

Installation Instructions

DCNHF300 Series

Part Number: DCNHF300NG12-F & DCNHF300NG24-F



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Description

The DCNHF300 Series high-voltage DC contactor relay is engineered for demanding electric vehicle and industrial high-power DC applications that require robust, reliable switching at high current levels. Rated for 300A continuous current and up to 1000V DC, it is ideal for use in battery power supply systems, charging infrastructure, motor control, circuit isolation, circuit protection, and industrial safety systems.

Featuring SPST normally open (NO) circuitry with non-polarized contacts, the DCNHF300 Series contactor supports bidirectional current flow, providing flexibility across a wide range of electrical systems. Its bottom-mounting design enables secure installation, while the rugged construction is optimized for performance in harsh automotive and industrial environments.

The DCNHF300 Series contactor is equipped with internal-thread terminals to ensure secure high-current connections. It is available with 12V DC or 24V DC coil voltage options, supporting common EV and industrial control system requirements.

Web Resources

Download 2D print, installation guide and technical resources at: littelfuse.com/DCNHF300

Ordering Information

PART NUMBER	RATED CURRENT(A)	POLARIZED	AUX. CONTACT	COIL VOLTAGE(V DC)	MOUNTING	POWER CONNECTION
DCNHF300NG12-F	300	No	No	12	Bottom	Internal Thread
DCNHF300NG24-F	300	No	No	24	Bottom	Internal Thread

Installation

Assemble the relay 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 mounting hardware that is supplied with the contactor or 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 1/2 inch of the wire's insulation to expose the bare copper wire. Connect the control wires to the coil solenoid first, red connect +(positive) and black connect -(negative) wires on 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 by step images shown in Figure 2 on page 2.


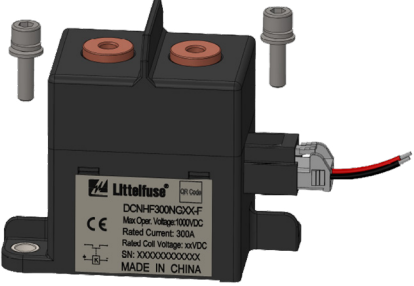
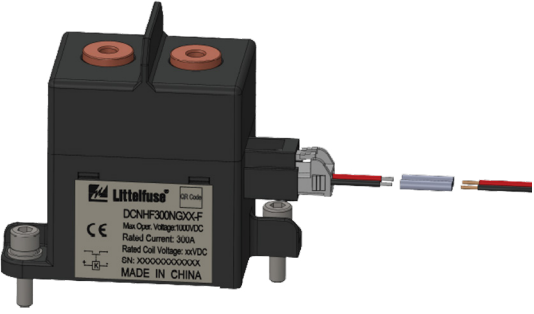
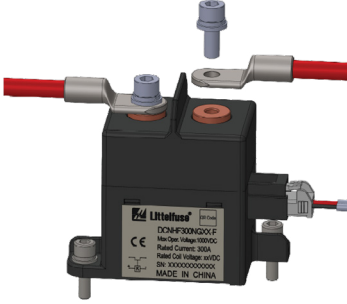
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<p>STEP 1</p>	 <p>DANGER</p> <p>Electrical Hazard Turn Off Power Before Servicing</p>	<p>Prepare the Work Area - It is always advisable when working with electricity to take caution and turn off any power unit you may encounter while installing any electrical device.</p>
<p>STEP 2</p>		<p>Mount the Contactor - Mount the contactor using the mountin hardware that is supplied with the contactor or 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 connect +(positive) and black connect -(negative) wires on 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>

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.