

## Raychem Heat-shrinkable Termination System for Cables up to 36 kV

**Raychem**  
from TE Connectivity

# The Raychem Universal Medium Voltage Termination System for Polymeric and Paper Insulated Cables

Over the last three decades, engineers in utilities and industry around the world have specified million's of Raychem cable terminations at distribution voltages up to 36 kV.

Raychem terminations have become identified with reliability because of their unparalleled long-term performance – where it really counts – in the field.

Today there are many changes influencing the distribution of power at medium voltages. For example, the transition to new types of polymeric cable, distribution at higher voltages, and the widespread usage of compact switchgear.

Anticipating these industry changes, we have continued to extend and improve the product range, based on the extensive experience both in the field and at our outdoor test sites in polluted and desert environments. Now these developments are incorporated in a new generation of Raychem heat-shrinkable cable terminations, that are even easier to select and install, without compromising the reliability of proven materials technology. The improved system is simple to use, because the basic termination components and installation steps are the same – even if your network operates with voltages of 7.2 to 36 kV; if you use 12 kV belted paper cable and 24 kV water-blocked single core polymeric cable; whether you make equipment connections in a cable box or in compact switchgear. Let's review the main advantages of the improved system:

## Universal selection procedure

- Simplified selection table allows quick selection based on conductor cross section and voltage class for either polymeric or MIND paper insulated cables (For MI draining oil cables, contact your local representative)
- Simple modification codes permit easy specification of optional accessory kits
- Enhanced range-taking ability means that one kit fits more conductor sizes, reducing stocking requirements
- Unlimited shelf life allows stocking of economic quantities without product spoilage

## Simplified cable preparation

- Improved treatment of screen cut back is compatible with all state of the art screen removal techniques
- No tapering of insulation required
- No polishing of polymeric insulation surface
- No special preparation of sectored, or eccentric conductors, or of cable that is curved after unreeling from the cable drum
- Cable preparation steps are similar to those for Raychem joints

## Simplified installation

- Components are lightweight and non-shattering
- Clear instruction sheets
- Common installation procedure for polymeric and MIND paper cables
- Factory engineered kit permits rapid on-site installation
- No mechanical stress at insulation screen cutback
- Termination accommodates same bending radius as cable
- Visual confirmation of correct assembly sequence possible after installation
- Rain skirts can be installed to allow either top or bottom feed
- No soldering of earthing accessories required

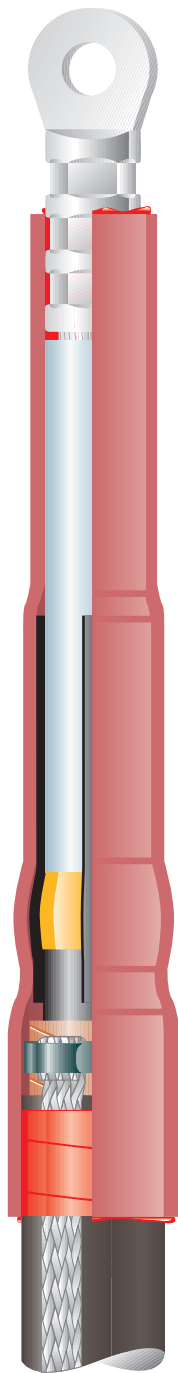
## Features:

- Universal termination family for 12-36 kV based on Raychem SCTM stress control technology
- All applications for polymeric and MIND paper on 1-core, 3-core, armoured and unarmoured cables
- Red non-tracking Raychem HVOT tubing provides excellent environmental protection
- Can be used in combination with Raychem RICS / RCAB / RSRB switchgear connection systems
- Tested in accordance to CENELEC HD.629.1.S2:2006 and IEC 60502-4

