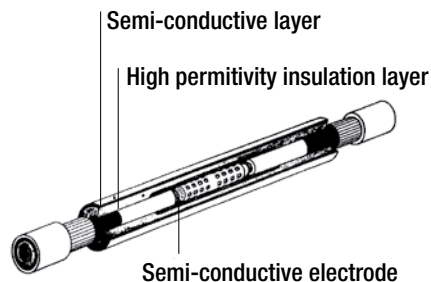
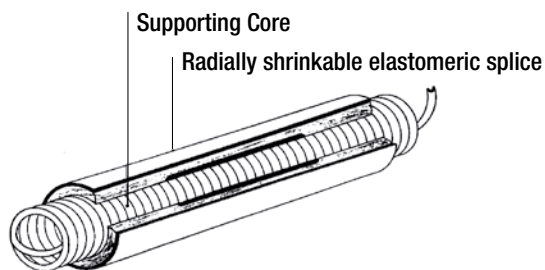




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Medium Voltage Joints & Terminations



6.6/11/(12) kV

3M QS1000 is a one-piece cold shrink joint body manufactured from a specially formulated silicone material, which provides flexibility, easy installation at low temperatures and superior electrical performance over a wide range of operating temperatures. The finished body is expanded and loaded onto a removable supporting core, which allows the joint to be installed without the need for tools or heat.

3M QS1000 is injection moulded and consists of three layers. A semi-conductive electrode, which forms a Faraday Cage around the connector, a high permittivity insulation layer, which both insulates and stress controls, and an outer semi-conductive layer which ensures all screens are at earth potential.

All finished bodies are tested after manufacture and undergo AC Withstand and Partial Discharge testing.

All joint types have been tested in accordance with VDE 0278, HD 629 and/or BS7888. Details of type tests are available upon request.

Features

- One part joint body
- 100% tested after manufacture
- No heat required
- Tool free installation
- Permanent radial pressure
- Suitable for paper and polymeric cables
- Compatible with compression and mechanical connectors
- Low temperature installation
- Provides consistent installation quality



3M™ QS1000 Single Core Polymeric Copper Wire Screened

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
92-AG 611-1	70-150	17.7 – 26.0
92-AG 621-1	185-240	22.3 – 33.2
92-AG 631-1	300-400	28.4 – 42.0

3M™ QS1000 Single Core Polymeric Copper Tape Screened, Armoured

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
92-AG 612-1	70-150	17.7 – 26.0
92-AG 622-1	185-240	22.3 – 33.2
92-AG 632-1	300-400	28.4 – 42.0

3M™ QS1000 Three Core Polymeric/Belted Paper (PILC, PICAS) Transition, Lead sheath and/or Armoured

Joint	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)	Supplementary Kit for Transition Joint	Supplementary Kit
92-AV 610-3	50-120	17.7 – 26.0	PILCL1	PILCL1 Qty 2
92-AV 620-3	150-185	22.3 – 33.2	PILCL2	PILCL2 Qty 2
92-AV-630-3	300-400	28.4 – 42.0	PILCL3	PILCL3 Qty 2

Outer Protection Selection for 92-AV series 3 core joints. Choose Cold Shrink EPDM Kit for Polymeric Joints, or a mould and resin combination if required

Joint	Coldshrink Kit	Mould	Resin Volume	#1471 Resin Standard	#1400U Resin Hazardous Area
92-AV 610-3	CS 610-3	1451	14 Litres	10 x 1600g packs	2 x 9060g packs
92-AV 620-3	CS 620-3	1451	14 Litres	10 x 1600g packs	2 x 9060g packs
92-AV-630-3	CS 630-3	1452	21 Litres	14 x 1600g packs	3 x 9060g packs

3M™ QS1000 TRIF/Transition 3 Core Belted PILC/PICAS to Three Single Core Polymeric

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)	Resin Volume		
			Qty Required (Litres)	1400U (Hazard Area) Kg/Packs	1471 (Standard) Kg/Packs
92-FV 611-3	50-95	17.7 – 26.0	14.5	18kg / Qty 2 1400U	16kg / Qty 10 MP23
92-FV 621-3	120-240	22.3 – 33.2	14.5	18kg / Qty 2 1400U	16kg / Qty 10 MP23
92-FV 631-3	300-400	28.4 – 42.0	14.5	18kg / Qty 2 1400U	16kg / Qty 10 MP23

