

Motor Lead Disconnect (Pigtail connectors)

Quick, reliable change-out of electric motors with no bolting, taping or loose connections



One line to one load (two wires)

- Complete line of motor lead disconnects for 600 V and 5 kV applications, covering wire range from #16 through 4/0 AWG
- Fast, snap-together assembly offers maximum labor savings
- No need for nuts, bolts and washers or insulating tape – simply slide on reusable boot
- Total assembly fits into tight motor housings
- Quick disconnect – no knife cutting of melted tape, eliminating the risk of accidental cutting of wire insulation, resulting motor downtime and installer exposure

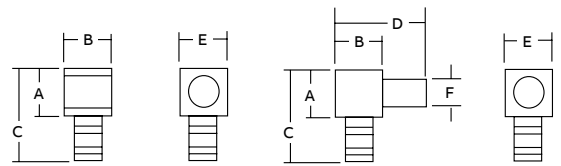
- Meet or exceed electrical and mechanical performance of bolted connections
- Constructed of high-conductivity copper with tin-plating
- Female disconnects equipped with beryllium copper interface band for dependable connections



One line to one load (two wires)

Cat. no. certified to 600 V		Wire size (AWG or kcmil)	Body size	Colour code	Boot insulation	Dimensions in. (mm)						Strip length (in.)
Female disconnect	Male disconnect					A	B	C	D	E	F	
MD1614F-0	MD1614M-0	#16-14	0	Blue	MDBOOT-0	0.25 (6.4)	0.25 (6.4)	0.63 (16.0)	0.52 (13.2)	0.25 (6.4)	0.13 (3.2)	3/8
MD1614F-1	MD1614M-1	#16-14	1	Blue	MDBOOT-1	0.38 (9.7)	0.38 (9.7)	0.78 (19.8)	0.75 (19.1)	0.38 (9.7)	0.25 (6.4)	3/8
MD1210F-1	MD1210M-1	#12-10	1	Yellow	MDBOOT-1	0.38 (9.7)	0.35 (8.9)	0.78 (19.8)	0.75 (19.1)	0.38 (9.7)	0.25 (6.4)	3/8
MD1210F-2	MD1210M-2	#12-10	2	Yellow	MDBOOT-2	0.50 (12.7)	0.50 (12.7)	0.90 (22.9)	1.00 (25.4)	0.50 (12.7)	0.37 (9.4)	3/8
MD8F-1	MD8M-1	#8	1	Red	MDBOOT-1	0.38 (9.7)	0.38 (9.7)	0.82 (20.8)	0.75 (19.1)	0.38 (9.7)	0.25 (6.4)	7/16
MD8F-2	MD8M-2	#8	2	Red	MDBOOT-2	0.50 (12.7)	0.50 (12.7)	0.95 (24.1)	1.00 (25.4)	0.50 (12.7)	0.37 (9.4)	7/16
MD6F-1	MD6M-1	#6	1	Blue	MDBOOT-1	0.38 (9.7)	0.38 (9.7)	0.88 (22.4)	0.75 (19.1)	0.38 (9.7)	0.25 (6.4)	1/2
MD6F-2	MD6M-2	#6	2	Blue	MDBOOT-2	0.50 (12.7)	0.50 (12.7)	1.02 (30.5)	1.00 (25.4)	0.50 (12.7)	0.37 (9.4)	1/2
MD4F-2	MD4M-2	#4	2	Grey	MDBOOT-2	0.50 (12.7)	0.50 (12.7)	1.03 (40.6)	1.00 (25.4)	0.50 (12.7)	0.37 (9.4)	1/2
MD2F-2	MD2M-2	#2	2	Brown	MDBOOT-2	0.50 (12.7)	0.50 (12.7)	1.09 (48.3)	1.00 (25.4)	0.50 (12.7)	0.37 (9.4)	17/32
MD2F-3	MD2M-3	#2	3	Brown	MDBOOT-3	0.88 (22.4)	0.88 (22.4)	1.46 (37.1)	1.75 (44.5)	0.88 (22.4)	0.50 (12.7)	17/32
MD1F-2	MD1M-2	#1	2	Green	MDBOOT-2	0.50 (12.7)	0.50 (12.7)	1.23 (31.2)	1.00 (25.4)	0.50 (12.7)	0.37 (9.4)	9/16
MD1F-3	MD1M-3	#1	3	Green	MDBOOT-3	0.88 (22.4)	0.88 (22.4)	1.56 (39.6)	1.75 (44.5)	0.88 (22.4)	0.50 (12.7)	9/16
MD10F-3	MD10M-3	1/0	3	Pink	MDBOOT-3	0.88 (22.4)	0.88 (22.4)	1.56 (39.6)	1.75 (44.5)	0.88 (22.4)	0.50 (12.7)	9/16
MD20F-3	MD20M-3	2/0	3	Black	MDBOOT-3	0.88 (22.4)	0.88 (22.4)	1.59 (40.4)	1.75 (44.5)	0.88 (22.4)	0.50 (12.7)	5/8
MD30F-3	MD30M-3	3/0	3	Orange	MDBOOT-3	0.88 (22.4)	0.88 (22.4)	1.71 (43.4)	1.75 (44.5)	0.88 (22.4)	0.50 (12.7)	11/16
MD40F-3	MD40M-3	4/0	3	Purple	MDBOOT-3	0.88 (22.4)	0.88 (22.4)	1.81 (46.0)	1.75 (44.5)	0.88 (22.4)	0.50 (12.7)	3/4
MD40F-4	MD40M-4	4/0	4	Purple	MDBOOT-4	1.25 (31.8)	1.25 (31.8)	2.89 (73.4)	2.69 (68.3)	1.25 (31.8)	0.81 (22.4)	-
MD250F-4	MD250M-4	250	4	Yellow	MDBOOT-4	1.25 (31.8)	1.25 (31.8)	2.89 (73.4)	2.69 (68.3)	1.25 (31.8)	0.81 (22.4)	-
MD350F-4	MD350M-4	350	4	Red	MDBOOT-4	1.25 (31.8)	1.25 (31.8)	2.89 (73.4)	2.69 (68.3)	1.25 (31.8)	0.81 (22.4)	-
MD500F-4	MD500M-4	500	4	Brown	MDBOOT-4	1.25 (31.8)	1.25 (31.8)	2.89 (73.4)	2.69 (68.3)	1.25 (31.8)	0.81 (22.4)	-

