

Allen-Bradley
1397
200 & 300HP AC Line Disconnects
Cat. Nos. **1397-DS200**
1397-DS300

What This Option Provides

When installed, the AC line disconnect is designed to provide branch circuit disconnect switch requirements.

Where This Option Is Used

Each 200 or 300HP AC Line Disconnect is sized to a 1397 drive as detailed below.

Catalog Number	230V Drive Rating		460V Drive Rating	
	HP	(kW)	HP	(kW)
1397-DS200	100	(75)	200	(150)
1397-DS300	125-150	(92-112)	250-300	(184-224)

What These Instructions Contain

These instructions and any accompanying instructions contain the necessary information to install a 1397 200 or 300HP AC Line Disconnect.

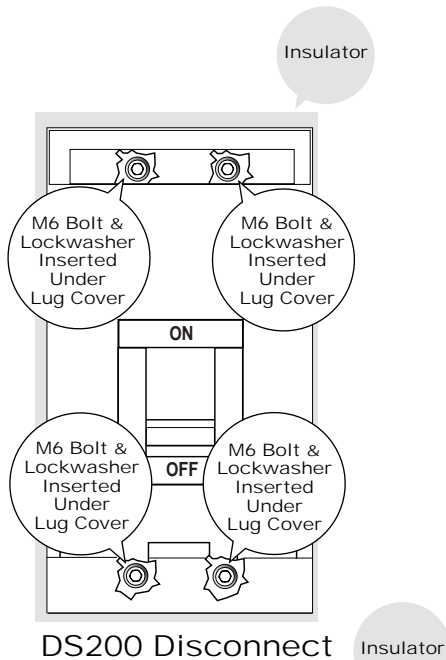
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DS200 & DS300 Installation



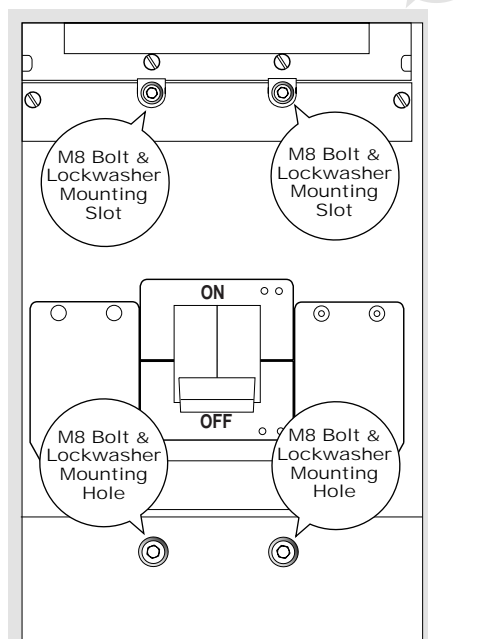
ATTENTION: Electric Shock can cause injury or death. Remove all power before working on this product.

The drive is at line voltage when connected to incoming AC power. Before proceeding with any installation or troubleshooting activity, disconnect, lockout and tag all incoming power to the drive. Verify with a voltmeter that no voltage exists at terminals L1, L2 & L3 on the drive input power terminal block.



- 1** Remove and lockout all incoming power to the drive. Remove the plastic line fuse cover and disconnect the incoming power lines from the drive by removing the nuts at terminals 181, 182 & 183.

