



# "Technocab Cables"

Power & Control cables

LT PVC

[IS:1554/PART-I/1988]

*Dimensions, Weights and  
Electrical Characteristics*

**TECHNOCAB CABLES'**

**TABLE NO. 1**

**Dimensions, Weights and Electrical Characteristics.**

**650/1100 V, Aluminium Conductor, PVC Insulated Sheathed, Unarmoured (AYY) and Armoured (AYFa & AYWay)**

| Number<br>Of<br>Cores | Nominal<br>Area of<br>Conductor<br><br>sq. mm | Unarmoured                                   |                                      |                            | Armoured                                  |                                 |       |                                     | Max. D.C.<br>Conductor<br>Resistance<br>at 20 deg. C<br>Ohm/KM | A.C. Current Rating       |                           |     |                             |     |                           |     |                             |     |
|-----------------------|---|--|--------------------------------------|----------------------------|---|---------------------------------|-------|-------------------------------------|--|---------------------------|---------------------------|-----|-----------------------------|-----|---------------------------|-----|-----------------------------|-----|
|                       |   | Nominal<br>Thickness<br>Of PVC<br>Ins.<br>mm | Approx.<br>Overall<br>Diameter<br>mm | Approx.<br>weight<br>kg/km | Nominal<br>Thickness<br>of PVC ins.<br>mm | Nominal<br>Armour<br>Size<br>Mm |       | Aprox.<br>Overall<br>Diameter<br>Mm |  | Aprox.<br>Weight<br>Kg/KM | In air at 40° C           |     |                             |     | In Ground at 30° C        |     |                             |     |
|                       |   |  |                                      |                            |   | W                               | F     |                                     |  |                           | PVC<br>Insulation<br>Amps |     | HRPVC<br>Insulation<br>Amps |     | PVC<br>Insulation<br>Amps |     | HRPVC<br>Insulation<br>Amps |     |
|                       |   |  |                                      |                            |   |                                 |       |                                     |  |                           | 2C                        | 3C  | 2C                          | 3C  | 2C                        | 3C  | 2C                          | 3C  |
| <b>1<br/>CORE</b>     | 10  | 1.0  | 10                                   | 105                        | 1.3                                       | 1.4                             |       | 12                                  | 185  | 3.080                     | 56                        | 47  | 67                          | 56  | 59                        | 51  | 67                          | 58  |
|                       | 16  | 1.0  | 12                                   | 155                        | 1.3                                       | 1.4                             |       | 14                                  | 245  | 1.910                     | 72                        | 64  | 86                          | 77  | 75                        | 66  | 86                          | 75  |
|                       | 25  | 1.2  | 13                                   | 190                        | 1.5                                       | 1.4                             |       | 15                                  | 290  | 1.200                     | 99                        | 84  | 119                         | 101 | 97                        | 86  | 111                         | 98  |
|                       | 35  | 1.2  | 14                                   | 230                        | 1.5                                       | 1.4                             |       | 16                                  | 340  | 0.868                     | 120                       | 105 | 144                         | 126 | 120                       | 100 | 137                         | 114 |
|                       | 50  | 1.4  | 16                                   | 290                        | 1.7                                       | 1.4                             |       | 18                                  | 415  | 0.641                     | 150                       | 130 | 180                         | 156 | 145                       | 120 | 165                         | 137 |
|                       | 70  | 1.4  | 17                                   | 370                        | 1.7                                       | 1.4                             |       | 20                                  | 520  | 0.443                     | 185                       | 155 | 222                         | 186 | 170                       | 140 | 194                         | 160 |
|                       | 95  | 1.6  | 20                                   | 480                        | 1.9                                       |                                 | 4X0.8 | 21                                  | 585  | 0.320                     | 215                       | 190 | 258                         | 228 | 205                       | 175 | 234                         | 200 |
|                       | 120   | 1.6  | 21                                   | 590                        | 1.9                                       |                                 | 4X0.8 | 23                                  | 680  | 0.253                     | 240                       | 220 | 288                         | 264 | 230                       | 195 | 262                         | 222 |
|                       | 150   | 1.8  | 23                                   | 700                        | 2.1                                       |                                 | 4X0.8 | 24                                  | 810  | 0.206                     | 270                       | 250 | 324                         | 300 | 265                       | 220 | 302                         | 251 |
|                       | 185   | 2.0  | 25                                   | 850                        | 2.3                                       |                                 | 4X0.8 | 27                                  | 965  | 0.164                     | 305                       | 290 | 366                         | 348 | 300                       | 240 | 342                         | 274 |
|                       | 240   | 2.2  | 28                                   | 1060                       | 2.5                                       |                                 | 4X0.8 | 29                                  | 1190   | 0.125                     | 350                       | 335 | 420                         | 402 | 335                       | 270 | 382                         | 308 |
|                       | 300   | 2.4  | 30                                   | 1280                       | 2.7                                       |                                 | 4X0.8 | 32                                  | 1455   | 0.100                     | 395                       | 380 | 474                         | 456 | 370                       | 295 | 422                         | 336 |
|                       | 400   | 2.6  | 34                                   | 1640                       | 3.0                                       |                                 | 4X0.8 | 36                                  | 1810   | 0.0778                    | 455                       | 435 | 546                         | 522 | 410                       | 325 | 467                         | 371 |
|                       | 500   | 3.0  | 38                                   | 2060                       | 3.4                                       |                                 | 4X0.8 | 40                                  | 2260   | 0.0605                    | 490                       | 480 | 588                         | 576 | 435                       | 345 | 496                         | 393 |
|                       | 630   | 3.4  | 43                                   | 2625                       | 3.9                                       |                                 | 4X0.8 | 45                                  | 2860   | 0.0469                    | 560                       | 550 | 672                         | 660 | 485                       | 390 | 553                         | 445 |
|                       | 800   | 3.4  | 47                                   | 3180                       | 3.9                                       |                                 | 4X0.8 | 49                                  | 3480   | 0.0367                    | 640                       | 630 | 768                         | 756 | 530                       | 440 | 604                         | 502 |
| 1000                  | 3.4   | 51   | 3910                                 | 3.9                        |   | 4X0.8                           | 54    | 4225                                | 0.0291   | 740                       | 720                       | 888 | 864                         | 580 | 490                       | 661 | 559                         |     |