Diagrams



Kits: page B71

For tool and die selection charts, see the section E31-E48 of the Tools, Dies and Kits catalogue.

Motor Lead Disconnect (Pigtail connectors)

Quick, easy installation



600 V version

5 kV version

One line to one load (two wires) (continued)

- 1) Choose appropriate Color-Keyed disconnect for conductor size to be terminated. Note color of bands on disconnect barrel.
- 2) Select proper installing die by matching die color to disconnect barrel color bands.
- 3) Install die in ABB tool, insert stripped wire into barrel of disconnect and compress between color bands. Repeat for mating half.
- 4) Snap the two halves together and slip on insulator over mated connection. Secure insulator with Ty-Rap® cable ties provided with the insulators.

Material – High-conductivity cast copper

Plating – Electro tin plated

Insulator – Thermoplastic elastomer

Contact Material – Beryllium Copper



One line to one load (two wires) (continued)

Cat. no. certified to 600 V		WT112M WT111M WT2000 ERG4002 ERG4005		TBM6, TBM6S		TBM5, TBM5S	TBM8, TBM8S	Installing tools	
Female disconnect	Male disconnect		TBM45S	Upper die	Lower die	Die set	Die set	Die code	Colour code
MD1614F-0	MD1614M-0	X	-	-	-	-	-	-	-
MD1614F-1	MD1614M-1	X	-	-	-	-	-	-	-
MD1210F-1	MD1210M-1	X	-	-	-	-	-	-	-
MD1210F-2	MD1210M-2	X	-	-	-	-	-	-	-
MD8F-1	MD8M-1	-	X	13475	13477	13454	13461	21	Red
MD8F-2	MD8M-2	-	X	13475	13477	13454	13461	21	Red
MD6F-1	MD6M-1	-	X	13475	13477	13454	13461	24	Blue
MD6F-2	MD6M-2	-	X	13475	13477	13454	13461	24	Blue
MD4F-2	MD4M-2	-	X	13472	13476	13454	13461	29	Grey
MD2F-2	MD2M-2	-	X	13474	13477	13454	13461	33	Brown
MD2F-3	MD2M-3	-	X	13474	13477	13454	13461	33	Brown
MD1F-2	MD1M-2	-	-	13474	13477	13455	13462	37	Green
MD1F-3	MD1M-3	-	-	13474	13477	13455	13462	37	Green
MD10F-3	MD10M-3	-	-	13475	13477	13455	13462	42	Pink
MD20F-3	MD20M-3	-	-	13474	13477	13455	13462	45	Black
MD30F-3	MD30M-3	-	-	13474	13477	13455	13462	50	Orange
MD40F-3	MD40M-3	-	-	13475	13477	13456	13463	54	Purple

Specifications:

Wire range: #16 to 4/0 AWG.

Rating: 600 V, 90 °C.

For tool and die selection charts, see the section E31-E48 of the Tools, Dies and Kits catalogue.

