

# 1370 Lug Kits

Catalog Numbers 1370-LGxx

The 1370 lug kits provide the required lugs and instructions to terminate wires on 1370 DC loop contactors and the DC output wiring on 1370AR, 1382, 1387, 1395, and PowerFlex DC drives. When properly installed, the lugs will provide a secure and gas-resistant termination.

## Kit Contents

The lug kit contains the following components:

- Two dynamic brake lugs
- Four armature line and load lugs

## Required Tools

A crimp tool that is UL certified to install the lugs included in this kit is required. Please see the lug manufacturer's specifications for information on the appropriate crimp tools and methods.



**ATTENTION:** The National Electric Code (NEC) and local codes outline provisions for safely installing electrical equipment. Installation must comply with specifications regarding wire types, conductor sizes, branch circuit protection, and disconnect devices. Failure to comply may result in personal injury and/or equipment damage.

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## Before You Begin

Using the information provided in [Table 1](#), verify that the proper lug kit was selected for your application.



**ATTENTION:** Open and lock-out the main supply disconnect and all other power source disconnects to avoid a hazard of electric shock or injury from unintended actuation of controlled equipment.

**Table 1 - Lug Kit Specifications**

Rated Motor Armature Current <sup>(1)</sup>	DC Contactor Rating	Armature Conductor Size <sup>(2)</sup>	Dynamic Brake Conductor Size <sup>(3)</sup>	Armature Conductor Crimp Lug Hole Size	Dynamic Brake Conductor Crimp Lug Hole Size	Lug Kit Catalog Number
<i>Amps DC</i>	<i>Amps DC</i>	<i>AWG (mm<sup>2</sup>)</i>	<i>AWG (mm<sup>2</sup>)</i>	<i>in. (mm)</i>	<i>in. (mm)</i>	
40	56	8 (8.4)	8 (8.4)	0.19 (4.8)	0.19 (4.8)	1370-LG40
52	56	6 (13.3)	8 (8.4)	0.19 (4.8)	0.19 (4.8)	1370-LG52
56	56	4 (21.2)	8 (8.4)	0.19 (4.8)	0.19 (4.8)	1370-LG56
68	110	4 (21.2)	8 (8.4)	0.25 (6.4)	0.25 (6.4)	1370-LG68
92	110	2 (33.6)	6 (13.3)	0.25 (6.4)	0.25 (6.4)	1370-LG92
104	110	1 (42.4)	6 (13.3)	0.25 (6.4)	0.25 (6.4)	1370-LG104
110	110	1/0 (53.3)	4 (21.2)	0.25 (6.4)	0.25 (6.4)	1370-LG110
120	180	1/0 (53.3)	4 (21.2)	0.31 (7.9)	0.31 (7.9)	1370-LG120
140	180	2/0 (67.4)	2 (33.6)	0.31 (7.9)	0.31 (7.9)	1370-LG140
160	180	3/0 (85.0)	2 (33.6)	0.31 (7.9)	0.31 (7.9)	1370-LG160
180	180	4/0 (107.2)	2 (33.6)	0.31 (7.9)	0.31 (7.9)	1370-LG180
204	280	250 MCM (126.7)	1 (42.4)	0.5 (12.7)	0.38 (9.5)	1370-LG204
228	280	300 MCM (152.0)	1/0 (53.3)	0.5 (12.7)	0.38 (9.5)	1370-LG228
248	280	350 MCM (177.4)	2/0 (67.4)	0.5 (12.7)	0.38 (9.5)	1370-LG248
268	280	400 MCM (202.7)	2/0 (67.4)	0.5 (12.7)	0.38 (9.5)	1370-LG268
280	280	500 MCM (253.4)	3/0 (85.0)	0.5 (12.7)	0.38 (9.5)	1370-LG280

- (1) The Rated Motor Armature Current (column 1) is taken directly from the motor nameplate or motor data and is the maximum current allowed for the Armature Conductor Size (column 3) and the DC Contactor Rating (column 2).
- (2) The armature conductors are sized by multiplying the Rated Motor Armature Current (column 1) by 1.25 as provided for in NEC 430-22. The DC lug ratings are determined from NEC Table 310-16 for copper conductors, insulation temperature rated at 75 °C (167 °F) at an ambient temperature of 30 °C (86 °F). If conditions are other than shown in NEC Table 310-16, then refer to applicable local codes.
- (3) The dynamic braking conductors are sized as noted in footnote 2, but at half ampacity due to the short time duration of current flow in these conductors, and has been sized to satisfy NEMA Standard ICS 3-302.62 - Dynamic Braking. If the load inertia is larger than that of the motor, calculations must be made to determine correct conductor sizing and dynamic brake resistor wattage per NEAMA Standard ICS 3-302.62.

## Installation

Follow these steps to properly install the lugs.

1. Verify that all power to the drive has been removed.



**ATTENTION:** To maintain the UL listing and CSA certifications on the 1370 contactor, you must use a crimp tool that is UL certified and follow the instructions provided with the tool. Improper crimping can result in overheating, fire, and/or personal injury.

