



Science.
Applied to Life.™

69 kV / 72.5 kV

High Voltage Underground Cable Accessories
for 69 kV / 72.5 kV

Reliable
solutions
for trusted
connections.

3M™ Cold Shrink QT-III Termination Kits for 69kV / 72.5kV

3M™ Cold Shrink Termination Kits are designed to help provide high reliability and help save you time and money.

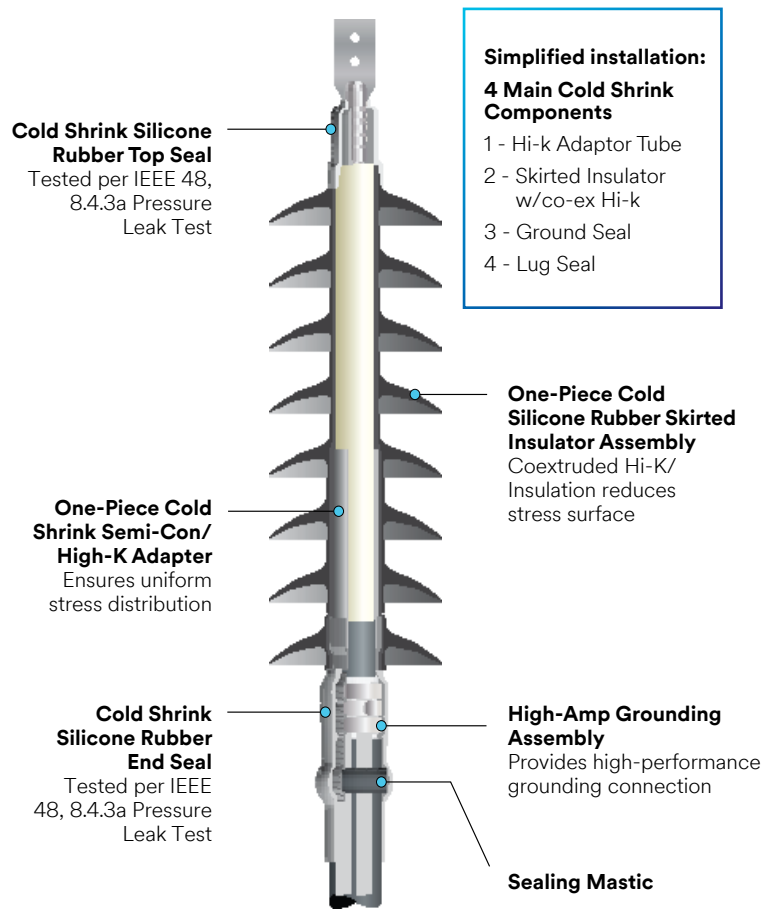
Cold Shrink Delivery Systems:

- ▶ Installing quickly and easily
- ▶ Helping to reduce potential craft errors
- ▶ Requiring no specialized tools or flame
- ▶ Lightweight for safer and easier installation
- ▶ Safer to use with no flame or torch needed



3M™ Cold Shrink QT-III Termination 7673-S-8/10 for 69 kV / 72.5 kV

3M Cold Shrink Terminations 69kV/72.7kV 7673-S-8/10 Series **meet or exceed requirements of IEEE 48, Class 1 and IEC 60840**. The semi-con/high-k adaptor provides reduced surface stress, which allows for a more compact termination, with large cross-sectional coverage. (1/0awg/50 mm² - 3000 kcmil/1500 mm², insulation O.D. 2.01"/51, 1 mm - 3.45"/87, 6 mm)



Direct Heat Shrink/Porcelain Replacement Application

Step 1 ▶



Remove existing termination and clean.

Step 2 ▶



Determine position of skirt assembly and stress control tubes.

Step 3 ▶



Install grounding moisture seal.

Step 4 ▶



Install primary stress control.

Step 5 ▶



Install the skirt assembly tube.

Step 6 ▶



Install the top seal tube.

Step 7 ▶

Install the bottom seal tube.



NOTE: Minimal or no additional cutbacks required to existing cable. Can use existing lug as there is no need to replace it.

