



## Guaranteed Technical Particulars

**3M Heat Shrink Indoor Termination For 33 kV (E), 1 or 3 Core, Al./Cu. Conductor, XLPE Insulated, Screened, Armoured/Unarmoured cable.**

**Type:- '3MHI' Indoor Termination**

| Sr. No. | Particulars  | Unit    | Guaranteed Values   |
|---------|--|---------|---|
| 1       | Manufacturer Name & Address  |         | <b>3M Electro and Communication India Pvt Ltd.</b><br>Pimpri Pune-411018 (India)  |
| 2       | Trade name   |         | <b>3M</b>   |
| 3       | Applicable Standards   |         | IS:13573-II-2011, IEC 60502-4   |
| 4       | For the nominal (phase to phase) System Voltages (U)   | kV      | 33 kV   |
| 5       | A.C. withstand voltage dry (ph/ground), 5 mins.  | kV      | 85.5 kV   |
| 6       | Partial Discharge  | pC      | < 10 pC @ 33 kV   |
| 7       | Impulse Withstand 1.2/50/μs (10 +ve, 10-ve)  | kVp     | 170 kVp   |
| 8       | Load Cycle Test  |         |   |
|         | a) Temperature of conductor during heating cycle   | °C      | For XLPE cable 95°C-100°C   |
|         | b) Duration of heating after steady state temperature  | Hrs.    | 2   |
|         | c) Total duration of cycle   | Hrs.    | 8   |
|         | d) Duration of cooling   | Hrs.    | 3   |
|         | e) Number of Cycles   In Air   |         | 60 Cycles   |
|         | f) Continuous phase to ground Voltage Withstand  | kV      | 47.5  |
| 9       | Thermal Short circuit current Withstand 1Sec. (Is)   | kA      | As per cable conductor size/material.   |
| 10      | Dynamic short circuit withstand  | kA Peak | 2.55 x Is As per IS:13573-II-2011   |
| 11      | Humidity Test (Conductivity of spraying water maintained between 70±10 mS/m throughout the test) | kV      | 300 hrs. at 24 kV   |
| 12      | Material of the tubing/moulded parts   |         | Polyolefin based  |
| 13      | Method of stress control   |         | High Permittivity.  |
| 14      | Method of environmental seal   |         | Sealing mastic and heat shrink breakout Boot/Tube for crutch sealing and lug sealing.<br>Heat shrink tubes for core insulation. |
| 15      | Allowable Kit storage Temperature  | °C      | Indoor, Ambient Temperature (50°C Max.)   |
| 16      | Type of Lug  |         | Crimping / Mechanical   |
| 17      | Material of lug  |         | a) For Crimping type:- Same as cable conductor material   |
|         |  |         | b) For mechanical type:- Al. or Cu. alloys according to connector manufacturers technology.                                     |
| 18      | Shelf life of H.S. components  | Years   | 5 Years   |
| 19      | Installation Instructions  | Yes/No  | Yes   |

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