

# Low Voltage Splices 0-600V (1000V rated) Cold Shrink Splices (0-1000V)

## 3M™ Series Splice Kits 8420 and 8430

Cold shrink splicing products are designed using 3M's unique cold shrink delivery system. Products are supplied prestretched on a removable core for efficiency and ease of installation. Removal of the core (unwind) after positioning the splice allows the product to shrink into position forming a moisture-tight seal. The live memory action of the specially formulated material ensures a permanent, durable environmental seal and insulation.

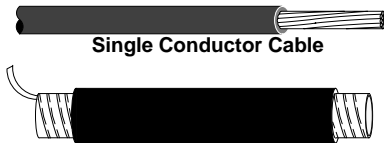
The 8420 meets requirements of ANSI C119-1 and Western Underground Guide 2.14 for secondary splices rated up to 1 kV.

## 3M Cold Shrink Silicone Insulators 8440 Series

Cold Shrink Silicone Insulators 8440

Series are insulating sleeves made from a specially formulated high-temperature

silicone rubber with an operating temperature range from -67°F (-55°C) to 500°F (260°C).



Cold Shrink 8426-9 Splice

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## 3M Low Voltage Splices 8420 and 8430 Series Selection (0-1000V)

| Product Series                                                          | UPC (054007-) | Typical Conductor Size                          | Minimum Cable Diameter for Seal | Maximum** Diameter Insulator Covers | Maximum Connector Length | Relaxed Tube Length | Inner Unit Pack | Case Qty. |
|-------------------------------------------------------------------------|---------------|-------------------------------------------------|---------------------------------|-------------------------------------|--------------------------|---------------------|-----------------|-----------|
| <b>Single Conductor Cable</b><br>See above for cable type illustration. |               |                                                 |                                 |                                     |                          |                     |                 |           |
| 8423-6                                                                  | 42146         | 6 - 4 AWG (14 - 16 mm <sup>2</sup> )            | 0.31" (7,8 mm)                  | 0.56" (4,3 mm)                      | 2" (51 mm)               | 6" (152 mm)         | 1/bag           | 10        |
| 8424-8*                                                                 | 42390         | 10 - 1/0 AWG (6 - 16 mm <sup>2</sup> )          | 0.10" (2,5 mm)                  | 0.82" (20,9 mm)                     | 3" (76 mm)               | 8" (203 mm)         | 1/bag           | 10        |
| 8425-8                                                                  | 42391         | 2 - 1/0 AWG (35 - 50 mm <sup>2</sup> )          | 0.40" (10,1 mm)                 | 0.82" (20,9 mm)                     | 3" (76 mm)               | 8" (203 mm)         | 1/bag           | 10        |
| 8426-9                                                                  | 34457         | 2/0 AWG - 250 kcmil (70 - 125 mm <sup>2</sup> ) | 0.55" (13,9 mm)                 | 1.18" (30,1 mm)                     | 5" (127 mm)              | 9" (229 mm)         | 1/bag           | 10        |
| 8426-9M***                                                              | 43436         | 2 - 4/0 AWG (30 - 90 mm <sup>2</sup> )          | 0.40" (10,1 mm)                 | 1.18" (30,1 mm)                     | 5" (127 mm)              | 9" (229 mm)         | 1/bag           | 10        |
| 8426-11                                                                 | 34458         | 2/0 AWG - 250 kcmil (70 - 125 mm <sup>2</sup> ) | 0.55" (13,9 mm)                 | 1.18" (30,1 mm)                     | 7" (178 mm)              | 11" (279 mm)        | 1/bag           | 10        |
| 8427-6†                                                                 | 09915         | —                                               | 0.69" (17,5 mm)                 | 1.38" (35,1 mm)                     | 2" (51 mm)               | 6" (152 mm)         | 1/bag           | 10        |
| 8427-12                                                                 | 34459         | 250 - 400 kcmil (125 - 200 mm <sup>2</sup> )    | 0.69" (17,5 mm)                 | 1.38" (35,1 mm)                     | 8" (203 mm)              | 12" (305 mm)        | 1/bag           | 10        |
| 8427-16                                                                 | 34460         | 250 - 400 kcmil (125 - 200 mm <sup>2</sup> )    | 0.69" (17,5 mm)                 | 1.38" (35,1 mm)                     | 12" (305 mm)             | 16" (406 mm)        | 1/bag           | 10        |
| 8428-6†                                                                 | 09916         | —                                               | 0.95" (24,1 mm)                 | 1.94" (49,2 mm)                     | 2" (51 mm)               | 6" (152 mm)         | 1/bag           | 10        |
| 8428-12                                                                 | 09056         | 500 - 800 kcmil (300 - 400 mm <sup>2</sup> )    | 0.95" (24,1 mm)                 | 1.94" (49,2 mm)                     | 8" (203 mm)              | 12" (305 mm)        | 1/bag           | 10        |
| 8428-18                                                                 | 34461         | 500 - 800 kcmil (300 - 400 mm <sup>2</sup> )    | 0.95" (24,1 mm)                 | 1.94" (49,2 mm)                     | 14" (356 mm)             | 18" (457 mm)        | 1/bag           | 10        |
| 8429-6†                                                                 | 09917         | —                                               | 1.27" (32,2 mm)                 | 2.67" (67,8 mm)                     | 2" (51 mm)               | 6" (152 mm)         | 1/bag           | 10        |
| 8429-9                                                                  | 09931         | 900-1000 kcmil (500 mm <sup>2</sup> )           | 1.27" (32,2 mm)                 | 2.67" (67,8 mm)                     | 5" (127 mm)              | 9" (229 mm)         | 1/bag           | 10        |
| 8429-12                                                                 | 42389         | 900-1000 kcmil (500 mm <sup>2</sup> )           | 1.27" (32,2 mm)                 | 2.67" (67,8 mm)                     | 8" (203 mm)              | 12" (305 mm)        | 1/bag           | 10        |
| 8429-15                                                                 | 44198         | 900-1000 kcmil (500 mm <sup>2</sup> )           | 1.27" (32,2 mm)                 | 2.67" (67,8 mm)                     | 11" (279 mm)             | 15" (381 mm)        | 1/bag           | 10        |
| 8429-18                                                                 | 34462         | 900-1000 kcmil (500 mm <sup>2</sup> )           | 1.27" (32,2 mm)                 | 2.67" (67,8 mm)                     | 14" (356 mm)             | 18" (457 mm)        | 1/bag           | 10        |
| 8430-9                                                                  | 42147         | 1250 - 2000 kcmil                               | 1.68" (42,6 mm)                 | 3.69" (93,7 mm)                     | 5" (127 mm)              | 9" (229 mm)         | 1/bag           | 10        |
| 8430-18                                                                 | 42388         | 1250 - 2000 kcmil                               | 1.68" (42,6 mm)                 | 3.69" (93,7 mm)                     | 14" (356 mm)             | 18" (457 mm)        | 1/bag           | 10        |

\*Kit contains adapters.

\*\*Cable or connector diameter.

\*\*\*Mastic pads included for cable O.D. build-up.

† These sizes are listed for availability only and are not designed to be used as primary insulation. These tubes are for conduit sealing and breakouts.


Important: Use insulation jacket or connector O.D. for final ordering criteria.

Note: Additional sizes are available, consult your 3M sales representative.

### 3M™ Low Voltage Splices 8440 Series Selection (0-1000V)

| Product Series                                                             | UPC (054007-) | Conductor Size                           | Minimum Cable Diameter for Seal | Maximum** Diameter Insulator Covers | Relaxed Tube Length | Inner Unit Pack | Case Qty. |
|----------------------------------------------------------------------------|---------------|------------------------------------------|---------------------------------|-------------------------------------|---------------------|-----------------|-----------|
| <b>Single Conductor Cable</b><br>See page 250 for cable type illustration. |               |                                          |                                 |                                     |                     |                 |           |
| 8443-2                                                                     | 09485         | 6 - 2 AWG (14 - 30 mm <sup>2</sup> )     | 0.27" (7 mm)                    | 0.56" (14 mm)                       | 2" (51 mm)          | 1/bag           | 12        |
| 8443-6.5                                                                   | 09482         | 6 - 2 AWG (14 - 30 mm <sup>2</sup> )     | 0.27" (7 mm)                    | 0.56" (14 mm)                       | 6.5" (165 mm)       | 1/bag           | 12        |
| 8445-2.5                                                                   | 09486         | 2 - 1/0 AWG (35 - 50 mm <sup>2</sup> )   | 0.35" (9 mm)                    | 0.72" (18 mm)                       | 2.5" (64 mm)        | 1/bag           | 12        |
| 8445-7.5                                                                   | 09483         | 2 - 1/0 AWG (35 - 50 mm <sup>2</sup> )   | 0.35" (9 mm)                    | 0.72" (18 mm)                       | 7.5" (191 mm)       | 1/bag           | 12        |
| 8447-3.2                                                                   | 09487         | 1/0 - 3/0 AWG (60 - 80 mm <sup>2</sup> ) | 0.48" (12 mm)                   | 0.95" (24 mm)                       | 3.2" (81 mm)        | 1/bag           | 12        |
| 8447-8                                                                     | 09484         | 1/0 - 3/0 AWG (60 - 80 mm <sup>2</sup> ) | 0.48" (12 mm)                   | 0.95" (24 mm)                       | 8" (203 mm)         | 1/bag           | 12        |

\*\*Cable or connector diameter.  
**Note:** Additional sizes are available, consult your 3M sales representative.



## Product Referral Generator

Cold Shrink End Caps . . . . . pg. 312

# 3M™ Resin Splices 0-600V (1000V rated)

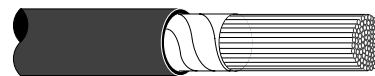
## 3M Scotchcast™ Inline Splice Kits 72-N Series

Scotchcast kits 72-N series splice shielded or nonshielded plastic- and rubber-jacketed, signal and control (or power) cables rated up to 1 kV.

**Connectors are not included, order separately.** See page 90 in the “Insulated Butt Connectors” section for connector ordering information. **Each kit makes one splice.**



Multiple Conductor Nonshielded Signal & Control Cable



Multiple Conductor Shielded Signal & Control Cable

## Scotchcast 72-N Series Selection

| Product Series                                                                                                                                       | UPC<br>(054007-) | Molded Body<br>Length | Cable O.D. Range           | Inner<br>Pack | Case<br>Qty. |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------|----------------------------|---------------|--------------|
| Multiple Conductor Nonshielded Signal & Control Cable, Multiple Conductor Shielded Signal & Control Cable<br>See above for cable type illustrations. |                  |                       |                            |               |              |
| 72-N1*                                                                                                                                               | 10623            | 7-1/8" (18,1 cm)      | 0.25 - 0.625" (6 - 16 mm)  | 1             | 10           |
| 72-N2                                                                                                                                                | 10625            | 10-7/16" (26,8 cm)    | 0.500 - 1.00" (13 - 25 mm) | 1             | 10           |
| 72-N3                                                                                                                                                | 10627            | 15-7/16" (39,2 cm)    | 0.625 - 1.50" (16 - 38 mm) | 1             | 10           |
| 72-N4                                                                                                                                                | 10629            | 15-5/8" (39,7 cm)     | 1.00 - 2.00" (25 - 51 mm)  | —             | 1            |
| 72-N5                                                                                                                                                | 10631            | 20-5/16" (51,6 cm)    | 1.25 - 2.25" (32 - 57 mm)  | —             | 1            |
| 72-N6                                                                                                                                                | 10633            | 25" (63,5 cm)         | 1.25 - 3.25" (32 - 83 mm)  | —             | 1            |

\* Nonshielded cable only.

## Scotchcast 72-N Series Selection

| Scotchlok™ Insulated Butt Connectors |                   |           |                     |           |                   |           |                     |           |                   |           |                     |           |
|--------------------------------------|-------------------|-----------|---------------------|-----------|-------------------|-----------|---------------------|-----------|-------------------|-----------|---------------------|-----------|
| Kit No.                              | MV18BC 22-18 AWG  |           |                     |           | MV14BC 16-14 AWG  |           |                     |           | MV10BC 12-10 AWG  |           |                     |           |
|                                      | Shielded Cables** |           | Unshielded Cables** |           | Shielded Cables** |           | Unshielded Cables** |           | Shielded Cables** |           | Unshielded Cables** |           |
|                                      | No. Cond.         | No. Pairs | No. Cond.           | No. Pairs | No. Cond.         | No. Pairs | No. Cond.           | No. Pairs | No. Cond.         | No. Pairs | No. Cond.           | No. Pairs |
| 72-N1*                               | —                 | —         | 6                   | 3         | —                 | —         | 4                   | 2         | —                 | —         | 3                   | —         |
| 72-N2                                | 18                | 9         | 32                  | 16        | 12                | 6         | 19                  | 9         | 8                 | 4         | 13                  | 6         |
| 72-N3                                | 42                | 21        | 75                  | 37        | 24                | 12        | 45                  | 22        | 14                | 7         | 27                  | 13        |
| 72-N4                                | 74                | 37        | 160                 | 80        | 50                | 25        | 90                  | 45        | 40                | 20        | 60                  | 30        |
| 72-N5                                | 140               | 70        | 200                 | 100       | 120               | 60        | 160                 | 80        | 100               | 50        | 100                 | 50        |
| 72-N6                                | 360               | 180       | 400                 | 200       | 220               | 110       | 250                 | 125       | 180               | 90        | 200                 | 100       |

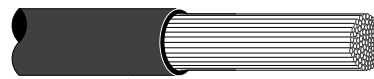
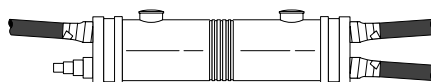
\* Nonshielded cable only.

\*\* Figures based on IMSA cable specifications.

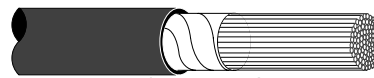
# 3M™ Resin Splices 0-600V (1000V rated)

## 3M Scotchcast™ Reenterable Inline and Tap Splice Kits 78-R Series

Scotchcast 78-R series kits make inline or tap splices on shielded or nonshielded, plastic- and rubber-jacketed, signal and control (or power) cable rated up to 1 kV. Connectors are not included, order separately. Refer to the “Terminals, IDCs and Wire Connectors” section for ordering information. **Each kit makes one splice.**



Multiple Conductor Nonshielded Signal & Control Cable



Multiple Conductor Shielded Signal & Control Cable

## Scotchcast Selection 78-R Series

| Product Series                                                                                                                                       | UPC (054007-) | Kit Size I.D. x L           | Cable O.D. Range             |                              | Case Qty. |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------|------------------------------|------------------------------|-----------|
|                                                                                                                                                      |               |                             | Run                          | Tap                          |           |
| Multiple Conductor Nonshielded Signal & Control Cable, Multiple Conductor Shielded Signal & Control Cable<br>See above for cable type illustrations. |               |                             |                              |                              |           |
| 78-R1                                                                                                                                                | 02411         | 2 x 12"<br>(5,1 x 30,5 cm)  | 0.25 - 1.00"<br>(6 - 25 mm)  | 0.25 - 1.00"<br>(6 - 25 mm)  | 1         |
| 78-R2                                                                                                                                                | 02412         | 2 x 24"<br>(5,1 x 61,0 cm)  | 0.25 - 1.00"<br>(6 - 25 mm)  | 0.25 - 1.00"<br>(6 - 25 mm)  | 1         |
| 78-R3                                                                                                                                                | 02413         | 3 x 24"<br>(7,6 x 61,0 cm)  | 0.50 - 1.50"<br>(13 - 38 mm) | 0.50 - 1.00"<br>(13 - 25mm)  | 1         |
| 78-R4                                                                                                                                                | 02414         | 4 x 24"<br>(10,2 x 61,0 cm) | 0.50 - 2.00"<br>(13 - 51 mm) | 0.50 - 1.75"<br>(13 - 44 mm) | 1         |
| 78-R5                                                                                                                                                | 02417         | 5 x 26"<br>(12,7 x 66,0 cm) | 1.00 - 2.50"<br>(25 - 64 mm) | 1.00 - 2.50"<br>(25 - 64 mm) | 1         |

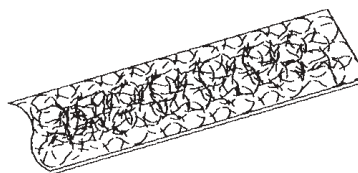
## Scotchcast Connector Selection 78-R Series

| Scotchlok™ Connectors |                           |           |                     |           |                     |           |                    |           |                  |           |                  |           |                  |           |                  |           |                  |           |
|-----------------------|---------------------------|-----------|---------------------|-----------|---------------------|-----------|--------------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| Kit No.               | Insulated Butt Connectors |           |                     |           |                     |           | Pigtail Connectors |           |                  |           |                  |           | Tap Connectors   |           |                  |           |                  |           |
|                       | MV18BC<br>22-18 AWG       |           | MV14BC<br>16-14 AWG |           | MV10BC<br>12-10 AWG |           | "Y"<br>18-12 AWG   |           | "R"<br>14-10 AWG |           | 557<br>22-18 AWG |           | 558<br>22-18 AWG |           | 560<br>18-14 AWG |           | 562<br>12-10 AWG |           |
|                       | No. Cond.                 | No. Pairs | No. Cond.           | No. Pairs | No. Cond.           | No. Pairs | No. Cond.          | No. Pairs | No. Cond.        | No. Pairs | No. Cond.        | No. Pairs | No. Cond.        | No. Pairs | No. Cond.        | No. Pairs | No. Cond.        | No. Pairs |
| 78-R1                 | 40                        | 20        | 26                  | 13        | 16                  | 8         | 8                  | 4         | 5                | 2         | 15               | 7         | 10               | 5         | 8                | 4         | 6                | 3         |
| 78-R2                 | 66                        | 33        | 45                  | 22        | 26                  | 13        | 20                 | 10        | 10               | 5         | 30               | 15        | 20               | 10        | 16               | 8         | 12               | 6         |
| 78-R3                 | 160                       | 80        | 110                 | 55        | 70                  | 35        | 50                 | 25        | 28               | 14        | 80               | 40        | 50               | 25        | 40               | 20        | 36               | 18        |
| 78-R4                 | 300                       | 150       | 180                 | 90        | 110                 | 55        | 84                 | 42        | 60               | 30        | 142              | 71        | 100              | 50        | 80               | 40        | 68               | 34        |
| 78-R5                 | 550                       | 275       | 320                 | 160       | 200                 | 100       | 174                | 87        | 120              | 60        | 260              | 130       | 200              | 100       | 160              | 80        | 130              | 65        |

Note: Above figures based on IMSA cable specifications.

## Scotchcast Spacer Web 7820

Scotchcast spacer web is for use with the 78-R series splice kits after re-entry. It is a loosely woven polyester that keeps the splice bundle away from the mold body wall, providing even compound distribution around the splice.



## Scotchcast Spacer Web 7820 Selection

| Product Series | UPC (054007-) | Size/Roll                                 | Case Qty. |
|----------------|---------------|-------------------------------------------|-----------|
| 7820           | 02415         | Two 3" x 20' rolls/box<br>(76 mm x 6,1 m) | 1         |

# 3M™ Resin Splices 0-600V (1000V rated)

## 3M Scotchcast™ Multi-Mold Resin Splice Kit 85-14CP

The Scotchcast Multi-Mold Resin Splicing Kit 85-14CP is rated for cables up to 1 kV to insulate odd-shaped and odd-sized splices. The 85-14CP is specifically designed for use in cathodic protection with a rigid epoxy resin, 3M™ Scotchcast 4. **Each kit makes one splice.**



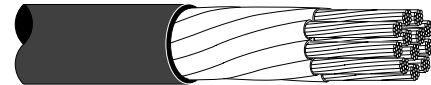
**Single Conductor Cable**

## Scotchcast Multi-Mold Resin Splice Kits 85 Series

Scotchcast Multi-Mold Kits 85 Series are used to electrically insulate odd-sized and odd-shaped splices on cables rated through 1 kV. These flexible plastic molds are easily formed around splices. Within 30 minutes after the resin has been poured, the splice is ready for service – above ground or buried. **Each kit makes one splice.**



**Single Conductor Cable**



**Multiple Conductor Cable**

## Scotchcast 85 Series Selection

| Product Series                                                                                                    | UPC (054007-) | Maximum Conductor Size Split Bolt                                | Compression, H or C tap                   | Inner Pack | Case Qty. |
|-------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------|-------------------------------------------|------------|-----------|
| <b>Single Conductor Cable</b><br>See above for cable type illustrations.                                          |               |                                                                  |                                           |            |           |
| 85-14CP                                                                                                           | 31927         | 2/0 AWG stranded                                                 | 4/0 AWG stranded                          | 1/box      | 10        |
| <b>Single Conductor Cable, Multiple Conductor, to 1000 Volt, Cable</b><br>See above for cable type illustrations. |               |                                                                  |                                           |            |           |
| 85-10                                                                                                             | 11846         | 8 AWG stranded                                                   | 4 AWG stranded                            | 1/box      | 10        |
| 85-12                                                                                                             | 11847         | 1 AWG stranded                                                   | 2/0 AWG stranded                          | 1/box      | 10        |
| 85-14                                                                                                             | 11848         | 2/0 AWG stranded                                                 | 4/0 AWG stranded                          | 1/box      | 10        |
| 85-16                                                                                                             | 02403         | 750 kcmil stranded*<br>250 kcmil (run)<br>2/0 AWG stranded (tap) | 500 kcmil (run)<br>4/0 AWG stranded (tap) | 1/box      | 10        |

\*Inline compression connector.