3M™ Cold Shrink QT-III Silicone Rubber Skirted Termination Kit 7673-S-8 & 7673-S-10 Series

Kit Number	Typical conductor* size range AWG kcmil (mm ²)	Primary insulation OD range inches (mm)	Jacket OD range inches (mm)	Maximum lug width inches (mm)	Number of skirts	Dimension A typical	Creepage distance typical	Pollution class USCD required for 72.5 kV per IEC 60815
Standard 8 Skirt Termination Kit(s)								
7673-S-8(S)	350 - 1500 (175 - 725)	2.01 - 2.87 (51.1 - 72.9)	2.25 - 3.45 (57.2 - 87.6)	3 (76)	8	46" (117 cm)	82" (208 cm)	Class (d) 43.3 mm/kV Heavy
7673-S-8	1500 - 3000 (800 - 1500)	2.79 - 3.45 (70.9 - 87.6)	3.00 - 4.25 (76.2 - 108.0)	4 (102)	8	46" (117 cm)	82" (208 cm)	Class (d) 43.3 mm/kV Heavy
Industrial 10 Skirt Termination Kit(s)								
7673-S-10(R)	1/0 - 350 (50 - 175)	1.30 - 2.36 (33.0 - 60.0)	1.60 - 2.85 (40.6 - 72.4)	2 (51)	10	49" (124 cm)	89" (226 cm)	Class (d) 53.7 mm/kV Very Heavy
7673-S-10(S)	350 - 1500 (175 - 725)	2.01 - 2.87 (51.1 - 72.9)	2.25 - 3.45 (57.2 - 87.6)	3 (76)	10	52" (132 cm)	105" (266 cm)	Class (d) 53.7 mm/kV Very Heavy
7673-S-10	1500 - 3000 (800 - 1500)	2.79 - 3.45 (70.9 - 87.6)	3.00 - 4.25 (76.2 - 108.0)	4 (102)	10	52" (132 cm)	105" (266 cm)	Class (d) 53.7 mm/kV Very Heavy
Industrial 10 Skirt Termination Kit(s) w/WaterBlock								
7673-S-10(R)-WB	1/0 - 350 (50 - 175)	1.30 - 2.36 (33.0 - 60.0)	1.60 - 2.85 (40.6 - 72.4)	2 (51)	10	49" (124 cm)	89" (226 cm)	Class (d) 53.7 mm/kV Very Heavy
7673-S-10(S)-WB	350 - 1500 (175 - 725)	2.01 - 2.87 (51.1 - 72.9)	2.25 - 3.45 (57.2 - 87.6)	3 (76)	10	52" (132 cm)	105" (266 cm)	Class (d) 53.7 mm/kV Very Heavy
7673-S-10-WB	1500 - 3000 (800 - 1500)	2.79 - 3.45 (70.9 - 87.6)	3.00 - 4.25 (76.2 - 108.0)	4 (102)	10	52" (132 cm)	105" (266 cm)	Class (d) 53.7 mm/kV Very Heavy
Inverted 8 and 10 Skirt Termination Kit(s)								
7673-S-INV-8(S)	350 - 1500 (175 - 725)	2.01 - 2.87 (51.1 - 72.9)	2.25 - 3.45 (57.2 - 87.6)	3 (76)	8	46" (117 cm)	82" (208 cm)	Class (d) 43.3 mm/kV Heavy
7673-S-INV-8	1500 - 3000 (800 - 1500)	2.79 - 3.45 (70.9 - 87.6)	3.00 - 4.25 (76.2 - 108.0)	4 (102)	8	46" (117 cm)	82" (208 cm)	Class (d) 43.3 mm/kV Heavy
7673-S-INV-10(R)	1/0 - 350 (50 - 175)	1.30 - 2.36 (33.0 - 60.0)	1.60 - 2.85 (40.6 - 72.4)	2 (51)	10	49" (124 cm)	89" (226 cm)	Class (d) 53.7 mm/kV Very Heavy
7673-S- INV-10(S)	350 - 1500 (175 - 725)	2.01 - 2.87 (51.1 - 72.9)	2.25 - 3.45 (57.2 - 87.6)	3 (76)	10	52" (132 cm)	105" (266 cm)	Class (d) 53.7 mm/kV Very Heavy
7673-S- INV-10	1500 - 3000 (800 - 1500)	2.79 - 3.45 (70.9 - 87.6)	3.00 - 4.25 (76.2 - 108.0)	4 (102)	10	52" (132 cm)	105" (266 cm)	Class (d) 53.7 mm/kV Very Heavy
Inverted 10 skirt Termination Kit(s) w/WaterBlock								
7673-S-INV-10(R)-WB	1/0 - 350 (50 - 175)	1.30 - 2.36 (33.0 - 60.0)	1.60 - 2.85 (40.6 - 72.4)	2 (51)	10	49" (124 cm)	89" (226 cm)	Class (d) 53.7 mm/kV Very Heavy
7673-S-INV-10(S)-WB	350 - 1500 (175 - 725)	2.01 - 2.87 (51.1 - 72.9)	2.25 - 3.45 (57.2 - 87.6)	3 (76)	10	52" (132 cm)	105" (266 cm)	Class (d) 53.7 mm/kV Very Heavy
7673-S-INV-10-WB	1500 - 3000 (800 - 1500)	2.79 - 3.45 (70.9 - 87.6)	3.00 - 4.25 (76.2 - 108.0)	4 (102)	10	52" (132 cm)	105" (266 cm)	Class (d) 53.7 mm/kV Very Heavy

