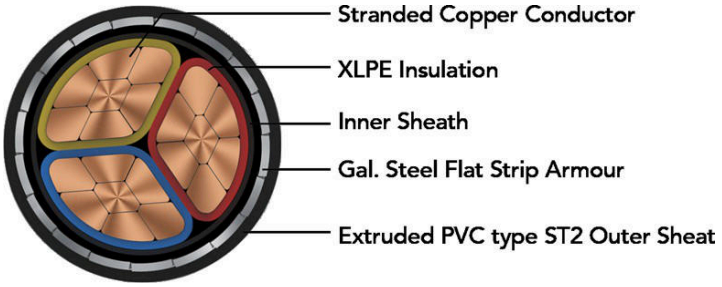
LOW VOLTAGE POWER CABLE · 2XFY MC-3 · THREE CORE COPPER STRIP ARMOURED

650/1100 V AC · 3-CORE COPPER

Stranded plain compacted sector shaped copper conductor · XLPE insulated · PVC inner sheathed · galvanized steel flat strip armoured · PVC sheathed · conforming to IS 7098-1

650/1100 V	90 °C max.	250 °C	16–400 mm²
Voltage rating	Operation temperature	Short circuit temperature	Size range, 3 core

CABLE / SIDE VIEW · INDOCABLES sheath print



CROSS-SECTION · construction callouts

Images not to scale. Follow table for dimensions

APPLICATION

INDOCABLES 2XFY MC-3, Stranded compacted copper conductor, XLPE insulated, PVC inner sheathed, Galvanized Steel Flat strip armour and PVC sheathed confirming to IS 7098-1 is suitable for AC single phase or three phase (earthed or unearthed) systems with rated voltage up to and including 1100 V. This cable is also suitable for DC systems with rated voltage up to and including 1500 V to earth.

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CHARACTERISTICS & CONSTRUCTION

Voltage rating	650/1100 V
Operation temperature	Max.: 90°C · Short circuit temperature 250°C
Conductor	Stranded plain compacted sector shaped copper conductor as per IS 8130, class 2
Insulation	Insulated with Cross Linked Polyethylene (XLPE) to IS 7098-1
Inner sheath	Extruded inner sheath with PVC Type ST2/FRLS/FR/LSZH
Armouring	Armoured with Galvanized Flat Steel Strip to IS 3975†
Outer sheath	Sheathed with Extruded PVC Type ST2/FRLS/FR/LSZH
Core identification	Red, Yellow, Blue
Bending radius	Fixed installation 12 x Overall diameter

OUTSTANDING FEATURES

High life

High insulation resistance

Flame retardant

Low halogen · Low smoke

UV resistant

STANDARD FOLLOWS

IS 8130:2013 · IS 5831:1984 · IS 3975:1979 · IS 7098-1:1988

COMPLIANCE

Conductor resistance	IS 8130:2013
Insulation resistance	IS 7098-1:1988
Flammability test	IEC 60332-1:2015

OUR ACCREDITATIONS & APPROVAL

ISI
Bureau of Indian Standards · CM/L 6200267409

ISO 9001
Cert. 99 100 22646 (TÜV SÜD)

RoHS
Compliant

REACH
Compliant

Make in India
Manufactured in India

Notes: Other color also available on request. Cable available with anti-rodent & termite

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WEIGHT & DIMENSION DATA

Product code	Nominal cross-sectional area n x mm²	Nominal thickness of insulation mm	Nominal dimension of armour flat wire mm	Minimum thickness of outer sheath mm	Overall diameter mm	Weight (approx.) kg/km
IC-PW-03-01600-CU-2XL-2XFY-1100-IS7098P 1-FRLS	3 x16	0.7	4x0.8	1.24	16.8	772.3
IC-PW-03-02500-CU-2XL-2XFY-1100-IS7098P 1-FRLS	3 x25	0.9	4x0.8	1.4	20.1	1102
IC-PW-03-03500-CU-2XL-2XFY-1100-IS7098P 1-FRLS	3 x35	0.9	4x0.8	1.4	22	1396
IC-PW-03-05000-CU-2XL-2XFY-1100-IS7098P 1-FRLS	3 x50	1	4x0.8	1.4	24.8	1767
IC-PW-03-07000-CU-2XL-2XFY-1100-IS7098P 1-FRLS	3 x70	1.1	4x0.8	1.56	28.5	2441
IC-PW-03-09500-CU-2XL-2XFY-1100-IS7098P 1-FRLS	3 x95	1.1	4x0.8	1.56	31.3	3182
IC-PW-03-12000-CU-2XL-2XFY-1100-IS7098P 1-FRLS	3 x120	1.2	4x0.8	1.56	34.3	3895
IC-PW-03-15000-CU-2XL-2XFY-1100-IS7098P 1-FRLS	3 x150	1.4	4x0.8	1.72	38.3	4759
IC-PW-03-18500-CU-2XL-2XFY-1100-IS7098P 1-FRLS	3 x185	1.6	4x0.8	1.88	42.3	5852
IC-PW-03-24000-CU-2XL-2XFY-1100-IS7098P 1-FRLS	3 x240	1.7	4x0.8	2.04	47.2	7505
IC-PW-03-30000-CU-2XL-2XFY-1100-IS7098P 1-FRLS	3 x300	1.8	4x0.8	2.2	51.8	9243
IC-PW-03-40000-CU-2XL-2XFY-1100-IS7098P 1-FRLS	3 x400	2	4x0.8	2.52	58.5	11704

The above data is approximate & subject to manufacturing tolerance. Codes read 03 = three core · CU · 2XL XLPE · 2XFY copper / XLPE / flat steel strip armour / PVC sheath · 1100 = 650/1100 V · IS 7098 Part 1 · FRLS.

All twelve codes are registered in the Indo Cables Item Master (IC1000985–IC1001018), status DRAFT pending steward approval. † The source gives the same flat strip dimension, 4 x 0.8 mm, for every size from 16 to 400 mm² — reproduced as written, flagged for check.

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ELECTRICAL CHARACTERISTICS

Nominal area of conductor mm²	Buried direct in the ground Amp.	In single way Ducts Amp.	In air Amp.	Max. DC conductor resistance at 20°C Ω/km
16	95	79	89	1.15
25	122	102	119	0.727
35	146	122	147	0.524
50	173	144	179	0.387
70	212	177	226	0.268
95	254	212	279	0.193
120	287	240	320	0.153
150	321	269	365	0.124
185	362	304	422	0.0991
240	418	352	500	0.0754
300	469	396	574	0.0601
400	528	447	662	0.047

Air ambient temperature	Ground ambient temperature	Conductor operating temperature	Rating basis
40°C	30°C	90°C	IS 3961-6:2016

The above table is in accordance with IS 3961(part 6):2016.

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DE-RATING FACTOR

Rating factor for variation in ambient air temperature for cable in free air.

Ambient air temperature	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
De-rating factor	1.14	1.10	1.05	1.00	0.95	0.89	0.84	0.77

Maximum conductor temperature 90°C

Rating factor for variation in ground temperature for direct buried cables.

Ground temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
De-rating factor	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82

Maximum conductor temperature 90°C

Rating factor for variation in ground temperature for cable in duct.

Ground temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
De-rating factor	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82

Maximum conductor temperature 90°C. The source gives identical factors for direct buried cables and cables in duct — reproduced as written, flagged for check.

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