

Motor Lead Connections

3M provides a convenient kit with sufficient material needed to quickly make lugged motor lead connections to feeder cables. Each kit makes three splices and is designed exclusively for the abrasion, moisture, grime and temperature extremes of the industrial environment. 3M™ Motor Lead Connectors meet requirements for CSA certification and NRTL certification.

Low Voltage Motor Leads—Pigtail and Inline for 1 kV

Motor lead pigtail connections (5300

through 5304) and inline splices (5311 through 5314) are designed to splice 1000 V or less, non-shielded feeder and motor lead cable. The splices are made with a slip-on lug cover made of EPDM rubber. Use with one-hole lug only. Each kit makes three splices.

Medium Voltage Motor Leads—Pigtail for Nonshielded 5–8 kV

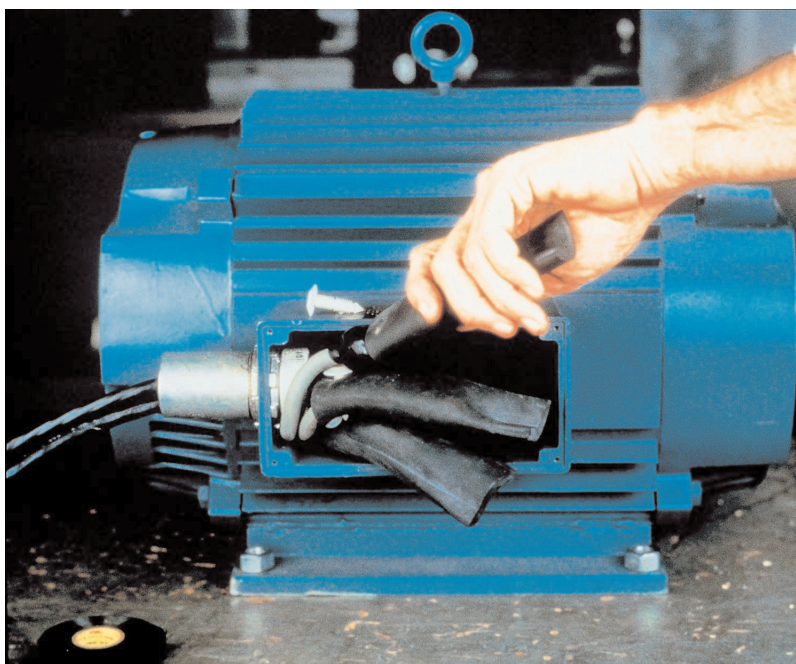
Motor lead pigtail connections (5316 through 5319) are designed to splice 5–8 kV non-shielded feeder and motor lead cables. The splices are made with a slip-on lug cover made of EPDM rubber. Use with one- or two-hole copper lugs. Each kit makes three splices.

Medium Voltage Motor Leads—Pigtail and Inline for 5–8 kV

Motor lead pigtail connections (5321 through 5324) and inline splices (5331 through 5334) are designed to splice 5–8 kV shielded (tape shield, wire shield and UniShield®) and non-shielded feeder cable. The splices are made with a slip-on lug cover made of EPDM rubber. Use with one- or two-hole lugs. Each kit makes three splices.

Medium Voltage Motor Leads with High-K Stress Control—Pigtail or V-Stub Splice for 5–8 kV Shielded and Nonshielded Cables

3M™ Motor Lead Splicing Kits 5380 Series are designed for splicing motor lead cables to incoming feeder cables. These kits are removable and reusable. These kits can accommodate pigtail (stub) connections, 5/8 kV shielded and non-shielded feeders. The splice's main component, the lug cover, is made from



EPDM rubber as a slip-on insulator. Mastic is used for the moisture seal on the pigtail kits. The kits utilize a high dielectric constant (K) stress control termination and slip-on lug cover for the feeder cable's electrical stress control.

These kits are designed to be used with copper compression lugs. After being crimped onto the cables, the lugs are bolted together, then insulated and sealed with the 3M™ Motor Lead Splicing Kits.