NOTE: Shearbolt lugs sold separately.

3M™ Mechanical Shearbolt Lugs for 69 kV / 72.5 kV

Shearbolt lugs from 3M help simplify installations with features like:

- ▶ Greater contact force
- ▶ No specialized tools required
- ▶ Centering rings for range taking
- ▶ Norm/standard: NEMA WC 70/71/74



3M™ Mechanical Shearbolt Two-Hole Lug QL-2 Series



3M™ Mechanical Shearbolt Four-Hole Lug QL-4 Series

3M™ Mechanical Shearbolt Lugs QL-2 (2 holes) and QL-4 (4 holes) Series 69 kV / 72.5 kV

3M Part	Number of holes	Conductor size range AWG kcmil (mm ²)	Stud size	Tongue width inches (mm)	Lug hole spacing (L x W) inches (mm)	Lug hole diameter	Outside diameter barrel inches (mm)	Lug length with centering rings inches (mm)	Lug I.D. inches (mm)
QL2-A-1/0-350	2	1/0 - 350 (54 - 177)	0.50 (13)	1.30 (33)	1.75 (44.5)	0.56 (14.2)	1.10 (28)	5.98 (152.0)	0.64 (16.3)
QL4-A-350-750	4	350 - 750 kcmil (177 - 380)	0.50 (13)	2.99 (76)	1.75 (44.5) x 1.75 (44.5)	0.56 (14.3)	1.65 (42)	7.24 (184)	1.03 (26.2)
QL4-A-600-1250	4	600 - 1250 kcmil (325 - 630)	0.50 (13)	2.99 (76)	1.75 (44.5) x 1.75 (44.5)	0.56 (14.3)	2.05 (52)	8.27 (210)	1.31 (33.3)
QL4-A-1500	4	1500 kcmil (800)	0.50 (13)	2.99 (76)	1.75 (44.5) x 1.75 (44.5)	0.56 (14.3)	2.56 (65)	8.50 (216)	1.41 (36)
QL4-A-1750-2000	4	1750 - 2000 kcmil (875 - 1000)	0.50 (13)	3.94 (100)	1.75 (44.5) x 1.75 (44.5)	0.56 (14.3)	2.56 (65)	11.22 (285)	1.65 (42)
QL4-A-2500-3000	4	2500 - 3000 kcmil (1300 - 1600)	0.50 (13)	3.94 (100)	1.75 (44.5) x 1.75 (44.5)	0.56 (14.3)	3.36 (85)	10.24 (260)	2.04 (52)

