FR-LSH BUILDING WIRE, 1100 V AC

PRODUCT SPECIFICATION

INDOCABLES FR-LSH BUILDING WIRE, 1100 V AC

FIG. 1 — SHEATH PRINT AND BUNCHED CONDUCTOR

Images not to scale. Follow table for dimensions

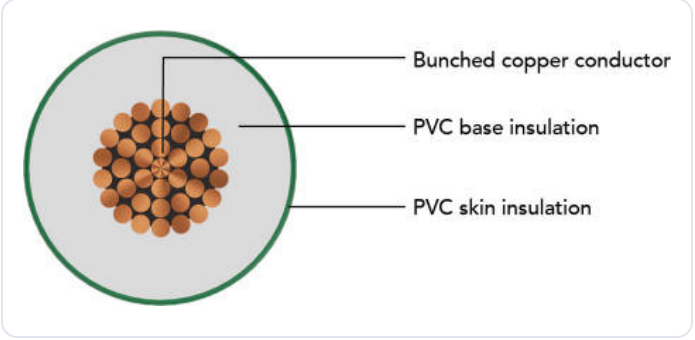

FIG. 2 — CONSTRUCTION, CROSS SECTION

APPLICATION

INDOCABLES FR-LSH wire is suitable for use where high flexibility is of prime importance. This is also suitable for indoor installation in industries, household appliances and building electrification.

CHARACTERISTICS

Voltage Rating	1100 V
Operation Temperature	Fixed: −15 °C to 70 °C
Bending Radii	Fixed installation 6 × Overall Diameter · Occasional 4 × Overall Diameter
Test Voltage	3000 V AC at (20 ± 5) °C

CONSTRUCTION

- Annealed bunched copper conductor as per IS 8130, class 5
- Insulated by PVC Type D with FR-LSH to IS 5831

Core Identification	Red / Yellow / Blue / Black / Green / any customize colour
Electrical Property	High insulation resistance · Higher current carrying capacity

OUTSTANDING FEATURES

- High Flexibility
- High surface lubrication suitable to conduit wiring
- Resistant to moisture for use in wet area
- High abrasion resistance
- Resistant to Acid & Alkali

FLAME RETARDANT

LOW SMOKE

HIGHLY FLEXIBLE

ABRASION RESISTANT

ACID & ALKALI RESISTANT

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STANDARD FOLLOWS

IS 8130:2013 | IS 5831:1984 | IS 694:2010

COMPLIANCE

Conductor resistance test	IS 8130
Flammability	IEC 60332-1
Oxygen index	ASTM D 2863
Temperature index	IEC 60332-1
Halogen acid gas generation	IEC 60754-1
Smoke density	ASTM D 2843-19

WEIGHT & DIMENSION DATA

PRODUCT CODE	NOMINAL CROSS-SECTIONAL AREA MM²	NO. OF WIRE / WIRE DIA. NO./MM	NOMINAL INSULATION THICKNESS MM	OVERALL DIA. (APPROX.) MM
IC-HW-01-00075-CU-PVC-H07VK-0450-IS694-FRLH	0.75	24/0.2	0.6	2.3
IC-HW-01-00100-CU-PVC-H07VK-0450-IS694-FRLH	1	32/0.2	0.6	2.5
IC-HW-01-00150-CU-PVC-H07VK-0450-IS694-FRLH	1.5	30/0.25	0.6	2.8
IC-HW-01-00250-CU-PVC-H07VK-0450-IS694-FRLH	2.5	50/0.25	0.7	3.6
IC-HW-01-00400-CU-PVC-H07VK-0450-IS694-FRLH	4	56/0.3	0.8	4.2
IC-HW-01-00600-CU-PVC-H07VK-0450-IS694-FRLH	6	84/0.3	0.8	4.7

All six codes are looked up from the ITEM MASTER (class 5 flexible, option FRLH). No weight column was supplied in the source table.

ELECTRICAL CHARACTERISTICS

Current carrying capacity and Max. DC conductor resistance.

NOMINAL CROSS-SECTIONAL AREA MM²	REFERENCE METHOD B (enclosed in conduit on a wall or in trunking etc.) Amp.	REFERENCE METHOD C (clipped direct) Amp.	MAXIMUM DC CONDUCTOR RESISTANCE AT 20 °C Ω/KM
0.75	7	7.5	26
1	11	12	19.5
1.5	14	16	13.3
2.5	19	22	7.98
4	26	29	4.95
6	31	37	3.3

The ambient temperature is 40 °C. Conductor operating temperature 70 °C.

DE-RATING FACTOR

De-rating factor for various ambient temperature.

AMBIENT TEMPERATURE	35 °C	40 °C	45 °C	50 °C	55 °C	60 °C	65 °C
De-Rating Factor	1.08	1	0.91	0.82	0.7	0.57	0.4

CERTIFICATIONS & APPROVALS

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FR-LSH BUILDING WIRE, 1100 V AC

ISO 9001
Cert. 99 100 22646 (TÜV SÜD)

ISI
Bureau of Indian Standards · CM/L 6200267207

RoHS
Compliant

REACH
Compliant

Make in India
Manufactured in India

INTERNAL FLAGGED FOR THE CODE STEWARD

1. **Every code on this sheet is in the register — all six as STATUS = DRAFT.** Items `IC1003898, IC1003899, IC1003900, IC1003903, IC1003906, IC1003909`. Nothing is derived and nothing is missing, but no row is yet approved and sellable.
2. **Voltage grade.** The sheet title and characteristics state 1100 V, while every registered HW item carries `0450` (450/750 V). Register codes reproduced as they stand; the 1100 V text reproduced as written. Please reconcile.
3. **Option code.** FR-LSH maps to register option `FRLH` — plain name FRLSH, "flame retardant low smoke halogen free". Used on all six rows. The register also carries a separate `FRLS` option; FRLH is the correct match for this sheet.
4. **Old codes carried the previous owner's initials.** The source codes ran `HWC1C<SIZE>PCFRLSHIS694` — the `PC` segment is the original manufacturer's mark. All six replaced with register codes.
5. **Table heading says weight, no weight column supplied.** The source table is headed "WEIGHT & DIMESION DATA" but carries only size, wire count, insulation thickness and overall diameter. No weight values invented. Sheet BW-07 supplies Kg/km for the comparable range.
6. **Temperature index cites IEC 60332-1**, the same standard given for flammability; temperature index is normally quoted against ASTM D 2863 / IS 10810 (Part 64). Reproduced as written, not corrected.
7. **Insulation description.** Construction reads "Insulated by PVC Type D with FR-LSH to IS 5831", while the Fig. 2 callouts read "PVC base insulation" and "PVC skin insulation" (dual layer). Both reproduced as supplied; confirm which is correct for the sheet.
8. **Bending radii.** Fixed installation 6 × OD and occasional 4 × OD, as written. Sheet BW-07 states the opposite pairing. Reproduced as supplied — please reconcile across the family.
9. **Third-party marks removed.** The source accreditation block carried NABL and the approval block carried further third-party artwork; all removed. ISI mark and ISO 9001 badge added — the pair now sits in the Certifications & Approvals band above this list, not in the running page header.
10. **Images.** Fig. 1 sheath print reads INDOCABLES, so the original render is retained. Fig. 2 cross section kept as-is.
11. **Document properties.** The source .docx author and last-modified-by fields do not carry into this sheet.
12. **Make in India mark is low resolution.** The only file in the brand set is 80 × 41 px, which upscales soft at print size. A vector or high-resolution version is needed.

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