

Shrink-Fit cable joints

—
01 SFJ225 Shrink-Fit cable joint

—
02 Disposable four-piece plastic support core

—
03 SFJ with -RK restoration kit option

Splice medium-voltage cables fast – No ripcords, no heat!

For over 50 years, the Elastimold brand has been associated with reliable, high-quality, pre-molded power cable splices that are designed to stand the rigors of the toughest utility applications. These products provide a cost-effective method to splice medium voltage cables using a push-on motion, and allowing cable neutrals to be solidly connected across the body of the splice without the use of any external braids. For those who prefer a more range-taking solution without the use of any physical force to install, the only options available have been cumbersome heat-shrink products that require multiple steps and the use of an open flame that makes achieving uniform cable coverage tedious and time-consuming or braid/jacket combinations that make achieving a solid neutral connection across the splice a challenge.

Now there's a faster and easier way to splice medium-voltage cables – One that combines all of the convenience and flexibility of a pre-molded splice, with the range-taking ease of installation offered in a cold- or heat-shrink product, but without the use of ripcords, heat or excessive force. Introducing the Elastimold Shrink-Fit cable joints from ABB.

The Shrink-Fit cable joints are made of the same molded EPDM elastomer as our other Elastimold cable accessories. This high-performance material offers more durability than silicone for direct burial. The joints feature a four-piece plastic support core, which is placed over the cable for installation of the splice. The support core is then easily removed with the supplied tool, allowing the elastomer joint to contour over the spliced cable for a uniform seal every time.



—
01

Each Elastimold Shrink-Fit cable joint covers a wide range of cable sizes, features an insulated, semi-conductive shield and can be used with either a standard aluminum or optional copper compression splice. Optional kits are available for neutral, shielding and jacket restoration.

Features

- Core removal without ripcords or heat required for installation
- High-quality molded EPDM elastomer housing withstands the elements in harsh direct-burial, vault, manhole and overhead applications
- Four sizes support a wide range of cable and conductor sizes
- IEEE 404 rated Shrink-Fit cable joint
- Includes restoration kit

Typical applications

- Direct burial
- Handhole/pullbox
- Manhole
- Vault
- Overhead



—
02



—
03

Shrink-Fit cable joints

- 01 Place Elastimold Shrink-Fit joint in position.
- 02 Install connector.
- 03 Cut fastening straps.
- 04 Core detachment begins. An optional tool may be used to aid core ejection.
- 05 Core pushes itself toward the ends of the Shrink-Fit joint.
- 06 Core ejects from second end.
- 07 Last core piece detaches.
- 08 Crimp grounding wires for kits with an -RK restoration kit option, using the integrated copper braid and jacket seal to complete the connection.

Installation sequence



01



02



03



04



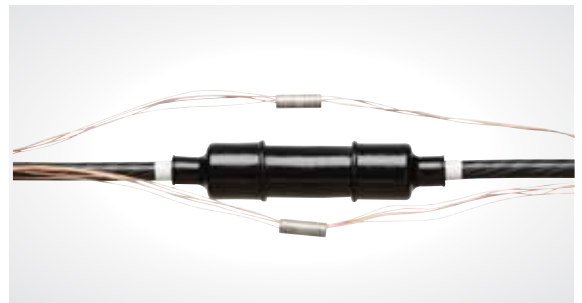
05



06



07



08

Warning: Refer to local code for required PPE.

Shrink-Fit cable joints

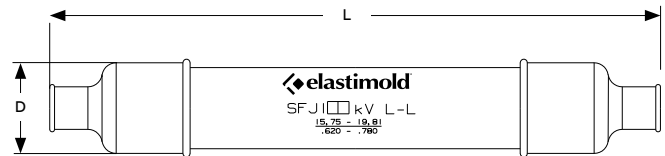
Ratings

Voltage class (kV)	15	25/28	35
Max. phase-to-ground operating voltage (kV)	8.7	14.4	20.2
BIL impulse withstand (1.2 x 50µsec. wave) (kV)	110	150	200
Corona extinction level @ 3.0 pC sensitivity (kV)	13	22	30
DC withstand during installation (kV)	56	80	100
DC withstand up to 5 yrs.* – XLPE insulation (kV)	18	25	31
DC withstand up to 5 yrs.* – EPR insulation (kV)	45	64	80
AC withstand at 60 Hz for 60 sec. (kV)	35	52	69
Continuous current	Equal to that of cable	Equal to that of cable	Equal to that of cable
Short-term current	Equal to that of cable up to 35 kA	Equal to that of cable up to 35 kA	Equal to that of cable up to 35 kA

*Reference: AEC CS6 and CS8, section L.2.