The dimensions indicated above are considering following construction: **1) As per IS 1554 Pt-I/1988, 1 Core Cables will not have Innersheath. 2) Innersheath for 2 Core Cables – Upto and including 16 sq. mm – Extruded Innersheath, 25 sq.mm and above – Taped Innersheath. 3) Conductor – Upto and including 10 sq.mm – Solid Round Cond., - For 16 sq.mm and above – Stranded Sector Shaped Cond. 4) A.C. Current Ratings given for 2 Core cables are for Single Cable only.**

**"TECHNOCAB CABLES"**

**TABLE NO. 2**

**Dimensions, Weights and Electrical Characteristics.**

**650/1100 V, Aluminium Conductor, PVC Insulated Sheathed, Unarmoured (AYY) and Armoured (AYFa & AYWay)**

| Number Of Cores | Nominal Area of Conductor<br>sq. mm | Unarmoured                          |                                |                         | Armoured                            |                           |    |                               | Max. D.C. Conductor Resistance at 20 deg. C<br>Ohm/KM | A.C. Current Rating    |                     |     |                       |    |                     |    |                       |    |
|-----------------|-------------------------------------|-------------------------------------|--------------------------------|-------------------------|-------------------------------------|---------------------------|----|-------------------------------|---|------------------------|---------------------|-----|-----------------------|----|---------------------|----|-----------------------|----|
|                 |                                     | Nominal Thickness Of PVC Ins.<br>Mm | Approx. Overall Diameter<br>mm | Approx. weight<br>kg/km | Nominal Thickness of PVC ins.<br>mm | Nominal Armour Size<br>Mm |    | Aprox. Overall Diameter<br>Mm |   | Aprox. Weight<br>Kg/KM | In air at 40° C     |     |                       |    | In Ground at 30° C  |    |                       |    |
|                 |                                     |                                     |                                |                         |                                     | W                         | F  |                               |   |                        | PVC Insulation Amps |     | HRPVC Insulation Amps |    | PVC Insulation Amps |    | HRPVC Insulation Amps |    |
|                 |                                     |                                     |                                |                         |                                     |                           |    |                               |   |                        | 2C                  | 3C  | 2C                    | 3C | 2C                  | 3C | 2C                    | 3C |
| <b>2CORE</b>    | 4                                   | 1.0                                 | 14                             | 190                     | 1.0                                 | 1.4                       | 16 | 460                           | 7.410   | 27                     | 32                  | 32  | 36                    |    |                     |    |                       |    |
|                 | 6                                   | 1.0                                 | 15                             | 230                     | 1.0                                 | 1.4                       | 17 | 535                           | 4.610   | 35                     | 42                  | 40  | 46                    |    |                     |    |                       |    |
|                 | 10                                  | 1.0                                 | 16                             | 270                     | 1.0                                 | 1.4                       | 19 | 605                           | 3.080   | 47                     | 56                  | 55  | 63                    |    |                     |    |                       |    |
|                 | 16                                  | 1.0                                 | 20                             | 385                     | 1.0                                 | 4X0.8                     | 21 | 630                           | 1.910   | 59                     | 71                  | 70  | 80                    |    |                     |    |                       |    |
|                 | 25                                  | 1.2                                 | 20                             | 420                     | 1.2                                 | 4X0.8                     | 21 | 600                           | 1.200   | 78                     | 94                  | 90  | 103                   |    |                     |    |                       |    |
|                 | 35                                  | 1.2                                 | 22                             | 500                     | 1.2                                 | 4X0.8                     | 23 | 700                           | 0.868   | 99                     | 119                 | 110 | 125                   |    |                     |    |                       |    |
|                 | 50                                  | 1.4                                 | 25                             | 640                     | 1.4                                 | 4X0.8                     | 25 | 875                           | 0.641   | 125                    | 150                 | 135 | 154                   |    |                     |    |                       |    |
|                 | 70                                  | 1.4                                 | 27                             | 800                     | 1.4                                 | 4X0.8                     | 28 | 1100                          | 0.443   | 150                    | 180                 | 160 | 182                   |    |                     |    |                       |    |
|                 | 95                                  | 1.6                                 | 32                             | 1080                    | 1.6                                 | 4X0.8                     | 32 | 1410                          | 0.320   | 185                    | 222                 | 190 | 217                   |    |                     |    |                       |    |
|                 | 120                                 | 1.6                                 | 33                             | 1245                    | 1.6                                 | 4X0.8                     | 34 | 1595                          | 0.253   | 210                    | 252                 | 210 | 239                   |    |                     |    |                       |    |
|                 | 150                                 | 1.8                                 | 36                             | 1515                    | 1.8                                 | 4X0.8                     | 37 | 1900                          | 0.206   | 240                    | 288                 | 240 | 274                   |    |                     |    |                       |    |
|                 | 185                                 | 2.0                                 | 40                             | 1845                    | 2.0                                 | 4X0.8                     | 41 | 2270                          | 0.164   | 275                    | 330                 | 275 | 314                   |    |                     |    |                       |    |
|                 | 240                                 | 2.2                                 | 45                             | 2345                    | 2.2                                 | 4X0.8                     | 46 | 2810                          | 0.125   | 325                    | 390                 | 320 | 365                   |    |                     |    |                       |    |
|                 | 300                                 | 2.4                                 | 50                             | 2890                    | 2.4                                 | 4X0.8                     | 51 | 3455                          | 0.100   | 365                    | 438                 | 355 | 405                   |    |                     |    |                       |    |
|                 | 400                                 | 2.6                                 | 56                             | 3670                    | 2.6                                 | 4X0.8                     | 56 | 4230                          | 0.0778  | 420                    | 504                 | 385 | 439                   |    |                     |    |                       |    |

