

3M QS1000

Cold Shrink Three Core Inline Joint

92-AV6x0-3/C Series with Mechanical Connectors

Application

3M™ QS1000 92-AV6x0-3/C Series Cold Shrink Joints are designed for inline splicing up to 12kV Umax voltage class, Three core polymeric power cable systems with copper tape screen & armour, with or without lead sheath, according to HD 620 (IEC 60502). These joints are also suitable for transition jointing to PILC/PICAS Three Core Cables with the use of additional components.

Kit Content

3M™ 92-AV6x0-3/C Series Cold Shrink Joints include the Cold Shrink QS1000 silicone splice body with integrated stress control device, conductive electrode, silicone elastomeric insulation and outer semi-conductive layer. Also included are Copper Screen sleeves, Constant Force springs for metallic screen, armour and/or lead sheath connection components, and mechanical connectors. Outer protection kits are available separately, in Cold Shrink versions for Polymeric applications, alternatively Mould Shell and Resin packs for transition jointing, or when used in hazardous areas. Please refer to selection tables for further details.



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.
- Mechanical connector provides quick and easy connection, with no special tooling.
- Solderless earth connection by means of Copper Stocking and Constant Force springs.
- No special tools are needed during splice installation.
- Thick walled, EPDM rubber Cold Shrink outer re-jacketing tubes provide mechanical protection and moisture sealing of the completed Inline joints.
- Outer protection using Scotchcast resin provides options to install in zones 1 & 2 hazardous areas, as well as protection for PILC/PICAS cables.
- Differing sized cables and smaller cables can be joined using build up kits.

Installation

3M™ Cold Shrink technology ensures quick, easy and safe installation of the QS1000 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 QS1000 Series Inline Joints are included in each kit.

Product Identification

3M™ QS1000 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; Base Kit

Kit Reference	Diameter over Primary Insulation (mm)	Cross Section (mm ²) 6/10(12)kV & 6,35/11(12)kV	Connector Range (mm ²)
92-AV610-3/C	17.7 – 26.0	50 – 120	25 - 120
92-AV620-3/C	22.3 – 33.2	150 – 240	95 - 240
92-AV630-3/C	28.4 – 42.0	240 – 400	185 - 400

Product Selection; Outer Protection Kit

Kit Reference	Cold Shrink Kit for Polymeric, Non Hazardous Areas	Resin Encapsulation for Transition or Hazardous Area Applications
92-AV610-3/C	CS610-3	1451-PET Mould Shell & 1402FR Type Resin
92-AV620-3/C	CS620-3	1451-PET Mould Shell & 1402FR Type Resin
92-AV630-3/C	CS630-3	1452-PET Mould Shell & 1402FR Type Resin

Note: for resin encapsulation in non hazardous areas, the Prysmian 2 part polyurethane resin is also approved for use

Product Selection; Transition and PILC/PICAS Joints

Kit Reference	Transition Joint to PILC/PICAS Cable	Fully PILC/PICAS Joint	For Screened Paper Cables
92-AV610-3/C	PILCL1 Supplementary Kit, Qty 1	PILCL1 Supplementary Kit, Qty 2	SPM2 Supplementary Kit
92-AV620-3/C	PILCL2 Supplementary Kit, Qty 1	PILCL2 Supplementary Kit, Qty 2	SPM2 Supplementary Kit
92-AV630-3/C	PILCL3 Supplementary Kit, Qty 1	PILCL3 Supplementary Kit, Qty 2	SPM2 Supplementary Kit

Product Selection; for building up polymeric cables when joining different sizes

Kit Reference	Diameter over Primary Insulation (mm)	Cross Section (mm ²) 6/10(12)kV & 6,35/11(12)kV
92-PG610-1	13.7 - 20.4	25 - 50
92-PG620-1	17.7 - 24.2	70 - 150
92-PG630-1	22.3 - 31.0	150 - 240

Please note; when selecting build up kits, please check the connector from the base joint still meets your requirements. One build up kit is required for each core to be joined.

Storage

The shelf life of 3M™ QS1000 Series Inline Joints is specified as 3 years.

Temperature: - 40°C to +50°C at relative humidity <75%.

Performance Tests

3M™ QS1000 Inline Joint Series meets and exceeds the requirements of the European standard CENELEC HD 629.1 and IEC 60502-4. See Independent Test Report No. 2008-102

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.

Regulatory Status

3M™ QS1000 Series Inline Joints are not subject of the European WEEE and RoHS Directives but meet their requirements

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