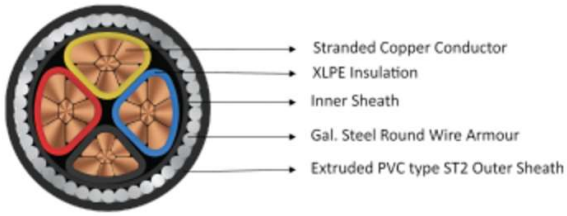
LOW VOLTAGE POWER CABLE · 2XWY

650/1100 V · 3.5-CORE COPPER

XLPE insulated · galvanised steel round-wire armoured · PVC sheathed · manufactured to IS 7098 Part 1

650/1100 V	+90 °C	250 °C	1500 V DC
Rated voltage, AC systems	Max. operating temperature	Max. short-circuit temperature	Max. rated DC voltage to earth

CABLE / TOP VIEW · INDOCABLES sheath print



CROSS-SECTION · construction callouts

Images not to scale. Follow table for dimensions.

APPLICATION

INDOCABLES 2XWY MC-3.5, Stranded compacted copper conductor, XLPE insulated, PVC inner sheathed, Galvanised Steel round wire 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.

CONSTRUCTION

Conductor	Stranded plain compacted sector-shaped copper conductor as per IS 8130, class 2
Insulation	Cross-linked polyethylene (XLPE) as per IS 7098 Part 1
Inner sheath	Extruded PVC, Type ST2 / FRLS / FR / LSZH
Armour	Galvanised steel round wire as per IS 3975
Outer sheath	Extruded PVC, Type ST2 / FRLS / FR / LSZH
Core identification	Red, yellow, blue and black
Bending radius	Fixed installation: 12 × overall diameter
Notes	Other colours available on request. Cable available with anti-rodent & termite protection.

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

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WEIGHT & DIMENSION DATA

Product code	Nominal cross-sectional area n × mm²	Nominal insulation thickness main/neutral mm	Nominal dimension of armour round wire mm	Minimum thickness of outer sheath mm	Overall diameter mm	Weight (approx.) kg/km
IC-PW-3H-02500-CU-2XL-2XWY-1100-IS7098P 1-FRLS	3.5 × 25	0.9/0.7	1.6	1.4	23.6	1491
IC-PW-3H-03500-CU-2XL-2XWY-1100-IS7098P 1-FRLS	3.5 × 35	0.9/0.7	1.6	1.4	25.8	1824
IC-PW-3H-05000-CU-2XL-2XWY-1100-IS7098P 1-FRLS	3.5 × 50	1/0.9	1.6	1.56	29	2337
IC-PW-3H-07000-CU-2XL-2XWY-1100-IS7098P 1-FRLS	3.5 × 70	1.1/0.9	2	1.56	33.9	3296
IC-PW-3H-09500-CU-2XL-2XWY-1100-IS7098P 1-FRLS	3.5 × 95	1.1/1	2	1.56	37.2	4237
IC-PW-3H-12000-CU-2XL-2XWY-1100-IS7098P 1-FRLS	3.5 × 120	1.2/1.1	2	1.72	41	5225
IC-PW-3H-15000-CU-2XL-2XWY-1100-IS7098P 1-FRLS	3.5 × 150	1.4/1.1	2	1.88	45	6194
IC-PW-3H-18500-CU-2XL-2XWY-1100-IS7098P 1-FRLS	3.5 × 185	1.6/1.1	2.5	2.04	50	7989
IC-PW-3H-24000-CU-2XL-2XWY-1100-IS7098P 1-FRLS	3.5 × 240	1.7/1.2	2.5	2.2	56	10003
IC-PW-3H-30000-CU-2XL-2XWY-1100-IS7098P 1-FRLS	3.5 × 300	1.8/1.4	2.5	2.36	61	12131
IC-PW-3H-40000-CU-2XL-2XWY-1100-IS7098P 1-FRLS	3.5 × 400	2/1.6	3.15	2.68	70	15817

The above data is approximate & subject to manufacturing tolerance. All codes registered in the Indo Cables Item Master (status: DRAFT) — see run report.

ELECTRICAL CHARACTERISTICS

Current rating and maximum DC conductor resistance.

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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

90°C
Conductor operating temperature

40°C
Air ambient temperature

30°C
Ground ambient temperature

IS 3961 (Part 6):2016
Rating table in accordance with

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DE-RATING FACTORS

Rating factor for variation in ambient air temperature, cable in free air. Maximum conductor temperature 90°C.

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

Rating factor for variation in ground temperature, direct buried cables. Maximum conductor temperature 90°C.

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

Rating factor for variation in ground temperature, cable in duct. Maximum conductor temperature 90°C.

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

OUR ACCREDITATIONS & APPROVAL

ISO 9001
Cert. 99 100 22646 (TÜV SÜD)

ISI
BIS CM/L 6200267409 (IS 7098 Pt-1)

RoHS
Compliant

REACH
Compliant

Make in India
Manufactured in India

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