The dimensions indicated above are considering following construction: **1) As per IS 1554 Pt.I/1988, 1) Innersheath for 2 Core Cables – Upto and including 16 sq. mm – Extruded Innersheath, 25 sq.mm and above – Taped Innersheath. 3) Conductor – Upto and including 10 sq.mm – Solid Round Cond., - For 16 sq.mm and above – Stranded Sector Shaped Cond. 4) A.C. Current Ratings given for 2 Core cables are for Single Cable only.**

**"TECHNOCAB CABLES"**

**TABLE NO. 3**

**Dimensions, Weights and Electrical Characteristics.**

**650/1100 V, Aluminium Conductor, PVC Insulated Sheathed, Unarmoured (AYY) and Armoured (AYFa & AYWay)**

| Number Of Cores | Nominal Area of Conductor sq. mm | Nominal Thickness Of PVC Insulation mm | Unarmoured                  |                      | Armoured                          |                            |                     | Max. D.C. Conductor Resistance at 20 deg. C Ohm/KM | A.C. Current Rating |                       |                     |                       |
|-----------------|----------------------------------|--|-----------------------------|----------------------|-----------------------------------|----------------------------|---------------------|--|---------------------|-----------------------|---------------------|-----------------------|
|                 |                                  |  | Approx. Overall Diameter mm | Approx. weight kg/km | Nominal Steel Arm. Size mm<br>W F | Aprox. Overall Diameter Mm | Aprox. Weight Kg/KM |  | In air at 40° C     |                       | In Ground at 30° C  |                       |
|                 |                                  |  |                             |                      |                                   |                            |                     |  | PVC Insulation Amps | HRPVC Insulation Amps | PVC Insulation Amps | HRPVC Insulation Amps |
| <b>3CORE</b>    | 4                                | 1.0                                    | 15                          | 220                  | 1.4                               | 17                         | 520                 | 7.410  | 23                  | 28                    | 28                  | 32                    |
|                 | 6                                | 1.0                                    | 16                          | 265                  | 1.4                               | 18                         | 610                 | 4.610  | 30                  | 36                    | 35                  | 40                    |
|                 | 10                               | 1.0                                    | 17                          | 320                  | 1.4                               | 20                         | 720                 | 3.080  | 40                  | 48                    | 46                  | 52                    |
|                 | 16                               | 1.0                                    | 19                          | 380                  | 4X0.8                             | 20                         | 625                 | 1.910  | 51                  | 61                    | 60                  | 68                    |
|                 | 25                               | 1.2                                    | 22                          | 550                  | 4X0.8                             | 23                         | 770                 | 1.200  | 70                  | 84                    | 76                  | 87                    |
|                 | 35                               | 1.2                                    | 24                          | 665                  | 4X0.8                             | 25                         | 905                 | 0.868  | 86                  | 103                   | 92                  | 105                   |
|                 | 50                               | 1.4                                    | 27                          | 865                  | 4X0.8                             | 29                         | 1155                | 0.641  | 105                 | 126                   | 110                 | 125                   |
|                 | 70                               | 1.4                                    | 31                          | 1140                 | 4X0.8                             | 32                         | 1470                | 0.443  | 130                 | 156                   | 135                 | 154                   |
|                 | 95                               | 1.6                                    | 35                          | 1485                 | 4X0.8                             | 36                         | 1860                | 0.320  | 155                 | 186                   | 165                 | 188                   |
|                 | 120                              | 1.6                                    | 37                          | 1730                 | 4X0.8                             | 38                         | 2160                | 0.253  | 180                 | 216                   | 185                 | 211                   |
|                 | 150                              | 1.8                                    | 41                          | 2115                 | 4X0.8                             | 42                         | 2570                | 0.206  | 205                 | 246                   | 210                 | 239                   |
|                 | 185                              | 2.0                                    | 45                          | 2630                 | 4X0.8                             | 46                         | 3070                | 0.164  | 240                 | 288                   | 235                 | 268                   |
|                 | 240                              | 2.2                                    | 51                          | 3360                 | 4X0.8                             | 52                         | 3910                | 0.125  | 280                 | 336                   | 275                 | 314                   |
|                 | 300                              | 2.4                                    | 56                          | 4115                 | 4X0.8                             | 57                         | 4770                | 0.100  | 315                 | 378                   | 305                 | 348                   |
|                 | 400                              | 2.6                                    | 63                          | 5210                 | 4X0.8                             | 64                         | 5850                | 0.0778   | 375                 | 450                   | 335                 | 382                   |

The dimensions indicated above are considering following construction : **Innersheath – Upto and including 16 sq.mm – Extruded Innersheath, 25 sq.mm and above – Taped Innersheath. Conductor – Upto and including 10 sq.mm – Solid Round Cond., For 16 sq.mm and above – Stranded Sector Shaped Cond.**

