

Allen-Bradley 1397 400-600HP AC Line Filter Kit Cat. Nos. 1397-LF600

What This Option Provides

This option is intended to be applied when the primary of the drive source power transformer is greater than 2300 V RMS. The AC Line Filter consists of six capacitors, arranged in three pairs of two capacitors connected in series. The kit helps to attenuate high voltage spikes that capacitively couple from the transformer primary to the secondary. Kit installation consists of connecting the capacitor grid from the AC input line to ground of the transformer secondary.

What This Kit Contains

Each 1397 - AC Line Filter Kit Includes:

	Part No.
▶ (1) Capacitor Assembly	802278-925R
▶ (1) Fuse Block, Triple	49454-19C
▶ (3) Fuse (7.5A, 600V)	64876-84N
▶ (1) Wire Harness	802276-924R
▶ (6) Spade Connector (Female)	411066-15B
▶ (2) M6 x 25 Self Threading Screw	419082-100PJM
▶ (6) M4 x 12 Self-Threading Screw	419062-100PGH
▶ (2) M6 Star Washer	419064-101SJ
▶ (6) M4 Flat Washer	19064-1SG
▶ (1) Plastic Cover	802276-920R

User Supplied Items

You must provide three (3) pieces of 600V, 14 AWG wire (each approximately 1.2 m (4 ft) in length) to connect the kit to the drive's AC input bus bars.

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 input terminals 181 (L1), 182 (L2) and 183 (L3).

You are responsible for conforming with all applicable local, national and international codes when installing this kit.

Mounting

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- 1** Remove, lockout and tag all incoming power to the drive.
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- 2** Choose an appropriate location for mounting the AC Line Filter Kit. The kit must be mounted in such a location/position that the wire length between the fuse block and the drive's AC bus bars does not exceed 1.2 m (4ft.).
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- 3** Referring to Figure 1, use the mounting dimensions as a guide and drill two (2) 0.221" holes for mounting the capacitor assembly. Next drill six (6) 0.147" holes to mount the fuse block and the plastic cover.

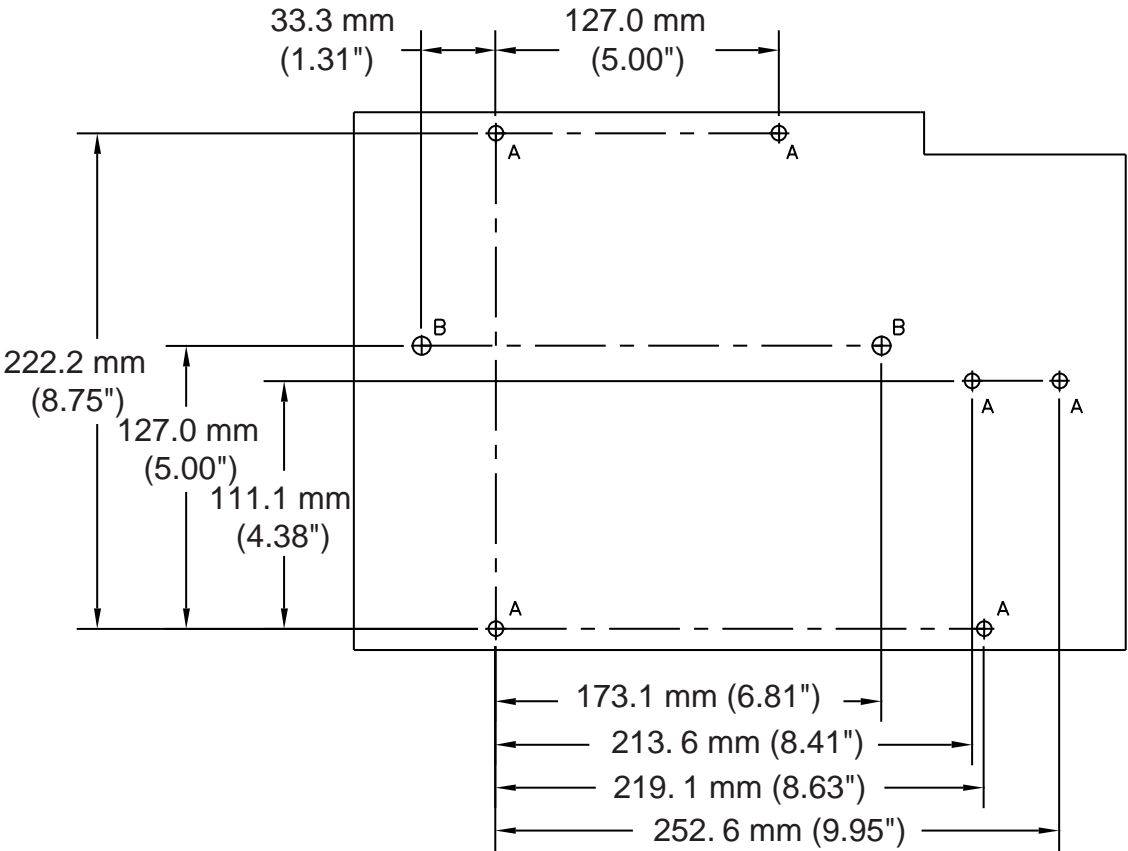
NOTE: The AC Line Filter Kit can be mounted horizontally or vertically.