Dimensions

Cable joint size	D (in.)	L (in.)
1	1.85	11
2	2.12	16
3	2.40	18
4	2.60	18



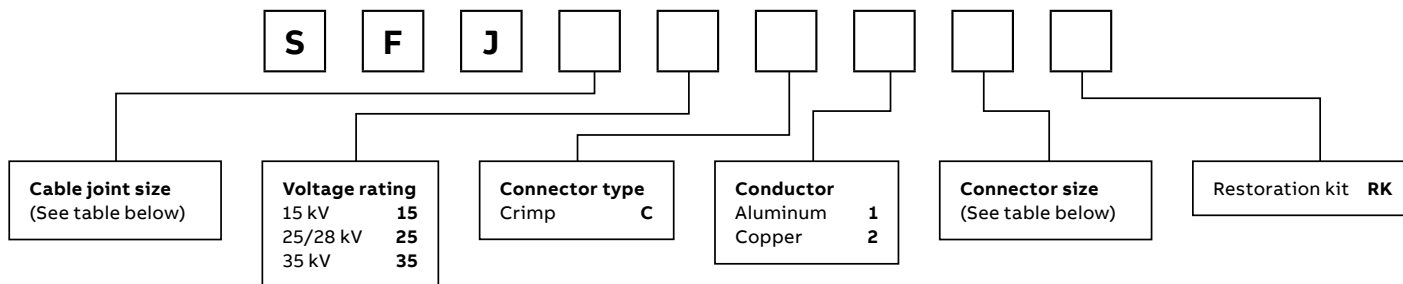
Insulation range

Cable joint size	Min. (in.)	Max. (in.)	Min. (mm)	Max. (mm)
1	0.610	0.860	15.49	21.84
2	0.805	1.060	20.44	26.92
3	0.935	1.355	23.75	34.41
4	1.210	1.920	30.73	48.76

Shrink-Fit cable joints

The following diagram shows how to construct a catalog number for an Elastimold Shrink-Fit cable joint:

Indicates field that must be filled in to complete the catalog number.



Cable joint size

Size code	Wall thickness (mils)	Compact (AWG or kcmil)		Compressed (AWG or kcmil)	
		Min. conductor size*	Max. conductor size*	Min. conductor size*	Max. conductor size*
15 kV					
1	175	#2	3/0	#2	2/0
2	175	4/0	250	3/0	4/0
3	175	350	600	250	500
4	175	700	1000	600	1000
1	220	#2	1/0	#2	#1
2	220	2/0	4/0	1/0	3/0
3	220	250	500	4/0	350
4	220	600	1000	500	1000
25/28 kV					
2	260	#1	3/0	#2	1/0
3	260	3/0	350	2/0	250
4	260	500	1000	350	1000
35 kV					
3	345	1/0	4/0	#1	3/0
4	345	250	1000	4/0	1000

Connector size

X code	Conductor size (AWG or kcmil)	
	Stranded/compressed	Solid/compact
210	-	#2
220	#2	#1
230	#1	1/0
240	1/0	2/0
250	2/0	3/0
260	3/0	4/0
270	4/0	250
280	250	300
290	300	350
300	350	400
310	400	500
330	500	600
360	650	750
380	750	900
400	900	1000
410	1000	-

* Based on the minimum compact AEIC and ICEA cable insulation diameters.
 Note: Each kit contains Shrink-Fit housing on removable core, splice connector, lubricant, installation instructions and crimp chart. For ordering information on optional neutral, shielding and jacket restoration kits, please contact ABB Customer Service.