**"TECHNOCAB CABLES"**

**TABLE NO. 4**

**Dimensions, Weights and Electrical Characteristics.**

**650/1100 V, Aluminium Conductor, PVC Insulated Sheathed, Unarmoured (AYY) and Armoured (AYFa & AYWay)**

| Number Of Cores | Nominal Area of Conductor sq. mm | Nominal Thickness Of PVC Insulation mm | Unarmoured                  |                      | Armoured                               |                            |                     | Max. D.C. Conductor Resistance at 20 deg. C Ohm/KM | A.C. Current Rating |                       |                     |                       |
|-----------------|----------------------------------|--|-----------------------------|----------------------|--|----------------------------|---------------------|--|---------------------|-----------------------|---------------------|-----------------------|
|                 |                                  |  | Approx. Overall Diameter mm | Approx. weight kg/km | Nominal Steel Arm. Size mm<br>W      F | Aprox. Overall Diameter mm | Aprox. Weight Kg/KM |  | In air at 40° C     |                       | In Ground at 30° C  |                       |
|                 |                                  |  |                             |                      |  |                            |                     |  | PVC Insulation Amps | HRPVC Insulation Amps | PVC Insulation Amps | HRPVC Insulation Amps |
| <b>3.5 CORE</b> | 25                               | 1.2                                    | 25                          | 660                  | 4X0.8                                  | 26                         | 890                 | 0.1200   | 70                  | 84                    | 76                  | 87                    |
|                 | 35                               | 1.2                                    | 26                          | 780                  | 4X0.8                                  | 28                         | 1050                | 0.868  | 86                  | 103                   | 92                  | 105                   |
|                 | 50                               | 1.4                                    | 29                          | 1000                 | 4X0.8                                  | 30                         | 1300                | 0.641  | 105                 | 126                   | 110                 | 125                   |
|                 | 70                               | 1.4                                    | 33                          | 1310                 | 4X0.8                                  | 34                         | 1650                | 0.443  | 130                 | 156                   | 135                 | 154                   |
|                 | 95                               | 1.6                                    | 38                          | 1710                 | 4X0.8                                  | 39                         | 2095                | 0.320  | 155                 | 186                   | 165                 | 188                   |
|                 | 120                              | 1.6                                    | 41                          | 2100                 | 4X0.8                                  | 42                         | 2500                | 0.253  | 180                 | 216                   | 185                 | 211                   |
|                 | 150                              | 1.6                                    | 45                          | 2450                 | 4X0.8                                  | 46                         | 2945                | 0.206  | 205                 | 246                   | 210                 | 239                   |
|                 | 185                              | 2.0                                    | 50                          | 3060                 | 4X0.8                                  | 51                         | 3585                | 0.164  | 240                 | 288                   | 235                 | 268                   |
|                 | 240                              | 2.2                                    | 57                          | 3940                 | 4X0.8                                  | 57                         | 4480                | 0.125  | 280                 | 336                   | 275                 | 314                   |
|                 | 300                              | 2.4                                    | 63                          | 4695                 | 4X0.8                                  | 63                         | 5495                | 0.100  | 315                 | 378                   | 305                 | 348                   |
| 400             | 2.6                              | 70                                     | 6020                        | 4X0.8                | 71                                     | 6805                       | 0.0778              | 375  | 450                 | 335                   | 382                 |                       |

The dimensions indicated above are considering following construction : **Innersheath – Upto and including 16 sq.mm – Extruded Innersheath, 25 sq.mm and above – Taped Innersheath. Conductor – Upto and including 10 sq.mm – Solid Round Cond., For 16 sq.mm and above – Stranded Sector Shaped Cond.**

**"TECHNOCAB CABLES"**

**TABLE NO. 5**

**Dimensions, Weights and Electrical Characteristics.**

**650/1100 V, Aluminium Conductor, PVC Insulated Sheathed, Unarmoured (AYY) and Armoured (AYFY & AYWY)**

| Number Of Cores | Nominal Area of Conductor sq. mm | Nominal Thickness Of PVC Insulation mm | Unarmoured                  |                      | Armoured                               |                            |                     | Max. D.C. Conductor Resistance at 20 deg. C Ohm/KM | A.C. Current Rating |                       |                     |                       |
|-----------------|----------------------------------|--|-----------------------------|----------------------|--|----------------------------|---------------------|--|---------------------|-----------------------|---------------------|-----------------------|
|                 |                                  |  | Approx. Overall Diameter mm | Approx. weight kg/km | Nominal Steel Arm. Size Mm<br>W      F | Aprox. Overall Diameter mm | Aprox. Weight Kg/KM |  | In air at 40° C     |                       | In Ground at 30° C  |                       |
|                 |                                  |  |                             |                      |  |                            |                     |  | PVC Insulation Amps | HRPVC Insulation Amps | PVC Insulation Amps | HRPVC Insulation Amps |
| <b>4 CORE</b>   | 4                                | 1.0                                    | 16                          | 275                  | 1.4                                    | 18                         | 595                 | 7.410  | 23                  | 28                    | 28                  | 32                    |
|                 | 6                                | 1.0                                    | 17                          | 340                  | 1.4                                    | 19                         | 700                 | 4.610  | 30                  | 36                    | 35                  | 40                    |
|                 | 10                               | 1.0                                    | 19                          | 415                  |  | 20                         | 660                 | 3.080  | 40                  | 48                    | 46                  | 52                    |
|                 | 16                               | 1.0                                    | 21                          | 470                  |  | 22                         | 740                 | 1.910  | 51                  | 61                    | 60                  | 68                    |
|                 | 25                               | 1.2                                    | 25                          | 690                  |  | 26                         | 925                 | 1.200  | 70                  | 84                    | 76                  | 87                    |
|                 | 35                               | 1.2                                    | 27                          | 840                  |  | 28                         | 1110                | 0.868  | 86                  | 103                   | 92                  | 105                   |
|                 | 50                               | 1.4                                    | 32                          | 1145                 |  | 33                         | 1465                | 0.641  | 105                 | 126                   | 110                 | 125                   |
|                 | 70                               | 1.4                                    | 35                          | 1455                 |  | 36                         | 1835                | 0.443  | 130                 | 156                   | 135                 | 154                   |
|                 | 95                               | 1.6                                    | 41                          | 1940                 |  | 41                         | 2360                | 0.320  | 155                 | 186                   | 165                 | 188                   |
|                 | 120                              | 1.6                                    | 43                          | 2290                 |  | 44                         | 2740                | 0.253  | 180                 | 216                   | 185                 | 211                   |
|                 | 150                              | 1.8                                    | 47                          | 2790                 |  | 48                         | 3250                | 0.206  | 205                 | 246                   | 210                 | 239                   |
|                 | 185                              | 2.0                                    | 53                          | 3460                 |  | 53                         | 3990                | 0.164  | 240                 | 288                   | 235                 | 268                   |
|                 | 240                              | 2.2                                    | 59                          | 4395                 |  | 60                         | 5020                | 0.125  | 280                 | 336                   | 275                 | 314                   |
|                 | 300                              | 2.4                                    | 66                          | 5475                 |  | 66                         | 6150                | 0.100  | 315                 | 378                   | 305                 | 348                   |
| 400             | 2.6                              | 73                                     | 6830                        |                      | 74                                     | 7625                       | 0.0778              | 375  | 450                 | 335                   | 382                 |                       |