Each kit contains all the necessary materials (except lugs) needed to make three splices. The lugs must be purchased separately. 3M™ Scotchlok™ Copper Compression Lugs 30000 Series, or other UL listed copper lugs, can be used.

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3M™ Motor Lead Pigtail Splice Kits, 1-Hole Lug Connections, 5300–5304

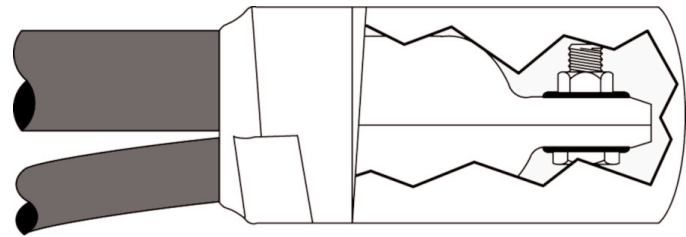
3M™ Motor Lead Pigtail Splicing Kits 5300 Series are designed for splicing motor lead cables to incoming feeder cables, including the accommodation of pigtail (stub) connections at 1000 volts and less. The splice's main component, the slip-on lug cover, is made from EPDM rubber. Mastic strips are used for the moisture seal.

These kits are designed to be used with copper compression, one-hole lugs. After being crimped onto the cables, the lugs are bolted together in a pigtail configuration, then insulated and sealed with the 3M Motor Lead Splicing Kit. Each kit makes three splices and contains the necessary materials (except lugs) needed to make three splices. The lugs must be purchased separately. 3M™ Scotchlok™ Copper Compression Lugs 30000 Series, or other UL listed copper lugs, can be used.

Kit contents include

- ♦ (3) Pigtail lug covers
- ♦ (3) Mastic sealing strips
- ♦ (3) Locking pins (kits 5302–5304 only)
- ♦ (3) Tubes of silicone grease
- ♦ (1) Instruction sheet

Voltage	1000 V and less
Cable/Shielding Type	Single Conductor Cable
Connection Type	1-Hole Lugs
RoHS 2011/65/EU	Yes
Agency Approval	



5300 Pigtail

Order No.	UPC	Feeder Cable Wire Range	Motor Lead Cable Wire Range	Maximum Bolt Length	Insulation O.D.	Lug Cover I.D.	Lug Cover Length	Case Qty.
5300	054007-08317	14–10 AWG	16–12 AWG	3/8" (9,5 mm)	0.12"–0.21" (3,0–5,3 mm)	0.45" (11,4 mm)	2.1" (53,3 mm)	1
5301	054007-12263	10–4 AWG	12–4 AWG	1/2" (12,7 mm)	0.17"–0.36" (4,3–9,1 mm)	0.70" (17,8 mm)	3.4" (86,4 mm)	1
5302	054007-12264	2–1/0 AWG	4–1/0 AWG	3/4" (19,1 mm)	0.34"–0.54" (8,6–13,7 mm)	0.95" (24,1 mm)	4.2" (106,7 mm)	1
5303	054007-12265	1/0 AWG–250 kcmil	2 AWG–250 kcmil	1-1/4" (31,8 mm)	0.40"–0.80" (10,2–20,3 mm)	1.20" (30,5 mm)	5.3" (134,6 mm)	1
5304	054007-12266	250–500 kcmil	4/0 AWG–500 kcmil	1-1/2" (38,1 mm)	0.67"–1.05" (17,0–26,7 mm)	1.70" (43,2 mm)	6.7" (170,2 mm)	1

3M™ Motor Lead Inline Splice Kits, 1-Hole Lug Connections, 5311–5314

3M™ Motor Lead Inline Splicing Kits 5300 Series are designed for splicing motor lead cables to incoming feeder cables, including the accommodation of inline connections at 1000 volts and less. The splice's main component, the slip-on splice cover, is made from EPDM rubber. A mastic strip is used for the moisture seal.