Motor Lead Disconnect (Pigtail connectors)



One line to two load (three wires)

- KON-TOUR™ louvered contact bands
- Colour-coded to match installing dies

Material – High-conductivity wrought copper

Finish – Electro tin plated

Contact material – Beryllium copper

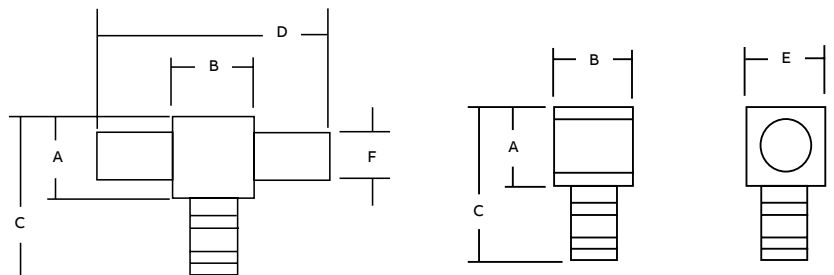


One line to two load (three wires)

Cat. no. certified to 600 V

Female disconnect	Male disconnect	Wire size (AWG)	Body size	Colour code	Boot insulation	Dimensions in. (mm)						Strip length (in.)
						A	B	C	D	E	F	
MD1614F-0	M2D1614M-0	#16-14 AWG	0	Blue	MDBOOT-0	0.25 (6.4)	0.25 (6.4)	0.63 (16.0)	0.52 (13.2)	0.25 (6.4)	0.13 (3.3)	3/8
MD1614F-1	M2D1614M-1	#16-14 AWG	1	Blue	MDBOOT-1	0.38 (9.7)	0.38 (9.7)	0.78 (19.8)	0.75 (19.1)	0.38 (9.7)	0.25 (6.4)	3/8
MD1210F-1	M2D1210M-1	#12-10 AWG	1	Yellow	M2DBOOT-1	0.38 (9.7)	0.35 (8.9)	0.78 (19.8)	0.75 (19.1)	0.38 (9.7)	0.25 (6.4)	3/8
MD1210F-2	M2D1210M-2	#12-10 AWG	2	Yellow	M2DBOOT-2	0.50 (12.7)	0.50 (12.7)	0.90 (22.9)	1.00 (25.4)	0.50 (12.7)	0.37 (9.4)	3/8
MD8F-1	M2D8M-1	#8 AWG	1	Red	M2DBOOT-1	0.38 (9.7)	0.38 (9.7)	0.82 (20.8)	0.75 (19.1)	0.38 (9.7)	0.25 (6.4)	7/16
MD8F-2	M2D8M-2	#8 AWG	2	Red	M2DBOOT-2	0.50 (12.7)	0.50 (12.7)	0.95 (24.1)	1.00 (25.4)	0.50 (12.7)	0.37 (9.4)	7/16
MD6F-1	M2D6M-1	#6 AWG	1	Blue	M2DBOOT-1	0.38 (9.7)	0.38 (9.7)	0.88 (22.4)	0.75 (19.1)	0.38 (9.7)	0.25 (6.4)	1/2
MD6F-2	M2D6M-2	#6 AWG	2	Blue	M2DBOOT-2	0.50 (12.7)	0.50 (12.7)	1.02 (25.9)	1.00 (25.4)	0.50 (12.7)	0.37 (9.4)	1/2
MD4F-2	M2D4M-2	#4 AWG	2	Grey	M2DBOOT-2	0.50 (12.7)	0.50 (12.7)	1.03 (26.2)	1.00 (25.4)	0.50 (12.7)	0.37 (9.4)	1/2
MD2F-2	M2D2M-2	#2 AWG	2	Brown	M2DBOOT-2	0.50 (12.7)	0.50 (12.7)	1.09 (27.7)	1.00 (25.4)	0.50 (12.7)	0.37 (9.4)	17/32
MD2F-3	M2D2M-3	#2 AWG	3	Brown	M2DBOOT-3	0.88 (22.4)	0.88 (22.4)	1.46 (37.1)	1.75 (44.5)	0.88 (22.4)	0.50 (12.7)	17/32
MD1F-2	M2D1M-2	#1 AWG	2	Green	M2DBOOT-2	0.50 (12.7)	0.50 (12.7)	1.23 (31.2)	1.00 (25.4)	0.50 (12.7)	0.37 (9.4)	9/16
MD1F-3	M2D1M-3	#1 AWG	3	Green	M2DBOOT-3	0.88 (22.4)	0.88 (22.4)	1.56 (39.6)	1.75 (44.5)	0.88 (22.4)	0.50 (12.7)	9/16
MD10F-3	M2D10M-3	1/0 AWG	3	Pink	M2DBOOT-3	0.88 (22.4)	0.88 (22.4)	1.56 (39.6)	1.75 (44.5)	0.88 (22.4)	0.50 (12.7)	9/16
MD20F-3	M2D20M-3	2/0 AWG	3	Black	M2DBOOT-3	0.88 (22.4)	0.88 (22.4)	1.59 (40.4)	1.75 (44.5)	0.88 (22.4)	0.50 (12.7)	5/8
MD30F-3	M2D30M-3	3/0 AWG	3	Orange	M2DBOOT-3	0.88 (22.4)	0.88 (22.4)	1.71 (43.4)	1.75 (44.5)	0.88 (22.4)	0.50 (12.7)	11/16
MD40F-3	M2D40M-3	4/0 AWG	3	Purple	M2DBOOT-3	0.88 (22.4)	0.88 (22.4)	1.81 (46.0)	1.75 (44.5)	0.88 (22.4)	0.50 (12.7)	3/4