3M™ Mechanical Earthing System

Kit Ref	Application Range CSA (mm²)	Cable Type
MEH V0	Up to 35	PILC
MEH V1	50-95	PILC
MEH V2	120-300	PILC
MEH V3	Up to 95	PICAS
MEH V4	120-300	PICAS

3M™ QS1000 Single Core to 3 Core Trifurcating Joint, Polymeric Copper Tape Screened, Armoured

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
92-MV 610-3	50-95	17.7 - 26.0
92-MV 620-3	120-185	22.3 - 33.2

3M™ Coldshrink Single Core Polymeric Cable Build Up Supplementary Kit

Build Up Kit (Polymeric only)	Range CSA (mm²)	Insulation Diameter (mm)
92-PG610-1	25 - 50	13.7 - 20.4
92-PG620-1	70 - 150	17.7 - 24.2
92-PG630-1	150 - 240	22.3 - 31.0

Select in conjunction with any QS1000 Joint kit for polymeric cable, when one or both cables to be joined fall below the minimum range of the joint.

Note: These are single phase kits, one is required for each phase to be joined that falls below the minimum range of the joint.

6.6/11/(12) kV and 12/20/(24) kV

3M QS2000B Branch Splice Body – developed from the QS2000 Inline Splice

- One-part splice body for a wide application range
- Tool-free installation
- Symmetrical cutback dimensions including the branch cable
- Supplied complete with mechanical branch connectors
- 100% tested at point of manufacture
- Compact design for installations in narrow areas

- Excellent performance and reliability developed from the QS2000 inline splice
- Constructed from high-performance LSR - silicone
- Excellent shrinkage at low temperatures
- Permanent radial pressure on the cable
- Outstanding dielectric properties
- Very high thermal stability and long-term elasticity
- Excellent mechanical properties

3M™ QS2000B Single Core Branch –XLPE/Copper Wire Screened, Connectors included For 6.6/11 (12)kV and 12/20(24)kV Applications

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
93-BP 620-1	95-240	22.3 – 33.2

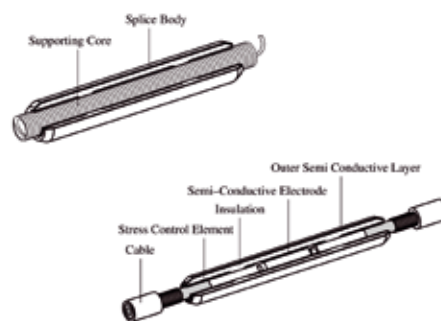
12/20/(24) kV and 19/33/(36) kV

The 3M QS2000 is a one-piece Cold Shrink splice of a multi-layered Silicone rubber body provided in an expanded state. The finished body is loaded onto a removable supporting core, which allows the joint to be installed without the need for tools or heat.

The splice body provides the essential stress relief, re-insulation and semi-conductive screen of power distribution cable systems

- Two inner stress control elements provide the proper electric field distribution.
- The inner semi-conductive electrode electrically surrounds the high voltage connector eliminating the use of tape or additional moulded or metallic electrodes.
- The splice insulation effectively replaces and continues the performance characteristics of the cable insulation across the entire splice.
- The outer semi-conductive layer of the splice adapts to the geometry of the insulation and re-establishes the electromagnetic screen.
- Versatile design of prefabricated one-piece splice body allows installation on a wide range of cable sizes and types.
- Designed to fit all standard cable connectors.

- High contact pressure ensures absolute water tightness.
- Wide temperature range



- "Solderless" earth continuity connection.
- Extreme compact size allows installation in narrow areas.
- 100% production tested.
- Cold Shrink technology ensures quick, easy and tool-free installation.

3M™ QS2000 Joint – Single Core for Polymeric Copper Wire Screened Cable 12/20(24)kV

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
93-AP 611-1	50-95	17.7-26.0
93-AP 621-1	95-300	22.3-33.2
93-AP 631-1	240-400	28.4-43.0

3M™ QS2000 Joint – Single Core for Polymeric Copper Wire Screened Cable 19/33(36)kV

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
94-AP 631-1	50-400	28.4-42.0 (standard)

Note: Can accommodate smaller cables, with primary insulation from 20.0 - 28.4mm with the use of supplementary build up kit, reference 94-PG620-1. This is a single core kit, 2 must be purchased if both cables to be joined are smaller than 28.4mm over primary insulation diameter.