## Outstanding long-term reliability

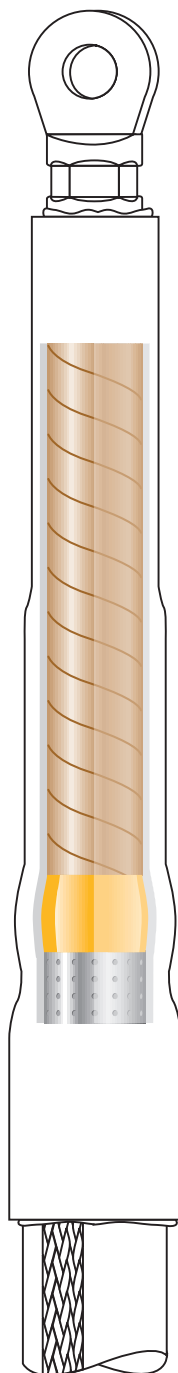
- Fully sealed against water ingress from the environment or from within the conductor strands
- Polymeric materials load cycle with the cable without mechanically stressing termination components and sealants
- Unsurpassed performance in polluted environments, proven over three decades.

**Raychem single core cable termination system**



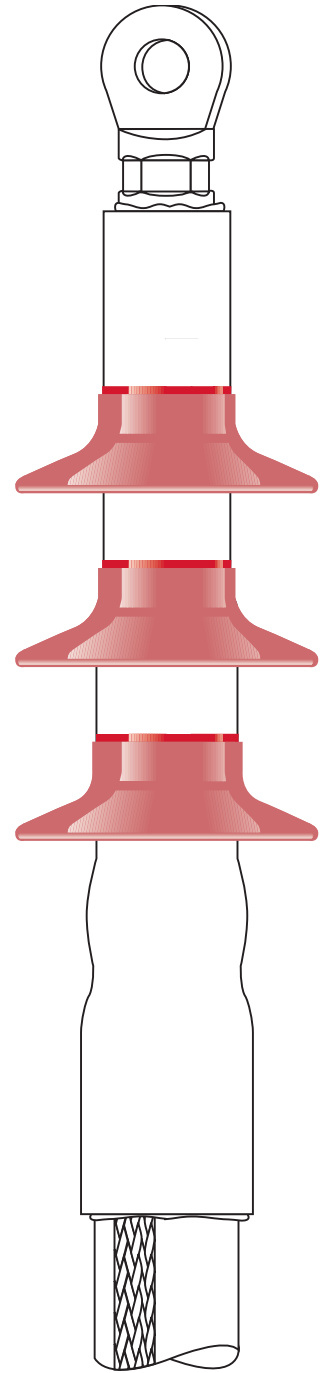
**Polymeric insulated cable  
Indoor service**

- void filling compound
- stress control tubing
- non-tracking sleeve with sealant layer



**Paper insulated cable  
(mass impregnated, non-draining)  
Indoor service**

- oil barrier, insulating tubing (clear) installed over paper insulation
- otherwise, installation is the same as for a polymeric insulated cable