**The dimensions indicated above are considering following construction : Innersheath – Upto and including 16 sq.mm – Extruded Innersheath, 25 sq.mm and above – Taped Innersheath. Conductor – Upto and including 10 sq.mm – Solid Round Cond., For 16 sq.mm and above – Stranded Sector Shaped Cond.**

**"TECHNOCAB CABLES"**

**TABLE NO. 6**

**Dimensions, Weights and Electrical Characteristics.**

**650/1100 V, Copper Conductor, PVC Insulated and Sheathed, Unarmoured (YY) and Armoured (YWy & YFY)**

| Number Of Cores | Nominal Area of Conductor sq. mm | Nominal Thickness Of PVC Insulation mm | Unarmoured                  |                      | Armoured                       |                            |                     | Max. D.C. Conductor Resistance at 20 deg. C Ohm/KM | A.C. Current Rating |                       |                     |                       |
|-----------------|----------------------------------|--|-----------------------------|----------------------|--------------------------------|----------------------------|---------------------|--|---------------------|-----------------------|---------------------|-----------------------|
|                 |                                  |  | Approx. Overall Diameter mm | Approx. weight kg/km | Nominal Steel Arm. Size Mm W F | Aprox. Overall Diameter Mm | Aprox. Weight Kg/KM |  | In air at 40° C     |                       | In Ground at 30° C  |                       |
|                 |                                  |  |                             |                      |                                |                            |                     |  | PVC Insulation Amps | HRPVC Insulation Amps | PVC Insulation Amps | HRPVC Insulation Amps |
| 2               | 1.5                              | 0.8                                    | 12                          | 150                  | 1.4                            | 13                         | 350                 | 12.1   | 20                  | 24                    | 23                  | 26                    |
| 3               | 1.5                              | 0.8                                    | 12                          | 175                  | 1.4                            | 14                         | 390                 | 12.1   | 17                  | 20                    | 21                  | 24                    |
| 4               | 1.5                              | 0.8                                    | 13                          | 200                  | 1.4                            | 15                         | 425                 | 12.1   | 17                  | 20                    | 21                  | 24                    |
| 5               | 1.5                              | 0.8                                    | 13                          | 240                  | 1.4                            | 16                         | 485                 | 12.1   | 17                  | 20                    | 21                  | 24                    |
| 6               | 1.5                              | 0.8                                    | 14                          | 257                  | 1.4                            | 16                         | 545                 | 12.1   | 12                  | 14                    | 14                  | 16                    |
| 7               | 1.5                              | 0.8                                    | 14                          | 285                  | 1.4                            | 16                         | 555                 | 12.1   | 12                  | 14                    | 14                  | 16                    |
| 8               | 1.5                              | 0.8                                    | 15                          | 330                  | 1.4                            | 17                         | 625                 | 12.1   | 12                  | 14                    | 13                  | 15                    |
| 9               | 1.5                              | 0.8                                    | 16                          | 375                  | 1.4                            | 18                         | 690                 | 12.1   | 11                  | 13                    | 13                  | 15                    |
| 10              | 1.5                              | 0.8                                    | 17                          | 390                  | 1.4                            | 20                         | 740                 | 12.1   | 11                  | 13                    | 12                  | 14                    |
| 12              | 1.5                              | 0.8                                    | 18                          | 435                  |                                | 19                         | 640                 | 12.1   | 10                  | 12                    | 11                  | 13                    |
| 14              | 1.5                              | 0.8                                    | 19                          | 490                  |                                | 20                         | 730                 | 12.1   | 9                   | 11                    | 11                  | 13                    |
| 16              | 1.5                              | 0.8                                    | 20                          | 540                  |                                | 21                         | 790                 | 12.1   | 9                   | 11                    | 10                  | 11                    |
| 19              | 1.5                              | 0.8                                    | 21                          | 630                  |                                | 22                         | 880                 | 12.1   | 8                   | 10                    | 10                  | 11                    |
| 24              | 1.5                              | 0.8                                    | 24                          | 775                  |                                | 25                         | 1070                | 12.1   | 8                   | 10                    | 9                   | 10                    |
| 27              | 1.5                              | 0.8                                    | 24                          | 845                  |                                | 26                         | 1160                | 12.1   | 7                   | 8                     | 8                   | 9                     |
| 30              | 1.5                              | 0.8                                    | 25                          | 920                  |                                | 27                         | 1235                | 12.1   | 7                   | 8                     | 8                   | 9                     |
| 33              | 1.5                              | 0.8                                    | 26                          | 990                  |                                | 27                         | 1340                | 12.1   | 7                   | 8                     | 8                   | 9                     |
| 37              | 1.5                              | 0.8                                    | 27                          | 1090                 |                                | 28                         | 1430                | 12.1   | 6                   | 7                     | 7                   | 8                     |
| 44              | 1.5                              | 0.8                                    | 30                          | 1275                 |                                | 32                         | 1685                | 12.1   | 6                   | 7                     | 7                   | 8                     |
| 48              | 1.5                              | 0.8                                    | 31                          | 1390                 |                                | 32                         | 1800                | 12.1   | 6                   | 7                     | 7                   | 8                     |
| 52              | 1.5                              | 0.8                                    | 32                          | 150                  |                                | 33                         | 1895                | 12.1   | 6                   | 7                     | 7                   | 8                     |
| 56              | 1.5                              | 0.8                                    | 33                          | 1600                 |                                | 34                         | 2015                | 12.1   | 6                   | 7                     | 7                   | 8                     |
| 61              | 1.5                              | 0.8                                    | 34                          | 1710                 |                                | 35                         | 2150                | 12.1   | 6                   | 7                     | 7                   | 8                     |

The Technical Detail specified above are considering Extruded Inner sheath (for Control Cables only.)