NOTE: Standard joint accommodates 35mm² CWS. Version for 50mm² CWS is also available - 94-AP 6

3M™ QS2000 3 Core Polymeric Copper Tape Screened, Armoured 19/33(36)kV

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
94-AP 230-3	120-300	28.4 - 40.3

3M™ QS2000 Single Core Transition for Polymeric to Paper MIND Cables 19/33(36)kV

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
94-FC 630-1	120-300	28.4 - 40.3

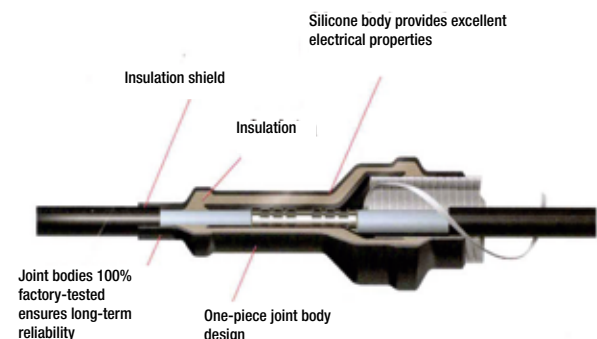
3M™ QS2000 Trifurcating / Transition for Single Core XLPE Cable to 3 Core PILC Cable (Mould & Resin) 19/33(36)kV

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
94-FV 635-3	120-400	28.4 - 42.0

Due for release by September 2007

19/33/(36)kV

The 3M QSIII Splice Body revolutionised power cable jointing. The QS-III silicone rubber joint meets the customer demands for easy, consistent installations by eliminating the pushing, pulling or heating required by traditional splices. The Cold Shrink QS-III joint features a silicone rubber body, which provides excellent electrical properties and superior low temperature handling. Plus the QS-III meets the requirements of most world-wide standards including IEEE 404 and European VDE 278.



- No heat, flames or special installation tools required
- Minimal training required
- Easy, fast installation
- Symmetrical cable cutback dimensions
- Allows transitioning of different size cables
- Silicone body provides excellent electrical performance and superior low temperature handling
- Joint bodies are 100% factory tested
- One-piece joint body design
- Field proven technology
- Meets IEEE 404 and European VDE and CENELEC/IEC standards
- Wide Cable range for individual joint bodies

3M™ QSIII Joint – Single Core for Polymeric Copper Wire Screened Cable

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
94-AC640-1	300-630	31.5-52.6

3M™ QSIII Joint – Single Core for Polymeric Lead Sheath Armoured Cable

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
94-AC642-1	300-630	31.5-52.6

25/46(52)kV

3M™ QSIII Joint - Single Core for Polymeric Copper Wire Screened Cable

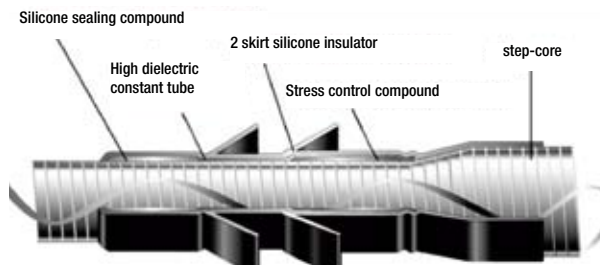
Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
95-AC643-1	120-630	33.5-53.8

Medium Voltage - Cold Shrink Terminations

QTIII terminations offer easy installation and reliable performance when terminating indoor and outdoor medium voltage cables. QTIII is a one-piece silicone rubber termination, which is expanded and loaded onto a removable supporting core, which allows the termination to be installed without the need for tools or heat. The core is stepped to allow a greater application range for armoured cables. QTIII consists of a tubular silicone insulator, with a built in refractive stress control tube and compound, and a built in top seal. Due to this unique design the QTIII termination is installed in one operation without the need for any additional components.

QTIII terminations are suitable for use on polymeric cables medium voltage up to 52kV.

Both indoor and outdoor terminations are available for single core and three core cables. QTIII terminations have been tested in accordance with IEEE Std 48-1990, VDE 0278 Part 4 and IEC/CENELEC. Details of type tests are available upon request.



Outdoor Termination



Indoor Termination



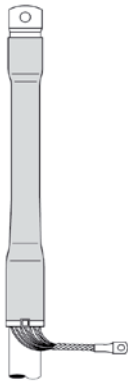
QTIII terminations are manufactured from silicone rubber, which has been specially formulated to enhance the properties required for MV terminations.

