Medium Voltage Terminations

Heat Shrink Technology

MHO/MHI Series

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PRODUCT DESCRIPTION

3M Heat Shrink Terminations up to 36KV, are specially designed for conditions where the terminations are exposed to precipitation, outdoor sunlight, extreme climatic variances and heavily polluted areas. The specially engineered kits also take care of the typical partial discharge ans surface corona phenomenon for all power cables under challenging service conditions.

All components required for the termination are included in a single kit, which has a prolonged storage life under normal storage conditions. A few sizes of the kits cover the entire range of cables, helping in reducing inventories. The heat shrinkable components are light in weight and are made of a specially formulated cross-linked polymeric material with excellent tracking and erosion resistance characteristics. A proper creepage path is obtained within a short overall length of the termination. The kits have been designed to meet various international standards like IS, HDE, IEEE, IEC and BS. Our state-of-the-art manufacturing facility and in-house testing laboratories and accreditation to the ISO 9001 quality assurance standard, guarabtees the performance of our materials to suit customer requirement.

3M Heat Shrink Terminations are available for both indoor anf outdoor application. The terminations are available for single core and multi core cable types.

Indoor terminations: components are designed to withstand highhumidity and surface contamination under electric stress caused due to condensation and dust in internal conditions.

Outdoor terminations: components are designed to withstand exposure to UV radiation, extreme climatic variations and surface contamination under electric stress caused due to condensation, pollution ans dust in external condition.

PRODUCT APPILCATION

3M Heat Shrink medium voltage terminations are available for tape/wire shielded, armoured/ unarmoured medium voltage single core and three core polymeric cables. 3M Heat Shrinkable terminations utilizes a unique high dielectric constant (High K) stress control tube and mastic for effective grading of electrical stresses.

The non tracking heat shrinkable insulating outer tube is optimally designed for reliable environmental protection.

The modular heat shrinkable skirts allow installation of the termination in inverted condition if required. For three core cable terminations, a heat shrinkable breakout is provided for environment sealing of the trifurcating crotch area. All the heat shrinkable components are supplied in an expanded state and would shrink effectively on application of heat. All the grounding connections are solder-less.

Kit Description	Cable Insulation Outer Diameter Application range (mm)
MHI/MHO 24kV 35/50 SQMM ID c/w:	
Stress Control Tube 30/15	24 .. 18
Anti-Tracking Tube 35/12	28 .. 14.4
MHI/MHO 24kV 70/120 SQMM ID c/w:	
Stress Control Tube 45/20	36 .. 24
Anti-Tracking Tube 45/19	36 .. 22.8
MHI/MHO 24kV 150/300 SQMM ID c/w:	
Stress Control Tube 50/25	40 .. 30
Anti Tracking Tube 55/20	44 .. 24

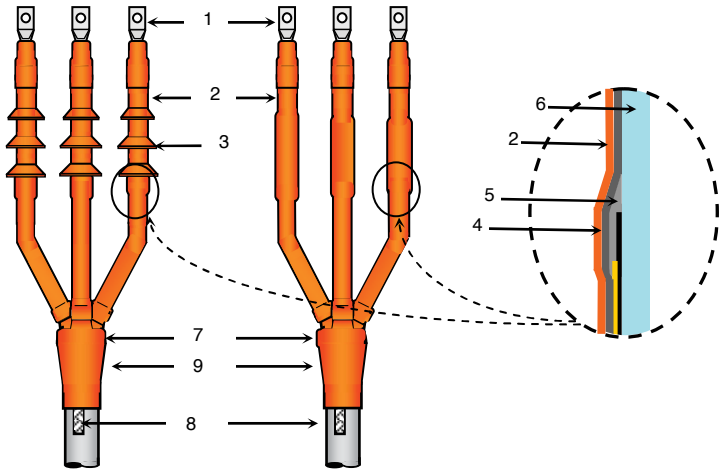
PRODUCT FEATURES

- Available for 1-core and 3-core polymeric cables.
- Provides excellent environmental protection and moisture sealing.
- Wide conductor size ranges.
- Ease of installation.
- Simplified cable preparation.
- Outstanding long-term reliability.
- Effective and reliable stress control.
- Excellent mechanica, themal and electrical characteristics.
- Superior resistance to weathering and UV.
- Resistant to water and corrosion.
- Immediate energization of cable on completion.

