

Installation Instructions

DCNHE150 SERIES

Part Number: DCNHE150PFA-B, DCNHE150PFA-F, DCNHE150QFA-B, DCNHE150QFA-F, DCNHE150NFA-B, DCNHE150NFA-F, DCNHE150MFA-B, DCNHE150MFA-F



DCNHE150MFA-B

DCNHE150NFA-F

Description

The DCNHE150 Series contactor is a high-current (150A continuous), high-voltage (1000V DC max) relay designed for electric vehicle and energy storage applications requiring reliable DC power control and protection. Typical uses include battery power supply, DC power distribution, charging systems, uninterruptible power supply, and other electronic control circuits.

Featuring a compact structure and resin housing, the DCNHE150 contactor features corrosion resistance and reduced operational noise. Its sealed contact design prevents arc leakage for maximum safety, while the attached Coil Economizer, once energized, minimizes coil power consumption and heating through Pulse Width Modulation (PWM) control.

Available in both polarized and non-polarized versions to suit system polarity requirements, the DCNHE150 contactor offers flexibility in design and installation with no mounting orientation restrictions. Mechanically linked auxiliary contact options are also available.

Web Resources

Download 2D print, installation guide and technical resources at: littelfuse.com/DCNHE150

Order Information:

See datasheet for part numbers and descriptions.

Installation

Assemble the contactor in the following sequence:

Step 1. Prepare the Work Area - It is always advisable when working with electricity to take caution and turn off any power unit you may encounter while installing any electrical device.

Step 2. Mount the Contactor - Mount the contactor using the recommended fasteners.

Step 3. Prepare the Wiring and Connect the Control Wires - Strip all the wires that will be connected to the control coil and the contactor terminations with a wire stripper. Remove approximately ½ inch of the wire's insulation to expose the bare copper wire. Connect the control wires to the coil solenoid first, red and black wires on the contactor. When installing the wires, be sure that a good electrical connection is made by using an appropriate electrical connector. Do not allow any loose strands to short against any equipment and cause electrical damage.

Step 4. Connecting the Switched Power Wires - Verify the switched contacts are open, no continuity between terminals "+A1" and "-A2". Using the hardware that is supplied with the contactor or the recommended fasteners, connect the Line power feed wire to the contactor terminal marked "+A1". Connect the Load power output wire to the contactor terminal marked "-A2". As with the control wires, be sure that a good electrical connection is made. Do not allow any loose strands to short against any equipment and cause electrical damage.


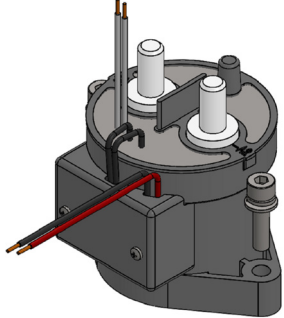
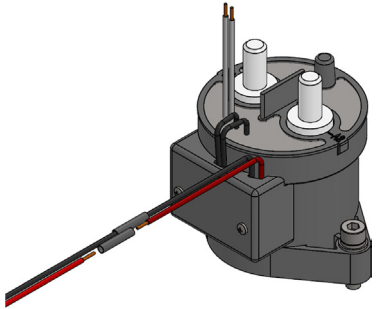
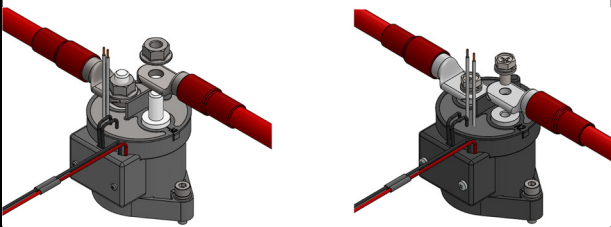
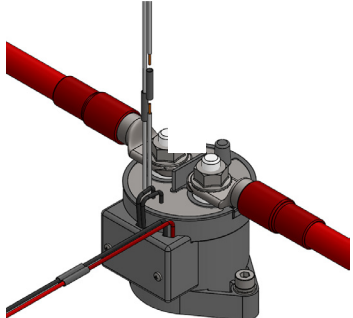
Step 5. Connecting the Switched Auxiliary Contact Wires - If an Auxiliary Contact is provided, connect the low power Line feed wire to one of the white wires and the low power Load output wire to the remaining white wire. When installing the wires, be sure that a good electrical connection is made. Do not allow any loose strands to short against any equipment and cause electrical damage.

Step by step images shown in Figure 2 on page 2.

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<p>STEP 1</p>	 <p>DANGER</p> <p>Electrical Hazard Turn Off Power Before Servicing</p>	<p>Prepare the Work Area - It is always advisable when working with electricity to take caution and turn off any power unit you may encounter while installing any electrical device.</p>
<p>STEP 2</p>		<p>Mount the Contactor - Mount the contactor using the recommended fasteners.</p>
<p>STEP 3</p>		<p>Prepare the Wiring and Connect the Control Wires - Strip all the wires that will be connected to the control coil and the contactor terminations with a wire stripper. Remove approximately 1/2 inch of the wire's insulation to expose the bare copper wire. Connect the control wires to the coil solenoid first, red and black wires on the contactor. When installing the wires, be sure that a good electrical connection is made by using an appropriate electrical connector. Do not allow any loose strands to short against any equipment and cause electrical damage.</p>
<p>STEP 4</p>		<p>Connecting the Switched Power Wires - Verify the switched contacts are open, no continuity between terminals "+A1" and "-A2". Using the hardware that is supplied with the contactor or the recommended fasteners, connect the Line power feed wire to the contactor terminal marked "+A1". Connect the Load power output wire to the contactor terminal marked "-A2". As with the control wires, be sure that a good electrical connection is made. Do not allow any loose strands to short against any equipment and cause electrical damage.</p>
<p>STEP 5</p>		<p>Connecting the Switched Auxiliary Contact Wires - If an Auxiliary Contact is provided, connect the low power Line feed wire to one of the white wires and the low power Load output wire to the remaining white wire. When installing the wires, be sure that a good electrical connection is made. Do not allow any loose strands to short against any equipment and cause electrical damage.</p>

Specifications, descriptions and illustrative material in this literature are as accurate as known at the time of publication, and are subject to changes without notice. Visit littelfuse.com for the most up-to-date technical information.