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# 3M™ Resin Splices 0-600V (1000V rated)

## 3M Scotchcast™ Wye Resin Splice Kit 90-B1



3M™ Scotchcast Kit 90-B1 insulates and moisture-seals wye splices made with the split-bolt type connectors on cables rated through 1 kV. **Each kit makes one splice.**



**Single Conductor Cable**



**Multiple Conductor Cable**

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## Scotchcast Splice 90-B1 Selection

| Product Series                                                                                             | UPC<br>(054007-) | Cable O.D. Range               |                        | Maximum Connector |         | Inner Pack | Case Qty. |
|------------------------------------------------------------------------------------------------------------|------------------|--------------------------------|------------------------|-------------------|---------|------------|-----------|
|                                                                                                            |                  | Run                            | Tap                    | Split Bolt        | Crimped |            |           |
| Single Conductor Cable, Multiple Conductor, to 1000 Volt, Cable<br>See above for cable type illustrations. |                  |                                |                        |                   |         |            |           |
| 90-B1                                                                                                      | 25115            | 0.500 - 0.812"<br>(13 - 21 mm) | 0.375" max.<br>(10 mm) | 1/0 AWG           | 2/0 AWG | 1/box      | 10        |

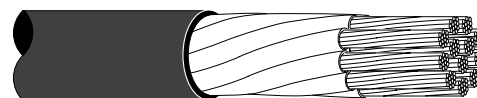
## Scotchcast Flexible Power Cable Tap Splice Kit 82-BF1

3M Scotchcast Kit 82-BF1 is for use on unshielded portable power cables and cords. 82-BF1 can be used on single conductor or multiple conductor cables using a compression "C" tap connector.

3M molds 82-BF1 are removable and reusable. The 82-BF1 is a permanent splice as assigned by the Mine Safety and Health Administration (P-142-5 MSHA). Connectors are not included, order separately. See page 131 in the "Lugs & Connectors" section for ordering information. **Each kit makes one splice.**



**Single Conductor Cable**



**Multiple Conductor Cable**

## Scotchcast Tap Splice Kit 82-BF1 Selection

| Product Series | UPC<br>(054007-) | Conductor Size                      | Cable O.D. Range                | Inner Pack | Case Qty. |
|----------------|------------------|-------------------------------------|---------------------------------|------------|-----------|
|                |                  |                                     |                                 |            |           |
| 82-BF1         | 08309            | Up to 1/0 AWG (50 mm <sup>2</sup> ) | 0.25 - 0.80"<br>(6,4 - 20,3 mm) | 1/box      | 10        |

# Resin

## 3M™ Scotchcast™ Electrical Insulating Resin 4



113

This Scotchcast resin is a two-part epoxy insulating and encapsulating resin packaged in five sizes. Use 3M Scotchcast Resin 4 to splice solid dielectric and oil-filled cables up to 8 kV. Flash point: 300°F (149°C) or higher.

## Scotchcast Electrical Insulating and Sealing Compound 2104



114

Scotchcast compound 2104 in a Unipak container is a two-part, low-viscosity polyurethane for permanent splice protection. This resin is included in the multi-mold splicing kits.

## Scotchcast Reenterable Electrical Insulating Resin 2112



115

Shield electrical connections from water damage with Scotchcast Reenterable Electrical Insulating and Sealing Compound 2112, the most effective moisture protection available. Unique mix-in-the-bag preparation of this polyolontadine resin makes

the resin easy to prepare and apply. The visible, reenterable moisture seal is a reliable barrier against the constant exposure to water in certain applications. Often used for potting flush mounted junction boxes.

## Scotchcast Flame Retardant Compound 2130



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Scotchcast Compound 2130 is a flexible, permanent, urethane resin used for jacket repair or splicing portable cables. It is flame retardant and has MSHA approval number P-142-5.

## Scotchcast Wet-Niche Potting 2135



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Scotchcast Wet-Niche Potting Compound 2135 is the first “listed” product that meets NEC requirements to allow the use of rigid nonmetallic conduit in the installation of wet-niche underwater lighting fixtures. 2135 provides protection against corrosion and

possible deteriorating effects of pool water by reliably encapsulating the 8 AWG ground connection in a wet-niche shell. The wet-niche forming shell is a corrosion-resistant metal housing for underwater fixtures in permanently installed pools. **Article 680-20(b)(1) National Electrical Code. UL Listed 2L02.**

Scotchcast 2135 potting compound is package in an easy-mix 1.8-oz. Unipak container. This thixotropic resin will not sag or drip. The encapsulated connection gels in minutes and can be submerged within four hours. Each kit contains enough material to complete one fixture.

## Specifications and Ordering Information for Scotchcast Resins

| Product Number                                                    | UPC (054007-) | Size/Type of Package                             | Inner Unit Pack | Case Qty. |
|-------------------------------------------------------------------|---------------|--------------------------------------------------|-----------------|-----------|
| <b>Scotchcast Electrical Insulating Resin 4</b>                   |               |                                                  |                 |           |
| 4-A                                                               | 43165         | A/3.2 oz. (90 g), 4.8 cu. in. (78,6 cu. cm)      | 1/box           | 10 each   |
| 4-B                                                               | 43166         | B/7.4 oz. (209 g), 11.2 cu. in. (183,5 cu. cm)   | 1/box           | 10 each   |
| 4-C                                                               | 43167         | C/14.7 oz. (418 g), 22.3 cu. in. (365,4 cu. cm)  | 1/box           | 10 each   |
| 4-D                                                               | 04206         | D/22.2 oz. (630 g), 33.6 cu. in. (550,6 cu. cm)  | 1/box           | 10 each   |
| 4-E                                                               | 04207         | E/10.4 oz. (294 g), 15.7 cu. in. (257,2 cu. cm)  | 1/box           | 10 each   |
| <b>Scotchcast Electrical Insulating and Sealing Compound 2104</b> |               |                                                  |                 |           |
| 2104-A                                                            | 31189         | A/3.46 oz. (98 g), 5.7 cu. in. (93,4 cu. cm)     | 1/box           | 10 each   |
| 2104-B                                                            | 31382         | B/7.4 oz. (210 g), 12.6 cu. in. (206,4 cu. cm)   | 1/box           | 10 each   |
| 2104-C                                                            | 31383         | C/14.82 oz. (420 g), 25.4 cu. in. (416,2 cu. cm) | 1/box           | 10 each   |
| 2104-D                                                            | 11849         | D/23.8 oz. (675 g), 40.8 cu. in. (668,5 cu. cm)  | 1/box           | 10 each   |
| <b>Scotchcast Reenterable Electrical Insulating Compound 2112</b> |               |                                                  |                 |           |
| 2112-C                                                            | 42049         | C/12.3 oz. (350 g), 23.7 cu. in. (338,3 cu. cm)  | 1/box           | 10 each   |
| 2112-D                                                            | 42050         | D/21.2 oz. (600 g), 40.6 cu. in. (665,3 cu. cm)  | 1/box           | 10 each   |
| <b>Scotchcast Flame Retardant Compound 2130</b>                   |               |                                                  |                 |           |
| 2130-B                                                            | 31401         | B/7.6 oz. (216 g), 10.7 cu. in. (175,3 cu. cm)   | 1/box           | 10 each   |
| 2130-C                                                            | 31402         | C/21.7 oz. (616 g), 30.5 cu. in. (499,8 cu. cm)  | 1/box           | 10 each   |
| 2130 Part A                                                       | 50237         | A/5 gal. (18,93 L)                               |                 | 45        |
| 2130 Part B                                                       | 50238         | B/5 gal. (18,93 L)                               |                 | 54        |
| <b>Scotchcast Wet-Niche Potting 2135</b>                          |               |                                                  |                 |           |
| 2135                                                              | 69798         | F/1.83 oz. (52,5 g), 3.3 cu. in. (54,0 cu. cm)   | 1/box           | 10 each   |
| <b>Scotchcast Cable Repair Compound 2135M</b>                     |               |                                                  |                 |           |
| 2135M                                                             | 50433         | F/6.9 oz. (195 g), 12.25 cu. in. (31,12 cu. cm)  | 1/bag           | 10 each   |

# 5/8 kV, 15 kV and 25 kV Resin Pressure System

The 3M™ Resin Pressure System is comprised of several components that are used for constructing splices or splice jackets on medium voltage power cables for harsh environments. 3M Scotchcast™ Electrical Insulating Resin 4 is a key component of the system, which can be used as the primary insulation for shielded and non-shielded splices rated up to 8 kV. The system is also available as a

resin-jacketed tape-splice (TapeCast™) rated up to 25 kV. The resin is a two-part epoxy, packaged in a special Unipak container that provides the exact mixing ratio for making a strong, dependable and long-lasting splice or splice jacket. The versatile resin system accommodates a variety of splice configurations and cables.

| Voltage Class | Number of Conductors                                        | Shielding                                                              | Insulation Material                                                                    | Splice Configuration             |
|---------------|-------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------|
| 5 and 8 kV    | 1/C, multi/C and transitions from multi-to single conductor | Non-shielded, Tape Shielded, Wire Shielded, UniShield®, LC, CN and JCN | Solid Dielectric (EPR, XLPE, etc.), PILC and transitions from PILC to Solid Dielectric | Inline, Wye and Tee Resin Splice |
| 15 kV         | 1/C, multi/C and transitions from multi-to single conductor | Tape Shielded, Wire Shielded, UniShield®, LC, CN and JCN               | Solid Dielectric (EPR, XLPE, etc.), PILC and transitions from PILC to Solid Dielectric | Inline and Tee TapeCast™ Splice  |
| 25 kV         | 1/C, multi/C and transitions from multi-to single conductor | Tape Shielded, Wire Shielded, UniShield®, LC, CN and JCN               | Solid Dielectric (EPR, XLPE, etc.), PILC and transitions from PILC to Solid Dielectric | Inline and Tee TapeCast™ Splice  |

These Resin and 3M™ TapeCast Splices will also work on sector shaped conductors.

A resin pressure system splice is suitable for submerged locations (e.g., manholes and vaults), underground direct burial, and aerial applications. **Detailed instructions containing bill-of-materials are available by contacting the 3M Electrical Products Division’s Energy Helpline at (512) 984-5000.** All parts are ordered separately. See “Insulating and Splicing Tapes,” “Cable Accessory Products” and “Cable Accessory Products-Preparation and Cleaning” for ordering information on other parts for TapeCast Systems. Contact your local 3M representative for further details.

| Product | UPC (054007-) | Description                                                | Case Qty. |
|---------|---------------|------------------------------------------------------------|-----------|
| 4-B     | 43166         | Scotchcast Electrical Insulating Resin 4 (7.4 oz./209 gm)  | 10        |
| 4-C     | 43167         | Scotchcast Electrical Insulating Resin 4 (14.7 oz./418 gm) | 10        |
| E-4     | 25701         | Scotchcast Resin-Pressure Gun (reusable tool)              | 1         |
| P-1B*   | 11857         | Scotchcase Injection Fitting                               | 50        |
| P-5B*   | 11858         | Scotchcast Nozzle                                          | 50        |
| P-3     | 25735         | Scotchcast Spacer Tape                                     | 50        |
| P-4     | 25743         | Scotchcast Restricting Tape                                |           |

\* Ordered by the box; each box contains 10 fittings or nozzles



# Heat Shrink Splices 0-600V

## UF Splice Kit



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3M™ UF Splice Kit is designed to provide a reliable, moisture proof electrical connection for Type U.F.-B underground feeder cable rated for 600 volts ranging from #14/3 without ground wire up to #8/3 with ground wire.

The UF Splice Kit consists of a connector-insulation assembly and a heat shrink tube. The connector assembly contains four cylindrical set screw connectors separated by a piece of vinyl insulation.

The heat shrink tube is a heavy-wall, adhesive-lined tube.

Underground Feeder (UF)-B cables are flat, and typically have three solid conductors without ground or two solid conductors with a ground. They range in size from 8 AWG to 14 AWG. The most common UF cable size is 10-14 AWG.

The 3M UF Splice Kit is offered in two versions: UF1 Standard Kit includes a 1.8" length terminal connector and an 8" length of heavy-wall, adhesive-lined heat shrink tube. UF2 Stretcher Kit has an 11.7" terminal connector and a 20" length of heavy-wall, adhesive-lined heat shrink tube.

The Standard Kit is used in most of the applications.

The Stretcher Kit is used in situations where a 7-10" section of the cable has been damaged or destroyed. It eliminates two connectors and a short piece of cable during repair.

## Ordering Information for 3M UF Splice Kits

| Product Number | UPC (054007-) | Description                                                         | Inner Unit Pack                   | Case Qty.  |
|----------------|---------------|---------------------------------------------------------------------|-----------------------------------|------------|
| UF1            | 42920         | UF Splice Kit-Standard<br>1.8" connector/<br>8" heat shrink tube    | One kit/<br>peggable blister pack | 6 kits/cs. |
| UF2            | 42921         | UF Splice Kit-Stretcher<br>11.7" connector/<br>20" heat shrink tube | One kit/<br>peggable printed bag  | 6 kits/cs. |

## Ordering Information for 600V In-line Splice Kits, for Flat Cable USEB90

| Product Number                        | UPC (051141-) | Description                                                                    | Case Qty.  |
|---------------------------------------|---------------|--------------------------------------------------------------------------------|------------|
| USEB90-2                              | 03449         | Conductor Size #2 AWG                                                          | 5 kits/cs. |
| USEB90-1/0                            | 03448         | Conductor Size 1/0 AWG                                                         | 5 kits/cs. |
| USEB90-2/0                            | 03450         | Conductor Size 2/0 AWG                                                         | 5 kits/cs. |
| USEB90-4/0                            | 03451         | Conductor Size 4/0 AWG                                                         | 5 kits/cs. |
| 9CK-FCM-1<br>• uses Scotchcast™ Resin | 64031*        | Conductor Size 1/0-4/0 AWG<br>Mould length 14" (355mm)<br>Cable Type USEB-90   | 1 kit/cs.  |
| 9CK-FCM-2<br>• uses Scotchcast Resin  | 64032*        | Conductor Size #2-1/0 AWG<br>Mould length 10.25" (260mm)<br>Cable Type USEB-90 | 1 kit/cs.  |

\* UPC prefix 054007

For USEB90, these products are only available in Canada.

## 3M Airport Lighting Connector Sealing Kit IAL-3

3M Airport Lighting Connector Sealing Kit IAL-3 is designed especially to meet the high demands on airport lighting connections. It meets specifications for sealing FAA Specification L-823 connectors. Each kit includes a 16-inch heat shrinkable sleeve, cleaning pad and instructions.

## Specification and Ordering Information for 3M Airport Lighting Connector Sealing Kit IAL-3

| Product Number | UPC (054007-) | Expanded/<br>Recovered I.D. | Inner Unit Pack | Case Qty. |
|----------------|---------------|-----------------------------|-----------------|-----------|
| IAL-3          | 08862         | 1.38/0.38" (34/10 mm)       | 1/bag           | 30        |

# 1 kV to 5/8 kV Splices

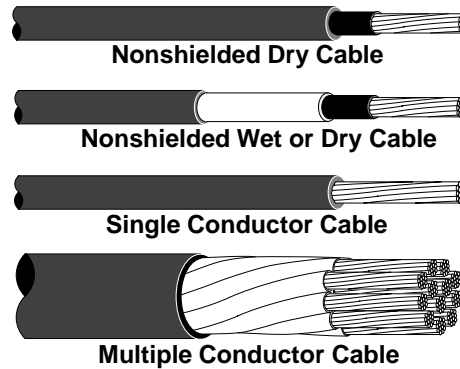
## 1/C, 1-5 kV, Non-Shielded Resin Splices

### 3M™ Scotchcast™ 82-A Series Inline Resin Splice Kits



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Use the Scotchcast series kits 82-A to insulate and seal single conductor, unshielded cable splices through 5 kV and multiple conductor cables through 1 kV. The 82-A series is UL Listed 486D, File Number E102356. Connector is not included, order separately. **Each kit makes one splice.**



### Scotchcast Kits 82-A Series Selection

| Product Series                                                                                                                                                                                       | UPC (054007-) | Maximum Cable O.D. | Maximum Connector O.D. | Conductor Size*                               | Inner Pack | Case Qty. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|------------------------|-----------------------------------------------|------------|-----------|
| Nonshielded Dry Cable, 5 and 8 kV, Nonshielded Wet or Dry Cable, 5 and 8 kV, Single Conductor Cable to 1000 Volt, Multiple Conductor, to 1000 Volt, Cable<br>See above for cable type illustrations. |               |                    |                        |                                               |            |           |
| 82-A                                                                                                                                                                                                 | 25016         | 0.750" (19 mm)     | 0.406" (10 mm)         | 10 - 2 AWG (6 - 30 mm <sup>2</sup> )          | 1/box      | 10        |
| 82-A1                                                                                                                                                                                                | 25024         | 0.625" (16 mm)     | 0.406" (10 mm)         | Up to 2 AWG (30 mm <sup>2</sup> )             | 1/box      | 10        |
| 82-A2                                                                                                                                                                                                | 25032         | 1.000" (25 mm)     | 0.625" (16 mm)         | 2 - 3/0 AWG (35 - 80 mm <sup>2</sup> )        | 1/box      | 10        |
| 82-A3                                                                                                                                                                                                | 25040         | 1.563" (40 mm)     | 1.000" (25 mm)         | 3/0 - 400 kcmil** (95 - 200 mm <sup>2</sup> ) | 1/box      | 10        |

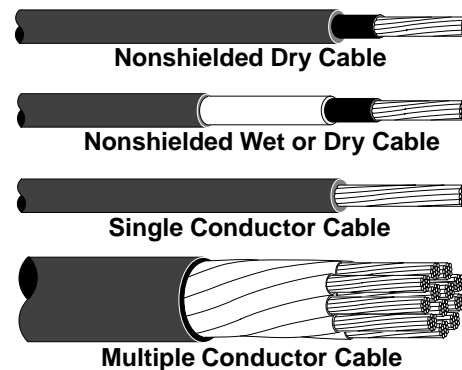
\* Important: Use insulation jacket or connector O.D. for final ordering criteria.  
\*\* 500 kcmil when using a Scotchlok 10014 copper compression connector.

### Scotchcast Wye Resin Splice Kit 82-B1



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Scotchcast kit 82-B1 insulates and seals wye splices for compression tap connectors (e.g., C-tap or H-tap) rated for cables up to 5 kV. Use on nonshielded cables through 5 kV and on multiple conductor cables through 1 kV. **Each kit makes one splice.**



### Scotchcast Kit 82-B1 Selection

| Product Series                                                                                                                                                  | UPC (054007-) | Voltage Rating                                   | Maximum Connector Split Bolt | Maximum Connector Crimped | Cable O.D.                 | Inner Pack | Case Qty. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------------------------|------------------------------|---------------------------|----------------------------|------------|-----------|
| Nonshielded Dry Cable, Nonshielded Wet or Dry Cable, Single Conductor Cable, Multiple Conductor, to 1000 Volt, Cable<br>See above for cable type illustrations. |               |                                                  |                              |                           |                            |            |           |
| 82-B1                                                                                                                                                           | 25057         | 5 kV Single Conductor<br>1 kV Multiple Conductor | 4 AWG                        | 2 AWG                     | 0.250 - 0.625" (6 - 16 mm) | 1/box      | 10        |

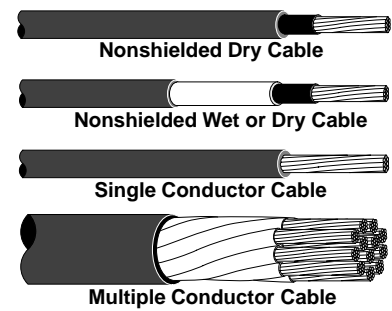
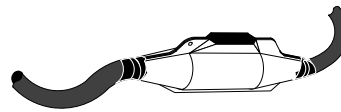
# 1/C, 1-5 kV, Non-Shielded Resin Splices

3M™ Scotchcast™ Inline Splice Kits for Flexible Power Cable 82-F1 and 82-F2

Scotchcast kits 82-F1 and 82-F2 are for use on unshielded, portable power cables. The kits are rated up to 5 kV for single conductor and up to 1 kV for multiple conductors. The kits are designed to be used with inline compression connectors.

The Scotchcast kits 82-F series are permanent splices as assigned by the Mine Safety and Health Administration (P-142-5 MSHA).

Connectors are not included, order separately.



## Scotchcast Kits 82-F1 and 82-F2 Inline Selection

| Product Series                                                                                                                                                  | UPC (054007-) | Cable O.D. Range          | Voltage Rating           | Conductor Size                             | Number of Conductors | Maximum Connector O.D.         | Inner Pack | Case Qty. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------|--------------------------|--------------------------------------------|----------------------|--------------------------------|------------|-----------|
| Nonshielded Dry Cable, Nonshielded Wet or Dry Cable, Single Conductor Cable, Multiple Conductor, to 1000 Volt, Cable<br>See above for cable type illustrations. |               |                           |                          |                                            |                      |                                |            |           |
| 82-F1                                                                                                                                                           | 08307         | 0.25 - 0.80" (6 - 20 mm)  | 5 kV<br>1 kV (600/2000)* | 6 - 1/0 AWG** (16 - 50 mm <sup>2</sup> )   | 1<br>multi           | 0.62" (18 mm)<br>0.90" (23 mm) | 1/box      | 10        |
| 82-F2                                                                                                                                                           | 08308         | 0.80 - 1.20" (20 - 30 mm) | 5 kV<br>1 kV (600/2000)* | 2/0 - 4/0 AWG** (70 - 95 mm <sup>2</sup> ) | 1<br>multi           | 0.82" (21 mm)<br>1.30" (33 mm) | 1/box      | 10        |

\* Mine portable cable rating  
\*\*Base selection on cable O.D. range.

# 1/C, 5/8 kV, Non-Shielded Cold Shrink Splices

3M™ 5/8 kV Inline Splice Kits 5740 Series



3M Splice Kits 5740 Series are used for single conductor, non-shielded 5/8 kV cables. Each kit is a cold shrink design and contains enough material to insulate three (3) splices.