These kits are designed to be used with copper compression, one- or two-hole lugs. After being crimped onto the cables, the lugs are bolted together in an inline configuration, then insulated and sealed with the 3M Motor Lead Splicing Kit. Each kit contains the necessary materials (except lugs) needed to make three splices. The lugs must be purchased separately. 3M™ Scotchlok™ Copper Compression Lugs 30000 Series, or other UL listed copper lugs, can be used.

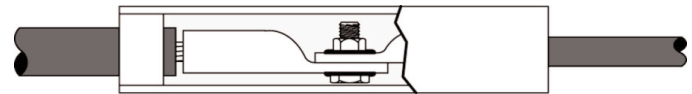
For inline splice kits: The longitudinal space required for assembly will be approximately 2 (splice cover lengths), to allow space for the splice while the connection is being made.

Kit contents include

- ◆ (3) Adapter sleeves
- ◆ (1) Inline splice cover
- ◆ (1) Tubes of silicone grease (3 tubes in kit 5314)
- ◆ (1) Instruction sheet

Voltage	1000 V and less
Cable/Shielding Type	Single Conductor Cable
Connection Type	Inline (1-Hole Lugs)
RoHS 2011/65/EU	Yes

Agency Approval



5311 Inline

Order No.	UPC	Feeder Cable Wire Range	Motor Lead Cable Wire Range	Max. Bolt Length	Insulation O.D.	Splice Cover I.D.	Splice Cover Length	Case Qty.
5311	054007-12267	10–4 AWG	12–4 AWG	1/2" (12,7 mm)	12–8 AWG: 0.17"–0.24" (4,3–6,1 mm) 8–4 AWG: 0.30"–0.36" (7,6–9,1 mm)	12–8 AWG: 0.14" (3,6 mm) 8–4 AWG: 0.24" (6,1 mm)	4"–5" (101,6–127,0 mm)	1
5312	054007-12268	2–1/0 AWG	4–1/0 AWG	3/4" (19,1 mm)	0.34"–0.54" (8,6–13,7 mm)	0.30" (7,6 mm)	8"–9" (203,2–228,6 mm)	1
5313	054007-12269	1/0 AWG–250 kcmil	2 AWG–250 kcmil	1" (25,4 mm)	2–1/0 AWG: 0.40"–0.54" (10,2–13,7 mm) 1/0 AWG–250 kcmil: 0.52"–0.80" (13,2–20,3 mm)	2–1/0 AWG: 0.50" (12,7 mm) 1/0 AWG–250 kcmil: 0.42" (10,7 mm)	9"–10" (228,6–254,0 mm)	1
5314	054007-12270	250–500 kcmil	4/0 AWG–500 kcmil	1-1/4" (31,8 mm)	4/0 AWG–350 kcmil: 0.67"–0.91" (17,0–23,1 mm) 350–500 kcmil: 0.90"–1.05" (22,9–26,7 mm)	4/0 AWG–350 kcmil: 0.60" (15,2 mm) 350–500 kcmil: 0.84" (21,3 mm)	12"–13" (304,8–330,2 mm)	1

Medium Voltage Leads, 5–8 kV


3M™ Motor Lead Pigtail Splice Kits, Non-Shielded Pigtail, 5316-5319

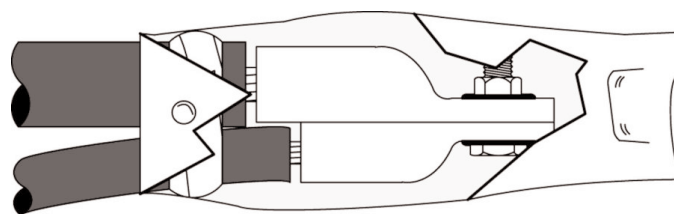
3M™ Motor Lead Pigtail Splicing Kits 5300 Series are a series of kits designed for splicing motor lead cables to incoming feeder cables, including pigtail (stub) connections at 1000 volts or less, as well as 5/8 kV non-shielded feeders. The splice's main component, the slip-on splice cover, is made from EPDM rubber. A mastic strip is used for the moisture seal.

