



Images not to scale. Follow table for dimensions

## APPLICATION

POLY CAB LV CU IEC 60502-1 0.6/1 KV MC-3.5 SFA, stranded compacted copper conductor, XLPE insulated, and PVC sheathed armoured cable confirming to IEC 60502-1 is suitable for fixed installation such as distribution network or industrial installation. These cable cables are designed for systems with rated AC voltage 1KV ( $U_m=1.2$  KV) &  $\leq 1.5$  KV (with a maximum 1.8 KV DC) between two live conductor.

## CHARACTERISTICS

### Voltage Rating

Nominal Voltage: 0.6/1 (1.2) kV

### Operation Temperature

Max. operating temperature up to 90°C  
 Max. Short Circuit Temperature: 250°C

## CONSTRUCTION

- Conductor: Circular Compacted or Stranded Copper conductor as per IEC 60228, class 2
- Insulation: XLPE as per IEC 60502-1
- Inner covering: Extruded or Lapped PVC
- Armouring: Galvanised Flat Strip armoured (FSA)
- Outer Sheath: Extruded Polyvinylchloride (ST2) or Polyethylene (ST7) or Halogen free (ST8) as per IEC 60502-1

### Core Identification

Red, Yellow, Blue and Black

### Bending Radius:

Fixed Installation: 12 x Overall diameter

### Test Voltage

3.5kV AC

## OUTSTANDING FEATURES

- High life
- High Insulation resistance
- Flame retardant
- Low Halogen
- Low smoke
- UV resistant

## STANDARD FOLLOWS

IEC 60228  
 IEC 60502-1  
 IEC 60332-1-2

## COMPLIANCE

Conductor resistance IEC 60228  
 Insulation resistance IEC 60502-1  
 Shrinkage test IEC 60811-503  
 Flame Retardant test IEC 60332-1-2

## OUR ACCREDITATIONS



## APPROVAL



## NOTES

The above cable is also available with EPR/HEPR insulation type.

**Weight & Dimension Data**

| Product Code         | Nominal Cross-sectional Area | Nominal Thickness |                |        | Armouring dimension | Overall Diameter<br>(Approx.) | Weight<br>(Approx.) |
|----------------------|------------------------------|-------------------|----------------|--------|---------------------|-------------------------------|---------------------|
|                      |                              | Insulation        | Inner covering | Sheath |                     |                               |                     |
|                      | mm <sup>2</sup>              | mm                | mm             | mm     | mm                  | mm                            | Kg/Km               |
| LVIE07CXSFY23.5C025S | 25                           | 0.90              | 1.00           | 1.70   | 4 x 0.20            | 21.8                          | 1230                |
| LVIE07CXSFY23.5C035S | 35                           | 0.90              | 1.00           | 1.70   | 4 x 0.20            | 23.8                          | 1530                |
| LVIE07CXSFY23.5C050S | 50                           | 1.00              | 1.00           | 1.90   | 4 x 0.20            | 27.6                          | 2140                |
| LVIE07CXSFY23.5C070S | 70                           | 1.10              | 1.20           | 2.00   | 4 x 0.20            | 31.7                          | 2910                |
| LVIE07CXSFY23.5C095S | 95                           | 1.10              | 1.20           | 2.20   | 4 x 0.50            | 35.9                          | 4070                |
| LVIE07CXSFY23.5C120S | 120                          | 1.20              | 1.20           | 2.30   | 4 x 0.50            | 39.5                          | 5080                |
| LVIE07CXSFY23.5C150S | 150                          | 1.40              | 1.40           | 2.40   | 4 x 0.50            | 44.1                          | 6130                |
| LVIE07CXSFY23.5C185S | 185                          | 1.60              | 1.40           | 2.60   | 4 x 0.50            | 48.6                          | 7540                |
| LVIE07CXSFY23.5C240S | 240                          | 1.70              | 1.60           | 2.80   | 4 x 0.50            | 54.4                          | 9570                |
| LVIE07CXSFY23.5C300S | 300                          | 1.80              | 1.60           | 3.00   | 4 x 0.50            | 59.6                          | 11770               |
| LVIE07CXSFY23.5C400S | 400                          | 2.00              | 1.60           | 3.20   | 4 x 0.50            | 65.8                          | 15160               |
| LVIE07CXSFY23.5C500S | 500                          | 2.20              | 1.80           | 3.50   | 4 x 0.50            | 74.9                          | 18970               |
| LVIE07CXSFY23.5C630S | 630                          | 2.40              | 1.80           | 3.80   | 4 x 0.80            | 83.5                          | 24160               |

**Electrical Characteristics:**

**Current rating and maximum DC conductor resistance.**

| Nominal Cross-sectional area | Buried direct in the ground at 20°C | In single way Ducts at 30°C | In air at 30°C | Maximum DC conductor Resistance at 20°C |        |
|------------------------------|-------------------------------------|-----------------------------|----------------|---|--------|
|                              | mm <sup>2</sup>                     | Amp.                        | Amp.           | Amp.                                    | Ω/km   |
| 25                           | 132                                 | 122                         | 131            | 131                                     | 0.727  |
| 35                           | 158                                 | 146                         | 162            | 162                                     | 0.524  |
| 50                           | 187                                 | 173                         | 197            | 197                                     | 0.387  |
| 70                           | 229                                 | 211                         | 249            | 249                                     | 0.268  |
| 95                           | 274                                 | 252                         | 307            | 307                                     | 0.193  |
| 120                          | 310                                 | 284                         | 352            | 352                                     | 0.153  |
| 150                          | 347                                 | 317                         | 402            | 402                                     | 0.124  |
| 185                          | 391                                 | 357                         | 464            | 464                                     | 0.0991 |
| 240                          | 451                                 | 409                         | 550            | 550                                     | 0.0754 |
| 300                          | 507                                 | 456                         | 631            | 631                                     | 0.0601 |
| 400                          | 570                                 | 508                         | 728            | 728                                     | 0.047  |
| 500                          | 640                                 | 562                         | 836            | 836                                     | 0.0366 |
| 630                          | 714                                 | 616                         | 957            | 957                                     | 0.0283 |

|                               |           |
|-------------------------------|-----------|
| Maximum conductor temperature | 90°C      |
| Ambient air temperature       | 30°C      |
| Ground temperature            | 20°C      |
| Depth of laying               | 750 mm    |
| Thermal resistivity of soil   | 1.5 K.m/W |

#### **De-Rating Factor**

**Current rating de-rating factors for other than 30°C ambient air temperature.**

| Air Temperature  | 20   | 25   | 35   | 40   | 45   | 50   | 55   | 60   |
|------------------|------|------|------|------|------|------|------|------|
| De-rating factor | 1.08 | 1.04 | 0.96 | 0.91 | 0.87 | 0.82 | 0.76 | 0.71 |

**Current rating de-rating factors for other than 20°C ground temperature.**

| Ground Temperature | 10   | 15   | 25   | 30   | 35   | 40   | 45  | 50   |
|--------------------|------|------|------|------|------|------|-----|------|
| De-rating factor   | 1.07 | 1.04 | 0.96 | 0.93 | 0.89 | 0.85 | 0.8 | 0.76 |

**Current rating de-rating factors for other than 30°C ground temperature for cables in Ducts.**

| Ground Temperature | 15   | 25   | 35   | 40   | 45   | 50   |
|--------------------|------|------|------|------|------|------|
| De-rating factor   | 1.12 | 1.04 | 0.96 | 0.91 | 0.87 | 0.82 |