Diagrams



Operating range: 600 V max., 1000 V max. in signs and fixtures.

Listing: UL listed and CSA certified for 12/8 AWG solid copper conductors and stranded copper conductors in the sizes shown.

Selection: Always use the same body size when selecting male and female disconnects.

For example: to connect a 2 AWG male to an #8 AWG female, select cat. no. M2DM-2 and MD8F-2. Both have body size 2.

Insulation: Use insulating boots matching the disconnect body size as indicated in the chart.

To protect the connection from moisture and dirt, use sealing compound cat. no. MDBOOT-SEAL.

For tool and die selection charts, see the section E31-E48 of the Tools, Dies and Kits catalogue.

Motor Lead Disconnect (Pigtail connectors)



5 kV motor pigtail connectors supplied with boot, pin, silicon gel (two female connectors required)*

Diagrams	Cat. no.	Wire range (AWG)	Female disconnect Cat. no.	Colour code	Dimensions in. (mm)			Body size
					L	W	H	
	5KVBOOT-2L (connection pin for two female connectors included)	#8	MD8F-2	Red	4.50 (114.3)	2.25 (57.2)	1.44 (36.6)	2
		#6	MD6F-2	Blue	4.50 (114.3)	2.25 (57.2)	1.44 (36.6)	2
		#4	MD4F-2	Grey	4.50 (114.3)	2.25 (57.2)	1.44 (36.6)	2
		#2	MD2F-2	Brown	4.50 (114.3)	2.25 (57.2)	1.44 (36.6)	2
		#1	MD1F-2	Green	4.50 (114.3)	2.25 (57.2)	1.44 (36.6)	2
	5KVBOOT-3L (connection pin for two female connectors included)	#2	MD2F-3	Brown	4.50 (114.3)	2.25 (57.2)	1.44 (36.6)	3
		#1	MD1F-3	Green	4.50 (114.3)	2.25 (57.2)	1.44 (36.6)	3
		1/0	MD10F-3	Pink	4.50 (114.3)	2.25 (57.2)	1.44 (36.6)	3
		2/0	MD20F-3	Black	4.50 (114.3)	2.25 (57.2)	1.44 (36.6)	3
		3/0	MD30F-3	Orange	4.50 (114.3)	2.25 (57.2)	1.44 (36.6)	3
		4/0	MD40F-3	Purple	4.50 (114.3)	2.25 (57.2)	1.44 (36.6)	3

CSA and UL non applicable.

* Male pin supplied will fit all ranges and combinations of wire sizes per body size.



Sealing for motor-disconnect boots

Sealant should be used with ABB motor-disconnect boots: MDBOOT-O, MDBOOT-1, MDBOOT-2 and MDBOOT-3. The cable should be clean and free of grease and other foreign substances. Apply two layers around each cable at the same distance from the connector. Slide the assembly into boot, apply Ty-Rap cable ties and work sealant around wires at end of boot to eliminate voids.

Technical specifications

- Description: polybutene compound
- Application temperature: 4 °C to 38 °C (40 °F to 100 °F)
- Service temperature: -40 °C to 82 °C (-40 °F to 180 °F)
- Dimensions: width 1 in., thickness 1/8 in., length (std. roll) 10 ft., wrapped on release liner
- Environmental resistance: resists normal aging process
- Chemical resistance: resists acids, bases and alcohols
- Dielectric strength: 200 V/mil minimum
- Volume resistivity: 1013 ohms/cm
- Flame retardancy: passed VO vertical flame test

Sealing for motor-disconnect boots

Diagrams	Cat. no.	Description
	MDBOOT-SEAL	Sealant

For watertight applications, consult your Regional Sales Office for informations.



Silicone lubricant for high voltage electrical work

Cat. no.	Size	Std. pkg.
2015	5 grams	100 envelopes
SL5	5 oz./142 grams	12 tubes