# Heat-shrinkable motor connections



## 122

# MCK and MCK-5

MCK flame-retardant motor connection kits for 1/C low-voltage poly cable (1000 V) and MCK-5 motor connection kits for 1/C poly cable (5/8.7 kV)

### Type V

The Type V kit is designed to splice the stub or butt configuration that is commonly used where there is insufficient room to make in-line connections.

#### Type L

The Type L kit is used, where space permits, to splice in-line connections.

MCK is qualified to ANSI-C119.1-1986 and rated to ICEA electrical withstand test for 1000 V.

MCK-5 is rated to the general electrical requirements of the IEEE-48 withstand tests.

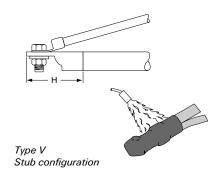
For use as an in-line or stub splice between 1/C poly feeder cable and motor leads.

Tyco Electronics' motor connection kit provides excellent insulation sealing—and resistance to abrasion—in motor connections.

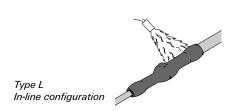
## Selection information (dimensions in inches/millimeters)



			Connection	
Catalog	Motor feeder size	Bolt length	length (max.)	Length
number	(AWG/kcmil)	(max.)	Н	(nominal)
MCK (1000 V)				
Type V (stub)				Сар
MCK-1V	#14-#10	5/8	2.0 (51)	2.5 (64)
MCK-2V	#12-#4	3/4	2.5 (64)	3.4 (86)
MCK-3V	#2-4/0	1	3.5 (89)	4.5 (114)
MCK-4V	250-500	1 1/2	5.5 (140)	6.5 (165)
Type L (in-line)				Sleeve
MCK-1L	#8-4/0	1 1/4	5.0 (127)	9.0 (229)
MCK-2L	250-1000	1 1/2	8.0 (203)	12.0 (305)
*MCK (5/8.7 kV	<i>(</i> )			
Type V (stub)				Сар
MCK-5-1V	#8-#2	1	5.0 (127)	7.5 (191)
MCK-5-2V	#1-250	1 1/2	6.0 (152)	8.5 (216)
MCK-5-3V	300-750	1 1/2	7.0 (178)	9.5 (241)
*Type L (in-line)				Sleeve
MCK-5-1L	#8-250	1	6.0 (152)	12.0 (305)
MCK-5-2L	300-1000	1 1/2	7.0 (178)	14.0 (356)







### **Ordering information**

- 1. Select appropriate catalog number based on the motor feeder cable. Motor pigtail leads of the same size or smaller are suitable. MCK selections are based on the typical dimensions of low-voltage insulated cable. MCK-5 selections are based on the typical dimensions of 100%-insulated cables manufactured in accordance with the data contained in AEIC CS5-1987 and AEIC CS6-1987, as well as the dimensions of commonly used connectors. Nominal insulation thickness (100%): 90 mils. For cables manufactured to other specifications, confirm selection with cable and connector dimensions.
- 2. Shielded cable must be terminated before installing MCK-5 (use Tyco Electronics HVT-80-G/SG terminations from page 101).
- 3. MCK and MCK-5 kits are designed for single-hole connectors and include caps and sealant strips for three connections. Kits do not contain connectors.
- 4. Standard package:

MCK: 5 kits/box. MCK-5: 1 kit/box.

 Related test reports: MCK: <u>EDR-5110</u> MCK-5: <u>EDR-5010</u> Related installation instructions MCK-xV MCK-5-xL MCK-5-xV MCK-L

#### 1. Product selection.

Check kit selection with cable dimensions in Table 1.

**Note:** The Raychem MCK-5 Motor Connection Kit is designed for use with shielded or unshielded feeder cables. When shielded cables are used, a Raychem HVT termination kit is recommended to terminate the feeder cable prior to installation of the MCK-5.

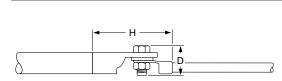


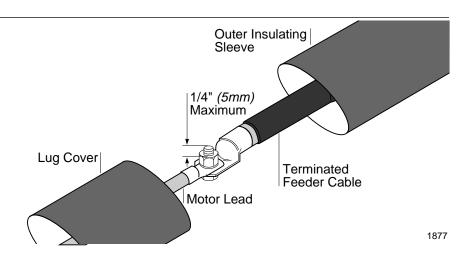
Table 1			
Kit	Motor Feeder Conductor Size	Bolt Length Max (D)	Connection Length Max (H)
MCK-5-1L MCK-5-2L	#8-250 kcmil 300-1000 kcmil	1" <i>(25mm)</i> 1-1/2" <i>(40mm)</i>	6.0" <i>(150mm)</i> 7.0" <i>(175mm)</i>

### 2. Position tubes; install lugs.

After completing phase rotation check, align motor lead with appropriate feeder cable.

Remove all fiber braid (if any) from the cables and clean for 6" (150mm) beyond each lug. Place the tubes over the cables as shown.

Install lugs on feeder cables and motor leads. Bolt connections tight. Insert bolt through tang of largest lug first. Bolt must not extend through nut more than 1/4" (5mm).

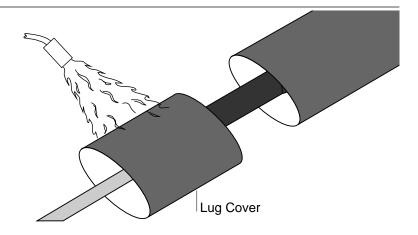


**Note:** MCK insulating caps are designed to accommodate the largest lugs normally used. However, many installations require shorter caps due to space limitations. MCK can be trimmed to any desired length as long as the following rules are observed.

- The cuts must be clean with no jagged edges.
- The cap length must be sufficient to completely cover the mastic strips approximately 1-1/2" (40mm) beyond the end of the longest lug barrel.
- If the cap is trimmed, an equal length should be trimmed from the lug cover sleeve.

### 3. Install lug cover.

Center the lug cover sleeve over the bolted connection and shrink in place.



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