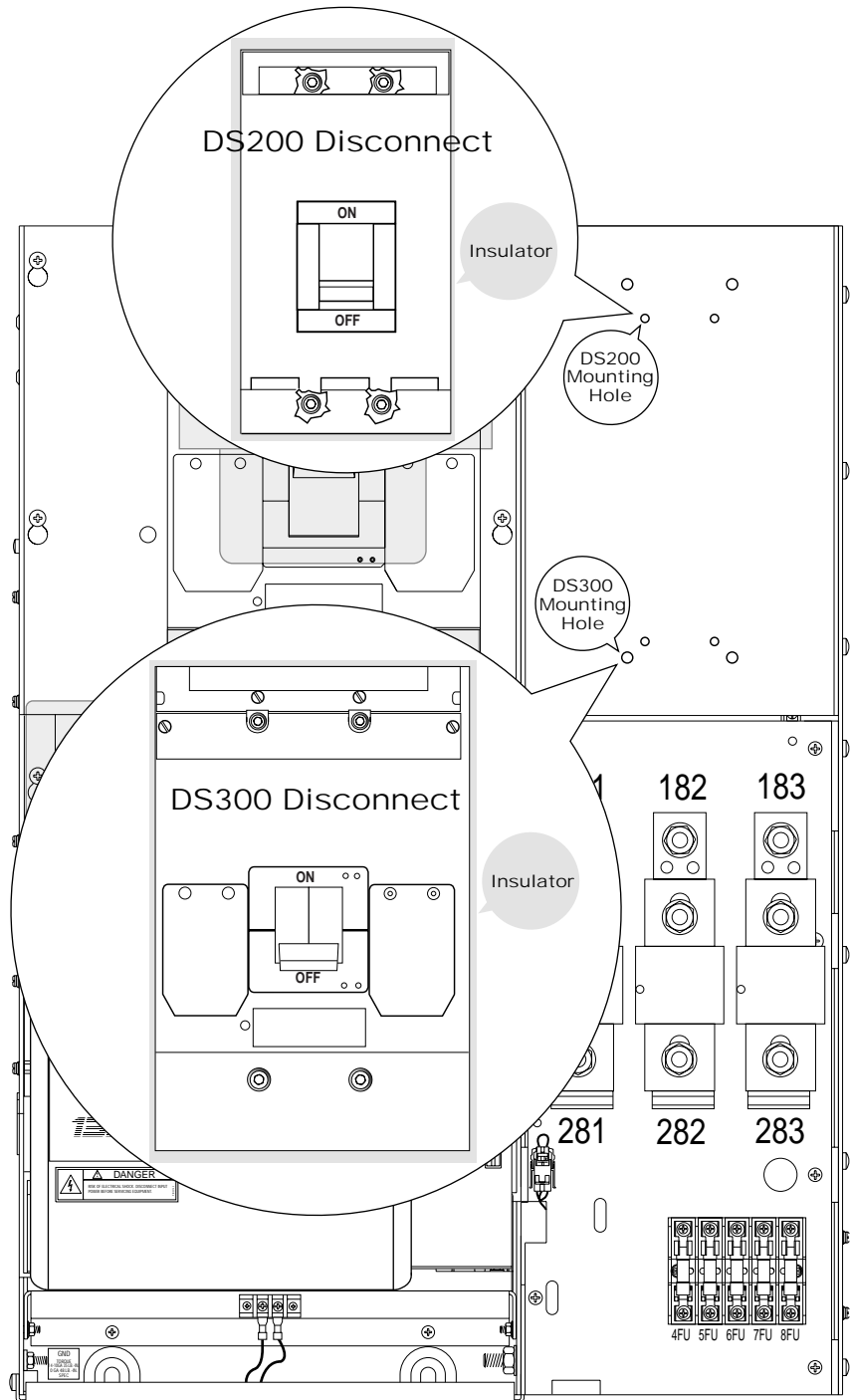
- 2** Lay the disconnect switch on its side with the cable lugs and box terminals on the top facing away from you. Put (1) M6 or M8 split lockwasher onto each of the M6 x 90 or M8 x 120 bolts.



- 3** Insert (1) bolt & lockwasher into one of the disconnect's upper bolt holes, then insert another bolt & lockwasher into the bottom bolt hole diagonally opposite it.

- 4** Place the insulator onto the back of the disconnect with the double row of holes toward the bottom. The holes on the insulator should go over the ends of the bolts inserted in **Step 2**.

DS200 & DS300 Installation (continued)