These kits are designed to be used with copper compression, one- or two-hole lugs. After being crimped onto the cables, the lugs are bolted together in a pigtail configuration, then insulated and sealed with the 3M Motor Lead Splicing Kit. Each kit contains the necessary materials (except lugs) needed to make three splices. The lugs must be purchased separately. 3M™ Scotchlok™ Copper Compression Lugs 30000 Series, or other UL listed copper lugs, can be used.

Kit contents include

- ♦ (3) Pigtail lug covers
- ♦ (3) Locking pins
- ♦ (3) Tubes of silicone grease
- ♦ (3) Bags of solvent cleaning cloths
- ♦ (3) Mastic sealing strips
- ♦ (3) Scotch® Linerless Rubber Splicing Tape 130C strips
- ♦ (3) Instruction sheets

Voltage	1000 V & 5/8 kV
Cable/Shielding Type	Single Conductor Cable, Non-Shielded Dry Cable, Non-Shielded Wet or Dry Cable
Connection Type	Non-Shielded Pigtail and 2-Hole Lugs
RoHS 2011/65/EU	Yes
Agency Approvals	



Pigtail Nonshielded

Order No.	UPC	Feeder Cable Wire Range	Motor Lead Cable Wire Range	Max. Bolt Length	Insulation O.D.	Lug Length	Case Qty.
5316	054007-08313	8–4 AWG	10–4 AWG	1/2" (12,7 mm)	0.30"–0.51" (7,6–13,0 mm)	8.0" (203,2 mm)	1
5317	054007-08314	2–1/0 AWG	4–1/0 AWG	3/4" (19,1 mm)	0.43"–0.65" (10,9–16,5 mm)	9.5" (241,3 mm)	1
5318	054007-08315	1/0 AWG–250 kcmil	2 AWG–250 kcmil	1-1/4" (31,8 mm)	0.53"–0.88" (13,5–22,4 mm)	11.0" (279,4 mm)	1
5319	054007-08316	250–500 kcmil	4/0 AWG–500 kcmil	1-1/2" (38,1 mm)	0.75"–1.12" (19,1–28,4 mm)	13.0" (330,2 mm)	1

Medium Voltage Leads, 5–8 kV

3M™ Motor Lead Pigtail Splice Kits, Shielded and Non-Shielded Cables, 5321-5324

3M™ Motor Lead Pigtail Splicing Kits 5300 Series are designed for splicing motor lead cables to incoming feeder cables. These kits can accommodate pigtail (stub) connections of 5/8 kV with shielded feeders. The splice's main component, the slip-on splice cover, is made from EPDM rubber. A mastic strip is used for the moisture seal.

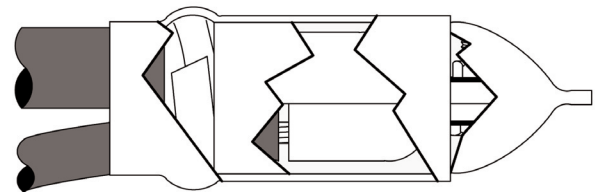
These kits are designed to be used with copper compression, one- or two-hole lugs. After being crimped onto the cables, the lugs are bolted together in a pigtail configuration, then insulated and sealed with the 3M™ Motor Lead Splicing Kits. Each kit contains the necessary materials (except lugs) needed to make three splices. The lugs must be purchased separately. 3M™ Scotchlok™ Copper Compression Lugs 30000 Series, or other UL listed copper lugs, can be used.

Note: 3M™ Motor Lead Kits 5321-5324 also require vinyl tape which is not included.