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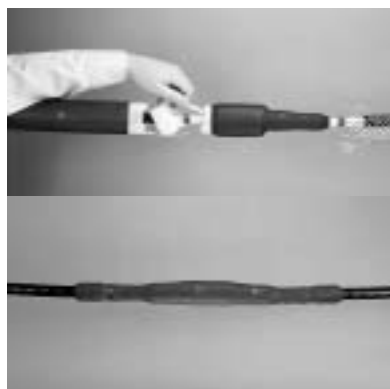
## 3M Cold Shrink Splice Kits 5740 Series Selection

| Product Series                                                                                 | UPC (054007-) | Conductor Size Copper                         | Conductor Size Aluminum                      | Maximum Connector Length (Copper or Aluminum) | Typical Splice Length | Insulation / Jacket O.D. Range | Cable Case Qty. |
|------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------|----------------------------------------------|-----------------------------------------------|-----------------------|--------------------------------|-----------------|
| Nonshielded Dry Cable, Nonshielded Wet or Dry Cable<br>See above for cable type illustrations. |               |                                               |                                              |                                               |                       |                                |                 |
| 5741                                                                                           | 49491         | 8 - 4 AWG (10 - 25 mm <sup>2</sup> )          |                                              | 2.5" (64 mm)                                  | 10" (254 mm)          | 0.38 - 0.70" (9,7 - 17,8 mm)   | 1               |
| 5742                                                                                           | 49492         | 2 AWG - 300 kcmil (35 - 150 mm <sup>2</sup> ) |                                              | 4.5" (108 mm)                                 | 12" (305 mm)          | 0.63 - 1.20" (16,0 - 30,5 mm)  | 1               |
| 5743                                                                                           | 49493         | 350 - 1000 kcmil (185 - 500 mm <sup>2</sup> ) | 350 - 750 kcmil (185 - 400 mm <sup>2</sup> ) | 6.25" (159 mm)                                | 15" (381 mm)          | 0.90 - 2.10" (22,9 - 53,3 mm)  | 1               |

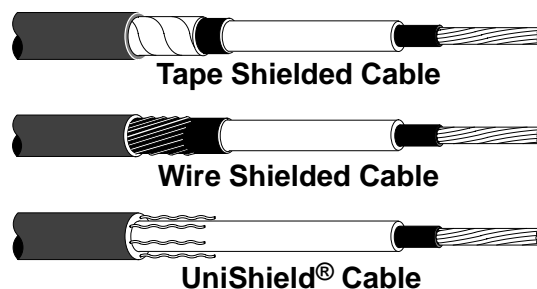
Note: Be sure to order the correct size connector to complete the splice, see pages 299-300.

# 1/C, 5/8 kV, Shielded-Tape, Wire, and UniShield® Cold Shrink Splices

3M™ Splice Kits 5550 Series



3M Cold Shrink Rubber Splice Kits 5550 Series are for splicing 5 kV and 8 kV shielded, solid dielectric, power cables. Each kit contains all the materials (except connectors and optional ground strap) required to construct three (3) single conductor splices on Tape Shield, Wire



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Shield or UniShield® cables. Note: The kit can also be used to splice a shielded to a nonshielded 5-8 kV cable.

**Meets requirements of IEEE 404.**

Each kit makes three splices.

## 3M Cold Shrink Splice Kits 5550 Series Selection

| Product Series                                                                                        | UPC (054007-) | Conductor Size                                      |                                                     | Maximum Connector Length |                  | Typical Splice Length | Optional Ground Strap Kit No. | Case Qty. |
|-------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------|-----------------------------------------------------|--------------------------|------------------|-----------------------|-------------------------------|-----------|
|                                                                                                       |               | Copper                                              | Aluminum                                            | Copper                   | Aluminum         |                       |                               |           |
| Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable<br>See above for cable type illustrations. |               |                                                     |                                                     |                          |                  |                       |                               |           |
| 5551                                                                                                  | 09089         | 6 - 4/0 AWG<br>(14 - 100 mm <sup>2</sup> )          | 6 - 3/0 AWG<br>(14 - 80 mm <sup>2</sup> )           | 3.3"<br>(84 mm)          | 2.7"<br>(69 mm)  | 19"<br>(483 mm)       | GS-1                          | 1         |
| 5552                                                                                                  | 09090         | 4/0 AWG - 500 kcmil<br>(120 - 250 mm <sup>2</sup> ) | 4/0 AWG - 400 kcmil<br>(120 - 200 mm <sup>2</sup> ) | 4.3"<br>(109 mm)         | 3.7"<br>(94 mm)  | 21"<br>(533 mm)       | GS-2                          | 1         |
| 5553                                                                                                  | 09091         | 500 - 1000 kcmil<br>(300 - 500 mm <sup>2</sup> )    | 500 - 1000 kcmil<br>(300 - 500 mm <sup>2</sup> )    | 6.3"<br>(160 mm)         | 5.3"<br>(135 mm) | 23"<br>(584 mm)       | GS-3                          | 1         |

## 5 kV In-line Splice Kits, 1/C or Multiple Conductor Unshielded Cable

### Ordering Information for 9CK-300 Series

| Product Number | UPC (054007-) | Description                                                                          | Jacket Diam. Range       | Inner Unit Pack |
|----------------|---------------|--------------------------------------------------------------------------------------|--------------------------|-----------------|
| 9CK-300        | 64860         | Conductor Size<br>Single #2-500 MCM<br>Multiple #6-1/0<br>Mold length 15.75" (400mm) | 1-1.95"<br>(25-49.5 mm)  | 1 kit/cs.       |
| 9CK-302        | 64861         | Conductor Size<br>Single #3-1250 MCM<br>Multiple #8-4/0<br>Mold length 20.5" (520mm) | 0.94-2.25"<br>(24-57 mm) | 1 kit/cs.       |

For the 9CK-300 Series, these products are only available in Canada.

# 3/C, 600V and 1 kV, Non-Shielded Cold Shrink Splices

## 3M™ Splices 5730 Series for Three-Conductor Armor Power Cable (Teck 90)



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3M Low Voltage Cold Shrink Splicing Kits are applicable for indoor and outdoor installations, including direct burial, aerial and submersible applications. The 5730 series accommodates a full range of cable sizes from 14 AWG-750 kcmil. The overall jacket diameter ranges from 0.62 to 4.0" (16 to 102 mm).

## 3M Low Voltage Inline Splice Kits 5730-5731

For use with 3/C or 4/C Armor Power Cable CSA Certified for 600V or less.\* Ⓢ

## 3M Low Voltage Inline Splice Kits 5732-5735

For use with 3/C Armor Power Cable (Teck 90) up to 1000V.

Note: Armorcast™ 4650 is not included with these splices and must be ordered separately.

\* NRTL=CSA approved for use in the United States

## 3M Cold Shrink Splice Kits 5730-5731 Series Selection

| Kit Number | Cable Sizes (AWG) | Overall Jacket Diameter  | UPC (054007-) | Amount of Armorcast Required* |
|------------|-------------------|--------------------------|---------------|-------------------------------|
| 5730       | 14 - 10           | 0.62 - 1.0" (16 - 25 mm) | 43171         | 1 roll                        |
| 5731       | 8 - 4             | 0.95 - 1.4" (24 - 36 mm) | 43172         | 1 roll                        |

Note: Connectors are not included in the kit. Use only CSA Certified compression connectors. Vinyl or nylon butt connectors are preferable.

\*Amount of Armorcast needed based on two half lapped layers. Order the 15 ft. rolls.

## 3M Cold Shrink Splice Kits 5732-5735 Series Selection

| Kit Number | Cable Sizes (AWG or kcmil) | Overall Jacket Diameter   | UPC (054007-) | Amount of Armorcast Required* |
|------------|----------------------------|---------------------------|---------------|-------------------------------|
| 5732       | 2 - 1/0                    | 0.95 - 2.4" (24 - 61 mm)  | 43173         | 1 roll                        |
| 5733       | 2/0 - 250                  | 1.15 - 3.3" (29 - 84 mm)  | 43174         | 2 rolls                       |
| 5734       | 250 - 500                  | 1.55 - 4.0" (39 - 102 mm) | 43175         | 2 rolls                       |
| 5735       | 500 - 750                  | 1.55 - 4.0" (39 - 102 mm) | 43176         | 3 rolls                       |

Note: Connectors are not included in the kit. Use only CSA Certified compression connectors.

\*Amount of Armorcast needed based on two half lapped layers. Order the 15 ft. rolls.

## 3M Armorcast™ Structural Material 4560

The Armorcast Structural Material 4560 creates maintenance free mechanical protection for power cable splices. Armorcast structural material is a flexible fiberglass knit fabric strip that has been saturated with black urethane resin syrup. It is rolled and packed dry in a sealed foil envelope.

## Armorcast Structural Material 4560 Selection

| Product Number | UPC (055128-) | Roll Size | Case Qty. |
|----------------|---------------|-----------|-----------|
| 4560-5         | 53740         | 5'        | 5 rolls   |
| 4560-10        | 53741         | 10'       | 5 rolls   |
| 4560-15        | 53742         | 15'       | 5 rolls   |

# 1/C, 3/C, 5/8 kV, Non-Shielded Armored or Non-Armored Armorcast/Cold Shrink Splices

## 3M™ Three-Conductor Inline Splicing Kits TS Series

3M Three-Conductor Inline Splicing Kits TS Series are designed for nonshielded armored and non-armored solid dielectric cables rated up to 8 kV. Connectors are not included, order separately. See page 131 in the “Lugs & Connectors” section for ordering information. **Meets requirements of IEEE 404.** Each kit makes one splice.



One-Conductor Unshielded, Stranded



Three-Conductor Unshielded, Stranded

### 3M TS-5/8 kV Series Selection (Stranded Conductor) Unshielded

| Size AWG kcmil | 1C Splice Kit       | UPC (051141-) | 3C Splice Kit        | UPC (051141-) |
|----------------|---------------------|---------------|----------------------|---------------|
| 8-4            | TS-5kVU-1C-8-4      | 045276        | TS-5kVU-3C-8-4       | 045818        |
| 3-300          | TS-5kVU-1C-3-300    | 045269        | TS-5kVU-3C-3-300     | 045795        |
| 350-1000       | TS-5kVU-1C-350-1000 | 045283        | TS-5kVU-3C-350-1000* | 045801        |

\*Cu only for 1000 Mem.

These products are only available in Canada.

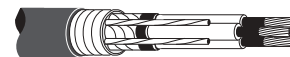
# 1/C, 3/C, 5/8 kV, Shielded Armored or Non-Armored Armorcast/Cold Shrink Splices

## 3M™ Armored/Aarmorcast/Non-Armored Cable Splices TS Series

The 3M™ Three-Conductor Inline Splicing Kits TS-Series are designed for splicing shielded armored and non-armored cables, 5 kV and 8 kV. Connectors are not included, order separately. See page 131 in the “Lugs & Connectors” section for ordering information. **Meets requirements of IEEE 404.** Each kit makes one splice.



One-Conductor, Shielded, Stranded



Three-Conductor, Shielded, Stranded

### 3M TS-5/8 kV Series Selection (Stranded Conductor) Shielded

| Size AWG kcmil | 1C Splice Kit      | UPC (051141-) | 3C Splice Kit      | UPC (051141-) |
|----------------|--------------------|---------------|--------------------|---------------|
| 6-2            | TS-5kV-1C-6-3/0    | 045320        | Call               |               |
| 2-310          | TS-5kV-1C-6-3/0    | 045320        | TS-5kV-3C-2-3/0    |               |
| 4/0-400        | TS-5kV-1C-4/0-400  | 045375        | TS-5kV-3C-4/0-500  |               |
| 500            | TS-5kV-1C-500-1000 | 045382        | TS-5kV-3C-4/0-500* |               |
| 750            | TS-5kV-1C-500-1000 | 045382        | TS-5kV-3C-600-750† |               |
| 2000           | TS-5kV-1C-500-1000 | 045382        | Call               |               |

\*Cu only.

† Resin Rejacketing.

These products are only available in Canada.

# 1/C & 3C , 15/25/28 kV Shielded Armored & Non-Armored Armorcast/Cold Shrink Splices

Designed for splicing shielded (Tape or Wire Shielded and Unishield™) armored or non-armored cables 15/25/28 kV. The completed splices are designed for use in cable tray, as well as weather-exposed and direct burial locations. The TS Series splices use Armorcast™ and Cold Shrink technology. Connectors not included, order separately. See page 131 for ordering connectors. Each kit makes one splice. **Splices meet requirements of IEEE 404.**



**One-Conductor, Shielded, Stranded**



**Three-Conductor, Shielded, Stranded**

## 3M TS-15 kV Series Selection (Stranded Conductor) Shielded

| Size AWG kcmil | 1C Splice Kit       | UPC (051141-) | 3C Splice Kit      | UPC (051141-) |
|----------------|---------------------|---------------|--------------------|---------------|
| 2-4/0          | TS-15kV-1C-2-4/0    |               | TS-15kV-3C-2-4/0   | 045771        |
| 4/0-500        | TS-15kV-1C-4/0-500  | 045443        | TS-15kV-3C-4/0-500 | 045481        |
| 500-750        | TS-15kV-1C-500-1000 | 045337        | TS-15kV-3C-350-750 | 045467        |
| 1000           | TS-15kV-1C-500-1000 | 045337        | Call               |               |

## 3M TS-25/28 kV Series Selection (Stranded Conductor) Shielded

| Size AWG kcmil | 1C Splice Kit       | UPC (051141-) | 3C Splice Kit       | UPC (051141-) |
|----------------|---------------------|---------------|---------------------|---------------|
| 1-250          | TS-25kV-1C-1-250    |               | TS-25kV-3C-1-250    | 046044        |
| 250-750        | TS-25kV-1C-250-750  | 046235        | TS-25kV-3C-250-750  | 045450        |
| 500-1000       | TS-25kV-1C-500-1000 |               | TS-25kV-3C-500-1000 | 045498        |

# 1/C, 15/25/28 kV, JCN/CN, Tape Shield, Wire Shield, LC Shield Cold Shrink Repair Splices

## 3M™ QS-III/Cable Repair Splices

The 3M™ Quick Splice III repair splice is a 15/25/28 kV class inline splice designed to serve as a cable repair for distribution/feeder class power cables. It is designed to replace up to 10 inches (254 mm) of damaged cable, thus eliminating the need to splice in a new section of cable with two separate splices.

The 3M Cold Shrink splice body is a one-piece molded design made of specially formulated silicone rubber, while the cold shrink jacketing is made from EPDM rubber for physical protection. Each splice manufactured is factory tested to ensure reliability.

The splice can be used with 3M copper (Cu) or aluminum (Al/Cu) inline compression (crimp type) connectors, and can be used for size transitions within the listed kit size range. They are designed to exceed minimum industry test standards, and have a BIL rating of 200 kV (equal to a 35 kV voltage class). 5457AR and 5457ARS QS-III splices meet or exceed the 25 kV/28 kV Voltage Class rating requirements of ANSI/IEEE Std. 404-1993.



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## 3M QS-III/Cable Repair Splices

| Kit Number              | Cable Type                              | Cable Installation<br>O.D. Range | Conductor Size Range |          |
|-------------------------|-----------------------------------------|----------------------------------|----------------------|----------|
|                         |                                         |                                  | 15 kV                | 25/28 kV |
| 5457ARSS-WG<br>5457ARSS | Concentric<br>Jacketed Concentric       | 0.84"-0.99"                      | 2/0-4/0              | 1-2/0    |
| 5457ARS-WG<br>5457ARS   | Concentric<br>Jacketed Concentric       | 0.972"-1.48"<br>(25 mm-38 mm)    | 250-500              | 3/0-350  |
| 5457AR-WG<br>5457AR     | Concentric<br>Jacketed Concentric       | 1.05"-1.68"<br>(26.7 mm-42.7 mm) | 500-1000             | 350-750  |
| 5525ARS                 | Tape Shield<br>Wire Shield<br>LC Shield | 0.972"-1.48"<br>(25 mm-38 mm)    | 250-500              | 3/0-350  |
| 5525AR                  | Tape Shield<br>Wire Shield<br>LC Shield | 1.05"-1.68"                      | 500-1000             | 350-750  |

**Note:** 3M Repair Connectors are required with these splice kits. 3M Repair Connectors are 15" in length. They are designed for standard, compact, and compressed conductors. Connectors can be designed specially for any application. Special order connectors require 6-8 week lead times. Transition connectors are also available. Please consult your local 3M sales representative.

The QS-III splices are only available in Canada.



## 3M™ Phase Rejacketing Kits

### RJK Kits for converting 3/c cable to three 1/c cables

| Indoor/Outdoor Kits | Indoor Kits | Cable Metallic Shield Diameter Range | 5 kV     | 8 kV     | 15 kV   | 25/28 kV |
|---------------------|-------------|--------------------------------------|----------|----------|---------|----------|
| RJK-1               | RJS-2/3     | 0.60-0.80                            | 1-3/0    | 2-2/0    | 2-1/0   |          |
| RJK-2               | RJS-3/3     | 0.80-1.02                            | 4/0-400  | 3/0-350  | 1/0-4/0 | 2-1/0    |
| RJK-3               | RJS-4/3     | 1.02-1.28                            | 500-750  | 400-600  | 250-450 | 2/0-250  |
| RJK-4               | RJS-5/3     | 1.28-1.62                            | 800-1000 | 750-1000 | 500-750 | 300-500  |

#### Kit Contents

##### Indoor/Outdoor Kits

- 3M Cold Shrink break out boot, Cold Slip rejacketing sleeves (3 four foot lengths), provision to externally ground at breakout boot.

##### Indoor Kits

- 3M Cold Slip rejacketing sleeves (3 four foot lengths).

#### Cold Shrink

3M Cold Shrink splicing products are designed using 3M's unique cold shrink delivery system. Products are supplied pre-stretched on a removable core for efficiency and ease of installation.

#### Cold Slip

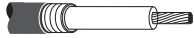

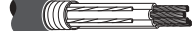
3M Cold Slip re-jacketing sleeves incorporate an inner-expandable polyester braid designed to reduce sliding friction and deliver the sleeve quickly onto the cable.

# 600 V and 1 kV, Non-Shielded Splices

3M™ Splices for 1C, 3C & 4C, Armored or Non-Armored CableTS Series

3M Low Voltage Tape Splicing Kits are applicable for indoor and outdoor installations, including direct burial, aerial and submersible applications. The TS series accommodates a full range of cable sizes.

## 1 kV Ordering Information

| Size AWG kcmil | 1C Splice Kit                                                                     | 3C Splice Kit                                                                     | 4C Splice Kit                                                                       |
|----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                |  |  |  |
| 14             | TS                                                                                | TS                                                                                | TS                                                                                  |
| 12             | TS                                                                                | TS                                                                                | TS                                                                                  |
| 10             | TS                                                                                | TS                                                                                | TS                                                                                  |
| 8              | TS                                                                                | TS                                                                                | TS                                                                                  |
| 6              | TS                                                                                | TS                                                                                | TS                                                                                  |
| 4              | TS                                                                                | TS                                                                                | TS                                                                                  |
| 3              | TS                                                                                | TS                                                                                | TS                                                                                  |
| 2              | TS                                                                                | TS                                                                                | TS                                                                                  |
| 1              | TS                                                                                | TS                                                                                | TS                                                                                  |
| 1/0            | TS                                                                                | TS                                                                                | TS                                                                                  |
| 2/0            | TS                                                                                | TS                                                                                | TS                                                                                  |
| 3/0            | TS                                                                                | TS                                                                                | TS                                                                                  |
| 4/0            | TS                                                                                | TS                                                                                | TS                                                                                  |
| 250            | TS                                                                                | TS1                                                                               | TS1                                                                                 |
| 300            | TS                                                                                | TS1                                                                               | TS1                                                                                 |
| 350            | TS                                                                                | TS1                                                                               | TS1                                                                                 |
| 400            | TS                                                                                | TS1                                                                               | TS1                                                                                 |
| 500            | TS                                                                                | TS1                                                                               | TS1                                                                                 |
| 600            | TS                                                                                | TS1                                                                               | TS1                                                                                 |
| 750            | TS                                                                                | TS1                                                                               | TS1                                                                                 |
| 1000           | TS                                                                                | TS1                                                                               | TS1                                                                                 |

# 3/C, 5 kV, Non-Shielded Armored or Non-Armored Resin/Cold Shrink Splices

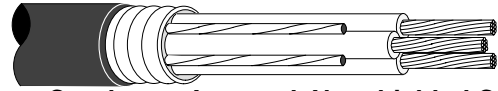
## 3M™ Three-Conductor Inline Splicing Kits 5750 Series



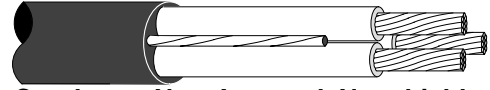
3M Three-Conductor Inline Splicing Kits 5750 Series are designed for nonshielded armored and non-armored solid dielectric cables rated up to 5 kV.

Connectors are not included, order separately. See page 131 in the "Lugs & Connectors" section for ordering information. **Meets**

requirements of IEEE 404. Each kit makes one 3/C splice.



**Three-Conductor Armored, Nonshielded Cable**



**Three-Conductor Non-Armored, Nonshielded Cable**

## 3M Splices 5750 Series Selection

| Product Series                                                                                                                        | UPC<br>(054007-) | Conductor Size (Copper or Aluminum)           |                                                                                                                         | Typical<br>Splice Length | Case Qty. |
|---------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------|
|                                                                                                                                       |                  | 1 kV or Less                                  | 5 kV                                                                                                                    |                          |           |
| Three Conductor Armored, Nonshielded Cable, Three Conductor Non-Armored, Nonshielded Cable<br>See above for cable type illustrations. |                  |                                               |                                                                                                                         |                          |           |
| 5751                                                                                                                                  | 08310            | 6 - 1 AWG<br>(14 - 38 mm <sup>2</sup> )       | 6 - 4 AWG<br>(14 - 16 mm <sup>2</sup> )                                                                                 | 19"<br>(483 mm)          | 1         |
| 5752                                                                                                                                  | 08311            | 1/0 - 4/0 AWG<br>(60 - 100 mm <sup>2</sup> )  | 2 - 4/0 AWG<br>(35 - 100 mm <sup>2</sup> )                                                                              | 28"<br>(711 mm)          | 1         |
| 5753                                                                                                                                  | 08312            | 250 - 750 AWG<br>(150 - 325 mm <sup>2</sup> ) | 250 - 500 kcmil aluminum<br>(150 - 250 mm <sup>2</sup> )<br>250 - 750 kcmil copper only<br>(150 - 325 mm <sup>2</sup> ) | 42"<br>(1067 mm)         | 1         |

# 3/C, 5/8 kV, Shielded Armored or Non-Armored Resin/Cold Shrink Splices

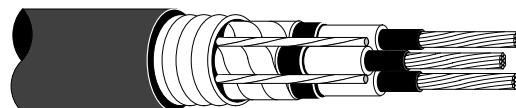
## 3M™ Armored/Non-Armored Cable Splices 5760 Series



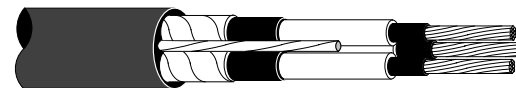
3M Three-Conductor Inline Splicing Kits 5760 Series are designed for splicing shielded armored and non-armored cables, 5 kV and 8 kV.

