

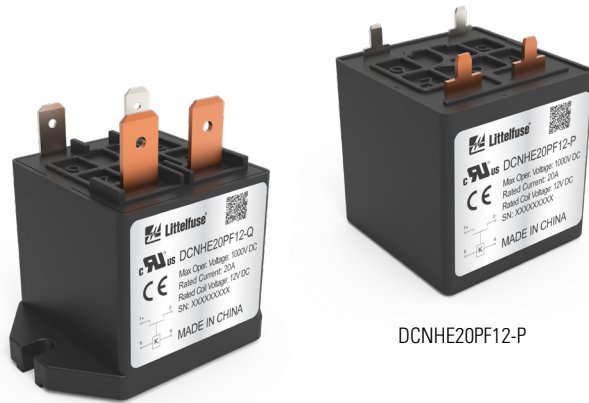
# Installation Instructions

## DCNHE20 SERIES

Part Number: DCNHE20PF12-Q & DCNHE20PF24-Q & DCNHE20PF48-Q &  
DCNHE20PF60-Q & DCNHE20PF12-P & DCNHE20PF24-P & DCNHE20PF48-P &  
DCNHE20PF60-P



Expertise Applied | Answers Delivered



DCNHE20PF12-Q

DCNHE20PF12-P

## Description

The DCNHE20 Series high-voltage DC contactor relay is designed for electric vehicle and industrial high-voltage DC applications requiring safe, reliable switching in a compact form factor. Rated for up to 1000V DC, it is well suited for use in battery power supply systems, charging piles, motor control, circuit isolation, circuit protection, and industrial safety devices.

Featuring SPST normally open (NO) circuitry, the DCNHE20 Series contactor delivers dependable performance with a compact structure that helps reduce operational noise. A durable resin housing provides excellent corrosion resistance for harsh automotive and industrial environments, while sealed contacts prevent electrical arc leakage to enhance safety and long-term reliability.

The DCNHE20 Series contactor is available in a bottom-mounting polarized load quick-connect (QC) terminal version or polarized load potted thru-hole PCB version, offering design flexibility. Multiple coil voltage options (12V, 24V, 48V, and 60V) support a wide range of EV and industrial control requirements.

## Web Resources

Download 2D print, installation guide and technical resources at: [littelfuse.com/DCNHE20](http://littelfuse.com/DCNHE20)

## Order Information:

See datasheet for part numbers and descriptions.

## 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. Prepare the QC terminal with wires. Connect the control wires to the coil solenoid first, red connect and black connect wires connect the terminal marked "5" and "6" 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 "1+" and "2-". Using the terminal that is supplied with the contactor or the recommended terminal, connect the Line power feed wire to the contactor terminal marked "1+". Connect the Load power output wire to the contactor terminal marked "2-". 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.**


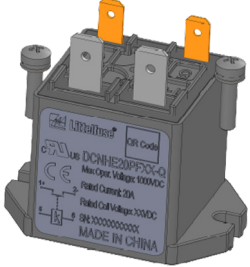
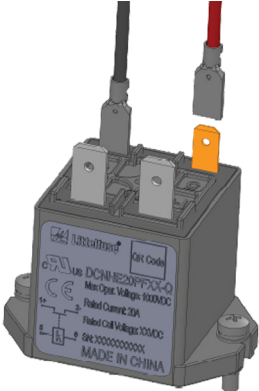
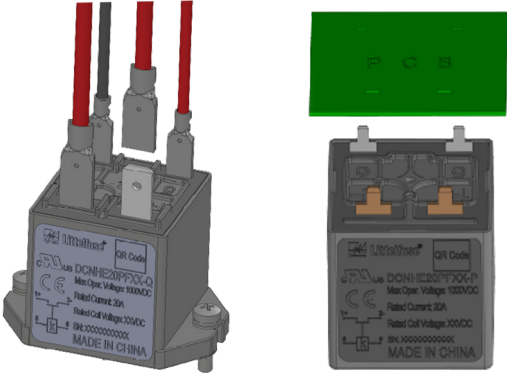
# Installation Instructions

DCNHE20 SERIES

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 DCNHE20PF60-Q & DCNHE20PF12-P & DCNHE20PF24-P & DCNHE20PF48-P &  
 DCNHE20PF60-P



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|                   |   |   |
|-------------------|---|---|
| <p>STEP<br/>1</p> |  <p><b>DANGER</b></p> <p>Electrical Hazard<br/>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<br/>2</p> |    | <p>Mount the Contactor - Mount the contactor using the mounting hardware that is supplied with the contactor or the recommended fasteners.</p>  |
| <p>STEP<br/>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. Prepare the QC terminal with wires. Connect the control wires to the coil solenoid first, red connect and black connect wires connect the terminal marked "5" and "6" 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<br/>4</p> |    | <p>Connecting the Switched Power Wires - Verify the switched contacts are open, no continuity between terminals "1+" and "2-". Using the terminal that is supplied with the contactor or the recommended terminal, connect the Line power feed wire to the contactor terminal marked "1+." Connect the Load power output wire to the contactor terminal marked "2-". 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](http://littelfuse.com) for the most up-to-date technical information.