         | 6                                   | 6         | 0.524                             | 0.868               |
| 50                                   | 19  | 19        | 6                                   | 6         | 0.387                             | 0.641               |
| 70                                   | 19  | 19        | 12                                  | 12        | 0.268                             | 0.443               |
| 95                                   | 19  | 19        | 15                                  | 15        | 0.193                             | 0.32                |
| 120                                  | 37  | 37        | 18                                  | 15        | 0.153                             | 0.253               |
| 150                                  | 37  | 37        | 18                                  | 15        | 0.124                             | 0.206               |
| 185                                  | 37  | 37        | 30                                  | 30        | 0.0991                            | 0.164               |
| 240                                  | 61  | 37        | 34                                  | 30        | 0.0754                            | 0.125               |
| 300                                  | 61  | 61        | 34                                  | 30        | 0.0601                            | 0.100               |
| 400                                  | 61  | 61        | 53                                  | 53        | 0.047                             | 0.0778              |
| 500                                  | 61  | 61        | 53                                  | 53        | 0.0366                            | 0.0605              |
| 630                                  | 91  | 91        | 53                                  | 53        | 0.0283                            | 0.0469              |
| 800                                  | 91  | 91        | 53                                  | 53        | 0.0221                            | 0.0367              |
| 1000                                 | 91  | 91        | 53                                  | 53        | 0.0176                            | 0.0291              |

1) Recommended minimum bending radius of 1.1kV Grade Cable for Fixed Installation.

Single Core - 15 D

Multi Core – 12 D

Where 'D' is overall Diameter of cable.

2) Maximum Permissible Tensile strength for cable

a) For Cables pulled with Stocking

ARMOURED CABLES  $P = 9 D^2$

UNARMOURED CABLES  $P = 5 D^2$

Where P = pulling force in Newtons

D = outer Diameter of cable.

b) For Cables pulled by pulling eye: - If the cables are pulled by gripping the conductor directly with pulling eye, the Maximum permissible Tensile stress depends on the Material of the Conductor and their cross section as given below: -

For Aluminium Conductors = 30 N /mm<sup>2</sup>

For Copper Conductors = 50 N /mm<sup>2</sup>

- a) The cable drums or coils must not be dropped or thrown from railway wagons or trucks during unloading operation. A RAMP or Crane may be used for unloading cable drums. If neither of them is available, a temporary ramps with inclination 1: 3 to 1: 4 approximately should be constructed, the cable drum should then be rolled over the ramp by means of ropes and winches. Additionally a sand bed at the root of the ramp may be made to break the rolling back of cable drums.
- b) The arrows painted on the flange of the drum indicate the direction in which the drum should be rolled. The cable will unwind and become loose if the drum is rolled in the opposite direction.
- c) The site chosen for storage of cable drums should be well drained and should preferably have a concrete surface / firm surface which will not cause the drums to sink and thus lead to flange rot and extremely difficult in moving the drums & in turn avoiding damage to the cable.
- d) All drums should be stored in such a manner as to leave sufficient space between them for air circulation. It is desirable for the drums to stand on battens placed directly under the flanges. During storage the drum should be rolled to an angle of 90° once every three months.
- e) In no case should the drums be stored on the flat i.e., with flange horizontally placed.
- f) Overhead covering is not essential unless the storage is for a long period. The cable should however, be protected from direct rays of the sun by leaving the outer battens on or by providing some form of Sun shielding.
- g) Do not rewind cable to another drum. Whose barrel diameter is less than the existing drum diameter.

**NOTE: All data given in this catalogue is approximate and are subject to manufacturing tolerance  
Delivery length tolerance  $\pm 5\%$  length more than normal as per customer request.  
All figures given in various tables are indicative only.**