Cable Clamps and Mounting Plates

3M™ Termination Mounting Hardware - Cable Mounting Plates 69 kV / 72.5 kV

Kit number	Description	Application
MP-1	Cable/termination mounting plate	New construction
MP-1(L)	Cable/termination mounting plate	Retrofit/replacement

3M™ Termination Mounting Hardware - Cable Clamps 69 kV / 72.5 kV

Kit number	Description	Cable outer jacket O.D. range inches (mm)
GT	Cast aluminum cable clamp	1.94 - 2.95 (49.3 - 74.9 mm)
CC-1(S)	Cast aluminum cable clamp - includes springs	3 - 4 (76.2 - 101.6 mm)
CC-2(S)	Cast aluminum cable clamp	4 - 5 (101.6 - 127 mm)



3M™ Cold Shrink QS-III Splice Kits for 69 kV / 72.5 kV

3M Cold Shrink Splice Kits for high voltage applications **meet or exceed the 69kV voltage class rating requirements of IEEE std. 404 and IEC 60840 for 72.5kV.**

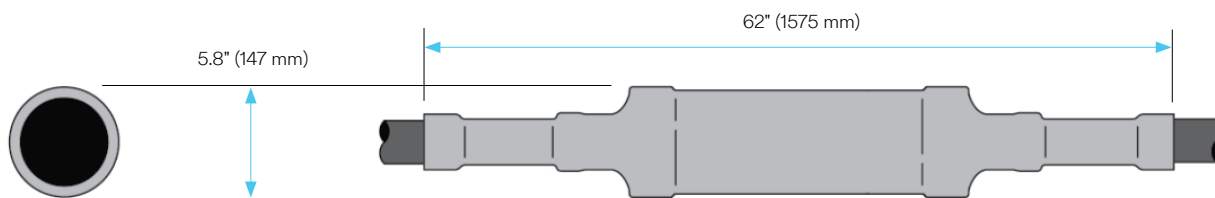
Made of durable silicone rubber to provide reliable and long-lasting installations.

Cold Shrink Splice kits from 3M offer:

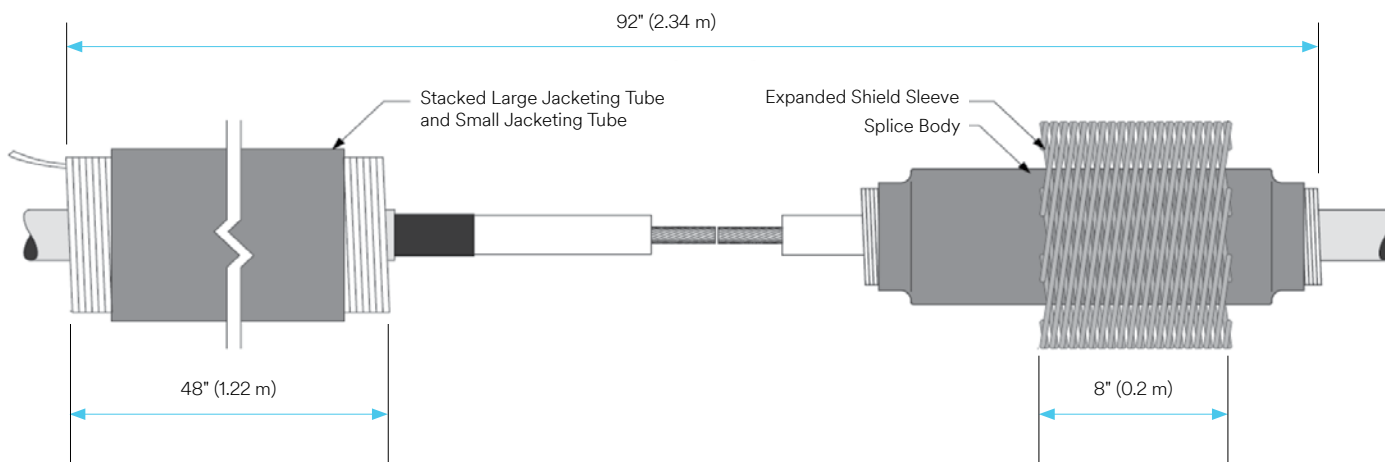
- ▶ Safer, easier and more economical installations
- ▶ Covers a wide range of cable sizes for in-line, transition and cross-bond applications
- ▶ No specialized tools or torches
- ▶ Excellent electrical performance
- ▶ Shearbolt connector included in kit