Connectors are not included, order separately. See page 131 in the “Lugs & Connectors” section for ordering information. **Meets**

126 requirements of IEEE 404. Each kit makes one 3/C splice.



Three-Conductor Armored, Shielded Cable



Three-Conductor Non-Armored, Shielded Cable

## 3M Splices 5760 Series Selection

| Product Series                                                                                                                  | UPC (054007-) | Insulation O.D. Range        | Conductor Size (Copper or Aluminum)                 | Maximum Connector O.D. | Maximum Connector Length | Typical Splice Length | Case Qty. |
|---------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------|-----------------------------------------------------|------------------------|--------------------------|-----------------------|-----------|
| Three Conductor Armored, Shielded Cable, Three Conductor Non-Armored, Shielded Cable<br>See above for cable type illustrations. |               |                              |                                                     |                        |                          |                       |           |
| 5761                                                                                                                            | 12260         | 0.65 - 1.00"<br>(17 - 25 mm) | 2/0 AWG - 350 kcmil<br>(120 - 250 mm <sup>2</sup> ) | 0.90"<br>(23 mm)       | 2.75"<br>(70 mm)         | 29"<br>(737 mm)       | 1         |
| 5762                                                                                                                            | 12262         | 0.93 - 1.94"<br>(24 - 49 mm) | 500 - 1000 kcmil<br>(300 - 500 mm <sup>2</sup> )    | 1.40"<br>(36 mm)       | 5.00"<br>(127 mm)        | 44"<br>(1118 mm)      | 1         |

# 15 kV Splices

## 1/C JCN/CN Molded Rubber Splices

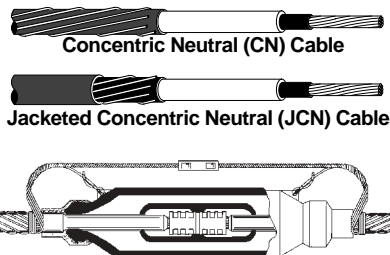
3M™ Molded Rubber QS and QS-II kits are inline splices made from specially formulated, peroxide-cured, EPDM rubbers to ensure a stable seal and a splice that will last the life of the cable. The continuous current rating of each splice is equal to the current rating of the cable it is sized to. Each molded rubber splice is tested at the factory on power cable to ensure long-term reliability. **Each molded rubber splice meets requirements of IEEE 404.**

### 3M™ Inline QS Splice Kits 5400 Series

3M QS kits 5400 series are inline splices designed for use on 15 kV CN or JCN cable.

To use the splice kit, select the appropriate size CI series compression connector. The connectors can be used on both stranded and solid, aluminum or copper conductors sized from 2/0 to 750 kcmil (70 to 300 mm<sup>2</sup>).

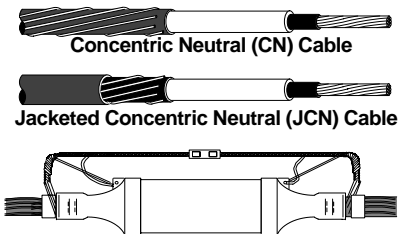
Meets requirements of IEEE Standard 404. See page 273-274 for 3M CI Connectors. **Each kit makes one splice.**



### 3M QS-II Splice Kits 5411 and 5412

3M QS-II kits 5411 and 5412 are one-piece inline splices designed for use on 15 kV rated CN and JCN cable. Meets requirements of IEEE Standard 404. (You may order some connectors with splice body in a kit.)

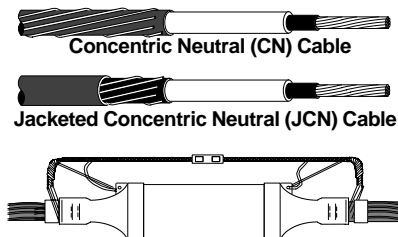
**Each kit makes one splice.**



### 3M QS-II Splice Kit 5411A

3M 5411A QS-II Splice Kit is a one-piece inline splice sized for #1 and 1/0 (220 mil) and 2/0 (175 mil) 15 kV rated, CN and JCN cables. The kit includes a cone-shaped device called "Porta-Pencil" that is used when sliding the splice body onto the cable. This Porta-Pencil feature plus an ID increase makes the 5411A install easily on the thicker 220-mil cables.

Meets requirements of IEEE Standard 404. See page 274 for 3M connectors. **Each kit makes one splice.**



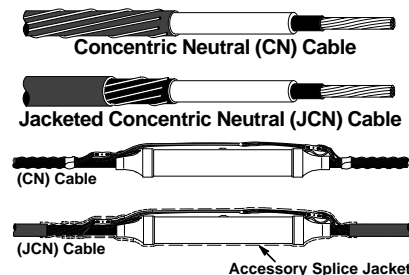
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### 3M QS-II Cable Repair Splice Kit 5411R

3M QS-II cable repair kit 5411R is a specially elongated molded rubber splice designed to repair damaged cable.

It can be used on 15 kV copper or aluminum, CN or JCN cables. The splice is an elongated version of the QS-II. It is designed to replace up to 6" (152 mm) of damaged cable, thus eliminating the need to splice in a new section of cable with two separate splices.

Meets requirements of IEEE Standard 404. The 5411R can be ordered with the special connector packed in the kit or the kit and connector can be ordered as separate items. See page 272 for 3M connectors. **Each kit makes one splice repair.**

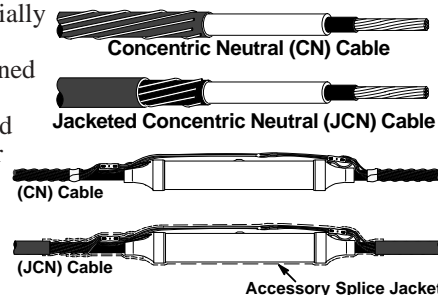


### 3M QS-II Cable Repair Splice Kit 5412R

3M QS-II cable repair kit 5412R is a specially elongated molded rubber splice designed to repair damaged cable. It can be used on 15 kV copper or aluminum, CN or JCN cables.

The splice is an elongated version of the QS-II. It is designed to replace up to 6" (152 mm) of damaged cable, thus eliminating the need to splice in a new section of cable with two separate splices. The 5412R is designed for use with a special inline compression connector, for connecting either aluminum or copper conductors.

Meets rating requirements of IEEE Standard 404. **Each kit makes one splice repair.**



# 1/C, 15 kV, JCN/CN Molded Rubber Splices

3M™ Rubber Splices 5400 Series, 5411, 5411A and 5412 Selection

| Product Series                                                                                                       | UPC<br>(054007-) | Splice Jacket†<br>Needed for<br>JCN Cables | Conductor Size                                            |                      | Insulation<br>O.D. Range        | Primary<br>Specified<br>Connector      | Case<br>Qty. |
|----------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------|-----------------------------------------------------------|----------------------|---------------------------------|----------------------------------------|--------------|
|                                                                                                                      |                  |                                            | Cu or Al<br>Stranded                                      | Solid                |                                 |                                        |              |
| Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable<br>See page 270 for cable type illustrations. |                  |                                            |                                                           |                      |                                 |                                        |              |
| 5403                                                                                                                 | 11818            | SJ-2A or HSJ-2A                            | 2/0 - 4/0 AWG<br>(70 - 100 mm <sup>2</sup> )              | —                    | 0.795 - 0.940"<br>(20 - 24 mm)  | CI Series                              | 1            |
| 5404                                                                                                                 | 11826            | SJ-2A or HSJ-2A                            | 2/0 - 4/0 AWG<br>(70 - 100 mm <sup>2</sup> )              | —                    | 0.920 - 1.080"<br>(23 - 27 mm)  | CI Series                              | 1            |
| 5405                                                                                                                 | 11834            | SJ-2A or HSJ-2A                            | 250 - 350 kcmil<br>(125 - 180 mm <sup>2</sup> )           | —                    | 0.920 - 1.080"<br>(23 - 27 mm)  | CI Series                              | 1            |
| 5406                                                                                                                 | 11842            | SJ-2A or HSJ-2A                            | 250 kcmil (220 mil)<br>350 kcmil                          | —                    | 1.060 - 1.210"<br>(27 - 31 mm)  | CI Series                              | 1            |
| 5406-CI-350                                                                                                          | 41907            | SJ-2A or HSJ-2A                            | 350 kcmil                                                 | —                    | 1.060 - 1.210"<br>(27 - 31 mm)  | CI-350                                 | 1            |
| 5407                                                                                                                 | 25602            | SJ-3A or HSJ-3A                            | 500 kcmil                                                 | —                    | 1.120 - 1.320"<br>(28 - 34 mm)  | CI Series                              | 1            |
| 5408                                                                                                                 | 25610            | SJ-3A or HSJ-3A                            | 750 kcmil                                                 | —                    | 1.320 - 1.520"<br>(34 - 39 mm)  | CI Series                              | 1            |
| 5408-CI-750                                                                                                          | 02314            | SJ-3A or HSJ-3A                            | 750 kcmil                                                 | —                    | 1.320 - 1.520"<br>(34 - 39 mm)  | CI-750                                 | 1            |
| 5409                                                                                                                 | 11859            | SJ-3A or HSJ-3A                            | 750 kcmil                                                 | —                    | 1.490 - 1.660"<br>(38 - 40 mm)  | CI Series                              | 1            |
| 5409-CI-750                                                                                                          | 30209            | SJ-3A or HSJ-3A                            | 750 kcmil                                                 | —                    | 1.490 - 1.660"<br>(38 - 40 mm)  | CI-750                                 | 1            |
| 5411                                                                                                                 | 11852            | SJ-1A or HSJ-1A                            | 4 - 2/0 AWG<br>2/0 (175 mil)                              | 2 - 1/0 AWG          | 0.637 - 0.90"<br>(16 - 23 mm)   | CI Series,<br>CI-T Series, or<br>20006 | 1            |
| 5411-CI-1/0*                                                                                                         | 11855            | SJ-1A or HSJ-1A                            | 1/0 AWG                                                   | —                    | 0.637 - 0.90"<br>(16 - 23 mm)   | CI-1/0                                 | 1            |
| 5411-CI-2*                                                                                                           | 08005            | SJ-1A or HSJ-1A                            | 2 AWG                                                     | 1 AWG                | 0.637 - 0.90"<br>(16 - 23 mm)   | CI-2                                   | 1            |
| 5411-CI-21*                                                                                                          | 11853            | SJ-1A or HSJ-1A                            | 2,1 AWG                                                   | 1,1/0 AWG            | 0.637 - 0.90"<br>(16 - 23 mm)   | CI-21                                  | 1            |
| 5411-CI-22*                                                                                                          | 11854            | SJ-1A or HSJ-1A                            | 4 AWG<br>(220 mil)                                        | 2 AWG                | 0.637 - 0.90"<br>(16 - 23 mm)   | CI-22                                  | 1            |
| 5411-20006*                                                                                                          | 11861            | SJ-1A or HSJ-1A                            | 2/0 AWG<br>(175 mil)                                      | —                    | 0.637 - 0.90"<br>(16 - 23 mm)   | 20006                                  | 1            |
| 5411A                                                                                                                | 09937            | SJ-1A or HSJ-1A                            | 1 AWG (220 mil)<br>1/0 AWG (220 mil)<br>2/0 AWG (175 mil) | 1/0 AWG<br>(220 mil) | 0.775 - 0.90"<br>(19,7 - 23 mm) | CI Series<br>or 20006                  | 1            |
| 5411A-CI-1*                                                                                                          | 09938            | SJ-1A or HSJ-1A                            | 1 AWG<br>(220 mil)                                        | 1/0 AWG<br>(220 mil) | 0.775 - 0.90"<br>(19,7 - 23 mm) | CI-1                                   | 1            |
| 5411A-CI-1/0*                                                                                                        | 09939            | SJ-1A or HSJ-1A                            | 1/0 AWG<br>(220 mil)                                      | —                    | 0.775 - 0.90"<br>(19,7 - 23 mm) | CI-1/0                                 | 1            |
| 5411A-20006*                                                                                                         | 09940            | SJ-1A or HSJ-1A                            | 2/0 AWG<br>(175 mil)                                      | —                    | 0.775 - 0.90"<br>(19,7 - 23 mm) | 20006                                  | 1            |
| 5412                                                                                                                 | 11862            | SJ-1A or HSJ-1A                            | 2/0 AWG (220 mil)<br>3/0 - 4/0 AWG<br>250 kcmil (175 mil) | —                    | 0.840 - 1.05"<br>(21 - 27 mm)   | CI Series                              | 1            |
| 5412-CI-2/0*                                                                                                         | 11865            | SJ-1A or HSJ-1A                            | 2/0 AWG<br>(220 mil)                                      | —                    | 0.840 - 1.05"<br>(21 - 27 mm)   | CI-2/0                                 | 1            |
| 5412-CI-3/0*                                                                                                         | 11863            | SJ-1A or HSJ-1A                            | 3/0 AWG                                                   | —                    | 0.840 - 1.05"<br>(21 - 27 mm)   | CI-3/0                                 | 1            |
| 5412-CI-4/0*                                                                                                         | 11864            | SJ-1A or HSJ-1A                            | 4/0 AWG                                                   | —                    | 0.840 - 1.05"<br>(21 - 27 mm)   | CI-4/0                                 | 1            |

† To order splice jackets see page 301.

\*Kit includes the connector specified.

**Note:** Cable sizes shown above are for standard insulation thickness. Final determining factor is cable insulation O.D.

**Important:** Use the primary insulation O.D. range as the final ordering criteria. The above cable sizes include 175 and 220 mil insulations.

**Note:** The current rating, 200 Amp, of each unit meets or exceeds the conductor range it is sized to accommodate.

# 1/C, 15 kV, JCN/CN Molded Rubber Splices

## 3M™ Cable Repair Splice Selection 5411R and 5412R

| Product Series                                                                                                       | UPC<br>(054007-) | Splice Jacket†<br>Needed for<br>JCN Cables | Conductor Size                         |             | Insulation<br>O.D. Range       | Specified<br>Connector | Case<br>Qty. |
|----------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------|----------------------------------------|-------------|--------------------------------|------------------------|--------------|
|                                                                                                                      |                  |                                            | Cu or Al<br>Stranded                   | Solid       |                                |                        |              |
| Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable<br>See page 270 for cable type illustrations. |                  |                                            |                                        |             |                                |                        |              |
| 5411R                                                                                                                | 09352            | SJ-1A or HSJ-1A, 8428-12**                 | 4 AWG<br>(220 mil only)<br>2 - 1/0 AWG | 2 - 1/0 AWG | 0.637 - 0.900"<br>(16 - 31 mm) | CIR Series             | 1            |
| 5411R-CIR-1/0*                                                                                                       | 09355            | SJ-1A or HSJ-1A, 8428-12**                 | 1/0 AWG                                | —           | 0.637 - 0.900"<br>(16 - 31 mm) | CIR-1/0                | 1            |
| 5411R-CIR-21*                                                                                                        | 09354            | SJ-1A or HSJ-1A, 8428-12**                 | 2 - 1 AWG                              | 1 - 1/0 AWG | 0.637 - 0.900"<br>(16 - 31 mm) | CIR-21                 | 1            |
| 5411R-CIR-22*                                                                                                        | 09353            | SJ-1A or HSJ-1A<br>8428-12**               | 4 AWG<br>(220 mil only)                | 2 AWG       | 0.637 - 0.900"<br>(16 - 31 mm) | CIR-22                 | 1            |
| 5412R-CIR-3/0*                                                                                                       | 43501            | SJ-2A or HSJ-2A                            | 3/0 AWG                                | —           | 0.870 - 1.055"<br>(22 - 27 mm) | CIR-3/0                | 1            |
| 5412R-CIR-4/0*                                                                                                       | 50101            | SJ-2A or HSJ-2A                            | 4/0 AWG                                | —           | 0.870 - 1.055"<br>(22 - 27 mm) | CIR-4/0                | 1            |

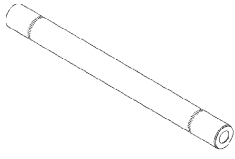
\* Kit includes the connector specified

\*\* 8428-12 is used with the SJ kits only.

**Note:** Cable sizes shown above are for standard insulation thickness. Final determining factor is cable insulation O.D.

† To order Splice Jackets see page 301.

## Specifications and Ordering Information on CIR Series Repair Connectors for 3M Rubber Splices 5411R and 5412R Series



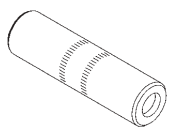
| Product Number | UPC<br>(054007-) | Conductor Size Cu or Al |             | Connector<br>O.D. | Splice<br>Body | Case<br>Qty. |
|----------------|------------------|-------------------------|-------------|-------------------|----------------|--------------|
|                |                  | Stranded                | Solid       |                   |                |              |
| CIR-1/0        | 09358            | 1/0 AWG                 | —           | 0.63" (16 mm)     | 5411R          | 10           |
| CIR-21         | 09357            | 2 - 1 AWG               | 1 - 1/0 AWG | 0.63" (16 mm)     | 5411R          | 10           |
| CIR-22         | 09356            | 4 AWG (220 mil only)    | 2 AWG       | 0.63" (16 mm)     | 5411R          | 10           |
| CIR-2/0        | 41964            | 2/0 AWG (220 mil only)  | —           | 0.91" (23 mm)     | 5412R          | 10           |
| CIR-3/0        | 41965            | 3/0 AWG                 | —           | 0.91" (23 mm)     | 5412R          | 10           |
| CIR-4/0        | 50228            | 4/0 AWG                 | —           | 0.91" (23 mm)     | 5412R          | 10           |

### Product Referral Generator

Splice Jacketing

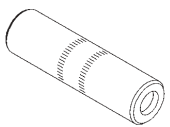
- SJ Series ..... pg. 301
- HSJ Series ..... pg. 301

### Specifications and Ordering Information on 3M™ Connectors CI Series for 3M™ Rubber Splices 5400 and 5500 Series



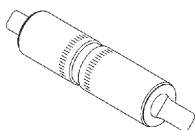
| Product Number | UPC (054007-) | Conductor Size Cu or Al | Connector O.D. | Case Qty. |
|----------------|---------------|-------------------------|----------------|-----------|
| CI-2/0         | 11875         | 2/0 AWG                 | 0.91" (23 mm)  | 10        |
| CI-3/0         | 11883         | 3/0 AWG                 | 0.90" (22 mm)  | 10        |
| CI-4/0         | 11891         | 4/0 AWG                 | 0.90" (22 mm)  | 10        |
| CI-250         | 11909         | 250 kcmil               | 1.11" (28 mm)  | 10        |
| CI-350         | 11925         | 350 kcmil               | 1.11" (28 mm)  | 10        |
| CI-450         | 11933         | 500 kcmil Compact       | 1.3" (33 mm)   | 10        |
| CI-500         | 25644         | 500 kcmil               | 1.3" (33 mm)   | 10        |
| CI-650         | 11941         | 750 kcmil Compact       | 1.7" (43 mm)   | 10        |
| CI-750         | 25651         | 750 kcmil               | 1.57" (40 mm)  | 10        |

### Specifications and Ordering Information on Connectors for 3M Rubber Splices 5411, 5412 and 5500 Series



| Product Number | UPC (054007-) | Conductor Size Cu or Al |            | Connector O.D. | Case Qty. |
|----------------|---------------|-------------------------|------------|----------------|-----------|
|                |               | Stranded                | Solid      |                |           |
| 20006          | 13285         | 2/0 AWG                 | —          | 0.687" (17 mm) | 10        |
| 20009          | 13319         | 250 kcmil               | —          | 0.906" (23 mm) | 3         |
| CI-1/0         | 11867         | 1/0 AWG                 | —          | 0.63" (16 mm)  | 10        |
| CI-2           | 11651         | 2 AWG                   | 1 AWG      | 0.63" (16 mm)  | 10        |
| CI-2/0         | 11875         | 2/0 AWG                 | —          | 0.91" (23 mm)  | 10        |
| CI-21          | 11856         | 2, 1 AWG                | 1, 1/0 AWG | 0.63" (16 mm)  | 10        |
| CI-22          | 25636         | 4 AWG                   | 2 AWG      | 0.63" (16 mm)  | 10        |
| CI-3/0         | 11883         | 3/0 AWG                 | —          | 0.90" (22 mm)  | 10        |
| CI-4/0         | 11891         | 4/0 AWG                 | —          | 0.90" (22 mm)  | 10        |

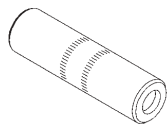
### Specifications and Ordering Information on CI-T Series Transition Connectors for 3M Rubber Splices 5411 and 5500 Series



| Product Number | UPC (054007-) | Conductor Size Cu or Al (AWG) |       |                 |       | Connector O.D. | Case Qty. |
|----------------|---------------|-------------------------------|-------|-----------------|-------|----------------|-----------|
|                |               | From Cable A Str.             | Solid | to Cable B Str. | Solid |                |           |
| CI-T-1         | 11958         | 4                             | 2     | 1               | 1/0   | 0.63" (16 mm)  | 10        |
| CI-T-2         | 11966         | 2                             | 1     | 1               | 1/0   | 0.63" (16 mm)  | 10        |
| CI-T-3         | 11974         | 4                             | 2     | 1/0             | —     | 0.63" (16 mm)  | 10        |
| CI-T-4         | 11982         | 2                             | 1     | 1/0             | —     | 0.63" (16 mm)  | 10        |
| CI-T-5         | 11990         | 2                             | 1     | 4               | 2     | 0.63" (16 mm)  | 10        |
| CI-T-9         | 44533         | 1                             | 1/0   | 1/0             | —     | 0.63" (16 mm)  | 10        |