**"TECHNOCAB CABLES"**

**TABLE NO. 7**

**Dimensions, Weights and Electrical Characteristics.**

**650/1100 V, Copper Conductor, PVC Insulated and Sheathed, Unarmoured (YY) and Armoured (YWy & YFY)**

| Number Of Cores | Nominal Area of Conductor sq. mm | Nominal Thickness Of PVC Insulation mm | Unarmoured                  |                      | Armoured                       |                            |                     | Max. D.C. Conductor Resistance at 20 deg. C Ohm/KM | A.C. Current Rating |                       |                     |                       |
|-----------------|----------------------------------|--|-----------------------------|----------------------|--------------------------------|----------------------------|---------------------|--|---------------------|-----------------------|---------------------|-----------------------|
|                 |                                  |  | Approx. Overall Diameter mm | Approx. weight kg/km | Nominal Steel Arm. Size Mm W F | Aprox. Overall Diameter Mm | Aprox. Weight Kg/KM |  | In air at 40° C     |                       | In Ground at 30° C  |                       |
|                 |                                  |  |                             |                      |                                |                            |                     |  | PVC Insulation Amps | HRPVC Insulation Amps | PVC Insulation Amps | HRPVC Insulation Amps |
| 2               | 2.5                              | 0.9                                    | 13                          | 190                  | 1.4                            | 15                         | 420                 | 7.41   | 27                  | 32                    | 32                  | 36                    |
| 3               | 2.5                              | 0.9                                    | 13                          | 230                  | 1.4                            | 15                         | 465                 | 7.41   | 24                  | 29                    | 27                  | 31                    |
| 4               | 2.5                              | 0.9                                    | 14                          | 275                  | 1.4                            | 16                         | 525                 | 7.41   | 24                  | 29                    | 27                  | 31                    |
| 5               | 2.5                              | 0.9                                    | 15                          | 320                  | 1.4                            | 17                         | 600                 | 7.41   | 24                  | 29                    | 27                  | 31                    |
| 6               | 2.5                              | 0.9                                    | 16                          | 375                  | 1.4                            | 18                         | 685                 | 7.41   | 17                  | 20                    | 20                  | 23                    |
| 7               | 2.5                              | 0.9                                    | 16                          | 390                  | 1.4                            | 18                         | 705                 | 7.41   | 17                  | 20                    | 20                  | 23                    |
| 8               | 2.5                              | 0.9                                    | 17                          | 460                  | 1.4                            | 20                         | 810                 | 7.41   | 16                  | 19                    | 19                  | 22                    |
| 9               | 2.5                              | 0.9                                    | 18                          | 520                  | 4X0.8                          | 20                         | 765                 | 7.41   | 15                  | 18                    | 18                  | 21                    |
| 10              | 2.5                              | 0.9                                    | 20                          | 540                  | 4X0.8                          | 22                         | 810                 | 7.41   | 14                  | 17                    | 17                  | 19                    |
| 12              | 2.5                              | 0.9                                    | 21                          | 630                  | 4X0.8                          | 22                         | 880                 | 7.41   | 14                  | 17                    | 16                  | 18                    |
| 14              | 2.5                              | 0.9                                    | 22                          | 710                  | 4X0.8                          | 23                         | 980                 | 7.41   | 13                  | 16                    | 15                  | 17                    |
| 16              | 2.5                              | 0.9                                    | 23                          | 790                  | 4X0.8                          | 24                         | 1060                | 7.41   | 12                  | 14                    | 15                  | 17                    |
| 19              | 2.5                              | 0.9                                    | 24                          | 895                  | 4X0.8                          | 25                         | 1190                | 7.41   | 11                  | 13                    | 14                  | 16                    |
| 24              | 2.5                              | 0.9                                    | 28                          | 1110                 | 4X0.8                          | 29                         | 1485                | 7.41   | 10                  | 12                    | 12                  | 14                    |
| 27              | 2.5                              | 0.9                                    | 28                          | 1210                 | 4X0.8                          | 29                         | 1575                | 7.41   | 10                  | 12                    | 12                  | 14                    |
| 30              | 2.5                              | 0.9                                    | 29                          | 1325                 | 4X0.8                          | 31                         | 1735                | 7.41   | 9                   | 11                    | 11                  | 13                    |
| 33              | 2.5                              | 0.9                                    | 30                          | 1440                 | 4X0.8                          | 32                         | 1850                | 7.41   | 9                   | 11                    | 11                  | 13                    |
| 37              | 2.5                              | 0.9                                    | 32                          | 1620                 | 4X0.8                          | 33                         | 2010                | 7.41   | 9                   | 11                    | 10                  | 11                    |
| 44              | 2.5                              | 0.9                                    | 36                          | 1900                 | 4X0.8                          | 37                         | 2365                | 7.41   | 8                   | 10                    | 10                  | 11                    |
| 48              | 2.5                              | 0.9                                    | 36                          | 2040                 | 4X0.8                          | 37                         | 2500                | 7.41   | 8                   | 10                    | 10                  | 11                    |
| 52              | 2.5                              | 0.9                                    | 37                          | 2190                 | 4X0.8                          | 38                         | 2670                | 7.41   | 8                   | 10                    | 10                  | 11                    |
| 56              | 2.5                              | 0.9                                    | 38                          | 2335                 | 4X0.8                          | 39                         | 2840                | 7.41   | 8                   | 10                    | 10                  | 11                    |
| 61              | 2.5                              | 0.9                                    | 39                          | 2500                 | 4X0.8                          | 40                         | 3010                | 7.41   | 8                   | 10                    | 10                  | 11                    |

The Technical Detail specified above are considering Extruded Inner sheath (for Control Cables only.)

