

3M QS200

Cold Shrink Single Core Inline Joint with Cold Shrink Re-jacketing 92-AK6xx-1/C Series with Mechanical Connectors

Application

3M™ QS200 Cold Shrink Series Kits are designed for inline splicing up to 12kV Umax voltage class, Single core polymeric power cable systems with copper tape screen & armour, according to HD 620 (IEC 60502).

Kit Content

3M™ 92-AK6xx-1/C Inline Joint Series includes the Cold Shrink QS200 silicone splice body 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, armour connection components, and thick walled EPDM rubber Cold Shrink outer tubes to re-build the cable outer jacket. To connect the conductors, a mechanical connector for a quick and easy cable connection is 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.
- Solderless earth connection by means of Copper Stocking and Constant Force springs.
- Thick walled, EPDM rubber Cold Shrink outer re-jacketing tubes provide mechanical 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 Cable jacket max.(mm) | Diameter over Primary Insulation (mm) | Cross Section (mm ²) 6/10(12)kV 6,35/11(12)kV | Diameter max. (mm) | Length max. (mm) |
| 92-AK612-1/C | 36 | 14.6 – 25.2 | 70 -150 | 28 | 110 |
| 92-AK622-1/C | 46 | 19.1 – 36.8 | 150 - 240 | 38 | 220 |
| 92-AK623-1/C | 46 | 19.1 – 36.8 | 300 - 400 | 38 | 220 |
| 92-AK633-1/C | 74 | 27.4 – 66,0 | 500 - 630 | 68 | 300 |
| 92-AK634-1/C | 74 | 27.4 – 66,0 | 800 - 1000 | 68 | 300 |

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. 2008-123.

Testing

The 3M™ QS200 Kit Series 92-AK 610-1/C up to 92-AK 632-1/C were tested according 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 _o ; t=15 min | passed |
| AC Voltage Withstand Test | 4,5 x U _o ; t=5 min | passed |
| Particle Discharge Test | 2 x U _o ; PD ≤ 10 pC | passed |
| Impact Test | | passed |
| Impulse Voltage Withstand Test | 10 x 95kV 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 _o ; PD ≤ 10 pC | passed |
| Impulse Voltage Withstand Test | 10 x 95kV positive and negative impulses | passed |
| AC Voltage Withstand Test | 2,5 x U _o ; 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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