Kit contents include

- ♦ (3) Pigtail lug covers
- ♦ (3) Cold Shrink tubes
- ♦ (9) Mastic sealing strips
- ♦ (3) Rolls Scotch® Stress Control Tape 2200
- ♦ (3) Bags of solvent cleaning cloths
- ♦ (3) Tubes of silicone grease
- ♦ (3) Rolls Scotch® Linerless Rubber Splicing Tape 130C
- ♦ (3) Instruction sheets

Voltage	5/8 kV
Cable/Shielding Type	Tape Shield, Wire Shield, UniShield®
Connection Type	Pigtail (Shielded and Non-Shielded)
RoHS 2011/65/EU	Yes



5321 Pigtail

Order No.	UPC	Feeder Cable Wire Range	Motor Lead Cable Wire Range	Max. Bolt Length	Insulation O.D.	Lug Cover Length	Case Qty.
5321	054007-12271	8–4 AWG	10–4 AWG	1/2" (12,7 mm)	0.30"–0.51" (7,6–13,0 mm)	7"–8" (177,8–203,2 mm)	1
5322	054007-12272	2–1/0 AWG	4–1/0 AWG	3/4" (19,1 mm)	0.43"–0.65" (10,9–16,5 mm)	8"–9" (203,2–228,6 mm)	1
5323	054007-12273	1/0 AWG–250 kcmil	2 AWG–250 kcmil	1-1/4" (31,8 mm)	0.53"–0.88" (13,5–22,4 mm)	9"–10" (228,6–254,0 mm)	1
5324	054007-12274	250–500 kcmil	4/0 AWG–500 kcmil	1-1/2" (38,1 mm)	0.75"–1.12" (19,1–28,4 mm)	10.5"–11.5" (266,7–292,1 mm)	1

Medium Voltage Leads, 5–8 kV

3M™ Motor Lead Inline Splice Kits, Non-Shielded and Shielded Cables, 5331- 5334

3M™ Motor Lead Inline Splicing Kits 5300 Series are designed for splicing motor lead cables to incoming feeder cables. 3M™ Motor Lead Splicing Kits 5331-5334 can accommodate inline connections, 5/8 kV shielded and non-shielded feeders. The splice's main component, the slip-on splice cover, is made from EPDM rubber. A mastic strip is used for the moisture seal on the inline kits.

These kits are designed to be used with copper compression, one- or two-hole lugs. After being crimped onto the cables, the lugs are bolted together in an inline configuration, then insulated and sealed with the 3M Motor Lead Splicing Kits. Each kit contains all the necessary materials (except lugs) needed to make three splices. The lugs must be purchased separately. 3M™ Scotchlok™ 30000 Series copper compression lugs, or other UL listed copper lugs, can be used. In addition, 3M™ Motor Lead Splicing Kits 5331-5334 require vinyl tape which can also be purchased separately.

For inline splice kits: The longitudinal space required for assembly will be approximately 2 (splice cover length), to allow space for the splice while the connection is being made.

Kit contents include

- ♦ (3) Cold Shrink tubes
- ♦ (12) Adapters
- ♦ (3) Rolls Scotch® Stress Control Tape 2220
- ♦ (3) Bags of solvent cleaning cloths
- ♦ (6) Tubes of silicone grease
- ♦ (3) Rolls Scotch® Linerless Rubber Splicing Tape 130C
- ♦ (3) Instruction sheets

Voltage	5/8 kV
Cable/Shielding Type	Tape Shield, Wire Shield, UniShield®
Connection Type	Inline (Shielded or Non-Shielded)
RoHS 2011/65/EU	Yes