**"TECHNOCAB CABLES"**

**TABLE NO. 8**  
**Dimensions, Weights and Electrical Characteristics.**  
**650/1100 V, Copper Conductor, PVC Insulated and Sheathed, Unarmoured (YY) and Armoured (YWy & YFY)**

| Number Of Cores | Nominal Area of Conductor sq. mm | Nominal Thickness Of PVC Insulation mm | Unarmoured                  |                      | Armoured                          |                            |                     | Max. D.C. Conductor Resistance at 20 deg. C Ohm/KM | A.C. Current Rating |                       |                     |                       |
|-----------------|----------------------------------|--|-----------------------------|----------------------|-----------------------------------|----------------------------|---------------------|--|---------------------|-----------------------|---------------------|-----------------------|
|                 |                                  |  | Approx. Overall Diameter mm | Approx. weight kg/km | Nominal Steel Arm. Size Mm<br>W F | Aprox. Overall Diameter Mm | Aprox. Weight Kg/KM |  | In air at 40° C     |                       | In Ground at 30° C  |                       |
|                 |                                  |  |                             |                      |                                   |                            |                     |  | PVC Insulation Amps | HRPVC Insulation Amps | PVC Insulation Amps | HRPVC Insulation Amps |
| 2 CORE          | 4                                | 1.0                                    | 14                          | 235                  | 1.4                               | 16                         | 510                 | 4.61   | 35                  | 42                    | 41                  | 47                    |
|                 | 6                                | 1.0                                    | 15                          | 290                  | 1.4                               | 17                         | 600                 | 3.08   | 45                  | 54                    | 50                  | 57                    |
|                 | 10                               | 1.0                                    | 18                          | 430                  | 1.4                               | 20                         | 785                 | 1.83   | 60                  | 72                    | 70                  | 80                    |
|                 | 16                               | 1.0                                    | 20                          | 580                  | 4X0.8                             | 21                         | 800                 | 1.15   | 78                  | 94                    | 90                  | 103                   |
| 3 CORE          | 4                                | 1.0                                    | 15                          | 290                  | 1.4                               | 17                         | 580                 | 4.61   | 30                  | 36                    | 36                  | 41                    |
|                 | 6                                | 1.0                                    | 16                          | 365                  | 1.4                               | 18                         | 695                 | 3.08   | 39                  | 47                    | 45                  | 51                    |
|                 | 10                               | 1.0                                    | 18                          | 545                  | 1.4                               | 21                         | 980                 | 1.83   | 52                  | 62                    | 60                  | 68                    |
|                 | 16                               | 1.0                                    | 19                          | 660                  | 4X0.8                             | 20                         | 955                 | 1.15   | 66                  | 79                    | 77                  | 88                    |
| 4 CORE          | 4                                | 1.0                                    | 16                          | 370                  | 1.4                               | 18                         | 680                 | 4.61   | 30                  | 36                    | 36                  | 41                    |
|                 | 6                                | 1.0                                    | 17                          | 470                  | 1.4                               | 19                         | 870                 | 3.08   | 39                  | 47                    | 45                  | 51                    |
|                 | 10                               | 1.0                                    | 20                          | 720                  | 4X0.8                             | 22                         | 950                 | 1.83   | 52                  | 62                    | 60                  | 68                    |
|                 | 16                               | 1.0                                    | 21                          | 850                  | 4X0.8                             | 22                         | 1140                | 1.15   | 66                  | 79                    | 77                  | 88                    |

The dimensions indicated above are considering following construction : **For Copper Cable Conductor – Upto and including 6 sq.mm – Solid Round Cond., For 10 Sq.mm – Stranded Round Cond. And above – Stranded Sector Shaped Cond. Upto and including 16 sq.mm – Extruded Innersheath, 25 sq.mm and above – Taped Innersheath.**

**TABLE NO. 9**  
**SHORT CIRCUIT RATING**  
**Of Conductor for one Second duration [Kilo Amps]**

| Nominal Area<br>Of Conductor | PVC CABLES |        | HR-PVC CABLES |        |           |
|------------------------------|------------|--------|---------------|--------|-----------|
|                              | Sqmm       | Copper | Aluminium     | Copper | Aluminium |
|                              | 1.5        | 0.17   | -             | 0.16   | -         |
| 2.5                          | 0.29       | -      | 0.26          | -      |           |
| 4                            | 0.46       | 0.3    | 0.42          | 0.28   |           |
| 6                            | 0.69       | 0.46   | 0.63          | 0.41   |           |
| 10                           | 1.2        | 0.76   | 1.0           | 0.69   |           |
| 16                           | 1.8        | 1.2    | 1.7           | 1.1    |           |
| 25                           | 2.9        | 1.9    | 2.6           | 1.7    |           |
| 35                           | 4.0        | 2.7    | 3.7           | 2.4    |           |
| 50                           | 5.8        | 3.8    | 5.2           | 3.5    |           |
| 70                           | 8.1        | 5.3    | 7.3           | 4.8    |           |
| 95                           | 10.9       | 7.2    | 9.9           | 6.6    |           |
| 120                          | 13.8       | 9.1    | 12.5          | 8.3    |           |
| 150                          | 17.2       | 11.4   | 15.6          | 10.4   |           |
| 185                          | 21.3       | 14.0   | 19.3          | 12.8   |           |
| 240                          | 27.6       | 18.2   | 25.0          | 16.6   |           |
| 300                          | 34.5       | 22.7   | 31.3          | 20.7   |           |
| 400                          | 46.0       | 30.3   | 41.7          | 27.6   |           |
| 500                          | 57.5       | 37.9   | 52.1          | 34.5   |           |
| 630                          | 72.4       | 47.7   | 65.6          | 43.5   |           |
| 800                          | 92.0       | 60.6   | 83.3          | 55.2   |           |
| 1000                         | 114.9      | 75.8   | 104.2         | 69.0   |           |