Typical dimensions (installed splice)



Parking distance (stacked)





3M™ Cold Shrink QS-III Silicone Rubber Splice Kits 5488A, 5488A-JCN-XB, and 5488A-Shielded-XB for 69 kV / 72.5 kV

**Cu/Al Shearbolt Connector
Included in Standard Kits**

Kit Number	Stock Number	Description	Primary cable insulation O.D. range inches (mm)	Conductor size range AWG kcmil (mm ²)	Typical dimensions installed splice	Parking distance	Connector O.D.	Connector length	"XB" cross bond
5488A-250-500	80-6114-3386-5	69kV Cold Shrink QS-III Underground Splice for 250 - 500 Standard Wall Cable	1.94 - 3.08" (49.3 - 75.4 mm)	250 - 500 (125 - 325 mm ²)	62" L x 5.8" W (1575 x 147 mm)	92" (2.34 m)	1.94 - 2.50" (49.3 - 63.5 mm)	8" ± 0.10" (203 ± 2.54 mm)	—
5488A-750-1000	80-6114-3387-3	69kV Cold Shrink QS-III Underground Splice for 750 - 1000 Standard Wall Cable	1.94 - 3.08" (49.3 - 75.4 mm)	750 - 1000 (400 - 500 mm ²)	62" L x 5.8" W (1575 x 147 mm)	92" (2.34 m)	1.94 - 2.50" (49.3 - 63.5 mm)	8" ± 0.10" (203 ± 2.54 mm)	—
5488A-1250-1500	80-6114-3388-1	69kV Cold Shrink QS-III Underground Splice for 1250 - 1500 Standard Wall Cable	1.94 - 3.08" (49.3 - 75.4 mm)	1250 - 1500 (655 - 800 mm ²)	62" L x 5.8" W (1575 x 147 mm)	92" (2.34 m)	2.51 - 3.25" (63.6 - 75.4 mm)	9.25" ± 0.10" (235 ± 2.54 mm)	—
5488A-1750-2000	80-6114-3389-9	69kV Cold Shrink QS-III Underground Splice for 1750 - 2000 Standard Wall Cable	1.94 - 3.08" (49.3 - 75.4 mm)	1750 - 2000 (875 - 1000 mm ²)	62" L x 5.8" W (1575 x 147 mm)	92" (2.34 m)	2.51 - 3.25" (63.6 - 75.4 mm)	9.25" ± 0.10" (235 ± 2.54 mm)	—
5488A-XB-JCN-250-500	80-6114-3390-7	69kV JCN X-Bond Cold Shrink QS-III Underground Splice for 250 - 500 JCN Standard Wall Cable	1.94 - 3.08" (49.3 - 75.4 mm)	250 - 500 (125 - 325 mm ²)	62" L x 5.8" W (1575 x 147 mm)	92" (2.34 m)	1.94 - 2.50" (49.3 - 63.5 mm)	8" ± 0.10" (203 ± 2.54 mm)	Yes - JCN Cable
5488A-XB-JCN-750-1000	80-6114-3391-5	69kV JCN X-Bond Cold Shrink QS-III Underground Splice for 750 - 1000 JCN Standard Wall Cable	1.94 - 3.08" (49.3 - 75.4 mm)	750 - 1000 (400 - 500 mm ²)	62" L x 5.8" W (1575 x 147 mm)	92" (2.34 m)	1.94 - 2.50" (49.3 - 63.5 mm)	8" ± 0.10" (203 ± 2.54 mm)	Yes - JCN Cable
5488A-XB-JCN-1250-1500	80-6114-3392-3	69kV JCN X-Bond Cold Shrink QS-III Underground Splice for 1250 - 1500 JCN Standard Wall Cable	1.94 - 3.08" (49.3 - 75.4 mm)	1250 - 1500 (655 - 800 mm ²)	62" L x 5.8" W (1575 x 147 mm)	92" (2.34 m)	2.51 - 3.25" (63.6 - 75.4 mm)	9.25" ± 0.10" (235 ± 2.54 mm)	Yes - JCN Cable
5488A-XB-JCN-1750-2000	80-6114-3393-1	69kV JCN X-Bond Cold Shrink QS-III Underground Splice for 1750 - 2000 JCN Standard Wall Cable	1.94 - 3.08" (49.3 - 75.4 mm)	1750 - 2000 (875 - 1000 mm ²)	62" L x 5.8" W (1575 x 147 mm)	92" (2.34 m)	2.51 - 3.25" (63.6 - 75.4 mm)	9.25" ± 0.10" (235 mm ± 2.54 mm)	Yes - JCN Cable