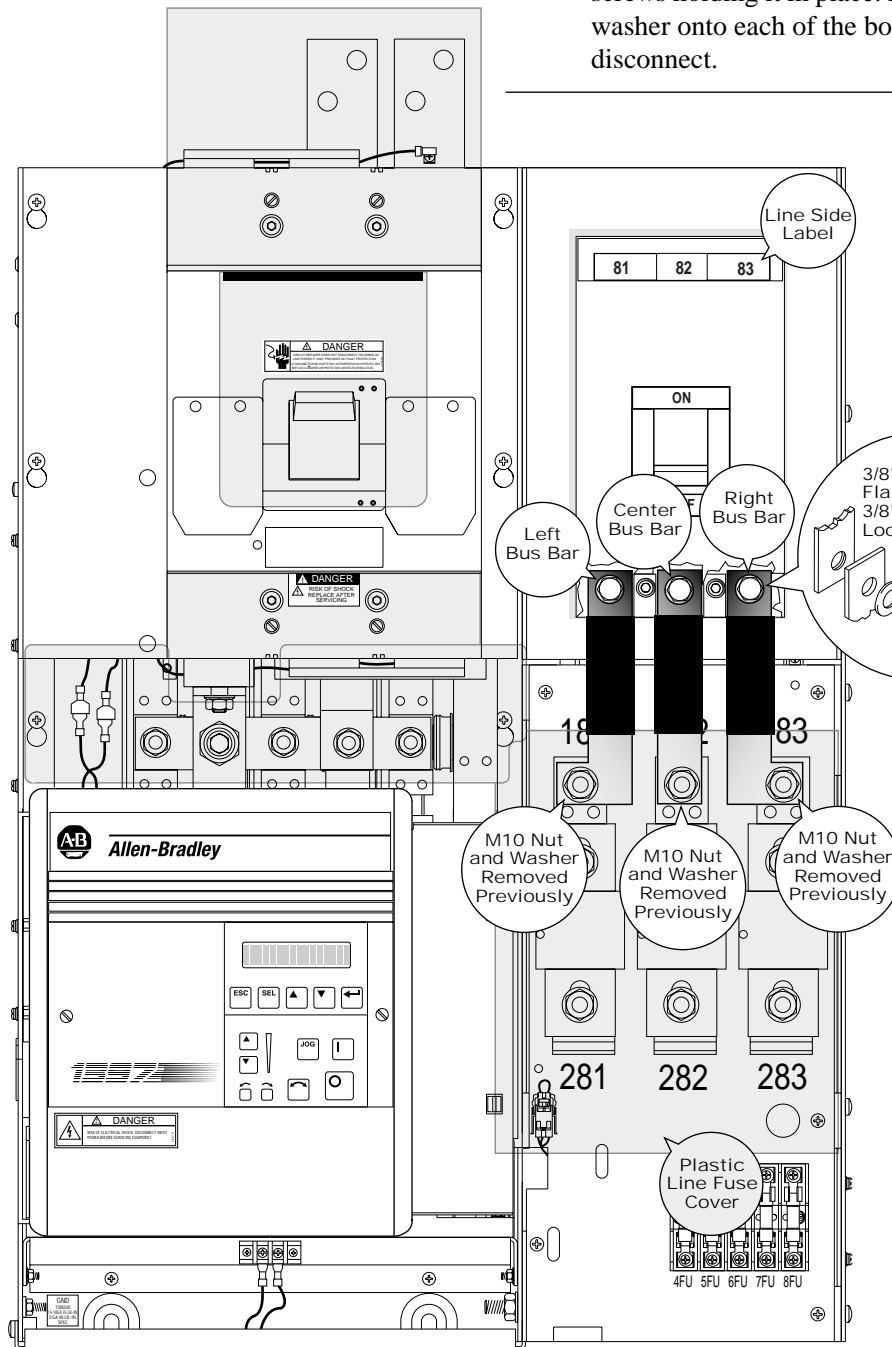
- ❑ **5** Hold the insulator in place, pick up the disconnect, and position it over the threaded holes on the drive's mounting panel. The (4) inner holes are for the DS200 disconnect, the (4) outer holes are for the DS300 disconnect.

- ❑ **6** Attach the disconnect by hand tightening the (2) bolts inserted previously. Insert the remaining (2) mounting bolts & lockwashers. Tighten all DS200 bolts to 7N-m (60lb.-in.). Tighten all DS300 bolts to 14N-m (125lb.-in.).

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DS200 Installation

- **7a** Remove the disconnect's bottom lug cover by loosening the (2) screws holding it in place. Put one split lockwasher and one flat washer onto each of the bolts used to fasten the bus bars to the disconnect.



- **7b** Attach one angled bus bar to the drive's left line fuse connector and the disconnect's left load connector. The leg of the bus bar attaches to the disconnect. The foot of the bus bar faces left and its bolt hole slips over the lug for the line fuse connector. Use one of the bolt, lockwasher and flat washer 3/8" assemblies to fasten the bus bar to the disconnect