- 4** Attach the capacitor assembly using two (2) M6 star washers and two (2) M6 x 25 self-threading screws. Tighten to 5.1 Nm (45 in-lb).
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NOTE: The star washers provided in the kit must be used when installing the capacitor assembly to ensure a good ground connection.

- 5** Attach the fuse block using two (2) M4 flat washers and two (2) M4 x 12 self-threading screws. Tighten to 1.4 Nm (12 in-lb).
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Figure 1.
AC Line Filter Kit Mounting Dimensions



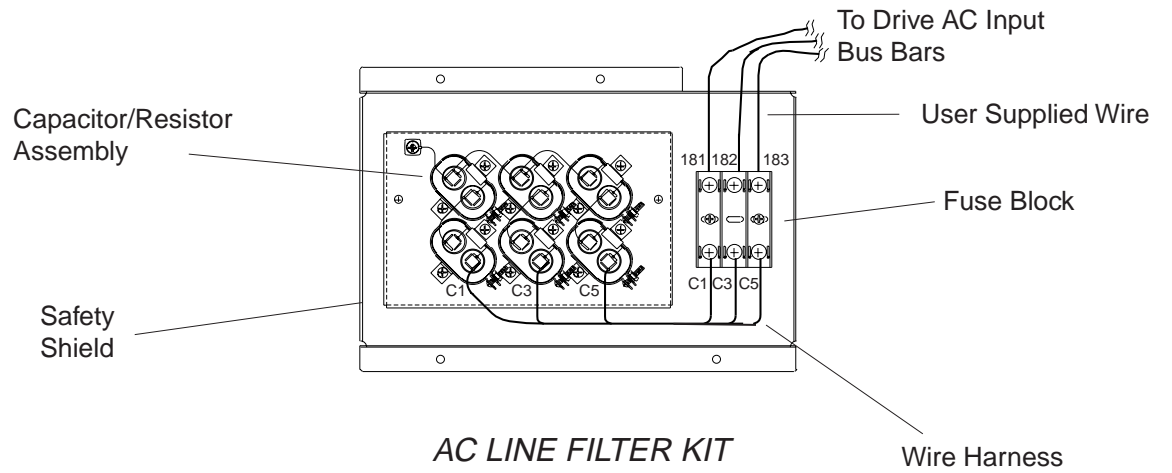
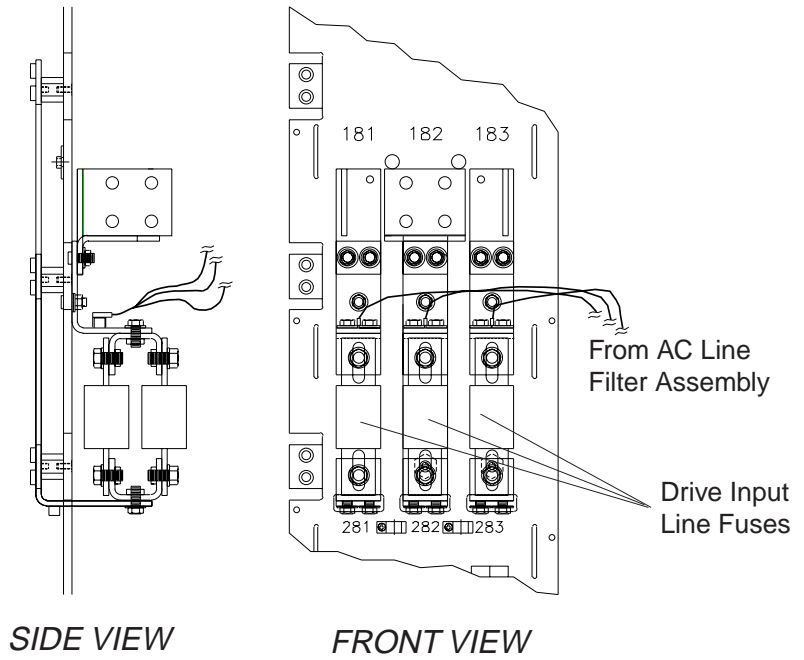
Ref.	Self-Threading Fastener Hole Size
A	3.7 mm (0.147")
B	5.6 mm (0.221")