5488A-XB-Shielded-250-500	80-6114-4997-8	69kV Shielded X-Bond Cold Shrink QS-III Underground Splice for 250 - 500 Shielded Standard Wall Cable	1.94 - 3.08" (49.3 - 75.4 mm)	250 - 500 (125 - 325 mm ²)	62" L x 5.8" W (1575 x 147 mm)	92" (2.34 m)	1.94 - 2.50" (49.3 - 63.5 mm)	8" ± 0.10" (203 ± 2.54 mm)	Yes - Shielded Cable
5488A-XB-Shielded-750-1000	80-6114-4998-6	69kV Shielded X-Bond Cold Shrink QS-III Underground Splice for 750 - 1000 Shielded Standard Wall Cable	1.94 - 3.08" (49.3 - 75.4 mm)	750 - 1000 (400 - 500 mm ²)	62" L x 5.8" W (1575 x 147 mm)	92" (2.34 m)	1.94 - 2.50" (49.3 - 63.5 mm)	8" ± 0.10" (203 ± 2.54 mm)	Yes - Shielded Cable
5488A-XB-Shielded-1250-1500	80-6114-4999-4	69kV Shielded X-Bond Cold Shrink QS-III Underground Splice for 1250 - 1500 Shielded Standard Wall Cable	1.94 - 3.08" (49.3 - 75.4 mm)	1250 - 1500 (655 - 800 mm ²)	62" L x 5.8" W (1575 x 147 mm)	92" (2.34 m)	2.51 - 3.25" (63.6 - 75.4 mm)	9.25" ± 0.10" (235 ± 2.54 mm)	Yes - Shielded Cable
5488A-XB-Shielded-1750-2000	80-6114-5000-0	69kV Shielded X-Bond Cold Shrink QS-III Underground Splice for 1750 - 2000 JCN Standard Wall Cable	1.94 - 3.08" (49.3 - 75.4 mm)	1750 - 2000 (875 - 1000 mm ²)	62" L x 5.8" W (1575 x 147 mm)	92" (2.34 m)	2.51 - 3.25" (63.6 - 75.4 mm)	9.25" ± 0.10" (235 ± 2.54 mm)	Yes - Shielded Cable

NOTE: Shearbolt connector is included in Kit.

High Voltage Accessory Installation History

A legacy of enhanced performance.

For over 40 years, electrical installers from around the world have depended on 3M™ Cold Shrink technology for their fast, easy and reliable connections.

69 kV / 72.5 kV Class Accessories

- ▶ First install 2009
- ▶ + 9,000 kits installed globally

115 kV / 123 kV Class Accessories

- ▶ First install in 2004
- ▶ +8,500 kits installed globally

138 kV / 145 kV Class Accessories

- ▶ First installation 2008
- ▶ +4,000 kits installed globally



Global High Voltage underground support from start to finish.

- ▶ Global Presence
- ▶ Customized Solutions
- ▶ Onsite Technical and Customer Support
- ▶ Onsite Classroom and Field Installation Training
- ▶ Online back-up support documentation / installation videos at www.3M.com/highvoltage

With 60+ years of industry experience in 64 international subsidiaries and Operations in 200+ countries, we can work with you getting the expert support where you need it – when you need it.

The information in this brochure is accurate, to 3M's knowledge and belief, which may be based on information provided by third party suppliers to 3M.

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