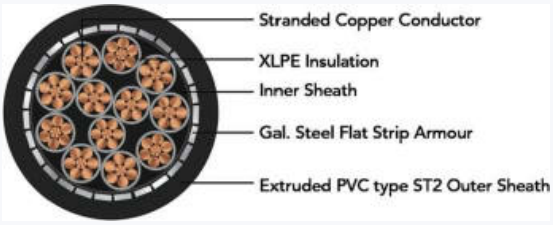
MULTICORE CONTROL CABLE · XLPE · FLAT STRIP ARMOURED · IEC 60502-1

INDOCABLES LV 1.5 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 1.5 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 (Um=1.2 KV) & ≤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°C
SHORT CIRCUIT TEMPERATURE	Max. Short Circuit Temperature: 250°C
TEST VOLTAGE	3.5kV AC
CORE IDENTIFICATION	2 Core: Red, Black 3 Core: Red, Yellow, Black 4 Core: Red, Yellow, Blue, Black 5 Core: Red, Yellow, Blue, Black, Grey 6 Core & above: Grey with number printing

BENDING RADIUS	Fixed installation 12 x Overall diameter

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	IEC 60228
Insulation resistance	IEC 60502-1
Shrinkage test	IEC 60811-503
Flame Retardant test	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.

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TABLE 1 WEIGHT AND DIMENSION DATA

PRODUCT CODE	NUMBER OF CORES No.	NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL THICKNESS mm			ARMOURING DIMENSION n x mm	OVERALL DIAMETER (APPROX.) mm	WEIGHT (APPROX.) Kg/Km
			Insulation	Inner covering	Sheath			
IC-CT-16-00150-CU-2XL-2XFY-0660-IEC60502P1-FRLS	16	1.5	0.70	1.00	1.80	4 x 0.20	20.1	850
IC-CT-19-00150-CU-2XL-2XFY-0660-IEC60502P1-FRLS	19	1.5	0.70	1.00	1.80	4 x 0.20	21.0	940
IC-CT-21-00150-CU-2XL-2XFY-0660-IEC60502P1-FRLS	21	1.5	0.70	1.00	1.80	4 x 0.20	22.0	1020
IC-CT-24-00150-CU-2XL-2XFY-0660-IEC60502P1-FRLS	24	1.5	0.70	1.00	1.80	4 x 0.20	24.0	1130
IC-CT-27-00150-CU-2XL-2XFY-0660-IEC60502P1-FRLS	27	1.5	0.70	1.00	1.80	4 x 0.20	24.4	1220
IC-CT-30-00150-CU-2XL-2XFY-0660-IEC60502P1-FRLS	30	1.5	0.70	1.00	1.80	4 x 0.20	25.2	1290
IC-CT-33-00150-CU-2XL-2XFY-0660-IEC60502P1-FRLS	33	1.5	0.70	1.00	1.80	4 x 0.20	26.1	1380
IC-CT-37-00150-CU-2XL-2XFY-0660-IEC60502P1-FRLS	37	1.5	0.70	1.00	1.80	4 x 0.20	27.0	1500
IC-CT-44-00150-CU-2XL-2XFY-0660-IEC60502P1-FRLS	44	1.5	0.70	1.00	1.90	4 x 0.20	30.2	1740
IC-CT-52-00150-CU-2XL-2XFY-0660-IEC60502P1-FRLS	52	1.5	0.70	1.00	1.90	4 x 0.20	31.4	1930
IC-CT-61-00150-CU-2XL-2XFY-0660-IEC60502P1-FRLS	61	1.5	0.70	1.20	2.00	4 x 0.20	33.8	2230

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 11 codes on this sheet are derived from the code structure and are pending entry.

TABLE 2 ELECTRICAL PARAMETER

Current ratting and maximum DC conductor resistance.

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NOMINAL CROSS SECTIONAL AREA mm²	NUMBER OF CORES No.	MAX. DC CONDUCTOR RESISTANCE AT 20°C Ω/km	CURRENT RATING	
			In Ground at 20°C Amp.	In Air at 30°C Amp.
1.5	16	12.1	15	13
1.5	19	12.1	15	13
1.5	21	12.1	13	12
1.5	24	12.1	13	12
1.5	27	12.1	12	10
1.5	30	12.1	12	10
1.5	33	12.1	12	10
1.5	37	12.1	12	10
1.5	44	12.1	10	9
1.5	52	12.1	10	9
1.5	61	12.1	10	9

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

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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