Advantages of 3M Silicone as an insulator are:

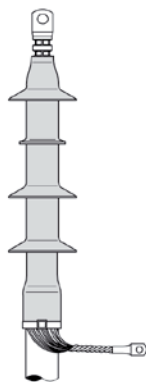
- Excellent insulating properties.
- Hydrophobic properties
- Hydrophobic recovery
- UV stable
- Non-flammable
- Fungus resistant
- Excellent high and low temperature properties
- Superior track and erosion resistance

QTIII Features

- One-piece termination
- Built in stress control compound
- Built in top seal
- Moulded rain sheds on outdoor terminations
- Optimum High-K stress control
- Compact design
- High reliability, over 20 years of proven field experience
- Continuous operating temperature of 90°C, overload rating 130°C



Indoor Termination



Outdoor Termination



33kV QTIII Termination



11kV Outdoor QTIII Termination



11kV Indoor QTIII Termination

6.6/11/(12) kV

3M™ QTIII Indoor Single Core Polymeric Copper Tape Screened, Lead Sheath and/or Aluminium wire Armoured

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
92-EP623-1	50-95	16.3-27.4
92-EP633-1	120-150	20.5-38.9
92-EP643-1	185-400	20.5-38.9
92-EP653-1	500-630	26.7-45.7

3M™ QTIII Outdoor Single Core Polymeric Copper Tape Screened, Lead Sheath and/or Aluminium wire Armoured

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
92-EP623-2	50-95	16.3-27.4
92-EP633-2	120-150	20.5-38.9
92-EP643-2	185-400	20.5-38.9
92-EP653-2	500-630	26.7-45.7

3M™ QTIII Indoor Three Core Polymeric Copper Tape Screened / Armoured

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
7621-T95-3W	16-50	12.7-17.8
7623-T95-3W	70-120	17.8-23.4
7624-T95-3W	150-300	23.4-30.0

3M™ QTIII Outdoor Three Core Polymeric Copper Tape Screened / Armoured

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
7691-S4-3W	16-50	12.7-17.8
7692-S4-3W	70-120	17.8-23.4
7693-S4-3W	150-300	23.4-30.0

6.6/11/(12) kV

3M™ QTHI Indoor 11kV Single Core Polymeric Copper Wire Screened

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
92-EP621-1	50-95	16.3-27.4
92-EP631-1	120-400	20.5-38.9
92-EP641-1	500-630	26.7-45.7
92-EP656-1	630-1000	35.9-55.9

3M™ 11kV Three Core Termination for Belted PILC / PICAS Cables (Paper Insulated Lead Covered/Paper Insulation Corrugated Aluminium Sheath)

- Inorganic cold shrink silicone insulation
- Coldshrink EPDM moisture sealing tubes
- Track resistant surface
- Moulded rain sheds for outdoor version
- No tools, easy install, ultra lightweight assembly
- Cold pour 2130 resin to fill and insulate crotch area

12/20/(24) kV

3M™ QTHI Indoor Single Core Terminations - Polymeric / Copper Wire Screened / Non Armoured

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
93-EP610-1	25-120	16.3-27.4
93-EP620-1	95-300	21.1-38.9

19/33/(36) kV

3M™ QTHI Indoor / Outdoor 33kV Single Core Polymeric / Copper Wire Screened

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
94-EP610-2	35-120	18.3-32.8
94-EP620-2	50-150	21.1-38.9
94-EP630-2	120-300	26.7-45.7
94-EP640-2	240-630	38.9-58.9

3M™ QTHI Single Core Indoor/Outdoor Polymeric/ Copper Wire Screened for Mechanical Connectors

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
94-EP611-2	25-120	18.3 - 32.8
94-EP621-2	70-240	21.1 - 38.9
94-EP631-2	185-400	26.7 - 45.7
94-EP641-2	400-630	38.9 - 58.9

25/46/(52) kV

3M™ QTHI Indoor/Outdoor Single Core Polymeric/Copper Wire Screened

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
95-EP 631-2	240-500	38.6-51.0

3M™ QTHI Outdoor 11kV Single Core Polymeric Copper Wire Screened

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
92-EP621-2	50-95	16.3-27.4
92-EP631-2	120-400	20.5-38.9
92-EP641-2	500-630	26.7-45.7

