

# DCNLEV50 SERIES HIGH CURRENT HIGH VOLTAGE DC CONTACTOR RELAY



## Ordering Information

Please see page 2 for more information

## Specifications Overview

<b>Amperage:</b>	50A Continuous Carry
<b>Housing:</b>	Nylon UL 94-V0
<b>Voltage Rating:</b>	750V
<b>Output Connectors:</b>	M5 Bolt and Lockwasher Connections
<b>Connectors:</b>	Wire Leads for Control Circuit
<b>Ingress Protections:</b>	IP67
<b>Operating Temperature:</b>	-40 to 85°C
<b>Circuitry:</b>	SPST NO
<b>Coil Voltage:</b>	<b>B:</b> 12V DC Nominal, 8-16V DC Working <b>C:</b> 24V DC Nominal, 16-28V DC Working <b>E:</b> 48V DC Nominal, 33-52V DC Working
<b>Max Coil Inrush Current:</b>	<b>B:</b> 461mA Max to Coil <b>C:</b> 250mA Max to Coil <b>E:</b> 122mA Max to Coil
<b>Mounting:</b>	M4
<b>Size:</b>	46mm x 58mm x 41mm
<b>Mounting Bolt Torque:</b>	2.3 Nm (20 in-lb)
<b>Contact Torque:</b>	3.4 - 4.5 Nm (30 - 40 in-lb)
<b>Terminals:</b>	M5 Silver Plated Copper
<b>Approvals:</b>	UL File No. E510407 Recognized

## Description

High current and high voltage DC contactor relays for electric vehicle applications such as charging station, battery power supply, motor control, circuit protection, and other switch controls. Can also be used in uninterruptible power supply and industrial machinery. Are available with polarized and non-polarized contacts to best suit electrical systems' polarity.

## Features and Benefits

- High current (50A) and high voltage (900V) contactor for EV applications
- Compact structure, helping reduce noise when turned on
- Sealed IP67, gas-filled relay which mitigates arcing
- No mounting orientation restrictions
- Designed and manufactured under the IATF16949 certification for Automotive Quality Systems.
- Designed specifically for automotive applications.

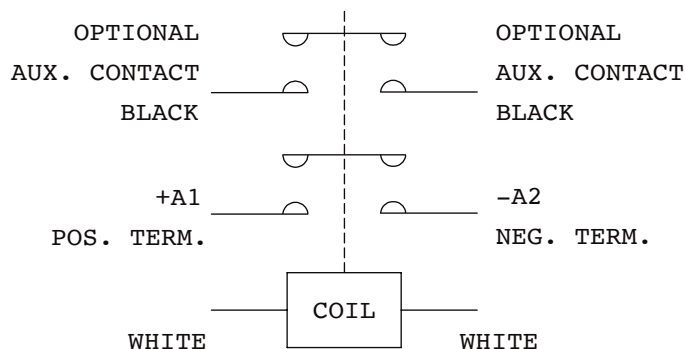
## Applications

- Battery Electric Vehicles
- Hybrid Electric Vehicles
- Material Handling
- Electric Maintenance and Transport Vehicles
- Industrial Applications

## Web Resources

Download 2D print and technical resources at:  
[littelfuse.com/DCNLEV50](http://littelfuse.com/DCNLEV50)

## Electrical Diagram



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PART NUMBER	DESCRIPTION	COIL VOLTAGE 12V DC	COIL VOLTAGE 24V DC	COIL VOLTAGE 48V DC	AUXILIARY CONTACT SPST-NO	BOTTOM MOUNT	SIDE MOUNT	NON-POLARIZED TERMINALS
DCNLEV50-BS	High Voltage DC Contactor Relay Side Mount with Polar Load Terminals	●					●	
DCNLEV50-BSN	High Voltage DC Contactor Relay Side Mount Non-Polar	●					●	●
DCNLEV50-B	High Voltage DC Contactor Relay Bottom Mount with Polar Load Terminals	●				●		
DCNLEV50-BN	High Voltage DC Contactor Relay Bottom Mount Non-Polar	●				●		●
DCNLEV50-BAS	High Voltage DC Contactor Relay Side Mount with Auxiliary Circuit with Polar Load Terminals	●			●		●	
DCNLEV50-BASN	High Voltage DC Contactor Relay Side Mount with Auxiliary Circuit Non-Polar	●			●		●	●
DCNLEV50-BA	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit with Polar Load Terminals	●			●	●		
DCNLEV50-BAN	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit Non-Polar	●			●	●		●
DCNLEV50-CS	High Voltage DC Contactor Relay Side Mount with Polar Load Terminals		●				●	
DCNLEV50-CSN	High Voltage DC Contactor Relay Side Mount Non-Polar		●				●	●
DCNLEV50-C	High Voltage DC Contactor Relay Bottom Mount with Polar Load Terminals		●			●		
DCNLEV50-CN	High Voltage DC Contactor Relay Bottom Mount Non-Polar		●			●		●
DCNLEV50-CAS	High Voltage DC Contactor Relay Side Mount with Auxiliary Circuit with Polar Load Terminals		●		●		●	
DCNLEV50-CASN	High Voltage DC Contactor Relay Side Mount with Auxiliary Circuit Non-Polar		●		●		●	●
DCNLEV50-CA	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit with Polar Load Terminals		●		●	●		
DCNLEV50-CAN	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit Non-Polar		●		●	●		●
DCNLEV50-ES	High Voltage DC Contactor Relay Side Mount with Polar Load Terminals			●			●	
DCNLEV50-ESN	High Voltage DC Contactor Relay Side Mount Non-Polar			●			●	●
DCNLEV50-E	High Voltage DC Contactor Relay Bottom Mount with Polar Load Terminals			●		●		
DCNLEV50-EN	High Voltage DC Contactor Relay Bottom Mount Non-Polar			●		●		●
DCNLEV50-EAS	High Voltage DC Contactor Relay Side Mount with Auxiliary Circuit with Polar Load Terminals			●	●		●	
DCNLEV50-EASN	High Voltage DC Contactor Relay Side Mount with Auxiliary Circuit Non-Polar			●	●		●	●
DCNLEV50-EA	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit with Polar Load Terminals			●	●	●		
DCNLEV50-EAN	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit Non-Polar			●	●	●		●

\* Box Packaging Available