**TABLE NO. 10**  
**CONDUCTOR RESISTANCE**  
**Max. D. C. Resistance and Approx. A. C. Resistance**

| Nominal Area<br>Of Conductor | Max. D. C Resistance |           | Approx. A. C. Resistance |           |
|------------------------------|----------------------|-----------|--------------------------|-----------|
|                              | Plain Copper         | Aluminium | Plain Copper             | Aluminium |
|                              | At 20° C             | At 20° C  | At 90° C                 | At 90° C  |
| Sqmm                         |                      |           |                          |           |
| 1.5                          | 12.10                | 18.10     | 15.50                    | 23.05     |
| 2.5                          | 7.40                 | 12.10     | 9.50                     | 15.30     |
| 4                            | 4.61                 | 7.41      | 5.91                     | 9.50      |
| 6                            | 3.08                 | 4.61      | 3.95                     | 5.91      |
| 10                           | 1.83                 | 3.08      | 2.35                     | 3.95      |
| 16                           | 1.15                 | 1.91      | 1.47                     | 2.45      |
| 25                           | 0.727                | 1.20      | 0.932                    | 1.539     |
| 35                           | 0.524                | 0.868     | 0.672                    | 1.113     |
| 50                           | 0.387                | 0.641     | 0.496                    | 0.822     |
| 70                           | 0.268                | 0.443     | 0.343                    | 0.568     |
| 95                           | 0.193                | 0.320     | 0.247                    | 0.410     |
| 120                          | 0.153                | 0.253     | 0.196                    | 0.325     |
| 150                          | 0.124                | 0.206     | 0.159                    | 0.265     |
| 185                          | 0.0991               | 0.164     | 0.128                    | 0.212     |
| 240                          | 0.0754               | 0.125     | 0.0977                   | 0.162     |
| 300                          | 0.0601               | 0.100     | 0.0781                   | 0.130     |
| 400                          | 0.0470               | 0.0778    | 0.0616                   | 0.102     |
| 500                          | 0.0366               | 0.0605    | 0.0490                   | 0.081     |
| 630                          | 0.283                | 0.0469    | 0.0386                   | 0.064     |
| 800                          | 0.0221               | 0.0367    | 0.0317                   | 0.0526    |
| 1000                         | 0.176                | 0.0291    | 0.0265                   | 0.0438    |

**"TECHNOCAB CABLES"**

**TABLE NO. 11  
REACTANCE**

**Approx. Reactance at 50 Hz [Ohms/Km] 1.1 Kv PVC/HR-PVC Cables**

| Nominal Area | XLPE CABLES |          |           |
|--------------|-------------|----------|-----------|
|              | Single Core |          | Multicore |
| Sqmm         | Unarmoured  | Armoured |           |
| 1.5          | 0.157       | -        | 0.110     |
| 2.5          | 0.145       | -        | 0.1065    |
| 4            | 0.138       | -        | 0.102     |
| 6            | 0.128       | -        | 0.0962    |
| 10           | 0.118       | 0.137    | 0.0908    |
| 16           | 0.110       | 0.128    | 0.0859    |
| 25           | 0.107       | 0.122    | 0.0849    |
| 35           | 0.106       | 0.116    | 0.0823    |
| 50           | 0.0973      | 0.110    | 0.0765    |
| 70           | 0.0924      | 0.107    | 0.0769    |
| 95           | 0.0900      | 0.103    | 0.0766    |
| 120          | 0.880       | 0.0989   | 0.0741    |
| 150          | 0.0862      | 0.0960   | 0.0743    |
| 185          | 0.0857      | 0.0950   | 0.0742    |
| 240          | 0.0837      | 0.0929   | 0.0737    |
| 300          | 0.0828      | 0.0922   | 0.0733    |
| 400          | 0.0810      | 0.0893   | 0.0729    |
| 500          | 0.0807      | 0.0890   | 0.0732    |
| 630          | 0.0803      | 0.0876   | 0.0731    |
| 800          | 0.0782      | 0.0862   | -         |
| 1000         | 0.0772      | 0.0849   | -         |

**"TECHNOCAB CABLES"**

**TABLE NO. 12  
CAPACITANCE**

**Approx. Capacitance [Microfrads/Km] 1.1 Kv PVC/HR-PVC Cables**

| Nominal Area<br>Of Conductor | PVC and HR PVC CABLES |          |          |  |
|------------------------------|-----------------------|----------|----------|--|
|                              | Single Core           |          | Two Core | Three, Three and<br>Half & Four Core<br>Cables |
| Sqmm                         | Unarmoured            | Armoured |          |  |
| 1.5                          | 0.43                  | -        | 0.12     | 0.35   |
| 2.5                          | 0.52                  | -        | 0.13     | 0.41   |
| 4                            | 0.57                  | -        | 0.14     | 0.46   |
| 6                            | 0.67                  | -        | 0.16     | 0.52   |
| 10                           | 0.83                  | 0.67     | 0.18     | 0.63   |
| 16                           | 0.97                  | 0.80     | 0.19     | 0.82   |
| 25                           | 1.00                  | 0.83     | 0.22     | 0.86   |
| 35                           | 1.15                  | 0.95     | 0.24     | 0.98   |
| 50                           | 1.26                  | 0.95     | 0.24     | 1.00   |
| 70                           | 1.32                  | 1.12     | 0.26     | 1.16   |
| 95                           | 1.36                  | 1.17     | 0.26     | 1.18   |
| 120                          | 1.49                  | 1.28     | 0.28     | 1.31   |
| 150                          | 1.52                  | 1.32     | 0.28     | 1.28   |
| 185                          | 1.47                  | 1.30     | 0.28     | 1.30   |
| 240                          | 1.54                  | 1.37     | 0.28     | 1.34   |
| 300                          | 1.60                  | 1.40     | 0.29     | 1.37   |
| 400                          | 1.70                  | 1.50     | 0.29     | 1.43   |
| 500                          | 1.63                  | 1.46     | 0.29     | 1.41   |
| 630                          | 1.64                  | 1.45     | 0.29     | 1.42   |
| 800                          | 1.87                  | 1.65     | -        | -  |
| 1000                         | 2.05                  | 1.76     | -        | -  |