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
MT16	70-300	Indoor
M016	70-300	Outdoor

3M™ QTHI Outdoor Single Core Terminations - Polymeric / Copper Wire Screened / Non Armoured

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
92-EP621-2	50-95	16.3-27.4
92-EP631-2	120-400	20.5-38.9
92-EP641-2	500-630	26.7-45.7

3M™ QTHI Indoor / Outdoor 33kV Single Core Polymeric / Copper Tape Screened / Aluminium Wire Armoured

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
94-EP612-2	50-120	18.3-32.8
94-EP622-2	70-240	21.1-38.9
94-EP632-2	185-400	26.7-45.7
94-EP642-2	400-630	38.9-58.9

3M™ QTHI Single Core Indoor/Outdoor for Polymeric Lead Sheathed Cables

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
94-EP613-2	50-120	18.3 - 32.8
94-EP623-2	70-240	21.1 - 38.9
94-EP633-2	95-400	26.7 - 45.7
94-EP643-2	400-630	38.9 - 58.9

3M™ QTHI Indoor/Outdoor Termination Single Core Polymeric Copper Wire Screened

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
95-EB 62-2	70-400	33-53
95-EB 63-2	400-1000	46-66

36/69/(72.5) kV

3M™ QTHH Single Core Indoor/Outdoor Polymeric Copper Tape/Wire Screen Cables

Kit Ref	Application Range CSA (mm²)	Diameter over Primary Insulation (mm)
7672-S-8-RW	120-1000	49.3 - 75.4

Separable Connectors

3M Produce a range of silicone rubber Separable elbow, straight and T connector kits. Each kit contains all the necessary components to install one Separable Connector, including all connection devices.





Separable Elbow Connectors

Features:

- Material: Silicone rubber
- Provides a fully screened and submersible system
- Fast and easy installation
- All components included to make the installation
- Meets European standard specifications: Cenelec HD 629.1 S1 and IEC 60502-4
- Mechanical connector

Benefits:

- Minimum skill required: no heat, torch or special tools are needed
- Provides total safety in case of accidental touch
- Close positioning between 3 phases and to earth
- Immediately energisable



Separable Straight Connectors

Features:

- Material: Silicone rubber
- Provides a fully screened and submersible system
- Fast and easy installation
- All components included to make the installation
- Meets European standard specifications: Cenelec HD 629.1 S1 and IEC 60502-4
- Mechanical connector

Benefits:

- Minimum skill required: no heat, torch or special tools are needed
- Provides total safety in case of accidental touch
- Close positioning between 3 phases and to earth
- Immediately energisable



Separable T-Connectors

Features:

- Material: Silicone rubber
- One-piece design, including a built -in capacitive test point
- Provides a fully screened and submersible system
- Fast and easy installation
- All components included to make the installation
- Meets European standard specifications: Cenelec HD 629.1 S1 and IEC 60502-4
- Mechanical connector

Benefits

- Minimum skill required: no heat, torch or special tools are needed
- Provides total safety in case of accidental touch
- Close positioning between 3 phases and to earth
- Immediately energisable

Elbow Connectors

The 93-EE 605-2 kits and the 93-EE 605-4 consist of an elbow type Separable Connector. The assembly is fully screened and has an integrated stress control element. Each kit contains all the necessary components to install one Separable Connector, including all connection devices.

Applications

These kits are designed to be installed on wire screened non-armoured polymeric insulated cables for 6/10kV (Um = 12kV) up to 12/20kV (Um = 24kV) – 400A / 630A applications. The Separable Connector establishes the connection between any polymeric insulated cable onto transformers, switchgears, motors or other equipment.

Straight Connectors

The 92-EE 600-2 kits consist of a straight type Separable Connector. The assembly is fully screened and has an integrated stress control element. Each kit contains all the necessary components to install one Separable Connector, including all connection devices.

Applications

The 92-EE 600-2 kits consist of a straight type Separable Connector. The assembly is fully screened and has an integrated stress control element. Each kit contains all the necessary components to install one Separable Connector, including all connection devices.

T-Connectors

The 93-EE 7x5-6 kits consist of a T-type Separable Connector. The assembly is fully screened and has an integrated stress control element. Each kit contains all the necessary components to install one Plug-In, including all connection devices.