Wiring

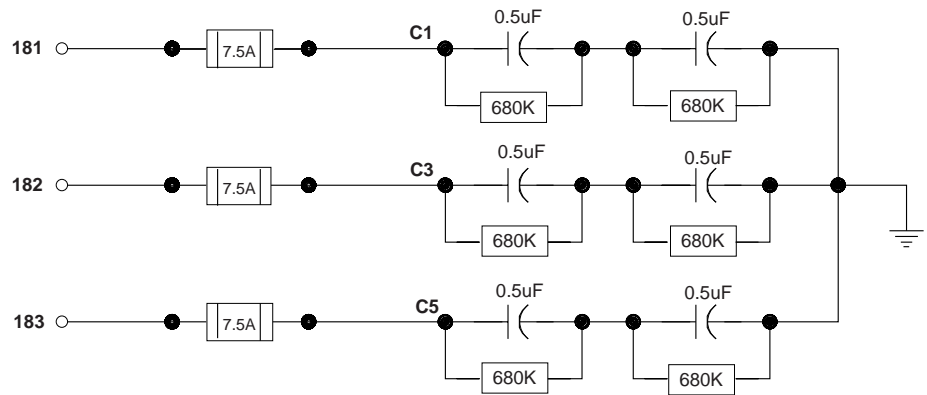
Wire the AC Line Filter Kit as follows:

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- ❑ **1** Cut three (3) pieces of 600V, 14 AWG wire (maximum length 1.2m (4 ft) each). These wires should be of sufficient length to connect the spade terminals on the fuse block to the connectors on each of the drive's AC input bus bars. Terminate the ends of each wire with the female spade terminals provided in the kit.
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- ❑ **2** Refer to Figure 2 and connect one end of each wire to one of the male spade terminals on each of the drive's three AC input bus bars. Connect the other end of these wires to the three male spade terminals on the fuse block.
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- ❑ **3** Connect the spade terminals on one end of the wire harness supplied in the kit to each of the three male terminals on the capacitor assembly. Connect the spade terminals on the other end of the wire harness to the three remaining male spade terminals on the fuse block.
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- ❑ **4** Install the three (3) 7.5A fuses provided in the kit into the fuse block.
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- ❑ **5** Refer to Figure 2 and install the plastic cover using four (4) M4 flat washers and four (4) M4 x 12 self-threading screws. Tighten to 1.4 Nm (12 in-lb).
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Figure 2.
Wiring the AC Line Filter Kit



Wiring Diagram



Replacement Parts

DESCRIPTION

0.5 uF Capacitor

Resistor Assembly

(680 K resistor with attached spade connectors)

7.5A, 600V Fuse

PART NUMBER

66057-16AB

604303-1R

64678-84N