2. Carefully prepare the end of each of the UL listed or recognized and/or CSA certified wires.
3. Install the appropriate lug on the end of each wire.
4. Crimp the lugs onto the wires according to the lug manufacturer's instructions.



**ATTENTION:** To guard against personal injury, be sure that fingers are kept clear of the die nests whenever the crimp tool handles are brought together. Most compression tools are designed with a full stroke compelling mechanism, thus, making release of the handles difficult after initial closure. Consult the manufacturer's instructions for your crimp tool prior to operation.

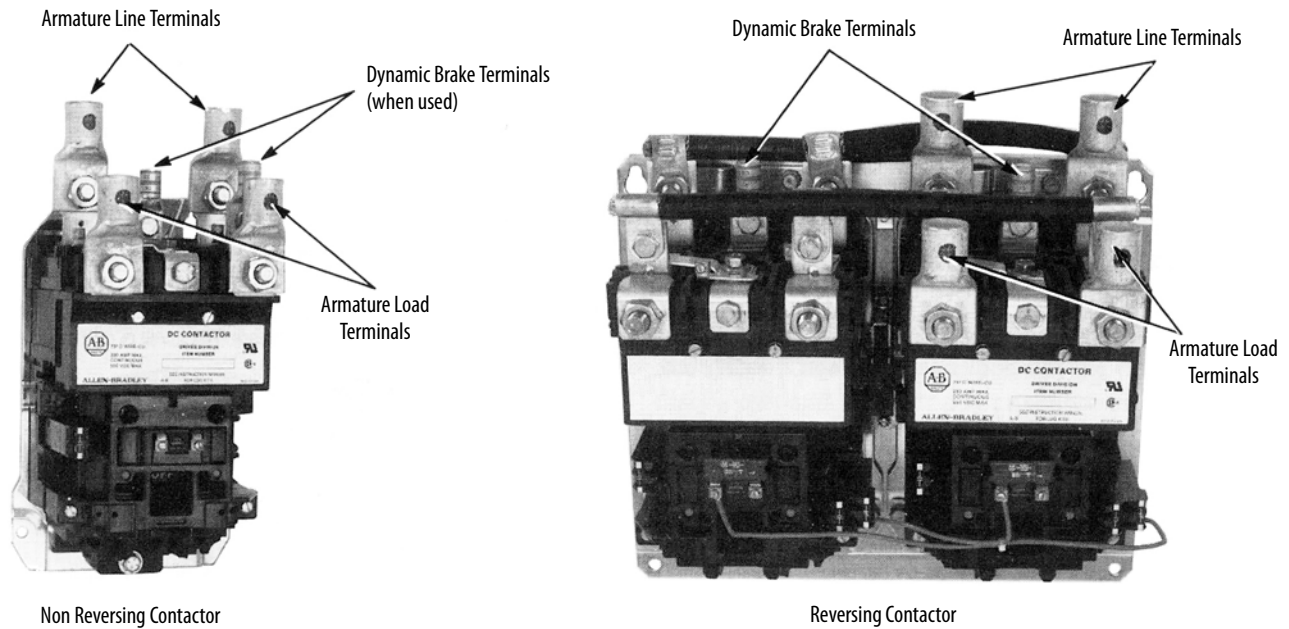
5. For each terminal, secure the lug to the appropriate terminal, using the screw/bolt supplied with the contactor. Tighten the screw/bolt according to the torque requirement listed in [Table 2](#). See [Figure 1](#) for lug and terminal identification.

**IMPORTANT** When tightening the screws/bolts to the proper value, be sure that all exposed electrical wires/lugs have the proper voltage spacing according to UL 508 and/or CSA 22.2, No. 14.

**Table 2 - Contactor Terminal Torque Requirements**

Contactor Rating	Load and Line Terminals		Dynamic Brake Terminals	
	Screw/Bolt Size	Torque <i>lb-in (N·m)</i>	Screw/Bolt Size	Torque <i>lb-in (N·m)</i>
56 A	10-32 x 25/64 in. screw	35 (4.0)	10-32 x 25/64 in. screw	35 (4.0)
110 A	1/4-28 x 3/8 in. bolt	45 (5.1)	1/4-28 x 3/8 in. bolt	45 (5.1)
180 A	5/16-24 x 1/2 in. bolt	150 (17.0)	5/16-24 x 1/2 in. bolt	150 (17.0)
280 A	1/2-13 stud with nut	400 (45.2)	3/8-24 x 5/8 in. bolt	240 (27.1)

**Figure 1 - Lug Location and Terminal Identification**



## Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
1370 DC Loop Contactors, Lugs and Dynamic Brakes, Technical Data, publication <a href="#">1370-TD001</a>	Provides technical data for 1370 DC loop contactors, lugs and dynamic brakes.
Product Certifications website, <a href="http://www.ab.com">http://www.ab.com</a>	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

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