Applications

These kits are designed to be installed on wire screened non-armoured polymeric insulated cables for 6/10kV (Um = 12kV) up to 12/20kV (Um = 24kV) – 400A / 630A applications. The Separable Connector establishes the connection between any polymeric insulated cable onto transformers, switchgears, motors or other equipment.

Elbow Connector 250A

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
93-EE 605-2/-95	25 - 95	17.2 - 25.0
92-EE 615-2/120	120	Available on request
92-EE 615-2/150	150	Available on request

Elbow Connector 400A

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
93-EE 605-4/-95	25 - 95	15.0 - 32.6
93-EE 605-4/-240	95 - 240	15.0 - 32.6

Straight Connector 250A

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
92-EE 600-2/25	25	12.7 - 15.2
92-EE 600-2/35	35	13.8 - 16.3
92-EE 600-2/50	50	15.0 - 17.5
92-EE 600-2/70	70	16.7 - 19.2
92-EE 600-2/95	95	18.3 - 20.8
92-EE 600-2/120	120	19.8 - 22.8
92-EE 600-2/150	150	21.3 - 24.3

T Connector 630A

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
93-EE 705-6/-95	50 - 95	15.0 - 32.6
93-EE 705-6/-240	95 - 240	15.0 - 32.6
92-EE 715-6/300	300	26.3 - 30.4
92-EE 715-6/400	400	30.2 - 34.6

Separable Connectors - Rated 12/20 (24)kV

Elbow Connectors

The 93-EE 605-2 kits and the 93-EE 605-4 consist of an elbow type Separable Connector. The assembly is fully screened and has an integrated stress control element. Each kit contains all the necessary components to install one Separable Connector, including all connection devices.

Applications

These kits are designed to be installed on wire screened non-armoured polymeric insulated cables for 6/10kV ($U_m = 12\text{kV}$) up to 12/20kV ($U_m = 24\text{kV}$) - 400 Applications. The Separable Connector establishes the connection between any polymeric insulated cable onto transformers, switchgears, motors or other equipment.

Straight Connectors

The 93-EE 600-2 kits consist of a straight type Separable Connector. The assembly is fully screened and has an integrated stress control element. Each kit contains all the necessary components to install one Separable Connector, including all connection devices.

Applications

These kits are designed to be installed on wire screened non-armoured polymeric insulated cables up to 6/10kV ($U_m = 12\text{kV}$) up to 12/20kV ($U_m = 24\text{kV}$) – 400A / 630A applications. The Separable Connector establishes the connection between any polymeric insulated cable onto transformers, switchgears, motors or other equipment.

T-Connectors

The 93-EE 705-6/x2 kits consist of a T-type Separable Connector. The assembly is fully screened and has an integrated stress control element. Each kit contains all the necessary components to install one Plug-In, including all connection devices.

Applications

These kits are designed to be installed on wire screened non-armoured polymeric insulated cables up to 6/10kV ($U_m = 12\text{kV}$) up to 12/20kV ($U_m = 24\text{kV}$) – 400A / 630A applications. The Separable Connector establishes the connection between any polymeric insulated cable onto transformers, switchgears, motors or other equipment.

Elbow Connector 250A

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
93-EE 605-2/-95	25 - 95	17.2 - 25.0
93-EE 615-2/120	120	24.0 - 27.0
93-EE 615-2/150	150	25.5 - 28.5

Elbow Connector 400A

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
93-EE 605-4/-95	25 - 95	15.0 - 32.6
93-EE 605-4/-240	95 - 240	15.0 - 32.6

Straight Connector 250A

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
93-EE 600-2/25	25	17.0 - 19.5
93-EE 600-2/35	35	18.0 - 20.5
93-EE 600-2/50	50	19.2 - 21.7
93-EE 600-2/70	70	20.9 - 23.4
93-EE 600-2/95	95	22.5 - 25.0
93-EE 600-2/120	120	24.0 - 27.0
93-EE 600-2/150	150	25.5 - 28.5

T Connector 630A

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
93-EE 705-6/-95	50 - 95	15.0 - 32.6
93-EE 705-6/-240	95 - 240	15.0 - 32.6
93-EE 715-6/300	300	30.2 - 34.6
93-EE 715-6/400	400	33.5 - 37.8

Separable Connectors - Rated 18/30 (36)kV

Elbow Connectors

The 94-EE 605-4 kits consist of an elbow type Separable Connector. The assembly is fully screened and has an integrated stress control element. Each kit contains all the necessary components to install one Separable Connector, including all connection devices.