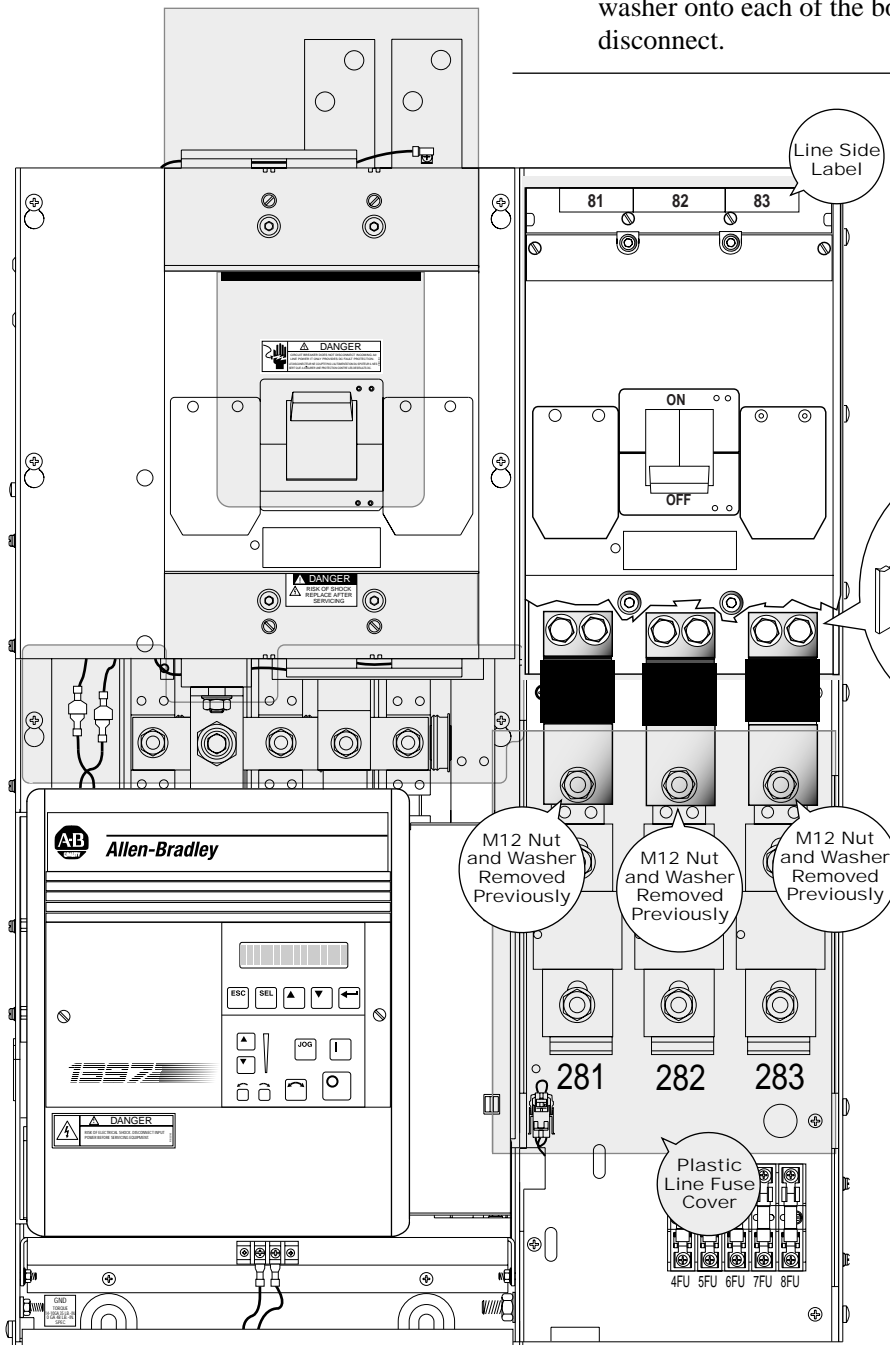
- **7c** Attach the straight bus bar to the drive's center line fuse connector and the disconnect's center connector. Use one of the bolt, lockwasher and flat washer 3/8" assemblies to fasten the bus bar to the disconnect.

- **7d** Attach the remaining angled bus bar to the drive's right line fuse connector and the disconnect's right load connector. The leg of the bus bar attaches to the disconnect. The foot of the bus bar faces right and its bolt hole slips over the lug for the line fuse connector. Use one of the bolt, lockwasher, and flat washer 3/8" assemblies to fasten the bus bar to the disconnect.

- **7e** Fasten the bus bars to the drive's line fuse connectors with the M10 nuts and washers removed in **Step 1**.
- Tighten the bolts fastening the bus bars to the disconnect to 23 N·m (200 lb.-in.).
 - Tighten the nuts fastening the bus bars to the line fuse connectors to 23 N·m (200 lb.-in.).

DS300 Installation

- **7a** Remove the disconnect's bottom lug cover by loosening the (2) screws holding it in place. Put one split lockwasher and one flat washer onto each of the bolts used to fasten the bus bars to the disconnect.



- **7b** Attach one bus bar to the drive's left line fuse connector and the disconnect's left load connector. One of the holes on the bus bar attaches to the lug for the line fuse connector. Use (2) of the bolt, lockwasher and flat washer 7/16" assemblies to attach the bus bar to the disconnect. Repeat this procedure to attach the remaining bus bars.

- **7c** Fasten the bus bars to the drive's line fuse connectors with the M12 nuts and washers removed in **Step 1**.
- Tighten the bolts fastening the bus bars to the disconnect to 40N-m (350lb.-in.).
 - Tighten the nuts fastening the bus bars to the line fuse connectors to 40N-m (350lb.-in.).

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DS200 & DS300 Installation
(continued)

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- 8** Replace the disconnect's bottom lug cover and tighten the (2) screws holding it in place.
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- 9** Replace the plastic line fuse cover.
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- 10** Remove the disconnect's top lug cover by loosening the (2) screws holding it in place. Loosen the disconnect's power line box connector lugs and insert the incoming power cables removed in **Step 1**.
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- 11** Torque the cable lugs to the value listed on the disconnect label. Replace the disconnect's top lug cover and tighten the screws holding it in place. Attach the line side label to the upper lug cover as shown. Discard any other labels included with the kit.
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- 12** Set the disconnect to the OFF position and restore incoming power to the drive. Reset the disconnect switch by first moving it to the OFF position, then to the ON.
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Notes

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