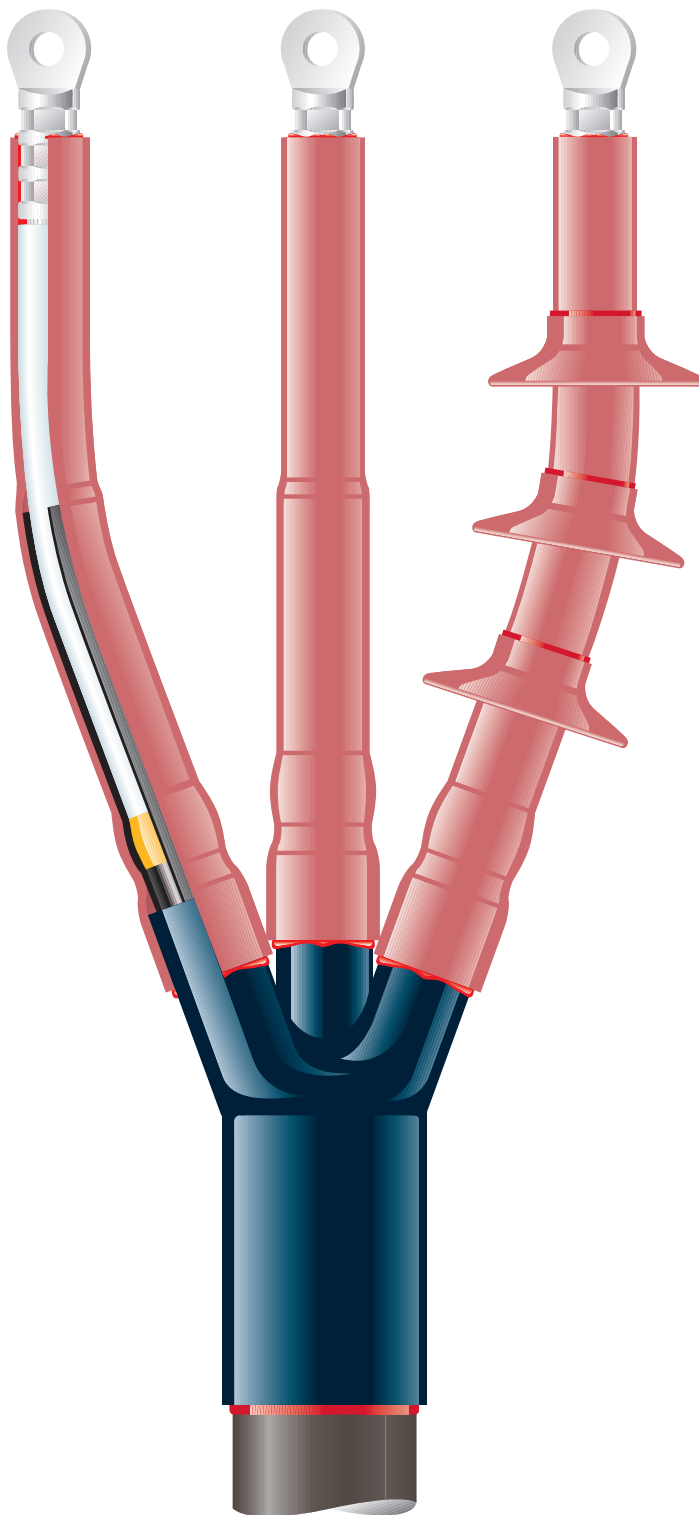


**Polymeric or paper insulated cable  
Outdoor service**

- rain skirts installed over non-tracking sleeve
- otherwise, installation is the same as for an indoor termination

It's the same system for all types of polymeric cable

### Raychem three-core cable termination system

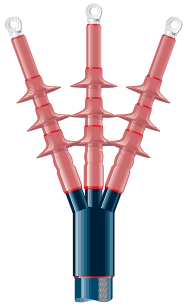


**Polymeric or papier insulated cable  
Indoor or outdoor service**

- three-core breakout installed at end of cable oversheath

otherwise, installation steps are the same as for three single core terminations

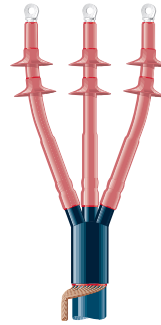
The Raychem termination system is compatible with all types of armoured cable. The system includes a complete range of solderless accessories for earthing insulation screens and cable armour and for grounding lead sheaths. Also available are insulators and support brackets, insulating boots for equipment connections and glands for easy entry to cable boxes. For more details please refer to the Raychem EPKT (EPP-0282/2) and Raychem I(O)XSU-F (EPP-0795 & 0782) termination brochures. You can ask for our capability brochure (EPP-1102) that exhibits all product families.



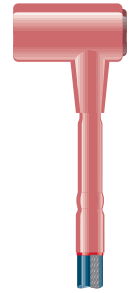
Heat-shrink termination,  
3c polymeric



Heat-shrink termination,  
1c polymeric



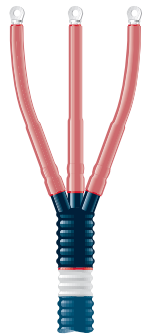
Heat-shrink termination,  
3c polymeric



Push-on insulating  
separable connector  
system 400/630A



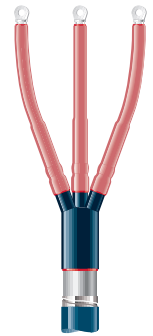
Heat-shrink termination,  
1c MIND



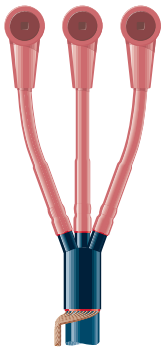
Heat-shrink termination,  
3c paper MIND



