3M Technical Information

Medium Voltage Inline Joint

3M™ QS 200

Cold-Shrink Inline Joint with Cold-Shrink re-jacketing

94-AK 620-1
94-AK 630-1
94-AK 631-1

QS 200 Selection Table

Application Range						
Kit Ref.	Cable Dimensions for Polymeric Cables				Connector Dimensions Crimp or Mechanical Connector	
	Diameter over Cable jacket max.(mm)	Diameter over Primary Insulation (mm)	Cross Section (mm^2)		Diameter max. (mm)	Length max. (mm)
			18/30(36)kV	19/33(36)kV		
94-AK 620-1	46	19,1 – 38	50 - 240	50 - 240	38	160
94-AK 630-1	74	33,4 – 66	240 - 1000	240 - 1000	68	245
94-AK 631-1	74	26,8 – 66	95 - 300	95 - 300	68	245

Product Application

3M QS 200 Cold Shrink Series Kits are designed for inline splicing up to 36kV Umax voltage class, single core polymeric power cable systems with copper wire screen according to HD 620 (IEC 60502). Splicing medium voltage power cables of different voltage classes and cross sections is possible.

Product Identification

3M QS 200 Series Inline Joint kits are marked with supplier name, cable cross section ranges, voltage classes and cable type, storage conditions and manufacturing codes for product traceability.

Kit Content

The 94-AK 6x0-1 Inline Joint Series includes the Cold Shrink QS 200 silicone splice body with integrated electrode, stress control device, silicone elastomer insulation and outer semi-conductive layer. Also included are a copper screen sleeve, constant force springs and thick walled EPDM rubber Cold Shrink outer tubes to re-build the cable outer jacket.

Product Features

- The versatile design of the prefabricated one-piece cold shrink splice body allows installation on a wide range of cable sizes and types and a fast and easy installation at temperatures ranging from - 20°C to + 50°C.
- The integrated, semi-conductive electrode forms a faraday cage over the connector and eliminated the use of tapes or additional moulded or metallic electrodes.
- No heat or flame is needed during splice body installation.
- Accommodate crimp or mechanical connectors up to 68mm in diameter and a length of 245mm can be used depending on kit design.
- Wide application range covering several cable cross sectional areas from 50mm² – 1000mm².
- Solderless earth connection by means of copper screen sleeve and constant force springs.
- Thick walled, EPDM rubber Cold Shrink outer re-jacketing tubes provide physical protection and moisture sealing of the completed Inline Splices. They can be stacked together providing a short parking position on the cable.
- No special tools needed during splice installation.

Performance Tests

The 3M QS200 Single Core Inline Joint Series meets and exceeds the requirements of the European standard CENELEC HD 629.1
Test Report: 3M Marcallo Independent Testing Laboratory, Report No.I0605-0 dated May 13, 2008.

Installation

The 3M Cold Shrink technology ensures quick, easy and safe installation of the QS200 Splice Body and outer protection tubes by pulling and unwinding the plastic support core in counter clockwise direction. The use of special tools is not necessary.
Detailed instructions for installing the 3M QS 200 Series Inline Joints are included in each kit.

Storage Conditions

The shelf life of the 3M QS 200 Series Inline Joints is specified as 3 years.
Temperature: -40°C to +50°C (short term peaks at 60°C max.)

Legal Requirements

3M QS 200 Series Inline Joints are not subject of the European WEEE and RoHS Directives but meet their requirements.

Source of Supply

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