Order No.	UPC	Feeder Cable Wire Range	Motor Lead Cable Wire Range	Max. Bolt Length	Insulation O.D.	Splice Cover I.D.	Splice Cover Length	Case Qty.
5331	054007-12275	8–4 AWG	10–4 AWG	3/4" (19,1 mm)	10–6 AWG: 0.30"–0.46" (7,6–11,7 mm) 6–4 AWG: 0.37"–0.51" (9,4–13,0 mm)	10–6 AWG: 0.24" (6,1 mm) 6–4 AWG: 0.30" (7,6 mm)	10"–11" (254,0–279,4 mm)	1
5332	054007-12276	2–1/0 AWG	4–1/0 AWG	1" 25,4 mm)	4–2 AWG: 0.43"–0.57" (10,9–14,5 mm) 2–1/0 AWG: 0.52"–0.65" (13,2–16,5 mm)	4–2 AWG: 0.30" (7,6 mm) 2–1/0 AWG: 0.42" (10,7 mm)	12"–13" (304,8–330,2 mm)	1
5333	054007-12277	1/0 AWG–250 kcmil	2 AWG–250 kcmil	1-1/4" (31,8 mm)	2–2/0 AWG: 0.53"–0.71" (13,5–18,0 mm) 3/0 AWG–250 kcmil: 0.70"–0.88" (17,8–22,4 mm)	2–2/0 AWG: 0.50" (12,7 mm) 3/0 AWG–250 kcmil: 0.60" (15,2 mm)	15"–16" (381,0–406,4 mm)	1
5334	054007-12278	250–500 kcmil	4/0 AWG–500 kcmil	1-1/2" (38,1 mm)	4/0–350 kcmil: 0.75"–0.98" (19,1–24,9 mm) 350–500 kcmil: 0.94"–1.12" (23,9–28,4 mm)	4/0 AWG–350 kcmil: 0.60" (15,2 mm) 350–500 kcmil: 0.84" (21,3 mm)	17"–18" (431,8–457,2 mm)	1

3M™ Motor Lead Pigtail or V-Stub Splice, Shielded and Non-Shielded Cable, 5380 Series

3M™ Motor Lead Pigtail Splicing Kits 5380 Series are designed for splicing motor lead cables to incoming feeder cables. These kits are removable and reusable. These kits can accommodate pigtail (stub) connections, 5/8 kV shielded and non-shielded feeders. The splice's main component, the slip-on splice cover, is made from EPDM rubber. Mastic is used for the moisture seal on the pigtail kits. The kits utilize a high dielectric constant (K) stress control termination for the feeder cable's electrical stress control.

These kits are designed to be used with copper compression lugs. After being crimped onto the cables, the lugs are bolted together, then insulated and sealed with the 3M Motor Lead Splicing Kits. Each kit contains all the necessary materials (except lugs) needed to make three splices. The lugs must be purchased separately. 3M™ Scotchlock™ Copper Compression Lugs 30000 Series, or other UL listed copper lugs, can be used.

Kit contents include

- ♦ (3) Lug covers
- ♦ (3) Cold Shrink terminations
- ♦ (12) Mastic sealing strips
- ♦ (3) Copper tape strips
- ♦ (3) Cleaning kits
- ♦ (6) Tubes of silicone grease
- ♦ (3) Cold Shrink jacket tubes
- ♦ (3) Constant force springs
- ♦ (3) Cable ties
- ♦ (3) Ground straps
- ♦ (1) Instruction sheet

Voltage	5/8 kV
Cable/Shielding Type	Tape Shield, Wire Shield, UniShield®
Connection Type	Pigtail (Non-Shielded)
RoHS 2011/65/EU	Yes



Order No.	UPC	Feeder Cable Wire Range	Motor Lead Cable Wire Range	Insulation O.D.	I.D. of Boot to Size of Cables	Max. Bolt Length	Max. Lug Length	Case Qty.
5381	051128-55951	8–4 AWG	10–4 AWG	0.30"–0.51" (7,6–13,0 mm)	0.90" (22,9 mm)	5/8" (15,9 mm)	2-1/2" (63,5 mm)	1
5382	051128-55952	2–1/0 AWG	4–1/0 AWG	0.43"–0.65" (10,9–16,5 mm)	1.16" (29,5 mm)	3/4" (19,1 mm)	2-3/4" (69,9 mm)	1
5383	051128-55953	1/0 AWG–250 kcmil	2 AWG–250 kcmil	0.53"–0.88" (13,5–22,4 mm)	1.60" (40,6 mm)	1-1/4" (31,8 mm)	4" (101,6 mm)	1
5384	051128-55954	250–500 kcmil	4/0 AWG–500 kcmil	0.75"–1.12" (19,1–28,4 mm)	2.06" (52,3 mm)	1-1/2" (38,1 mm)	5-1/2" (139,7 mm)	1