# Specifications and Ordering Information on Connectors for 3M™ Rubber Splices 5411A Series



| Number | Product<br>(054007-) | UPC      | Conductor Size Cu or Al | Connector      | Case Qty. |
|--------|----------------------|----------|-------------------------|----------------|-----------|
|        |                      | Stranded | Solid                   | O.D.           |           |
| CI-1/0 | 11867                | 1/0 AWG  | —                       | 0.63" (16 mm)  | 10        |
| CI-1   | 25628                | 2, 1 AWG | 1, 1/0 AWG              | 0.63" (16 mm)  | 10        |
| 20006  | 13285                | 2/0 AWG  | —                       | 0.687" (17 mm) | 10        |

## 1/C, 15 kV, JCN/CN Cold Shrink Splices

3M™ QS-III Cold Shrink Inline Cable Splices  
5415A, 5416A, 5417A and 5418A



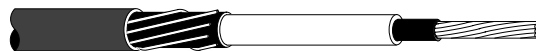
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The QS-III Cold Shrink cable splices 5415A, 5416A, 5417A and 5418A are inline splices for joining Jacketed Concentric Neutral (JCN) or Concentric Neutral (CN) cables. It is a

cold shrink design sized to fit UL Type MV-90 cables which are commonly used for feeder circuits, with copper or aluminum conductor sizes ranging from 350 to 1500 kcmil. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made of EPDM rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors packed in the kit or the kit and connector can be ordered as separate items. See page 131 to order 3M connectors. **Each kit makes one splice.** Additional transition connectors are available from cable accessory suppliers. **Meets requirements of IEEE 404.**



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

### Features — Benefits

#### 3M Cold Shrink QS-III Splices

|                                                                                               |                                                                                            |
|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Silicone body provides excellent electrical performance and superior low temperature handling | No heat, flames or special installation tools required. Fast recovery in cold temperatures |
| One piece splice body design                                                                  | Minimal training required                                                                  |
| Wide cable range                                                                              | Allow transitioning of different size cables                                               |
| Field proven technology                                                                       | Easy, straightforward installation                                                         |
| Splice bodies are 100% factory tested                                                         | Field reliability                                                                          |



### Product Referral Generator

Connecting ..... pg.133

### 3M™ QS-III Cold Shrink Splices Series 5415A, 5416A, 5417A and 5418A Selection

| Product Series                                                                                                       | UPC<br>(054007-) | Primary Insulation<br>O.D. Range | Conductor<br>Size                               | Connector | Case Qty. |
|----------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------|-------------------------------------------------|-----------|-----------|
| Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable<br>See page 274 for cable type illustrations. |                  |                                  |                                                 |           |           |
| <b>15kV CN and JCN cables</b>                                                                                        |                  |                                  |                                                 |           |           |
| 5415A                                                                                                                | 53470            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 2 - 4/0 AWG (35 - 95 mm <sup>2</sup> )          | None      | 1         |
| 5415A-2-AL                                                                                                           | 53471            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 2 AWG                                           | 20003     | 1         |
| 5415A-2-CU                                                                                                           | 53472            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 2 AWG                                           | 10003     | 1         |
| 5415A-1-AL                                                                                                           | 53473            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 1 AWG                                           | 20004     | 1         |
| 5415A-1-CU                                                                                                           | 53474            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 1 AWG                                           | 10004     | 1         |
| 5415A-1/0-AL                                                                                                         | 53475            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 1/0 AWG                                         | 20005     | 1         |
| 5415A-1/0-CU                                                                                                         | 53476            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 1/0 AWG                                         | 10005     | 1         |
| 5415A-2/0-AL                                                                                                         | 53477            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 2/0 AWG                                         | 20006     | 1         |
| 5415A-2/0-CU                                                                                                         | 53478            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 2/0 AWG                                         | 10006     | 1         |
| 5415A-3/0-AL                                                                                                         | 53747            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 3/0 AWG                                         | 20007     | 1         |
| 5415A-3/0-CU                                                                                                         | 53748            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 3/0 AWG                                         | 10007     | 1         |
| 5415A-4/0-AL                                                                                                         | 53749            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 4/0 AWG                                         | 20008     | 1         |
| 5415A-4/0-CU                                                                                                         | 53750            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 4/0 AWG                                         | 10008     | 1         |
| 5416A                                                                                                                | 44092*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 4/0 AWG - 350 kcmil (95 - 185 mm <sup>2</sup> ) | None      | 1         |
| 5416A-4/0-AL                                                                                                         | 44093*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 4/0 AWG                                         | 20008     | 1         |
| 5416A-4/0-CU                                                                                                         | 44094*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 4/0 AWG                                         | 10008     | 1         |
| 5416A-250-AL                                                                                                         | 44096*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 250 kcmil                                       | 20009     | 1         |
| 5416A-250-CU                                                                                                         | 44097*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 250 kcmil                                       | 10009     | 1         |
| 5416A-350-AL                                                                                                         | 44098*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 350 kcmil                                       | 20011     | 1         |
| 5416A-350-CU                                                                                                         | 44099*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 350 kcmil                                       | 10011     | 1         |
| 5417A                                                                                                                | 42124*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 350 - 750 kcmil (185 - 325 mm <sup>2</sup> )    | None      | 1         |
| 5417A-350-AL                                                                                                         | 42125*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 350 kcmil                                       | 20011     | 1         |
| 5417A-350-CU                                                                                                         | 44234*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 350 kcmil                                       | 10011     | 1         |
| 5417A-500-AL                                                                                                         | 42126*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 500 kcmil                                       | 20014     | 1         |
| 5417A-500-CU                                                                                                         | 44235*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 500 kcmil                                       | 10014     | 1         |
| 5417A-750-AL                                                                                                         | 04587*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 750 kcmil                                       | 20019     | 1         |
| 5417A-750-CU                                                                                                         | 04588*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 750 kcmil                                       | 10019     | 1         |
| 5417A-WG                                                                                                             | 44090*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 350 - 750 kcmil (185 - 325 mm <sup>2</sup> )    | None      | 1         |
| 5418A                                                                                                                | 42128*           | 1.08 - 1.70" (27,4 - 43,2 mm)    | 500 - 1000 kcmil (240 - 500 mm <sup>2</sup> )   | None      | 1         |
| 5418A-500-AL                                                                                                         | 44403*           | 1.08 - 1.70" (27,4 - 43,2 mm)    | 500 kcmil                                       | 20014     | 1         |
| 5418A-500-CU                                                                                                         | 44404*           | 1.08 - 1.70" (27,4 - 43,2 mm)    | 500 kcmil                                       | 10014     | 1         |
| 5418A-750-AL                                                                                                         | 42129*           | 1.08 - 1.70" (27,4 - 43,2 mm)    | 750 kcmil                                       | 20019     | 1         |
| 5418A-750-CU                                                                                                         | 44236*           | 1.08 - 1.70" (27,4 - 43,2 mm)    | 750 kcmil                                       | 10019     | 1         |
| 5418A-1000-AL                                                                                                        | 42130*           | 1.08 - 1.70" (27,4 - 43,2 mm)    | 1000 kcmil                                      | 20024     | 1         |
| 5418A-1000-CU                                                                                                        | 44237*           | 1.08 - 1.70" (27,4 - 43,2 mm)    | 1000 kcmil                                      | 10024     | 1         |
| 5418A-WG                                                                                                             | 44091*           | 1.08 - 1.70" (27,4 - 43,2 mm)    | 500 - 1000 kcmil (240 - 500 mm <sup>2</sup> )   | None      | 1         |

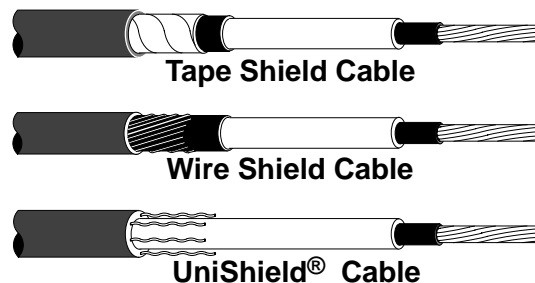
\*UPC prefix 051128

# 1/C, 15 kV, Shielded-Tape, Wire, UniShield® Molded Rubber Splices

## 3M™ Molded Rubber Cable Splices 5500 Series

The 3M QS-II kits 5500 series are inline splices designed for use on 15 kV copper or aluminum Tape Shielded, Wire Shielded and UniShield® cable from 2 AWG to 750 kcmil. The continuous current rating of each splice is equal to the current rating of the cable it is sized to accommodate. Meets requirements of IEEE Standard 404. **Each kit makes one splice.**

A special 3M connector is necessary to complete the splice. Order the connector separately or as part of the kit. **See pages 283-284 for reference to CI connectors.**



## 3M QS-II Rubber Splices 5500 Series Selection

| Product Series                                                                                        | UPC<br>(054007-) | Conductor Size<br>Cu or Al                                |             | Primary<br>Insulation<br>O.D. Range | Specified<br>Connector | Case<br>Qty. |
|-------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------|-------------|-------------------------------------|------------------------|--------------|
|                                                                                                       |                  | Stranded                                                  | Solid       |                                     |                        |              |
| Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable<br>See above for cable type illustrations. |                  |                                                           |             |                                     |                        |              |
| 5501                                                                                                  | 12293            | 4 - 1/0 AWG<br>2/0 (175 mil)                              | 2 - 1/0 AWG | 0.637 - 0.900"<br>(16 - 23 mm)      | CI-Series              | 1            |
| 5501-CI-21*                                                                                           | 09628            | 2 - 1 AWG                                                 | 1 - 1/0 AWG | 0.637 - 0.900"<br>(16 - 23 mm)      | CI-21                  | 1            |
| 5501-CI-1/0*                                                                                          | 09629            | 1/0 AWG                                                   | —           | 0.637 - 0.900"<br>(16 - 23 mm)      | CI-1/0                 | 1            |
| 5501-20006*                                                                                           | 09630            | 2/0 AWG<br>(175 mil)                                      | —           | 0.637 - 0.900"<br>(16-23 mm)        | 20006                  | 1            |
| 5502                                                                                                  | 12294            | 2/0 AWG (220 mil)<br>3/0 - 4/0 AWG<br>250 kcmil (175 mil) | 4/0 AWG     | 0.840 - 1.050"<br>(21 - 27 mm)      | CI Series<br>or 20009  | 1            |
| 5502-CI-2/0*                                                                                          | 09631            | 2/0 AWG<br>(220 mil)                                      | —           | 0.840 - 1.050"<br>(21 - 27 mm)      | CI-2/0                 | 1            |
| 5502-CI-3/0*                                                                                          | 09632            | 3/0 AWG                                                   | 4/0 AWG     | 0.840 - 1.050"<br>(21 - 27 mm)      | CI-3/0                 | 1            |
| 5502-CI-4/0*                                                                                          | 09633            | 4/0 AWG                                                   | —           | 0.840 - 1.050"<br>(21 - 27 mm)      | CI-4/0                 | 1            |
| 5502-20009*                                                                                           | 09634            | 250 kcmil<br>(175 mil)                                    | —           | 0.840 - 1.050"<br>(21 - 27 mm)      | 20009                  | 1            |
| 5503                                                                                                  | 12295            | 250 kcmil (220 mil)<br>350 kcmil                          | —           | 1.060 - 1.210"<br>(27 - 31 mm)      | CI Series              | 1            |
| 5503-CI-250*                                                                                          | 09635            | 250 kcmil<br>(220 mil)                                    | —           | 1.060 - 1.210"<br>(27 - 31 mm)      | CI-250                 | 1            |
| 5503-CI-350*                                                                                          | 09636            | 350 kcmil                                                 | —           | 1.060 - 1.210"<br>(27 - 31 mm)      | CI-350                 | 1            |
| 5504                                                                                                  | 12296            | 500 kcmil                                                 | —           | 1.120 - 1.320"<br>(28 - 34 mm)      | CI Series              | 1            |
| 5504-CI-500*                                                                                          | 09637            | 500 kcmil                                                 | —           | 1.120 - 1.320"<br>(28 - 34 mm)      | CI-500                 | 1            |
| 5505                                                                                                  | 12297            | 750 kcmil                                                 | —           | 1.320 - 1.520"<br>(34 - 39 mm)      | CI Series              | 1            |
| 5505-CI-750*                                                                                          | 09638            | 750 kcmil                                                 | —           | 1.320 - 1.520"<br>(34 - 39 mm)      | CI-750                 | 1            |

\*Kit includes the connector specified

**Note:** Cable sizes shown above are for standard insulation thickness. Final determining factor is cable insulation O.D.

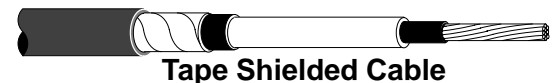
# 1/C, 15 kV, Shielded-Tape, Wire, UniShield®, LC Cold Shrink Splices

3M™ QS-III Cold Shrink Cable Splices  
5513A, 5514A, 5515A and 5516A



The QS-III Cold Shrink series splicing kits 5513A, 5514A, 5515A and 5516A are inline splices for joining 15 kV Tape, Wire, LC and UniShield® power

cables. It is a cold shrink design. Kits can be ordered with connectors packed in the kit or the kit and connector can be ordered as separate items. See page 131 to order 3M connectors. **Each kit makes one splice.** Additional transition connectors are available from cable accessory suppliers. **Meets requirements of IEEE 404.**



Tape Shielded Cable



Wire Shielded Cable



UniShield® Cable



Longitudinally Corrugated (LC) Shielded Cable

## 3M QS-III Cold Shrink Splices 5513A, 5514A, 5515A and 5516A Series Selection

| Product Series                                                                                                                                       | UPC<br>(054007-) | Primary Insulation<br>O.D. Range | Conductor<br>Size                               | Connector | Case Qty. |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------|-------------------------------------------------|-----------|-----------|
| Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable<br>See above for cable type illustrations. |                  |                                  |                                                 |           |           |
| <b>15kV LC, Wire, Tape and UniShield® cables</b>                                                                                                     |                  |                                  |                                                 |           |           |
| 5513A                                                                                                                                                | 53480            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 2 - 4/0 AWG (35 - 95 mm <sup>2</sup> )          | None      | 1         |
| 5513A-2-AL                                                                                                                                           | 53481            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 2 AWG                                           | 20003     | 1         |
| 5513A-2-CU                                                                                                                                           | 53482            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 2 AWG                                           | 10003     | 1         |
| 5513A-1-AL                                                                                                                                           | 53483            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 1 AWG                                           | 20004     | 1         |
| 5513A-1-CU                                                                                                                                           | 53484            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 1 AWG                                           | 10004     | 1         |
| 5513A-1/0-AL                                                                                                                                         | 53485            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 1/0 AWG                                         | 20005     | 1         |
| 5513A-1/0-CU                                                                                                                                         | 53486            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 1/0 AWG                                         | 10005     | 1         |
| 5513A-2/0-AL                                                                                                                                         | 53487            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 2/0 AWG                                         | 20006     | 1         |
| 5513A-2/0-CU                                                                                                                                         | 53488            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 2/0 AWG                                         | 10006     | 1         |
| 5513A-3/0-AL                                                                                                                                         | 53489            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 3/0 AWG                                         | 20007     | 1         |
| 5513A-3/0-CU                                                                                                                                         | 53490            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 3/0 AWG                                         | 10007     | 1         |
| 5513A-4/0-AL                                                                                                                                         | 53491            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 4/0 AWG                                         | 20008     | 1         |
| 5513A-4/0-CU                                                                                                                                         | 53492            | 0.64 - 1.01" (16,3 - 25,7 mm)    | 4/0 AWG                                         | 10008     | 1         |
| 5514A                                                                                                                                                | 44101*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 4/0 AWG - 500 kcmil (95 - 240 mm <sup>2</sup> ) | None      | 1         |
| 5514A-4/0-AL                                                                                                                                         | 44102*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 4/0 AWG                                         | 20008     | 1         |
| 5514A-4/0-CU                                                                                                                                         | 44103*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 4/0 AWG                                         | 10008     | 1         |
| 5514A-250-AL                                                                                                                                         | 44104*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 250 kcmil                                       | 20009     | 1         |
| 5514A-250-CU                                                                                                                                         | 44105*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 250 kcmil                                       | 10009     | 1         |
| 5514A-350-AL                                                                                                                                         | 44106*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 350 kcmil                                       | 20011     | 1         |
| 5514A-350-CU                                                                                                                                         | 44107*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 350 kcmil                                       | 10011     | 1         |
| 5514A-500-AL                                                                                                                                         | 44407*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 500 kcmil                                       | 20014     | 1         |
| 5514A-500-CU                                                                                                                                         | 44408*           | 0.84 - 1.38" (21,3 - 35,1 mm)    | 500 kcmil                                       | 10014     | 1         |
| 5515A                                                                                                                                                | 42134*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 350 - 750 kcmil (185 - 325 mm <sup>2</sup> )    | None      | 1         |
| 5515A-350-AL                                                                                                                                         | 42135*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 350 kcmil                                       | 20011     | 1         |
| 5515A-350-CU                                                                                                                                         | 42898*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 350 kcmil                                       | 10011     | 1         |
| 5515A-500-AL                                                                                                                                         | 42899*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 500 kcmil                                       | 20014     | 1         |
| 5515A-500-CU                                                                                                                                         | 42136*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 500 kcmil                                       | 10014     | 1         |
| 5515A-750-AL                                                                                                                                         | 42900*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 750 kcmil                                       | 20019     | 1         |
| 5515A-750-CU                                                                                                                                         | 42137*           | 1.04 - 1.70" (26,4 - 43,2 mm)    | 750 kcmil                                       | 10019     | 1         |

\*UPC begins with 051128

Continued on next page

### 3M QS-III Cold Shrink Splices 5513, 5514, 5515 and 5516 Series Selection (continued)

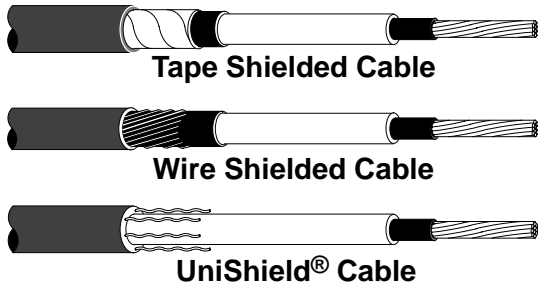
| Product Series                                                                                                                                          | UPC<br>(054007-) | Primary Insulation<br>O.D. Range | Conductor<br>Size                             | Connector | Case Qty. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------|-----------------------------------------------|-----------|-----------|
| Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable<br>See page 277 for cable type illustrations. |                  |                                  |                                               |           |           |
| <b>15kV LC, Wire, Tape and UniShield® cables (continued)</b>                                                                                            |                  |                                  |                                               |           |           |
| 5516A                                                                                                                                                   | 42139 +          | 1.08 - 1.70" (27,4 - 43,2 mm)    | 500 - 1000 kcmil (240 - 500 mm <sup>2</sup> ) | None      | 1         |
| 5516A-500-AL                                                                                                                                            | 44405 +          | 1.08 - 1.70" (27,4 - 43,2 mm)    | 500 kcmil                                     | 20014     | 1         |
| 5516A-500-CU                                                                                                                                            | 44406 +          | 1.08 - 1.70" (27,4 - 43,2 mm)    | 500 kcmil                                     | 10014     | 1         |
| 5516A-750-AL                                                                                                                                            | 43254 +          | 1.08 - 1.70" (27,4 - 43,2 mm)    | 750 kcmil                                     | 20019     | 1         |
| 5516A-750-CU                                                                                                                                            | 43255 +          | 1.08 - 1.70" (27,4 - 43,2 mm)    | 750 kcmil                                     | 10019     | 1         |
| 5516A-1000-AL                                                                                                                                           | 42901 +          | 1.08 - 1.70" (27,4 - 43,2 mm)    | 1000 kcmil                                    | 20024     | 1         |
| 5516A-1000-CU                                                                                                                                           | 42106 +          | 1.08 - 1.70" (27,4 - 43,2 mm)    | 1000 kcmil                                    | 10024     | 1         |

+UPC begins with 51128

## 1/C, 5 - 15 kV, Shielded-Tape, Wire, UniShield® Tape Splices

### Scotch® Tape Splice Kits 5700 Series

Scotch® brand tape kits handle inline and tee splices on Tape Shielded, Wire Shielded or UniShield® cables with Cu or Al conductors. Kits are rated 5 through 15 kV, and each kit makes three splices. Use the selector chart to determine the proper kit needed. See "Lugs & Connectors" section, page 131, for ordering information. 3M does not offer tee connectors.