Heat-shrink termination,  
1c polymeric



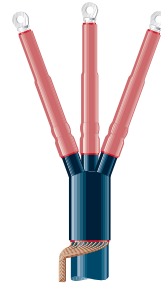
Heat-shrink  
termination,  
3c paper  
MIND



Push-on insulating  
separable connector  
on 3 c, polymeric  
400/630A



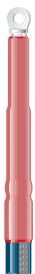
Heat-shrink termination,  
1c polymeric



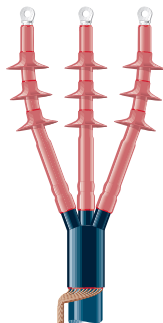
Heat-shrink termination,  
3c paper MIND



Heat-shrink  
termination,  
1c polymeric



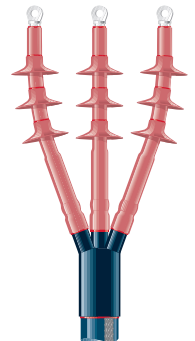
Heat-shrink termination,  
1c polymeric



Heat-shrink termination,  
3c polymeric

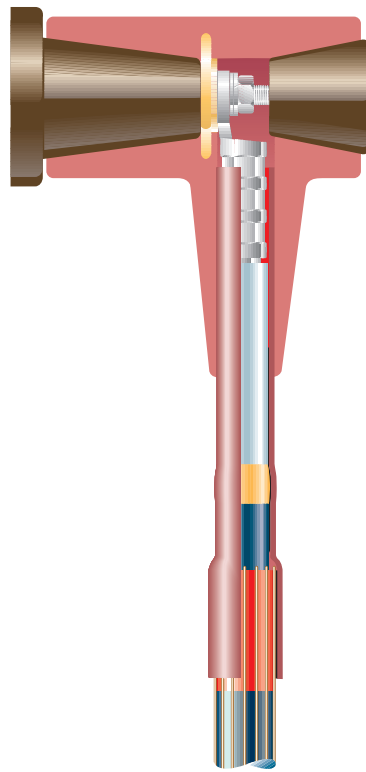


Heat-shrink termination,  
1c polymeric



Heat-shrink  
termination,  
3c polymeric

A wide range of cable accessories



**All our Raychem indoor terminations for polymeric or paper insulated cables can be used with Raychem RICS (Raychem Insulated Connection System).**

The Raychem RICS, fully insulated, right-angle and straight adapters make it easy to connect any type of cable to modern compact electrical equipment.

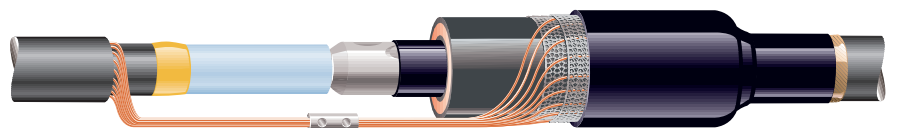
A special RICS, accommodating a ZnO Surge Arrester is now available as well as a low profile, one piece cable termination Raychem IXSU-F, designed specifically for applications with very limited clearances between phases.

**We offer the universal jointing system for all types of paper and polymeric cable up to 36 kV.**

The same system allows transition joints between different tree-core paper cable and transitions from paper to polymeric cables.

Trifurcations with any combination of cables are also easy with the Raychem jointing system.

For more information about joints and terminations up to 170 kV and other problem-solving products, call your local representative.



## About TE Connectivity

TE Connectivity is a global, \$14 billion company that designs and manufactures approximately 500,000 products that connect and protect the flow of power and data inside the products that touch every aspect of our lives. Our nearly 100,000 employees partner with customers in virtually every industry – from consumer electronics, energy and healthcare, to automotive, aerospace and communication networks – enabling smarter, faster, better technologies to connect products to possibilities.

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**TE Energy – innovative and economical solutions for the electrical power industry: cable accessories, connectors & fittings, insulators & insulation, surge arresters, switching equipment, lighting controls, power measurement and control.**

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