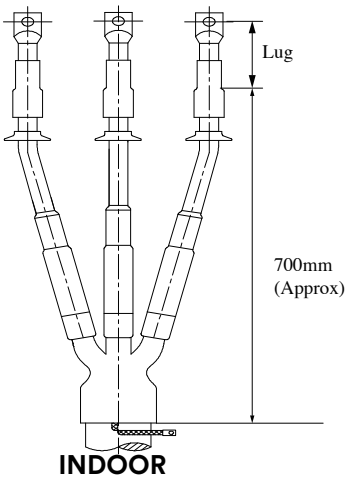
Test	Test Value	Result
Partial Discharge Test	Less than 10 pC at 22kV	Pass
5 min AC High Voltage Test	57kV	Pass
1 min AC High Voltage Test	65kV	Pass
Load Cycle Test, at 2.5 Uo	63 cycles	Pass
15 Min DC Withstand test	76kV	Pass
Impulse Voltage Test	150kVp	Pass

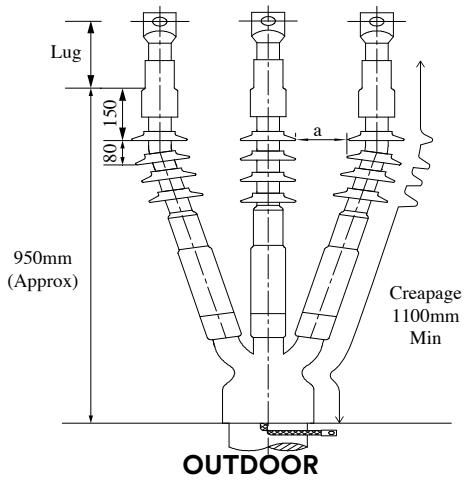
DETAIL OF PRODUCT TERMINATIONS FOR POLYMERIC CABLES

1. Terminal Lug (Not included in the kit)
2. Anti-Tracking sleeve
3. Rain Shed (skirt)
4. Stress Control Sleeve
5. Stress Control Mastic
6. XLPE Insulation
7. Constant Force Spring
8. Copper Braid
9. Trifurcating break out (adhesive coated)

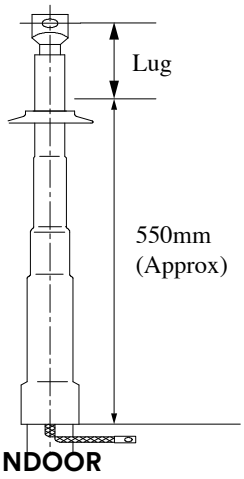


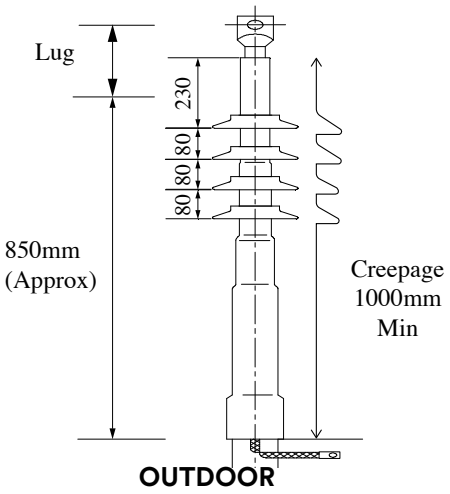
3 Core Terminations





1 Core Terminations





SELECTION GUIDE

No.	Product Description	Cable (mm^2)	Phase	Outdoor / Indoor	Voltage
1	MHI 24kV 1C-35/50 SQMM ID	35/50	1	Indoor	24kV
2	MHI 24kV 1C-70/120 SQMM ID	70/120	1	Indoor	24kV
3	MHI 24kV 1C-150/300 SQMM ID	150/300	1	Indoor	24kV
4	MHO 24kV 1C-35/50 SQMM OD	35/50	1	Outdoor	24kV
5	MHO 24kV 1C-70/120 SQMM OD	70/120	1	Outdoor	24kV
6	MH0 24kV 1C-150/300 SQMM OD	150/300	1	Outdoor	24kV
7	MHI 24kV 3C-35/50 SQMM ID	35/50	3	Indoor	24kV
8	MHI 24kV 3C-70/120 SQMM ID	70/120	3	Indoor	24kV
9	MHI 24kV 3C-150/300 SQMM ID	150/300	3	Indoor	24kV
10	MHO 24kV 3C-35/50 SQMM OD	35/50	3	Outdoor	24kV
11	MHO 24kV 3C-70/120 SQMM OD	70/120	3	Outdoor	24kV
12	MHO 24kV 3C-150/300 SQMM OD	150/300	3	Outdoor	24kV