

3M QS200

Cold Shrink Three Core Inline Joint with Cold Shrink Re-jacketing 92-AK620-3/C Series with Mechanical Connectors

Application

3M™ QS200 Cold Shrink Series Kits are designed for inline splicing up to 12kV 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™ 92-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 95mm² - 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)
92-AK620-3/C	17.6* – 38.0	95 - 300	19.1 - 38.0	220

* with adapter tube

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 620-3/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 _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
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.

3M and Scotchcast are trademarks of 3M Company

Important Notice

All statements, technical information and recommendations related to the Seller's products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before utilizing the product, the user should determine the suitability of the product for its intended use. The user assumes all risks and liability whatsoever in connection with such use.

Any statements or recommendations of the Seller which are not contained in the Seller's current publications shall have no force or effect unless contained in an agreement signed by an authorized office of the Seller.

The statements contained herein are made in lieu of all warranties, expressed or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose which warranties are hereby expressly disclaimed.

SELLER SHALL NOT BE LIABLE TO THE USER OR ANY OTHER PERSON UNDER ANY LEGAL THEORY; INCLUDING BUT NOT LIMITED TO NEGLIGENCE OR STRICT LIABILITY; FOR ANY INJURY OR FOR ANY DIRECT; INDIRECT; INCIDENTAL OR CONSEQUENTIAL DAMAGES SUSTAINED OR INCURRED BY REASON OF THE USE OF ANY OF THE SELLER'S PRODUCTS.

Electrical Markets Division

3M United Kingdom PLC

Sales Office

PO Box 393

Bedford MK41 0YE

Telephone: 0870 609 4639

Fax: 01234 229 433

3M Ireland Ltd

Sales Office

The Iveagh Building, The Park,

Carrickmines, Dublin 18, Ireland

Telephone: (01) 800 812 732

Fax: 353 1 280 3509

3M United Kingdom PLC

Head Office

3M Centre, Cain Road

Bracknell, Berkshire RG12 8HT

Telephone: 01344 858 000

Fax: 01344 858 758