Applications

These kits are designed to be installed on wire screened non-armoured polymeric insulated cables up to 18/30kV (Um = 36kV) - 400A applications. The Separable Connector establishes the connection between any polymeric insulated cable onto transformers, switchgears, motors or other equipment.

T-Connectors

The 94-EE 705-6/x kits consist of a T-type Separable Connector. The assembly is fully screened and has an integrated stress control element. Each kit contains all the necessary components to install one Plug-In, including all connection devices.

Applications

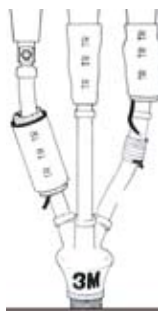
These kits are designed to be installed on wire screened non-armoured polymeric insulated cables for 18/30 (Um = 36kV) 400A/ 630A applications. The Separable Connector establishes the connection between any polymeric insulated cable onto transformers, switchgears, motors or other equipment.

Elbow Connector 400A

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
94-EE 605-4/35	35	22.8 - 25.5
94-EE 605-4/50	50	23.5 - 26.7
94-EE 605-4/70	70	25.1 - 28.4
94-EE 605-4/95	95	26.7 - 30.0
94-EE 605-4/120	120	28.3 - 32.0
94-EE 605-4/150	150	29.9 - 33.5
94-EE 605-4/185	185	31.5 - 35.1
94-EE 605-4/240	240	33.4 - 37.6
94-EE 605-4/300	300	35.6 - 39.6

T Connector 630A

Kit Ref	Application Range CSA (mm ²)	Diameter over Primary Insulation (mm)
94-EE 705-6/70	70	25.1 - 28.4
94-EE 705-6/95	95	26.7 - 30.0
94-EE 705-6/120	120	28.3 - 32.0
94-EE 705-6/150	150	29.9 - 33.5
94-EE 705-6/185	185	31.5 - 35.1
94-EE 705-6/240	240	33.4 - 37.6
94-EE 705-6/300	300	35.6 - 39.6



Part Number	Application
MB 61	Universal Tape
MB 63	Cold Shrink In-line

3M™ Barrier Boots

3M Cold Shrink In-line Barrier Boot MB63 has been designed for the installation of cable terminations to bushing connections in switchgear and transformer cable end boxes for inline applications.

Features

- Suitable for use on paper or polymeric cables
- 11kV rated voltage (75kV BIL)
- Can be applied on cables with conductors up to 630mm²
- Complete cold system. No heat required
- Quick, simple and easy installation
- Track resistant EPDM material

3M Cold Shrink, Pre-Stretch Tubing enables the installer to Cold insulate bushing connections using a collapsible core on which the EPDM rubber is pre-stretched, this ensures that a total all round shrink is achieved. Tape version is also available, see MB61. (95kV B/L)



3M™ Barrier Boot System 92-EE717-1

The 3M Barrier Boot System 92-EE717-1 consists of a one piece EPDM rubber body suitable for operating wet indoors under conditions of ambient temperature and loading. The barrier boot is designed to accommodate bushings of cast resin or porcelain type with diameters between 40.0-70.0mm and is intended for Coldshrink terminations of power cables up to 15kV with extruded insulation from 50 up to 300mm². Voltage rating maximum 8.7/15(17.5)kV. Suitable for both straight and right angled applications.

Build up kit 92-EE717-1-BSK is available for bushings smaller than 50mm²

Range available

- 92EE717-1 Universal push on
- 92-EE717-1-BSK Build up kit



3M™ Gland Kits & Seals

	Application Range Diameter	Voltage Rating	Gland Part Number
Top hat gland kits	36-65mm	11kV	THG1
	53-94mm	11kV	THG2
Top hat gland seal only	To fit THG1	11kV	THGS1
	To fit THG2	11kV	THGS2



Application	Voltage Range	Part Number	Rating
Paper Cable 95 - 185mm ²	11kV	SBT1	3kA / 3 seconds
	11kV	SBT2	7kA / 3 seconds
	11kV	SBT3	13.1kA / 3 seconds
Paper Cable 240 - 400mm ²	11kV	SBT4	3kA / 3 seconds
	11kV	SBT5	7kA / 3 seconds
	11kV	SBT6	13.1kA / 3 seconds