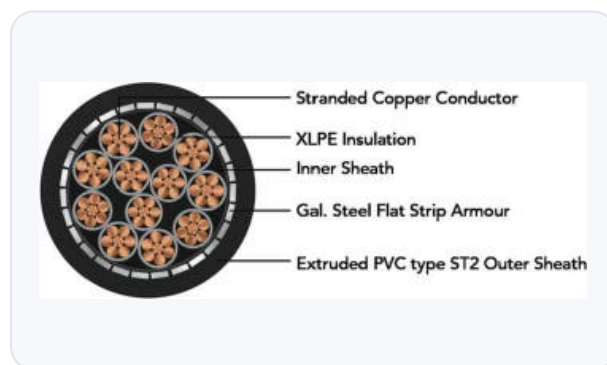


MULTICORE CONTROL CABLE · XLPE · FLAT STRIP ARMoured · IEC 60502-1

# INDOCABLES LV 2.5 CU IEC 60502-1 0.6/1 KV MC SFA CONTROL CABLE, 0.6/1 (1.2) KV AC



Images not to scale. Follow table for dimensions

## APPLICATION

INDOCABLES LV 2.5 CU IEC 60502-1 0.6/1 KV MC 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 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.

## CONSTRUCTION

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

## CHARACTERISTICS

|                           |                                                                                                                                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VOLTAGE RATING            | Nominal Voltage: 0.6/1 (1.2) kV                                                                                                                                                            |
| OPERATION TEMPERATURE     | Max. operating temperature up to 90°                                                                                                                                                       |
| SHORT CIRCUIT TEMPERATURE | Max. Short Circuit Temperature: 250°C                                                                                                                                                      |
| TEST VOLTAGE              | 3.5kV AC                                                                                                                                                                                   |
| CORE IDENTIFICATION       | 2 Core ●● Red, Black<br>3 Core ●●● Red, Yellow, Black<br>4 Core ●●●● Red, Yellow, Blue, Black<br>5 Core ●●●●● Red, Yellow, Blue, Black, Grey<br>6 Core & above ● Grey with number printing |

## OUTSTANDING FEATURES


**HIGH LIFE**

**HIGH INSULATION  
RESISTANCE**

**FLAME RETARDANT**

**LOW SMOKE**

**UV RESISTANT**

## STANDARD FOLLOWS

IEC 60228

IEC 60502-1

IEC 60332-1-2

## COMPLIANCE

Conductor resistance

Insulation resistance

Shrinkage test

Flame Retardant test

IEC 60228

IEC 60502-1

IEC 60811-503

IEC 60332-1-2

## ACCREDITATIONS & APPROVAL



ISI



ISO 9001


 Make in  
India

CM/L 6200267409

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

TABLE 1 WEIGHT AND DIMENSION DATA

| PRODUCT CODE                                    | NUMBER OF CORES<br>No. | NOMINAL CROSS SECTIONAL AREA<br>mm <sup>2</sup> | NOMINAL THICKNESS mm |                |        | ARMOURING DIMENSION<br>n x mm | OVERALL DIAMETER (APPROX.)<br>mm | WEIGHT (APPROX.)<br>Kg/Km |
|-------------------------------------------------|------------------------|-------------------------------------------------|----------------------|----------------|--------|-------------------------------|----------------------------------|---------------------------|
|                                                 |                        |                                                 | Insulation           | Inner covering | Sheath |                               |                                  |                           |
| IC-CT-12-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 12                     | 2.5                                             | 0.70                 | 1.00           | 1.80   | 4 x 0.20                      | 20.4                             | 900                       |
| IC-CT-14-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 14                     | 2.5                                             | 0.70                 | 1.00           | 1.80   | 4 x 0.20                      | 21.2                             | 1000                      |
| IC-CT-16-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 16                     | 2.5                                             | 0.70                 | 1.00           | 1.80   | 4 x 0.20                      | 22.2                             | 1100                      |
| IC-CT-19-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 19                     | 2.5                                             | 0.70                 | 1.00           | 1.80   | 4 x 0.20                      | 23.3                             | 1225                      |
| IC-CT-21-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 21                     | 2.5                                             | 0.70                 | 1.00           | 1.80   | 4 x 0.20                      | 24.4                             | 1325                      |
| IC-CT-24-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 24                     | 2.5                                             | 0.70                 | 1.00           | 1.80   | 4 x 0.20                      | 26.7                             | 1475                      |
| IC-CT-27-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 27                     | 2.5                                             | 0.70                 | 1.00           | 1.80   | 4 x 0.20                      | 27.2                             | 1600                      |
| IC-CT-30-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 30                     | 2.5                                             | 0.70                 | 1.00           | 1.80   | 4 x 0.20                      | 28.1                             | 1700                      |
| IC-CT-33-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 33                     | 2.5                                             | 0.70                 | 1.00           | 1.80   | 4 x 0.20                      | 29.1                             | 1825                      |
| IC-CT-37-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 37                     | 2.5                                             | 0.70                 | 1.00           | 1.90   | 4 x 0.20                      | 30.4                             | 2000                      |
| IC-CT-44-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 44                     | 2.5                                             | 0.70                 | 1.20           | 2.00   | 4 x 0.20                      | 34.4                             | 2375                      |
| IC-CT-52-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 52                     | 2.5                                             | 0.70                 | 1.20           | 2.00   | 4 x 0.20                      | 35.8                             | 2650                      |
| IC-CT-61-00250-CU-2XL-2XFY-0660-IEC60502P1-FRLS | 61                     | 2.5                                             | 0.70                 | 1.20           | 2.10   | 4 x 0.5                       | 38.7                             | 3025                      |