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### Scotch® Tape Splice Kits 5700 Series Selection

| Product Number                                                                                        | UPC<br>(054007-) | Inline Splices        |                       |                       |                      |                       |                      | Tee Splices*         |                      |                       |                   |                       |                  | Case Qty. |
|-------------------------------------------------------------------------------------------------------|------------------|-----------------------|-----------------------|-----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|-----------------------|-------------------|-----------------------|------------------|-----------|
|                                                                                                       |                  | 5 and 8 kV            |                       | 15 kV 100%<br>175mil  |                      | 15 kV 133%<br>220 mil |                      | 5 and 8 kV           |                      | 15 kV 100%<br>175 mil |                   | 15 kV 133%<br>220 mil |                  |           |
|                                                                                                       |                  | Cu                    | Al                    | Cu                    | Al                   | Cu                    | Al                   | Cu                   | Al                   | Cu                    | Al                | Cu                    | Al               |           |
| Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable<br>See above for cable type illustrations. |                  |                       |                       |                       |                      |                       |                      |                      |                      |                       |                   |                       |                  |           |
| 5717                                                                                                  | 12030            | 4-250<br>(22-125)     | 4-4/0<br>(2-100)      | 4-2<br>(22-30)        | —                    | 4                     | —                    | —                    | —                    | —                     | —                 | —                     | —                | 1         |
| 5718                                                                                                  | 12048            | 300-500<br>(180-250)  | 250<br>(150)          | 1-4/0<br>(50-100)     | 4-2/0<br>(22-60)     | 2-1/0<br>(35-60)      | —                    | 4-2/0<br>(22-60)     | 4-1/0<br>(22-50)     | —                     | —                 | —                     | —                | 1         |
| 5719                                                                                                  | 12055            | 550-1000<br>(300-500) | 300-500<br>(180-250)  | 250-500<br>(180-250)  | 3/0-250<br>(95-125)  | 2/0-350<br>(70-180)   | 4-3/0<br>(22-80)     | 3/0-350<br>(95-180)  | 2/0-4/0<br>(70-100)  | 4-1<br>(22-38)        | —                 | —                     | —                | 1         |
| 5720                                                                                                  | 12063            | —                     | 500-1000<br>(300-500) | 550-1000<br>(300-500) | 300-750<br>(180-325) | 400-750<br>(240-325)  | 4/0-500<br>(120-250) | 400-750<br>(240-325) | 250-500<br>(125-250) | 1/0-350<br>(60-180)   | 4-4/0<br>(22-100) | 4-250<br>(22-125)     | 4-3/0<br>(22-80) | 1         |

\*3M does not offer tee splice connectors.

Note: Larger-numbered kits may be used in place of smaller-numbered kits (with excess materials left over).

# 3/C, 15 kV, Shielded Armored or Non-Armored Cold Shrink Splices

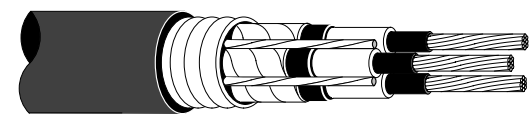
3M™ QSIII Cold Shrink Cable Splices  
5760 and 5777-MT



5760 Series

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Designed for splicing shielded (Tape or Wire Shielded and UniShield®) armored or non-armored cables, 15 kV. The completed splices are designed for use in cable tray, as well as weather-exposed and direct burial locations. The 5760 Series splices use resin and Cold Shrink technology, while the



Three-Conductor Armored, Shielded Cable



Three-Conductor Non-Armored, Shielded Cable

5700-MT is a cold shrink only splice kit. Connectors not included, order separately. See page 131 for ordering connectors. **Each kit makes one 3/C splice.** Additional transition connectors are available from cable accessory suppliers. **Meets requirements of IEEE 404.**

## 3M Cold Shrink Splices 5760 Selection—15 kv

| Product Series                                                                                                                   | UPC (054007-) | Insulation O.D. Range     | Conductor Size                                   |                                                  | Maximum Connector O.D. | Maximum Connector Length | Typical Splice Length | Case Qty. |
|----------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------|--------------------------------------------------|--------------------------------------------------|------------------------|--------------------------|-----------------------|-----------|
|                                                                                                                                  |               |                           | Copper                                           | Aluminum                                         |                        |                          |                       |           |
| Three Conductor Armored, Shielded Cable, Three Conductor Non-Armored, Shielded Cable,<br>See above for cable type illustrations. |               |                           |                                                  |                                                  |                        |                          |                       |           |
| 5761                                                                                                                             | 12260         | 0.65 - 1.00" (17 - 25 mm) | 2 - 3/0 AWG (35 - 80 mm <sup>2</sup> )           | 2 - 3/0 AWG (35 - 80 mm <sup>2</sup> )           | 0.90" (23 mm)          | 2.75" (70 mm)            | 29" (737 mm)          | 1         |
| 5762                                                                                                                             | 12262         | 0.93 - 1.94" (24 - 49 mm) | 4/0 AWG - 750 kcmil (120 - 325 mm <sup>2</sup> ) | 4/0 AWG - 500 kcmil (120 - 250 mm <sup>2</sup> ) | 1.40" (36 mm)          | 5.00" (127 mm)           | 44" (1118 mm)         | 1         |

## 3M Splice Kit 5700A-MT Series Selection

| Product Series                                                                                                                   | UPC (054007-) | Primary Insulation O.D. Range | Conductor Size                                  | Connector | Case Qty. |
|----------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------|-------------------------------------------------|-----------|-----------|
| Three Conductor Armored, Shielded Cable, Three Conductor Non-Armored, Shielded Cable,<br>See above for cable type illustrations. |               |                               |                                                 |           |           |
| 15kV 3-Core cables                                                                                                               |               |                               |                                                 |           |           |
| 5775A-MT                                                                                                                         | 53493         | 0.64 - 1.01" (16,3 - 25,7 mm) | 2 - 4/0 AWG (35 - 95 mm <sup>2</sup> )          | None      | 1         |
| 5776A-MT                                                                                                                         | 44112*        | 0.84 - 1.38" (21,3 - 35,1 mm) | 4/0 AWG - 500 kcmil (95 - 240 mm <sup>2</sup> ) | None      | 1         |
| 5777A-MT                                                                                                                         | 44289*        | 1.04 - 1.70" (26,4 - 43,2 mm) | 350 - 750 kcmil (185 - 325 mm <sup>2</sup> )    | None      | 1         |

\*UPC prefix 051128

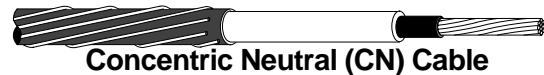
# 25/28 kV Splices

## 1/C, 25/28 kV, JCN/CN Molded Rubber Splices

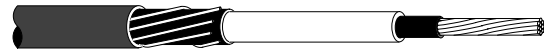
### 3M™ Cable Splices 5420 and 5450

3M QS kits 5420 series are inline splices designed for use on 25 kV CN or JCN cable. The 3M QS kits 5451 and 5452 are one-piece inline splices designed for use on 25 kV CN and JCN Cable. The 3M QS-II kit 5451A is a one-piece inline splice for use on 25/28 kV CN and JCN Cable.

The continuous current rating of each splice is equal to the current rating of the cable it is sized to accommodate. Meets requirements of IEEE Standard 404 for cable joints. Jacketing kit is needed for JCN Cable. See pages 283-284 to order CI, CI-840, CI-A series connectors. See next page for 5450 series selection. **Each kit makes one splice.**



**Concentric Neutral (CN) Cable**



**Jacketed Concentric Neutral (JCN) Cable**

### 3M Rubber Splices 5420 Series Selection

| Product Series                                                                                                           | UPC<br>(054007-) | Insulation<br>O.D. Range       | Conductor Size*<br>Cu or Al                     | Specified<br>Connector | Case<br>Qty. |
|--------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------|-------------------------------------------------|------------------------|--------------|
| <b>Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable</b><br>See above for cable type illustrations. |                  |                                |                                                 |                        |              |
| 5420                                                                                                                     | 15819            | 0.795 - 0.940"<br>(20 - 24 mm) | 2 - 1/0 AWG<br>(35 - 50 mm <sup>2</sup> )       | CI and CI-A Series     | 1            |
| 5420-CI-22A                                                                                                              | 15820            | 0.795 - 0.940"<br>(20 - 24 mm) | 2 AWG Solid                                     | CI-22A                 | 1            |
| 5421                                                                                                                     | 15827            | 0.920 - 1.080"<br>(23 - 27 mm) | 1/0 - 3/0 AWG<br>(60 - 80 mm <sup>2</sup> )     | CI and CI-A Series     | 1            |
| 5422                                                                                                                     | 15835            | 1.060 - 1.210"<br>(27 - 31 mm) | 3/0 - 4/0 AWG<br>(95 - 100 mm <sup>2</sup> )    | CI and CI-A Series     | 1            |
| 5423                                                                                                                     | 15843            | 1.120 - 1.320"<br>(28 - 34 mm) | 250 - 350 kcmil<br>(125 - 180 mm <sup>2</sup> ) | CI and CI-A Series     | 1            |
| 5423-CI-350                                                                                                              | 08384            | 1.120 - 1.320"<br>(28 - 34 mm) | 350 kcmil                                       | CI-350                 | 1            |
| 5424                                                                                                                     | 15850            | 1.320 - 1.520"<br>(34 - 39 mm) | 500 kcmil                                       | CI and CI-A Series     | 1            |
| 5425                                                                                                                     | 09240            | 1.390 - 1.590"<br>(35 - 40 mm) | 750 kcmil<br>Compact                            | CI and CI-A Series     | 1            |
| 5426                                                                                                                     | 09239            | 1.550 - 1.710"<br>(39 - 43 mm) | 750 kcmil<br>Compressed<br>& Concentric         | CI and CI-A Series     | 1            |
| 5426-CI-750                                                                                                              | 09177            | 1.550 - 1.710"<br>(39 - 43 mm) | 750 kcmil                                       | CI-750                 | 1            |

\*Use the primary insulation O.D. range for final ordering criteria.

**Note:** If connector is desired packed with any of the kits shown above, add the connector number after the splice number (example: 5420-CI-22A). See pages 283-284 for ordering information. Jacketing kit is needed for JCN Cable.

# 1/C, 25/28 kV, JCN/CN Molded Rubber Splices

## 3M™ 5450 Series Selection

| Product Series                                                                                                              | UPC<br>(054007-) | Insulation<br>O.D. Range     | Conductor Size*<br>Cu or Al            | Specified<br>Connector      | Case<br>Qty. |
|-----------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------|----------------------------------------|-----------------------------|--------------|
| <b>Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable</b><br>See page 280 for cable type illustrations. |                  |                              |                                        |                             |              |
| 5451                                                                                                                        | 09127            | 0.83 - 1.04"<br>(21 - 26 mm) | 2 - 2/0 AWG<br>(60 mm <sup>2</sup> )   | CI, CI-840, and CI-A Series | 1            |
| 5451-CI-1/0-840                                                                                                             | 09155            | 0.83 - 1.04"<br>(21 - 26 mm) | 1/0 AWG                                | CI-1/0-840                  | 1            |
| 5451-CI-1/0A                                                                                                                | 09153            | 0.83 - 1.04"<br>(21 - 26 mm) | 1/0 AWG                                | CI-1/0A                     | 1            |
| 5451-CI-1A                                                                                                                  | 09935            | 0.83 - 1.04"<br>(21 - 26 mm) | 1 AWG                                  | CI-1A                       | 1            |
| 5451-CI-2A                                                                                                                  | 09152            | 0.83 - 1.04"<br>(21 - 26 mm) | 2 AWG                                  | CI-2A                       | 1            |
| 5451-CI-21-840                                                                                                              | 09154            | 0.83 - 1.04"<br>(21 - 26 mm) | 2 or 1 AWG                             | CI-21-840                   | 1            |
| 5452                                                                                                                        | 09128            | 1.00 - 1.15"<br>(25 - 29 mm) | 3/0 - 4/0 AWG<br>(95 mm <sup>2</sup> ) | CI, CI-840, and CI-A Series | 1            |

\* Use the primary insulation O.D. range for final ordering criteria.

**Note:** If connector is desired packed with any of the kits shown above, add the connector number after the splice number (example: 5450-CI-22A). See page 248 for ordering information. Jacketing kit is needed for JCN Cable.

## 3M 5451A Series Selection

| Product Series                                                                                                              | UPC<br>(054007-) | Insulation<br>O.D. Range           | Conductor<br>Stranded | Conductor<br>Solid | Cable Insulation<br>Thickness    | Specified<br>Connector | Case<br>Qty. |
|-----------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------|-----------------------|--------------------|----------------------------------|------------------------|--------------|
| <b>Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable</b><br>See page 280 for cable type illustrations. |                  |                                    |                       |                    |                                  |                        |              |
| 5451A                                                                                                                       | 49527            | 0.905 - 1.055"<br>(23,0 - 26,8 mm) | 2 AWG                 | 1 AWG              | 295 mils                         | CI-2A or CI-21-840     | 1            |
|                                                                                                                             |                  |                                    | 1 AWG                 | 1/0 AWG            | 280 mils<br>295 mils             | CI-1A or CI-21-840     | 1            |
|                                                                                                                             |                  |                                    | 1/0 AWG               | —                  | 260 mils<br>280 mils<br>295 mils | CI-1/0A or CI-1/0-840  | 1            |
|                                                                                                                             |                  |                                    | 2/0 AWG               | —                  | 260 mils<br>280 mils             | CI-2/0                 | 1            |
| 5451A-CI-1/0A                                                                                                               | 49530            | 0.905 - 1.055"<br>(23,0 - 26,8 mm) | 1/0 AWG               | —                  | 260 mils<br>280 mils<br>295 mils | CI-1/0A                | 1            |
| 5451A-CI-1A                                                                                                                 | 49529            | 0.905 - 1.055"<br>(23,0 - 26,8 mm) | 1 AWG                 | 1/0 AWG            | 280 mils<br>295 mils             | CI-1A                  | 1            |
| 5451A-CI-1/0-840                                                                                                            | 49528            | 0.905 - 1.055"<br>(23,0 - 26,8 mm) | 1/0 AWG               | —                  | 260 mils<br>280 mils<br>295 mils | CI-1/0-840             | 1            |
| 5451A-CI-2/0                                                                                                                | 49531            | 0.905 - 1.055"<br>(23,0 - 26,8 mm) | 2/0 AWG               | —                  | 260 mils<br>280 mils             | CI-2/0                 | 1            |
| 5451A-CI-21-840                                                                                                             | 49532            | 0.905 - 1.055"<br>(23,0 - 26,8 mm) | 2 or 1 AWG            | 1 or 1/0 AWG       | 295 mils                         | CI-21-840              | 1            |

Jacketing kit is needed for JCN Cable.

**Note:** CI-A and CIR-A series connectors are sized for 5/8 crimping die; CI-2/0, CI-840 and CIR-840 series connectors are sized for 840 crimping die. Final determining factor is cable insulation diameter.

### Product Referral Generator

**Connecting**

- CI Series Connectors . . . . . pg. 283-284
- CI-840 . . . . . pg. 283-284
- CI-A Series Connectors . . . . . pg. 283-284

For more information on Connecting see pg. 131



# 1/C, 25/28 kV, JCN/CN Molded Rubber Splices

## 3M™ QS-II Cable Repair Splices 5451R

3M QS-II cable repair kit 5451R is a specially elongated molded rubber splice designed to repair damaged cable. It can be used on 25/28 kV copper or aluminum, CN or JCN cables. It is designed to replace up to 6" (152 mm) of damaged cable, eliminating the need to splice in a new section of cable with two separate splices.

Meets rating requirements of IEEE Standard 404.  
Jacketing kit is needed for JCN Cable. **Each kit makes one splice repair.**



**Concentric Neutral (CN) Cable**



**Jacketed Concentric Neutral (JCN) Cable**



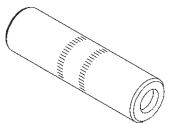
## 3M Cable Repair Splice 5451R Selection

| Product Series                                                                                                           | UPC<br>(054007-) | Cable Insulation<br>O.D. Range     | Conductor  |              | Cable Insulation<br>Thickness    | 3M Connector<br>Product Number | Case<br>Qty. |
|--------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------|------------|--------------|----------------------------------|--------------------------------|--------------|
|                                                                                                                          |                  |                                    | Stranded   | Solid        |                                  |                                |              |
| <b>Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable</b><br>See above for cable type illustrations. |                  |                                    |            |              |                                  |                                |              |
| 5451R-CIR-1/0A                                                                                                           | 49476            | 0.870 - 1.055"<br>(22,1 - 26,8 mm) | 1/0 AWG    | —            | 260 mils<br>280 mils<br>295 mils | CIR-1/0A                       | 1            |
| 5451R-CIR-1/0-840                                                                                                        | 49477            | 0.870 - 1.055"<br>(22,1 - 26,8 mm) | 1/0 AWG    | —            | 260 mils<br>280 mils<br>295 mils | CIR-1/0-840                    | 1            |
| 5451R-CIR-21A                                                                                                            | 49479            | 0.870 - 1.055"<br>(22,1 - 26,8 mm) | 2 or 1 AWG | 1 or 1/0 AWG | 260 mils<br>280 mils<br>295 mils | CIR-21A                        | 1            |
| 5451R-CIR-21-840                                                                                                         | 49478            | 0.870 - 1.055"<br>(22,1 - 26,8 mm) | 2 or 1 AWG | 1 or 1/0 AWG | 260 mils<br>280 mils<br>295 mils | CIR-21-840                     | 1            |

Jacketing kit is needed for JCN Cable.

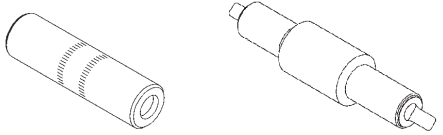
**Note:** CI-A and CIR-A series connectors are sized for 5/8 crimping die; CI-2/0, CI-840 and CIR-840 series connectors are sized for 840 crimping die. Final determining factor is cable insulation diameter.

### Specifications and Ordering Information on 3M™ CI and CI-A Series Connectors for 5420 Series



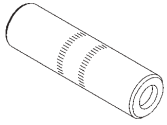
| Product Number | UPC (054007-) | Conductor Size Cu or Al           |             | Connector O.D. | Case Qty. |
|----------------|---------------|-----------------------------------|-------------|----------------|-----------|
|                |               | Stranded                          | Solid       |                |           |
| CI-1/0A        | 14176         | 1/0 AWG                           | —           | 0.91" (23 mm)  | 10        |
| CI-1A          | 00722         | 2 - 1 AWG                         | 1 - 1/0 AWG | 0.91" (23 mm)  | 10        |
| CI-2/0         | 11875         | 2/0 AWG                           | —           | 0.91" (23 mm)  | 10        |
| CI-2A          | 00721         | 2 AWG                             | 1 AWG       | 0.91" (23 mm)  | 10        |
| CI-22A         | 15868         | —                                 | 2 AWG       | 0.91" (23 mm)  | 10        |
| CI-3/0         | 11883         | 3/0 AWG                           | —           | 0.90" (22 mm)  | 10        |
| CI-4/0         | 11891         | 4/0 AWG                           | —           | 0.90" (22 mm)  | 10        |
| CI-250         | 11909         | 250 kcmil                         | —           | 1.11" (28 mm)  | 10        |
| CI-350         | 11925         | 350 kcmil                         | —           | 1.11" (28 mm)  | 10        |
| CI-450         | 11933         | 500 kcmil Compact                 | —           | 1.3" (33 mm)   | 10        |
| CI-500         | 25644         | 500 kcmil                         | —           | 1.3" (33 mm)   | 10        |
| CI-650         | 11941         | 750 kcmil Compact                 | —           | 1.7" (43 mm)   | 10        |
| CI-750         | 25651         | 750 kcmil Compressed & Concentric | —           | 1.57" (40 mm)  | 10        |

### Specifications and Ordering Information on 3M CI Series Connectors 5450 Series



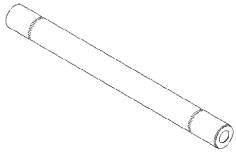
| Product Number | UPC (054007-) | Conductor Size Cu or Al |             | Connector O.D. | Case Qty. |
|----------------|---------------|-------------------------|-------------|----------------|-----------|
|                |               | Stranded                | Solid       |                |           |
| CI-1/0-840     | 09137         | 1/0 AWG                 | —           | 0.90" (22 mm)  | 10        |
| CI-2/0         | 11875         | 2/0 AWG                 | —           | 0.91" (23 mm)  | 10        |
| CI-21-840      | 09136         | 2 - 1 AWG               | 1 - 1/0 AWG | 0.90" (22 mm)  | 10        |
| CI-3/0         | 11883         | 3/0 AWG                 | —           | 0.90" (22 mm)  | 10        |
| CI-4/0         | 11891         | 4/0 AWG                 | —           | 0.90" (22 mm)  | 10        |
| CI-1/0A        | 14176         | 1/0 AWG                 | —           | 0.91" (23 mm)  | 10        |
| CI-1A          | 00722         | 2 - 1 AWG               | 1 - 1/0 AWG | 0.91" (23 mm)  | 10        |
| CI-2A          | 00721         | 2 AWG                   | 1 AWG       | 0.91" (23 mm)  | 10        |
| CI-22A         | 15868         | —                       | 2 AWG       | 0.91" (23 mm)  | 10        |

## Specifications and Ordering Information on 3M™ CI Series Connectors for 5451A Series



| Product Number | UPC (054007-) | Conductor Size Stranded | Cu or Al Solid | Connector O.D. | Splice Body | Case Qty. |
|----------------|---------------|-------------------------|----------------|----------------|-------------|-----------|
| CI-1/0A        | 14176         | 1/0 AWG                 | —              | 0.91" (23 mm)  | 5451A       | 10        |
| CI-1A          | 00722         | 1 AWG                   | 1/0 AWG        | 0.91" (23 mm)  | 5451A       | 10        |
| CI-1/0-840     | 09137         | 1/0 AWG                 | —              | 0.91" (23 mm)  | 5451A       | 10        |
| CI-2/0         | 11875         | 2/0 AWG                 | —              | 0.91" (23 mm)  | 5451A       | 10        |
| CI-21-840      | 09136         | 2 - 1 AWG               | 1 - 1/0 AWG    | 0.91" (23 mm)  | 5451A       | 10        |

## Specifications and Ordering Information on 3M CIR Series Repair Connectors for 5451R Series



| Product Number | UPC (054007-) | Conductor Size Stranded | Cu or Al Solid | Connector O.D. | Splice Body | Case Qty. |
|----------------|---------------|-------------------------|----------------|----------------|-------------|-----------|
| CIR-1/0A       | 50226         | 1/0 AWG                 | —              | 0.63" (16 mm)  | 5451R       | 10        |
| CIR-21A        | 50227         | 2 - 1 AWG               | 1 - 1/0 AWG    | 0.63" (16 mm)  | 5451R       | 10        |

# 1/C, 25/28 kV, JCN/CN Cold Shrink Splices

3M™ QS-III Cold Shrink Cable Splices  
5456A, 5457A and 5458A



3M QS-III Cold Shrink series splicing kits 5456A, 5457A and 5458A are inline splices for joining 25/28 kV Jacketed Concentric Neutral (JCN) or Concentric Neutral (CN) power

cables. It is a cold shrink design. The cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made of rubber for its special physical properties. Each splice is high-voltage

production tested to ensure reliability. Kits can be ordered with connectors packed in the kit or the kit and connector can be ordered as separate items. See page 131 to order 3M connectors. **Each kit makes one splice.** Additional transition connectors are available from cable accessory suppliers. **Meets requirements of IEEE 404.**



