

3M QS200

Cold Shrink Three Core Inline Joint with Cold Shrink Re-jacketing 93-AK620-3/C Series with Mechanical Connectors

Application

3M™ QS200 Cold Shrink Series Kits are designed for inline splicing up to 24kV Umax voltage class, three core longitudinally watertight polymeric power cable systems with common copper wire screen according to HD 620 (IEC 60502).

Kit Content

3M™ 93-AK620-3/C Inline Joint Series includes the Cold Shrink QS200 silicone splice bodies with integrated stress control device, conductive electrode, silicone elastomeric insulation and outer semi-conductive layer. Also included are Copper Screen sleeve, Constant Force springs for metallic screen and thick walled EPDM rubber Cold Shrink outer tubes to re-build the cable outer jacket. To connect the conductors, mechanical connectors for a quick and easy cable connection are provided with the kit.



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.
- No heat or flame is needed during splice body installation.
- The included mechanical connector provides a quick and easy connection, without any special tooling. .
- Wide application range covering several cable cross sectional areas with mechanical connectors from 50mm² - 300mm².
- 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 joints.
- No special tools needed during splice installation.

Installation

3M™ Cold Shrink technology ensures quick, easy and safe installation of the QS 200 Splice Body and outer protection tubes by pulling and unwinding the plastic support core in counter clockwise direction. Use of special tools is not necessary.

Detailed instructions for installing the 3M™ QS200 Series Inline Joints are included in each kit.

Product Identification

3M™ QS200 Series Inline Joint kits are marked with supplier name, cable cross section ranges, voltage class and cable type, storage conditions and manufacturing codes for product traceability.

Product Selection

Application Range				
Kit Ref.	Cable Dimensions for Polymeric Cables		Connector Dimensions Crimp or Mechanical Connector	
	Diameter over Primary Insulation (mm)	Cross Section (mm ²) 6/10(12)kV 6,35/11(12)kV	Diameter min - max. (mm)	Length max. (mm)
93-AK620-3/C	19.1 – 38.0	50 - 240	19.1 - 38.0	220

Performance Tests

The 3M™ QS200 Inline Joint Series meets and exceeds the requirements of the European standard CENELEC HD 629.1 as well as IEC 60502-4.
See Independent Test Report No. I0600-0E

Testing

The 3M™ QS200 Kit Series 93-AK620-3/C was tested according to HD 629.1 02/2006 S2 test sequence B1 Table 5

Type of Test according to HD 629.1 S2 B1 Table 5		Results
DC Voltage Withstand Test	6 x U ₀ ; t=15 min	passed
AC Voltage Withstand Test	4,5 x U ₀ ; t=5 min	passed
Particle Discharge Test	2 x U ₀ ; PD ≤ 10 pC	passed
Impulse Voltage Withstand Test	10 x 125kV positive and negative impulses	passed
Heat Cycle in air	63 cycles: 5h/3h	passed
Heat Cycle in water	63 cycles: 5h/3h	passed
Particle Discharge Test	2 x U ₀ ; PD ≤ 10 pC	passed
Impulse Voltage Withstand Test	10 x 125kV positive and negative impulses	passed
AC Voltage Withstand Test	2,5 x U ₀ ; t=15 min	passed

Storage

The shelf life of 3M™ QS200 Series Inline Joints is specified as 3 years.
Temperature: - 40°C to +50°C.

Product Stewardship

3M has a fundamental concern for all who make, distribute and use its products, and for the environment in which we live. This concern is the basis of our philosophy and policies by which we assess the health and environmental information on our products and then take the appropriate steps to protect employee, the public health and the environment.

Customer Notice

3M encourages its customers and potential users of 3M products to review their applications for such products from the standpoint of human health and environmental quality. To help ensure that 3M products are not used in ways for which they were not intended or tested. 3M personnel are available to assist customers in dealing with ecological and product safety considerations. Your 3M sales representative can arrange for the proper contacts.

Regulatory Status

3M™ QS200 Series Inline Joints are not subject of the European WEEE and RoHS Directives but meet their requirements.

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