The above data is approximate & subject to manufacturing tolerance.

Product codes follow the Indo Cables product-code structure: IC – LINE – CORES – SIZE – CONDUCTOR – INSULATION – DESIGNATION – VOLTAGE – STANDARD – OPTION. 2XFY denotes XLPE insulation, flat strip armour and PVC sheath; 0660 the 600/1000 V grade; FRLS the flame-retardant low-smoke sheath option. The Item Master register holds no IEC 60502-1 control-cable item: all 13 codes on this sheet are derived from the code structure and are pending entry.

TABLE 2 ELECTRICAL PARAMETER

Current rating and maximum DC conductor resistance.



| NOMINAL CROSS SECTIONAL<br>AREA<br>mm <sup>2</sup> | NUMBER OF<br>CORES<br>No. | MAX. DC CONDUCTOR RESISTANCE AT<br>20°C<br>Ω/km | CURRENT RATING               |                           |
|----------------------------------------------------|---------------------------|-------------------------------------------------|------------------------------|---------------------------|
|                                                    |                           |                                                 | In Ground at<br>20°C<br>Amp. | In Air at<br>30°C<br>Amp. |
| 2.5                                                | 12                        | 7.41                                            | 21.6                         | 20                        |
| 2.5                                                | 14                        | 7.41                                            | 21.6                         | 20                        |
| 2.5                                                | 16                        | 7.41                                            | 19                           | 17.6                      |
| 2.5                                                | 19                        | 7.41                                            | 19                           | 17.6                      |
| 2.5                                                | 21                        | 7.41                                            | 17                           | 15                        |
| 2.5                                                | 24                        | 7.41                                            | 17                           | 15                        |
| 2.5                                                | 27                        | 7.41                                            | 15                           | 14                        |
| 2.5                                                | 30                        | 7.41                                            | 15                           | 14                        |
| 2.5                                                | 33                        | 7.41                                            | 15                           | 14                        |
| 2.5                                                | 37                        | 7.41                                            | 15                           | 14                        |
| 2.5                                                | 44                        | 7.41                                            | 13                           | 12                        |
| 2.5                                                | 52                        | 7.41                                            | 13                           | 12                        |
| 2.5                                                | 61                        | 7.41                                            | 13                           | 12                        |

|                                          |                                    |                            |                           |                                             |
|------------------------------------------|------------------------------------|----------------------------|---------------------------|---------------------------------------------|
| MAXIMUM CONDUCTOR<br>TEMPERATURE<br>90°C | AMBIENT AIR<br>TEMPERATURE<br>30°C | GROUND TEMPERATURE<br>20°C | DEPTH OF LAYING<br>750 mm | THERMAL RESISTIVITY OF<br>SOIL<br>1.5 K.m/W |
|------------------------------------------|------------------------------------|----------------------------|---------------------------|---------------------------------------------|

**FLAGGED** — reproduced as written from the source sheet, confirm before release: the Characteristics cell reads “up to 90°” with no unit letter, while this table's footer gives 90°C; the 61-core row gives armour dimension 4 × 0.5 where every other row gives 4 × 0.20; and Construction names the armour “Galvanised Flat Strip armoured (FSA)” while the product title uses SFA. The ISO 9001 mark is a 52 × 53 px crop from a supplied screenshot and prints well below the resolution a 300 dpi sheet needs. No RoHS or REACH mark is printed — no control-cable source sheet claims either. The Make in India mark is a 76 × 39 px crop from a supplied screenshot and prints at roughly a quarter of the resolution a 300 dpi sheet needs; supply a print-resolution file or hold the mark off the sheet. The reference header shows a lockup carrying the tagline EVERY CONNECTION MATTERS. No supplied logo file contains it and the design system has no confirmed tagline, so the header prints the stacked lockup alone; supply that lockup, or confirm the tagline, to set it.

TABLE 3 DE-RATING FACTORS

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

|                    |      |      |      |      |      |      |      |      |
|--------------------|------|------|------|------|------|------|------|------|
| AIR TEMPERATURE °C | 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 °C | 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 |