## 3M QS-III Cold Shrink 5456A, 5457A and 5458A Series Selection

| Product Series                                                                                                    | UPC<br>(054007-) | Primary Insulation<br>O.D. Range | Conductor<br>Size                             | Connector | Case Qty. |
|-------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------|-----------------------------------------------|-----------|-----------|
| Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable<br>See above for cable type illustrations. |                  |                                  |                                               |           |           |
| <b>25/28kV CN and JCN cables</b>                                                                                  |                  |                                  |                                               |           |           |
| 5456A                                                                                                             | 53793            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 1 AWG - 250 kcmil (50 - 120 mm <sup>2</sup> ) | None      | 1         |
| 5456A-1-AL                                                                                                        | 53794            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 1 AWG                                         | 20004     | 1         |
| 5456A-1-CU                                                                                                        | 53795            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 1 AWG                                         | 10004     | 1         |
| 5456A-1/0-AL                                                                                                      | 53796            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 1/0 AWG                                       | 20005     | 1         |
| 5456A-1/0-CU                                                                                                      | 53797            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 1/0 AWG                                       | 10005     | 1         |
| 5456A-2/0-AL                                                                                                      | 53798            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 2/0 AWG                                       | 20006     | 1         |
| 5456A-2/0-CU                                                                                                      | 53799            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 2/0 AWG                                       | 10006     | 1         |
| 5456A-3/0-AL                                                                                                      | 53800            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 3/0 AWG                                       | 20007     | 1         |
| 5456A-3/0-CU                                                                                                      | 53801            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 3/0 AWG                                       | 10007     | 1         |
| 5456A-4/0-AL                                                                                                      | 53802            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 4/0 AWG                                       | 20008     | 1         |
| 5456A-4/0-CU                                                                                                      | 53803            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 4/0 AWG                                       | 10008     | 1         |
| 5456A-250-AL                                                                                                      | 53935            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 250 kcmil                                     | 20009     | 1         |
| 5456A-250-CU                                                                                                      | 53936            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 250 kcmil                                     | 10009     | 1         |
| 5456A-WG                                                                                                          | 53804            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 1 AWG - 250 kcmil (50 - 120 mm <sup>2</sup> ) | None      | 1         |
| 5457A                                                                                                             | 42149*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 250 - 500 kcmil (120 - 240 mm <sup>2</sup> )  | None      | 1         |
| 5457A-250-AL                                                                                                      | 53836            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 250 kcmil                                     | 20009     | 1         |
| 5457A-250-CU                                                                                                      | 53837            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 250 kcmil                                     | 10009     | 1         |
| 5457A-350-AL                                                                                                      | 42132*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 350 kcmil                                     | 20011     | 1         |
| 5457A-350-CU                                                                                                      | 44238*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 350 kcmil                                     | 10011     | 1         |
| 5457A-500-AL                                                                                                      | 42133*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 500 kcmil                                     | 20014     | 1         |
| 5457A-500-CU                                                                                                      | 44239*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 500 kcmil                                     | 10014     | 1         |
| 5457A-WG                                                                                                          | 43416*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 250 - 500 kcmil (120 - 240 mm <sup>2</sup> )  | None      | 1         |
| 5458A                                                                                                             | 42908*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 500 - 1000 kcmil (240 - 500 mm <sup>2</sup> ) | None      | 1         |
| 5458A-500-AL                                                                                                      | 04593*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 500 kcmil                                     | 20014     | 1         |
| 5458A-500-CU                                                                                                      | 04594*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 500 kcmil                                     | 10014     | 1         |
| 5458A-750-AL                                                                                                      | 42909*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 750 kcmil                                     | 20019     | 1         |
| 5458A-750-CU                                                                                                      | 44240*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 750 kcmil                                     | 10019     | 1         |
| 5458A-1000-AL                                                                                                     | 42910*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 1000 kcmil                                    | 20024     | 1         |
| 5458A-1000-CU                                                                                                     | 44241*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 1000 kcmil                                    | 10024     | 1         |
| 5458A-WG                                                                                                          | 43417*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 500 - 1000 kcmil (240 - 500 mm <sup>2</sup> ) | None      | 1         |

\*UPC prefix 051128

# 1/C, 25/28 kV, Shielded-Tape, Wire, UniShield®, LC Cold Shrink Splices

3M™ QS-III 5524A, Cold Shrink Series Cable Splices 5525A and 5526A



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3M QS-III 5524A, Cold Shrink series splicing kits 5525A and 5526A are inline splices for joining 25/28 kV Tape, Wire, LC, and UniShield® power cables. It is a cold shrink design. The

cold shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made of rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors packed in the kit or the kit and connector can be ordered as separate items. See page 131 to order 3M connectors. **Each kit makes one splice.** Additional transition connectors are available from cable accessory suppliers. **Meets requirements of IEEE 404.**



Tape Shielded Cable



Wire Shielded Cable



UniShield® Cable



Longitudinally Corrugated (LC) Shielded Cable

## 3M QS-III Cold Shrink Series 5524A, 5525A and 5526A Selection

| Product Series                                                                                                                                       | UPC<br>(054007-) | Primary Insulation<br>O.D. Range | Conductor<br>Size                             | Connector | Case Qty. |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------|-----------------------------------------------|-----------|-----------|
| Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable<br>See above for cable type illustrations. |                  |                                  |                                               |           |           |
| <b>25/28kV LC, Wire, Tape and UniShield® cables</b>                                                                                                  |                  |                                  |                                               |           |           |
| 5524A                                                                                                                                                | 53922            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 1 AWG - 250 kcmil (50 - 120 mm <sup>2</sup> ) | None      | 1         |
| 5524A-1-AL                                                                                                                                           | 53923            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 1 AWG                                         | 20004     | 1         |
| 5524A-1-CU                                                                                                                                           | 53924            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 1 AWG                                         | 10004     | 1         |
| 5524A-1/0-AL                                                                                                                                         | 53925            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 1/0 AWG                                       | 20005     | 1         |
| 5524A-1/0-CU                                                                                                                                         | 53926            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 1/0 AWG                                       | 10005     | 1         |
| 5524A-2/0-AL                                                                                                                                         | 53927            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 2/0 AWG                                       | 20006     | 1         |
| 5524A-2/0-CU                                                                                                                                         | 53928            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 2/0 AWG                                       | 10006     | 1         |
| 5524A-3/0-AL                                                                                                                                         | 53929            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 3/0 AWG                                       | 20007     | 1         |
| 5524A-3/0-CU                                                                                                                                         | 53930            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 3/0 AWG                                       | 10007     | 1         |
| 5524A-4/0-AL                                                                                                                                         | 53931            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 4/0 AWG                                       | 20008     | 1         |
| 5524A-4/0-CU                                                                                                                                         | 53932            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 4/0 AWG                                       | 10008     | 1         |
| 5524A-250-AL                                                                                                                                         | 53933            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 250 kcmil                                     | 20009     | 1         |
| 5524A-250-CU                                                                                                                                         | 53934            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 250 kcmil                                     | 10009     | 1         |
| 5525A                                                                                                                                                | 42138*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 250 - 750 kcmil (120 - 325 mm <sup>2</sup> )  | None      | 1         |
| 5525A-250-AL                                                                                                                                         | 53845            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 250 kcmil                                     | 20009     | 1         |
| 5525A-250-CU                                                                                                                                         | 53846            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 250 kcmil                                     | 10009     | 1         |
| 5525A-350-AL                                                                                                                                         | 42140*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 350 kcmil                                     | 20011     | 1         |
| 5525A-350-CU                                                                                                                                         | 42902*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 350 kcmil                                     | 10011     | 1         |
| 5525A-500-AL                                                                                                                                         | 42141*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 500 kcmil                                     | 20014     | 1         |
| 5525A-500-CU                                                                                                                                         | 42903*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 500 kcmil                                     | 10014     | 1         |
| 5525A-750-AL                                                                                                                                         | 42904*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 750 kcmil                                     | 20019     | 1         |
| 5525A-750-CU                                                                                                                                         | 42127*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 750 kcmil                                     | 10019     | 1         |
| 5526A                                                                                                                                                | 42905*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 500 - 1000 kcmil (240 - 500 mm <sup>2</sup> ) | None      | 1         |
| 5526A-500-AL                                                                                                                                         | 04597*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 500 kcmil                                     | 20014     | 1         |
| 5526A-500-CU                                                                                                                                         | 04598*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 500 kcmil                                     | 10014     | 1         |
| 5526A-750-AL                                                                                                                                         | 04595*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 750 kcmil                                     | 20019     | 1         |
| 5526A-750-CU                                                                                                                                         | 04596*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 750 kcmil                                     | 10019     | 1         |
| 5526A-1000-AL                                                                                                                                        | 42906*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 1000 kcmil                                    | 20024     | 1         |
| 5526A-1000-CU                                                                                                                                        | 42907*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 1000 kcmil                                    | 10024     | 1         |

\* UPC prefix 051128

# 3/C, 25/28 kV Shielded Armored or Non-Armored Cold Shrink Splices

## 3M™ QS-III Splice Kit 5700A-MT Series Selection

| Product Series                                                                                                                                          | UPC<br>(054007-) | Primary Insulation<br>O.D. Range | Conductor<br>Size                             | Connector | Case Qty. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------|-----------------------------------------------|-----------|-----------|
| Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable<br>See page 286 for cable type illustrations. |                  |                                  |                                               |           |           |
| <b>25/28kV 3-Core Cables</b>                                                                                                                            |                  |                                  |                                               |           |           |
| 5786A-MT                                                                                                                                                | 53937            | 0.84 - 1.36" (21,3 - 34,5 mm)    | 1 AWG - 250 kcmil (50 - 120 mm <sup>2</sup> ) | None      | 1         |
| 5787A-MT                                                                                                                                                | 43421*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 250 - 750 kcmil (120 - 325 mm <sup>2</sup> )  | None      | 1         |
| 5788A-MT                                                                                                                                                | 43422*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 500 - 1000 kcmil (240 - 500 mm <sup>2</sup> ) | None      | 1         |

\*UPC prefix 051128

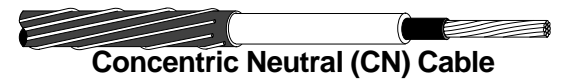
# 35 kV Splices

## 1/C, 35 kV, JCN/CN Molded Rubber Splices

### 3M Cable Splices 5432 and 5461

3M QS kits 5432, 5433 and 5461 are inline splices designed for use on 35 kV CN or JCN cable. Meets requirements of IEEE Standard 404. The continuous current rating of each splice is equal to the current rating of the cable it is sized to accommodate.

For copper or aluminum conductor cable, select the correct splice with connector, from the table below. To order connector separately see page 288. **Each kit makes one splice.**



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

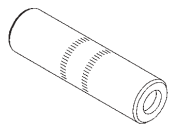
### 3M Splices Series 5430 and 5461 Selection

| Product Series                                                                                                    | UPC<br>(054007-) | Primary Insulation<br>O.D. Range | Conductor Size*<br>Cu or Al | Case Qty. |
|-------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------|-----------------------------|-----------|
| Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable<br>See above for cable type illustrations. |                  |                                  |                             |           |
| 5432                                                                                                              | 02338            | 1.060 - 1.210"<br>(27 - 31 mm)   | 2 Str.-1/0 Str. AWG         | 1         |
| 5432-CI-1A                                                                                                        | 08357            | 1.060 - 1.210"<br>(27 - 31 mm)   | 2 Str.-1/0 Sol. AWG         | 1         |
| 5432-CI-1/0A                                                                                                      | 31222            | 1.060 - 1.210"<br>(27 - 31 mm)   | 1/0 Str. AWG                | 1         |
| 5433                                                                                                              | 02339            | 1.120 - 1.320"<br>(28 - 34 mm)   | 3/0-4/0 AWG                 | 1         |
| 5433-CI-3/0B                                                                                                      | 49485            | 1.120 - 1.320"<br>(28 - 34 mm)   | 3/0 AWG                     | 1         |
| 5433-CI-4/0B                                                                                                      | 49486            | 1.120 - 1.320"<br>(28 - 34 mm)   | 4/0 AWG                     | 1         |
| 5461                                                                                                              | 09129            | 1.00 - 1.15"<br>(25 - 29 mm)     | 1-1/0 AWG                   | 1         |
| 5461-CI-1/0-840                                                                                                   | 09157            | 1.00 - 1.15"<br>(25 - 29 mm)     | 1/0 AWG                     | 1         |
| 5461-CI-1/0A                                                                                                      | 09156            | 1.00 - 1.15"<br>(25 - 29 mm)     | 1/0 AWG                     | 1         |

Jacketing kit is needed for JCN Cable.

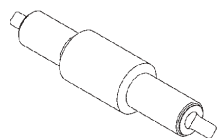
\*Important: On all QS kits use the primary insulation O.D. range for final ordering criteria.

## Specifications and Ordering Information on 3M™ CI and CI-A Series Connectors for 5432 and 5433 Series



| Case Number | Product | UPC       |           |             | Conductor Size Cu or Al |    | Connector |
|-------------|---------|-----------|-----------|-------------|-------------------------|----|-----------|
|             |         | (054007-) | Stranded  | Solid       | Cu                      | Al |           |
| CI-1/0A     | 14176   |           | 1/0 AWG   | —           | 0.91" (23 mm)           |    | 10        |
| CI-1A       | 00722   |           | 2 - 1 AWG | 1 - 1/0 AWG | 0.91" (23 mm)           |    | 10        |
| CI-3/0B     | —       |           | 3/0 AWG   | 3/0 AWG     | —                       |    | 10        |
| CI-4/0B     | —       |           | 4/0 AWG   | 4/0 AWG     | —                       |    | 10        |

## Specifications and Ordering Information on 3M CI-A and CI-840 Series Connectors for 5461 Series



| Product Number | UPC (054007-) | Conductor Size Cu or Al |             | Case Qty. |
|----------------|---------------|-------------------------|-------------|-----------|
|                |               | Stranded                | Solid       |           |
| CI-1/0A        | 14176         | 1/0 AWG                 | —           | 10        |
| CI-1/0-840     | 09137         | 1/0 AWG                 | —           | 10        |
| CI-1A          | 00722         | 2 - 1 AWG               | 1 - 1/0 AWG | 10        |
| CI-2A          | 00721         | 2 AWG                   | 1 AWG       | 10        |

## 1/C, 35 kV, JCN/CN Cold Shrink Splices

### 3M™ QS-III Cold Shrink Cable Splices 5467A and 5468A

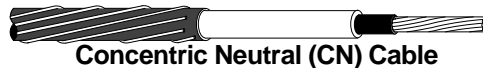


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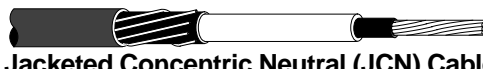
3M QS-III Cold Shrink series splicing kits 5467A and 5468A are inline splices for joining 35 kV Jacketed Concentric Neutral (JCN) or Concentric Neutral (CN) power cables.

It is a cold shrink design. The cold shrink splice body is a one-piece molded design made of specially formulated

silicone rubbers, while the jacketing is made of rubber for its special physical properties. Each splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors packed in the kit or the kit and connector can be ordered as separate items. See page 131 to order 3M connectors. **Each kit makes one splice.** Additional transition connectors are available from cable accessory suppliers. **Meets requirements of IEEE 404.**



Concentric Neutral (CN) Cable



Jacketed Concentric Neutral (JCN) Cable

# 3M™ QS-III Cold Shrink Series 5467 and 5468 Selection

| Product Series                                                                                                            | UPC<br>(051128-) | Primary Insulation<br>O.D. Range | Conductor<br>Size                  | Connector | Case Qty. |
|---------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------|------------------------------------|-----------|-----------|
| Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable<br>See previous page for cable type illustrations. |                  |                                  |                                    |           |           |
| <b>35kV CN and JCN cables</b>                                                                                             |                  |                                  |                                    |           |           |
| 5467A                                                                                                                     | 43051            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 1/0 AWG - 350 kcmil (60 - 185 mm2) | None      | 1         |
| 5467A-1/0-AL                                                                                                              | 43052            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 1/0 AWG                            | 20005     | 1         |
| 5467A-1/0-CU                                                                                                              | 43057            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 1/0 AWG                            | 10005     | 1         |
| 5467A-2/0-AL                                                                                                              | 43053            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 2/0 AWG                            | 20006     | 1         |
| 5467A-2/0-CU                                                                                                              | 43058            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 2/0 AWG                            | 10006     | 1         |
| 5467A-3/0-AL                                                                                                              | 43054            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 3/0 AWG                            | 20007     | 1         |
| 5467A-3/0-CU                                                                                                              | 43059            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 3/0 AWG                            | 10007     | 1         |
| 5467A-4/0-AL                                                                                                              | 43055            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 4/0 AWG                            | 20008     | 1         |
| 5467A-4/0-CU                                                                                                              | 43060            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 4/0 AWG                            | 10008     | 1         |
| 5467A-250-AL                                                                                                              | 43056            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 250 kcmil                          | 20009     | 1         |
| 5467A-250-CU                                                                                                              | 43061            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 250 kcmil                          | 10009     | 1         |
| 5467A-350-AL                                                                                                              | 04589            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 350 kcmil                          | 20011     | 1         |
| 5467A-350-CU                                                                                                              | 04590            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 350 kcmil                          | 10011     | 1         |
| 5467A-WG                                                                                                                  | 53883*           | 1.07 - 1.70" (27,2 - 43,2 mm)    | 1/0 AWG - 350 kcmil (60 - 185 mm2) | None      | 1         |
| 5468A                                                                                                                     | 43062            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 350 - 1000 kcmil (185 - 500 mm2)   | None      | 1         |
| 5468A-350-AL                                                                                                              | 43063            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 350 kcmil                          | 20011     | 1         |
| 5468A-350-CU                                                                                                              | 43067            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 350 kcmil                          | 10011     | 1         |
| 5468A-500-AL                                                                                                              | 43064            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 500 kcmil                          | 20014     | 1         |
| 5468A-500-CU                                                                                                              | 43068            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 500 kcmil                          | 10014     | 1         |
| 5468A-750-AL                                                                                                              | 43065            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 750 kcmil                          | 20019     | 1         |
| 5468A-750-CU                                                                                                              | 43069            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 750 kcmil                          | 10019     | 1         |
| 5468A-1000-AL                                                                                                             | 43066            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 1000 kcmil                         | 20024     | 1         |
| 5468A-1000-CU                                                                                                             | 43070            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 1000 kcmil                         | 10024     | 1         |
| 5468A-WG                                                                                                                  | 53909*           | 1.24 - 2.07" (31,5 - 52,6 mm)    | 350 - 1000 kcmil (185 - 500 mm2)   | None      | 1         |

\* UPC prefix 054007

## 1/C, 35 kV, Shielded-Tape, Wire, UniShield®, LC Cold Shrink Splices

### 3M™ QS-III Cold Shrink Cable Splices 5535A and 5536A

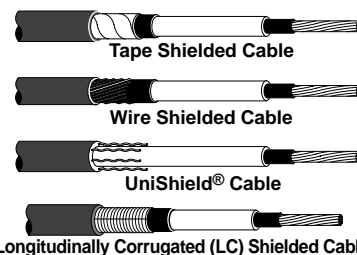


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3M QS-III Cold Shrink series splicing kits 5535A and 5536A are inline splices for joining 35 kV Tape, Wire, LC, and UniShield® power cables. The cold

shrink splice body is a one-piece molded design made of specially formulated silicone rubbers, while the jacketing is made of rubber for its special physical properties. Each

splice is high-voltage production tested to ensure reliability. Kits can be ordered with connectors packed in the kit or the kit and connector can be ordered as separate items. See page 131 to order 3M connectors. **Each kit makes one splice.** Additional transition connectors are available from cable accessory suppliers. **Meets requirements of IEEE 404.**





## 3M™ QS-III Cold Shrink Splices 5535A and 5536A Series Selection

| Product Series                                                                                                                                               | UPC<br>(051128-) | Primary Insulation<br>O.D. Range | Conductor<br>Size                               | Connector | Case Qty. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------|-------------------------------------------------|-----------|-----------|
| Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, Longitudinally Corrugated (LC) Shielded Cable<br>See previous page for cable type illustrations. |                  |                                  |                                                 |           |           |
| <b>35kV LC, wire, tape and UniShield® cables</b>                                                                                                             |                  |                                  |                                                 |           |           |
| 5535A                                                                                                                                                        | 43071            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 1/0 AWG - 350 kcmil (60 - 185 mm <sup>2</sup> ) | None      | 1         |
| 5535A-1/0-AL                                                                                                                                                 | 43072            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 1/0 AWG                                         | 20005     | 1         |
| 5535A-1/0-CU                                                                                                                                                 | 43077            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 1/0 AWG                                         | 10005     | 1         |
| 5535A-2/0-AL                                                                                                                                                 | 43073            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 2/0 AWG                                         | 20006     | 1         |
| 5535A-2/0-CU                                                                                                                                                 | 43078            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 2/0 AWG                                         | 10006     | 1         |
| 5535A-3/0-AL                                                                                                                                                 | 43074            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 3/0 AWG                                         | 20007     | 1         |
| 5535A-3/0-CU                                                                                                                                                 | 43079            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 3/0 AWG                                         | 10007     | 1         |
| 5535A-4/0-AL                                                                                                                                                 | 43075            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 4/0 AWG                                         | 20008     | 1         |
| 5535A-4/0-CU                                                                                                                                                 | 43080            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 4/0 AWG                                         | 10008     | 1         |
| 5535A-250-AL                                                                                                                                                 | 43076            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 250 kcmil                                       | 20009     | 1         |
| 5535A-250-CU                                                                                                                                                 | 43081            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 250 kcmil                                       | 10009     | 1         |
| 5535A-350-AL                                                                                                                                                 | 04591            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 350 kcmil                                       | 20011     | 1         |
| 5535A-350-CU                                                                                                                                                 | 04592            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 350 kcmil                                       | 10011     | 1         |
| 5536A                                                                                                                                                        | 43082            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 350 - 1000 kcmil (185 - 500 mm <sup>2</sup> )   | None      | 1         |
| 5536A-350-AL                                                                                                                                                 | 43083            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 350 kcmil                                       | 20011     | 1         |
| 5536A-350-CU                                                                                                                                                 | 43087            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 350 kcmil                                       | 10011     | 1         |
| 5536A-500-AL                                                                                                                                                 | 43084            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 500 kcmil                                       | 20014     | 1         |
| 5536A-500-CU                                                                                                                                                 | 43088            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 500 kcmil                                       | 10014     | 1         |
| 5536A-750-AL                                                                                                                                                 | 43085            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 750 kcmil                                       | 20019     | 1         |
| 5536A-750-CU                                                                                                                                                 | 43089            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 750 kcmil                                       | 10019     | 1         |
| 5536A-1000-AL                                                                                                                                                | 43086            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 1000 kcmil                                      | 20024     | 1         |
| 5536A-1000-CU                                                                                                                                                | 43090            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 1000 kcmil                                      | 10024     | 1         |

