



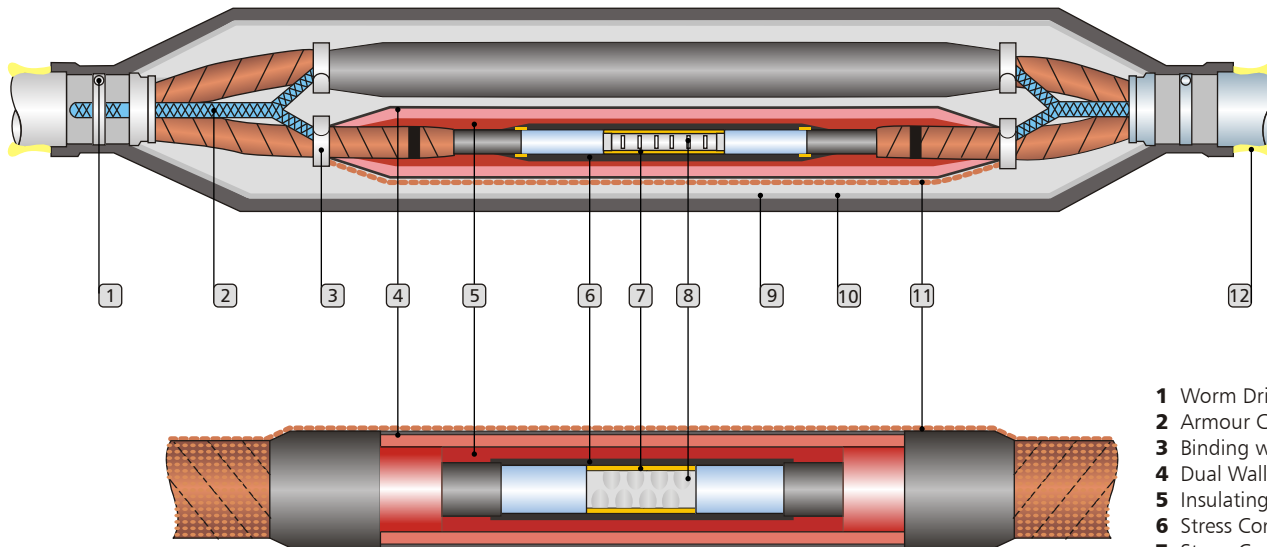
Straight Joint XLPE



Straight joints form an integral part of today's power cable networks. M-Seal Heat shrink (HS) Straight Joints offer reliability and flexibility to meet the demands of cable network operators. The joints are available for upto 36kV. M-Seal HS kits provide a lightweight, compact, and environmentally sealed system for splicing extruded dielectric shielded power cables. These features allow the installation of the jointing system in ducts, vaults and direct-burial applications. The joints comprise of heat shrinkable materials which are fast and simple to install. The insulating, screening and electrical field control layers of the joints are made of heat shrinkable crosslinked polymeric materials with precisely defined electro mechanical characteristics. The kit has field control material to control electrical stresses over the connectors and at the shield cutbacks. Insulating tubing and semi conducting tubing re-insulate and re-shield the areas over the spliced conductors. Tinned copper mesh and braid re-establish the metallic shielding across the joint. A tough abrasion resistant black jacketing tube or wraparound jacketing sleeve provides the joint with external moisture seals and mechanical protection. For cables requiring additional mechanical protection, a specifically designed metallic case or encapsulation by polyurethane compound can be provided.

- Quick cable preparation
- High electrical insulation values
- No moisture ingress
- Good mechanical strength
- Good resistance against UV radiation, alkaline earths, chemical agents and subsoil effects
- Compact dimensions
- Immediate energisation possible
- Due to short installation time outages are kept to a minimum in repair situations
- Suitable for all conductor shapes, materials and connectors

Straight Joint XLPE



- 1 Worm Drive Clamp
- 2 Armour Continuity Connection
- 3 Binding wire
- 4 Dual Wall Sleeve (Red & Black)
- 5 Insulating Sleeve (Red)
- 6 Stress Control Sleeve (Black)
- 7 Stress Control Mastic
- 8 In-Line Connector
- 9 Mechanical Protection
- 10 Outer Jacket Tube/ Wrap around sleeve
- 11 Copper Woven Mesh Tape
- 12 Hot Melt Adhesive

All components required for the joints 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 specially formulated cross-linked polymeric material with excellent tracking and erosion resistance characteristics. The kits have been designed to meet various international standards like IS, HD, IEEE, IEC and BS. Our state-of-the-art manufacturing facility, in-house testing laboratories and accreditation to the ISO 9001 quality assurance standard, guarantees the performance of our materials to meet customer requirements.

Joints are available for single core and aerial bunched cables also.

Minimum Performance Of M-Seal Straight Through Joint for MULTI-CORE XLPE Cables upto 36 kV

Tests	Parameters	Test Voltage in kV			Observations
		12kV	24kV	36kV	
Impact	4 kg wedge dropped 6 times from 2 meter height	-----	-----	-----	No visible damage
AC high voltage test	1 minute	35	55	75	No breakdown or flashover
Partial Discharge	Test Voltage	at 2U ₀			Less than 20 pc
Impulse withstand test	10 +VE & 10-VE ,1.2 Micro second between conductor & screen grounded	75	125	170	No breakdown or flashover
Load cycling test	63 Cycles in air & 60 cycles under water, 5H heating,3H cooling with cond. temp.as per cable specification	at 2.5U ₀			No breakdown or flashover
Thermal short circuit test	Current according to the cross-section of cable	-----			No visible signs of damage
DC withstand test	30 minutes	48	96	144	No breakdown or flashover
Dynamic short circuit test	Current according to the cross-section of cable	-----			No breakdown or flashover

Important Notice

Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use.

Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture at the time of purchase. **3M MAKES NO OTHER WARRANTIES**



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