

3M Electrical Markets Division
3M™ MV Cold Shrink Cable Accessories



Trust in Experience

**3M™ Medium Voltage Cold Shrink
Cable Termination Products**



3M™ Electrical Markets Division

3M's success is founded on listening to the customers' needs and applying technology to offer a solution. With hundreds of technology platforms 3M has an ongoing commitment to research and development.

Within the Electrical Markets Division this method of working has not only led to the development of the first ever vinyl insulation tape, but also to the conception of 3M™ Cold Shrink more than 30 years ago. 3M Cold Shrink technology has been found to be a safer, more reliable and easier to install solution for medium and high voltage jointing and terminating versus conventional heat shrink alternatives. It is a preferred solution of power utilities, private power network operators and electrical specifiers globally. 3M strives to be the chosen supplier because of its innovative and efficient products combined with its commitment to service and support for your business.

Medium & High Voltage Cable Accessories

After many years of developing our 3M Cold Shrink range in line with our customers needs, we are proud to offer contractors a wide range of time and money saving joints and terminations to fit almost any application:

Why move to 3M Cold Shrink?

- Less chance of damaging XLPE cable material
- Less room for jointer error
- No special site permits needed
- No cooling time needed before energising
- Easier to use in enclosed areas

3M™ Cold Shrink technology offers **five star** performance:

- ★ Many components have one-part construction
- ★ Simple, tool-free installation
- ★ Permanent radial pressure
- ★ Extensive quality and factory testing programmes
- ★ Lower installed cost - compared to many competitive products



over **10 million**
3M Cold Shrink products
installed worldwide



3M™ Cold Shrink Cable Termination Products

Ever since the installation of the first 3M™ Cold Shrink termination in 1972, we have been working hard to develop products that deliver market leading installation efficiencies and consistent reliability to our customers. Our termination products give contractors and clients alike the confidence they need in their power networks as both hard and soft failure costs become more and more critical.

Much like our range of cable jointing products, the nature of Cold Shrink ensures a constant radial pressure is applied to the cable. It is this concept, combined with a comprehensive factory testing programme and a simple installation process that makes Cold Shrink the preferred termination solution for both public and private network operators across the world.

From listening to our customers and committing to sustained research and development, 3M can offer you an excellent choice in Cold Shrink product technology in terms of product cost and installation simplicity.

The simple application of a 3M™ Cold Shrink Cable Termination



1 Prepare the cable as normal and clean with 3M™ Cable Wipes



2 Place the 3M™ Cold Shrink termination body over the cable end and position at the correct point on the cable



3 Begin to remove the inner core, allowing the termination to shrink down onto the cable



4 Once the inner core has been fully removed, the termination installation is complete!

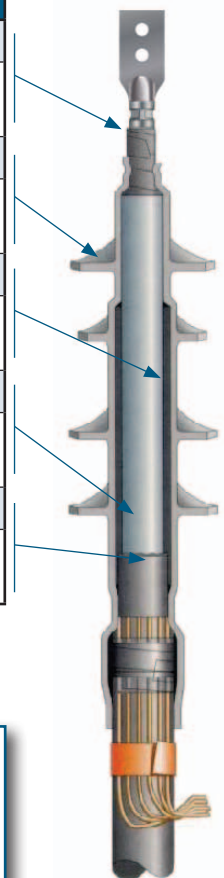
Premium 3M™ Cold Shrink Terminations - Fully Integrated :: Quick Term III (QTIII)

Born out of our unparalleled experience in the development of Cold Shrink technology, this fully integrated premium cable termination offers the greatest simplicity and flexibility in our range. Our premium termination covers a wide range of cable sizes and types as well as accommodating voltages up to 69kV. Shorter installation length enable this product to fit into a wide range of boxes and fewer installation steps mean there is less room for jointer error.

Standard 3M™ Cold Shrink Terminations - Part Integrated :: Quick Term II (QTII)

Our part integrated Cold Shrink termination offers a viable cost-based alternative to heat shrink cable terminating technology. Additional process steps to our premium range (above) mean that comparative time savings are less but the benefits of not having to use heat or extra tooling still apply. This range covers many of the most common cable configurations and size ranges unique to the UK market.

QTIII	QTII
Moisture Blocking Mastic	
Integrated into termination	Applied separately
Outer Insulator	
Very good track resistance	Good track resistance
Stress Control Tube	
Integrated into termination	Integrated into termination
Silicone Grease-stress Relief	
No - Integrated mastic is sufficient	Yes - Applied separately
Stress Control Mastic	
Integrated into termination	No - Requires silicone grease



3M™ Termination Accessories

To partner our range of terminations, we can offer a full range of fully tested termination accessories too.

Barrier Boots



3M Barrier Boots are suitable for both resin cast and porcelain bushings over a wide range of cable sizes.

Cable Glands



3M Gland Kits use Cold Shrink as the sealing method – further reducing installation cost and H&S related administration.

Cable Lugs



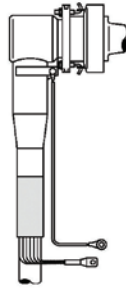
Breakthrough methodology and materials don't just stop with our cable accessories. The range of cable lugs 3M can offer represent cutting edge technology too.

Other 3M™ Cable Termination Products

As both switchgear and transformer technology progresses, 3M continues to ensure that its portfolio of products stays up to date with the addition of both inner and outer cone termination products.

3M™ Outer Cone Separable Connectors

Our range of outer cone separable connectors cover 250A, 400A and 630A applications as well as accommodating a wide range of conductor cross sections. Dependant on ampacity, our range comprises of either straight, elbow or 'T' configurations alongside a comprehensive range of accompanying accessories.



3M™ Inner Cone Separable Connectors

Our range of inner cone separable connectors cover 630A, 800A and 1250A applications. These are straight configuration with a conductor cross section range from 25-630mm².

Helping Contractors Make the Change

Product Training and Demonstration

We take training seriously and have a long track record of working closely with our customers to give them the best 3M product training possible. Of course, the design of our products helps to ensure consistently high installation quality. We recognise that the right installation techniques means that work is carried out more accurately, safely and quickly. Most importantly, training helps joints and terminations to last longer with reduced failure risk, giving you a better return on your investment.

Product Demonstrations

Fully demonstrate and install 3M products into pre-prepared cables

Product Installation Training

3M product installation training and cable preparation requirements.

Utility Approved Product Installation Training

We can recommend the correct company for training

Electrical Supplies & Ancillary Products

Besides our wide range of medium voltage cable accessory products, 3M brings a broad range of products to the market place – many of which were originally developed by 3M!



To help with the challenges of working with electrical cable in a variety of environments, 3M has a range of products that make all kinds of tasks much easier to manage, including:

- Cable cleaning wipes
- Cable pulling lubricant
- Cable cleaning solvents
- Cable marking products



Having invented the PVC insulation tape more than 60 years ago, the 3M range of electrical tapes is one of the broadest in the world. Our range incorporates the following:

- PVC insulation tapes
- Self-amalgamating tapes
- Mastic sealing tapes
- Phase marking tapes
- Corrosion protection tapes
- Semi-conducting tapes

For more information on 3M electrical products please call our information line

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