## 3/C, 35 kV, Shielded Armored or Non-Armored Cold Shrink Splices

### 3M Splice Kit 5700A-MT Series Selection

| Product Series                                                                                                                      | UPC<br>(051128-) | Primary Insulation<br>O.D. Range | Conductor<br>Size                               | Connector | Case Qty. |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------|-------------------------------------------------|-----------|-----------|
| Three Conductor Armored, Shielded Cable, Three Conductor Non-Armored, Shielded Cable,<br>See page 289 for cable type illustrations. |                  |                                  |                                                 |           |           |
| <b>35kV 3-Core Cables</b>                                                                                                           |                  |                                  |                                                 |           |           |
| 5797A-MT                                                                                                                            | 43419            | 1.07 - 1.70" (27,2 - 43,2 mm)    | 1/0 AWG - 350 kcmil (60 - 185 mm <sup>2</sup> ) | None      | 1         |
| 5798A-MT                                                                                                                            | 43420            | 1.24 - 2.07" (31,5 - 52,6 mm)    | 350 - 1000 kcmil (185 - 500 mm <sup>2</sup> )   | None      | 1         |

# PILC Splices and Accessories

## 1/C Low Voltage Splices 0-600V (1000V rated)

### 3M™ 1000V Cable Splices CS500Pb Series

Cold Shrink CS500Pb series splice kits are a series of kits rated 1000 volts for splicing Paper Insulated Lead Covered (PILC) cable. The splice kits can be used to connect PILC to PILC or used to connect PILC to Poly/EPR cables. The splice kits also meet the requirement of ANSI Standard C119.1. 3M Scotchlok™ 2000T series copper connectors are provided with these kits. **Each kit makes one splice.**



**Single Conductor PILC Cable**

| Features — Benefits         |                                                                                    |
|-----------------------------|------------------------------------------------------------------------------------|
| <b>CS500Pb Series</b>       |                                                                                    |
| Simple safe installation    | No tools or special training needed                                                |
| Water Resistant             | Meets the water seal requirements of ANSI C119.1                                   |
| No torches or heat required | Quick installation using tube on removable core technology                         |
| Connectors are provided     | Copper oil stop connectors meet requirements of ANSI C119.4                        |
| Proven oil stop performance | Withstand internal oil pressures exceeding 100 PSI and vacuum to 18 inches Mercury |

### 3M Cold Shrink Splice Kits Selection CS500Pb Series

| Product Series                                                               | UPC (054007-) | Secondary Cable Conductor Size | PILC Cable Lead O.D. Range       | Poly/EPR Cable Insulation O.D. Range | Case Qty. |
|------------------------------------------------------------------------------|---------------|--------------------------------|----------------------------------|--------------------------------------|-----------|
| <b>Single Conductor PILC Cable</b><br>See above for cable type illustration. |               |                                |                                  |                                      |           |
| CS501Pb-4                                                                    | 44154         | 4 AWG                          | 0.57 - 0.80"<br>(14,5 - 20,3 mm) | 0.31 - 0.80"<br>(7,9 - 20,3 mm)      | 1         |
| CS502Pb-1                                                                    | 44156         | 1 AWG                          | 0.63 - 0.80"<br>(16,0 - 20,3 mm) | 0.31 - 0.80"<br>(7,9 - 20,3 mm)      | 1         |
| CS502Pb-2                                                                    | 44155         | 2 AWG                          | 0.63 - 0.80"<br>(16,0 - 20,3 mm) | 0.31 - 0.80"<br>(7,9 - 20,3 mm)      | 1         |
| CS503Pb-1/0                                                                  | 44157         | 1/0 AWG                        | 0.63 - 1.03"<br>(16,0 - 26,1 mm) | 0.34 - 1.03"<br>(8,6 - 26,1 mm)      | 1         |
| CS504Pb-2/0                                                                  | 44158         | 2/0 AWG                        | 0.67 - 1.03"<br>(17,0 - 26,1 mm) | 0.34 - 1.03"<br>(8,6 - 26,1 mm)      | 1         |
| CS505Pb-3/0                                                                  | 44159         | 3/0 AWG                        | 0.72 - 1.18"<br>(18,3 - 30,0 mm) | 0.45 - 1.18"<br>(11,4 - 30,0 mm)     | 1         |
| CS505Pb-4/0                                                                  | 44160         | 4/0 AWG                        | 0.72 - 1.18"<br>(18,3 - 30,0 mm) | 0.45 - 1.18"<br>(11,4 - 30,0 mm)     | 1         |
| CS506Pb-250                                                                  | 44161         | 250 kcmil                      | 0.92 - 1.40"<br>(23,3 - 35,5 mm) | 0.56 - 1.40"<br>(14,2 - 35,5 mm)     | 1         |
| CS506Pb-300                                                                  | 44162         | 300 kcmil                      | 0.92 - 1.40"<br>(23,3 - 35,5 mm) | 0.56 - 1.40"<br>(14,2 - 35,5 mm)     | 1         |
| CS506Pb-350                                                                  | 44163         | 350 kcmil                      | 0.92 - 1.40"<br>(23,3 - 35,5 mm) | 0.56 - 1.40"<br>(14,2 - 35,5 mm)     | 1         |
| CS507Pb-400                                                                  | 44164         | 400 kcmil                      | 1.00 - 1.40"<br>(25,4 - 35,5mm)  | 0.56 - 1.40"<br>(14,2 - 35,5 mm)     | 1         |
| CS508Pb-500                                                                  | 44169         | 500 kcmil                      | 1.00 - 1.62"<br>(25,4 - 41,1 mm) | 0.73 - 1.73"<br>(18,5 - 43,9 mm)     | 1         |
| CS508Pb-600                                                                  | 44165         | 600 kcmil                      | 1.00 - 1.62"<br>(25,4 - 41,1 mm) | 0.73 - 1.73"<br>(18,5 - 43,9 mm)     | 1         |
| CS508Pb-750                                                                  | 44166         | 750 kcmil                      | 1.00 - 1.62"<br>(25,4 - 41,1 mm) | 0.73 - 1.73"<br>(18,5 - 43,9 mm)     | 1         |
| CS508Pb-800                                                                  | 44167         | 800 kcmil                      | 1.00 - 1.62"<br>(25,4 - 41,1 mm) | 0.73 - 1.73"<br>(18,5 - 43,9 mm)     | 1         |
| CS508Pb-1000                                                                 | 44168         | 1000 kcmil                     | 1.00 - 1.62"<br>(25,4 - 41,1 mm) | 0.73 - 1.73"<br>(18,5 - 43,9 mm)     | 1         |

# 1/C to 1/C, 15 kV Cold Shrink Splices

3M™ QS-2000T 1/C PILC to 1/C Poly/EPR or 1/C PILC to 1/C PILC Cable Splices

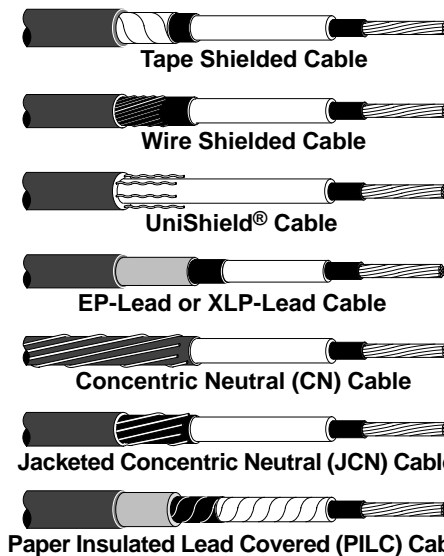


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The 3M QS2000T kit allows you to splice either single-conductor PILC cable to single-conductor PILC cable, or single-conductor PILC cable to single-conductor Poly/EPR cable. Because of the design of the splice, size transitions can also be accommodated rather easily. The 3M QS-2000T kits meet the requirements of

IEEE 404. Use 3M™ Scotchlok™ Connectors 2000T Series with these splice kits. See page 296 to order connectors.

Each kit makes one single conductor splice.



## 3M Cold Shrink Splices QS-2000T Series Selection

| Product Series                                                                                                                                                                                                                                      | UPC (054007-) | PILC Cable Insulation O.D. Range | PILC Cable Size                    | Poly/EPR Cable Size                 | Poly/EPR Insulation O.D. Range | Connector Requirements        |                  |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------|------------------------------------|-------------------------------------|--------------------------------|-------------------------------|------------------|-----------------|
|                                                                                                                                                                                                                                                     |               |                                  |                                    |                                     |                                | O.D. Maximum                  | Connector Length | Aluminum Copper |
| Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, EP-Lead or XLP-Lead Cable, Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable, Paper Insulated Lead Covered (PILC) Cable<br>See above for cable type illustrations. |               |                                  |                                    |                                     |                                |                               |                  |                 |
| QS-2011T                                                                                                                                                                                                                                            | 50546         | 0.56 - 0.88" (14,2 - 22,4 mm)    | 4 - 3/0 AWG (25 - 70 mm²)          | 1 - 4/0 AWG (50 - 95 mm²)           | 0.70 - 1.07" (17,8 - 27,2 mm)  | 0.70 - 1.07" (17,8 - 27,2 mm) | 5.0" (127 mm)    | 5.5" (140 mm)   |
| QS-2012T                                                                                                                                                                                                                                            | 50547         | 0.74 - 1.17" (18,8 - 29,7 mm)    | 3/0 AWG - 350 kcmil (95 - 185 mm²) | 4/0 AWG - 500 kcmil (120 - 240 mm²) | 0.88 - 1.36" (22,0 - 34,6 mm)  | 0.88 - 1.36" (22,0 - 34,6 mm) | 5.2" (132 mm)    | 5.5" (140 mm)   |
| QS-2013T                                                                                                                                                                                                                                            | 50555         | 0.98 - 1.56" (24,9 - 39,6 mm)    | 400 - 1000 kcmil (200 - 500 mm²)   | 500 - 1000 kcmil (240 - 500 mm²)    | 1.12 - 1.70" (28,4 - 43,2 mm)  | 1.12 - 1.70" (28,4 - 43,2 mm) | 6.5" (165 mm)    | 7.5" (190 mm)   |

### QS-2000T Ordering Examples

**Example 1:** You need a 15kV – #3 PILC Cu spliced to a 15kV – 1/0 Al extruded dielectric.

**Order:** QS-2000T - #3 – 1/0.

**Example 2:** You need a 15kV – 500 kcmil PILC Cu spliced to a 15kV – 500 kcmil Cu extruded insulation.

**Order:** QS-2000T – 500.

# 3/C to 1/C, 15 kV Cold Shrink Splices

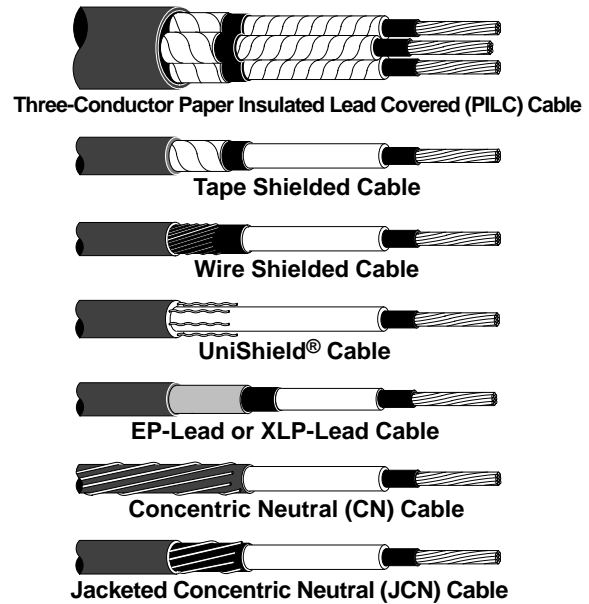
3M™ QS-2000-3T and QS-2000-3T-WS 3/C PILC to 1/C Poly/EPR Cable Trifurcating Splices



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3M Cold Shrink QS-2000-3T and QS-2000-3T-WS Trifurcating Transition Splice Kits are rated 15 kV. They are specially designed splice kits for connecting three conductor Paper Insulated Lead Covered (PILC) cable to three single conductor Poly/EPR insulated cables.

Splices meet the requirements of IEEE Standard 404. Use Scotchlok 2000T series connectors with these kits. See page 296. Each kit makes one three conductor to three single conductor splice.



## 3M Cold Shrink Splices QS-2000-3T and QS-2000-3T-WS Series Selection

| Product Series                                                                                                                                                                                           | UPC (054007-) | PILC Cable Size                                 | Poly/EPR Cable Size                              | Poly/EPR Insulation O.D. Range | Connector Requirements        |                          |                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------|--------------------------------------------------|--------------------------------|-------------------------------|--------------------------|-------------------|
|                                                                                                                                                                                                          |               |                                                 |                                                  |                                | O.D.                          | Maximum Connector Length | Aluminum / Copper |
| Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, EP-Lead or XLP-Lead Cable, Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable<br>See above for cable type illustrations. |               |                                                 |                                                  |                                |                               |                          |                   |
| QS-2011-3T                                                                                                                                                                                               | 42021         | 4 - 3/0 AWG (25 - 70 mm <sup>2</sup> )          | 1 - 4/0 AWG (50 - 95 mm <sup>2</sup> )           | 0.70 - 1.07" (17,8 - 27,2 mm)  | 0.70 - 1.07" (17,8 - 27,2 mm) | 5.0" (127 mm)            | 5.5" (140 mm)     |
| QS-2012-3T                                                                                                                                                                                               | 42022         | 3/0 AWG - 250 kcmil (95 - 120 mm <sup>2</sup> ) | 4/0 AWG - 500 kcmil (120 - 240 mm <sup>2</sup> ) | 0.88 - 1.36" (22,0 - 34,6 mm)  | 0.88 - 1.36" (22,0 - 34,6 mm) | 5.2" (132 mm)            | 5.5" (140 mm)     |
| QS-2012/13-3T                                                                                                                                                                                            | 44202         | 350-500 kcmil (195-240 mm <sup>2</sup> )        | 250 - 500 kcmil (120 - 240 mm <sup>2</sup> )     | 0.91 - 1.36" (23,0 - 34,6 mm)  | 0.91 - 1.36" (28,0 - 42,0 mm) | 5.2" (132 mm)            | 5.5" (140 mm)     |
| QS-2013-3T                                                                                                                                                                                               | 42023         | 400 - 800 kcmil (200 - 400 mm <sup>2</sup> )    | 500 - 1000 kcmil (240 - 500 mm <sup>2</sup> )    | 1.12 - 1.70" (28,4 - 43,2 mm)  | 1.12 - 1.70" (28,4 - 43,2 mm) | 6.5" (165 mm)            | 7.5" (190 mm)     |
| QS-2011-3T-WS*                                                                                                                                                                                           | 43248         | 4 - 3/0 AWG (25 - 95 mm <sup>2</sup> )          | 1 - 4/0 AWG (35 - 95 mm <sup>2</sup> )           | 0.70 - 1.07" (17,8 - 27,2 mm)  | 0.70 - 1.07" (17,8 - 27,2 mm) | 5.0" (127 mm)            | 5.5" (140 mm)     |
| QS-2012-3T-WS*                                                                                                                                                                                           | 04211         | 3/0 AWG - 250 kcmil (95 - 120 mm <sup>2</sup> ) | 4/0 AWG - 500 kcmil (120 - 240 mm <sup>2</sup> ) | 0.88 - 1.36" (22,0 - 34,6 mm)  | 0.88 - 1.36" (22,0 - 34,6 mm) | 5.2" (132 mm)            | 5.5" (140 mm)     |
| QS-2012/13-3T-WS*                                                                                                                                                                                        | 04644         | 350 - 500 kcmil (195 - 240 mm <sup>2</sup> )    | 250 - 500 kcmil (120 - 240 mm <sup>2</sup> )     | 0.91 - 1.36" (23,0 - 34,6 mm)  | 0.91 - 1.36" (23,0 - 34,6 mm) | 5.2" (132 mm)            | 5.5" (140 mm)     |
| QS-2013-3T-WS*                                                                                                                                                                                           | 04212         | 400 - 800 kcmil (200 - 400 mm <sup>2</sup> )    | 500 - 1000 kcmil (240 - 500 mm <sup>2</sup> )    | 1.12 - 1.70" (28,4 - 43,2 mm)  | 1.12 - 1.70" (28,4 - 43,2 mm) | 6.5" (165 mm)            | 7.5" (190 mm)     |

\*QS-2000-3T-WS uses heat shrink wrap around.

# 3/C to 3/C, 15 kV Cold Shrink Splices

## 3M™ QS-2013-3T-3C 3/C PILC to 3/C Poly/EPR Cable Splice



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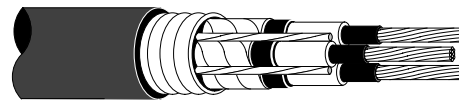
The Cold Shrink QS-2013-3T-3C splice kit is rated 15 kV. It is specially designed for connecting three conductor shielded or belted Paper Insulated Lead Covered (PILC) cable to three conductor shielded Poly/EPR insulated cables.

The splice meets the requirements of IEEE

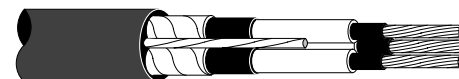
Standard 404. Use Scotchlok 2000T series connectors with this kit. See page 296. **Each kit makes one three conductor to three conductor splice.**



Three-Conductor Paper Insulated Lead Covered (PILC) Cable



Three-Conductor Armored, Shielded Cable



Three-Conductor Non-Armored, Shielded Cable

## 3M™ Cold Shrink Splice QS-2013-3T-3C Series

| Product Series                                                                                                                                                                                           | UPC (054007-) | PILC Cable Size                                 | Poly/EPR Cable Size                             | Poly/EPR Insulation O.D. Range   | Connector Requirements           |                                   |                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------|-------------------------------------------------|----------------------------------|----------------------------------|-----------------------------------|---------------------------------|
|                                                                                                                                                                                                          |               |                                                 |                                                 |                                  | O.D.                             | Maximum Connector Length Aluminum | Maximum Connector Length Copper |
| Tape Shielded Cable, Wire Shielded Cable, UniShield® Cable, EP-Lead or XLP-Lead Cable, Concentric Neutral (CN) Cable, Jacketed Concentric Neutral (JCN) Cable<br>See above for cable type illustrations. |               |                                                 |                                                 |                                  |                                  |                                   |                                 |
| QS-2013-3T-3C                                                                                                                                                                                            | 43247         | 400 - 800 kcmil<br>(200 - 400 mm <sup>2</sup> ) | 500 - 750 kcmil<br>(240 - 325 mm <sup>2</sup> ) | 1.12 - 1.70"<br>(28,4 - 43,2 mm) | 1.12 - 1.70"<br>(28,4 - 43,2 mm) | 6.5"<br>(165 mm)                  | 7.5"<br>(190 mm)                |

## 5110-OS Series 15 - 25/28 kV Cable Accessory Oil Stops

3M™ Cold Shrink 5110-OS series kits are designed for use on PILC (Paper Insulated Lead Covered) cable with 200 Amp elbows and 600 Amp modular and disconnectable splice components that meet the requirements of IEEE Standard 386. There are four kits in the series that seal the oil inside the PILC cable, provide an accessory ground lead and environmentally seal the accessory end and cable jacket. These kits can be used on PILC cables sized #4 AWG to 1000 kcmil rated 15 kV and #2 AWG to 800 kcmil rated 25/28 kV.

### Kit contents:

Each kit contains sufficient quantities of the following materials to seal and ground one cable end.

- Cold Shrink Oil Stop Tube
- Cold Shrink Jacket Tube
- White Restricting Tape
- Scotch® 130C Rubber Tape
- Scotch® 13 Semi-Conducting Tape
- Ground Lead with Accessory Bleed Wire
- Mastic Seal Strips
- Instruction for 200 Amp Accessory
- Instruction for 600 Amp Accessory

## 5110-OS Series Selection

| Kit Number | UPC (054007-) | Minimum Insulation Diameter* in. (mm) | Maximum Lead Diameter in. (mm) | Conductor Size Range |                     |
|------------|---------------|---------------------------------------|--------------------------------|----------------------|---------------------|
|            |               |                                       |                                | 15 kV                | 25/28 kV            |
| 5110-OS    | 43404         | 0.58 (14,7)                           | 1.10 (27,9)                    | #4 - 3/0 AWG         | —                   |
| 5111-OS    | 43405         | 0.72 (18,3)                           | 1.30 (33,0)                    | 4/0 AWG - 300 kcmil  | #2 - 1/0 AWG        |
| 5112-OS    | 43406         | 0.92 (23,4)                           | 1.60 (40,6)                    | 350 - 600 kcmil      | 2/0 AWG - 300 kcmil |
| 5113-OS    | 43407         | 1.10 (27,9)                           | 2 (50,8)                       | 750 - 1000 kcmil     | 350 - 800 kcmil     |

\*Over paper.