

DCNEV250 SERIES HIGH CURRENT HIGH VOLTAGE DC CONTACTOR RELAY



Description

High current and high voltage DC contactor relays for electric vehicle applications such as charging station, battery power supply, DC power control, circuit protection, and other switch controls. Can also be used in uninterruptible power supply and other electronic control systems. Are available with polarized and non-polarized contacts to best suit electrical systems' polarity. The Coil Economizer greatly reduces coil power and heating after the contactor is energized. Once the contactor is energized, it takes minimal coil power to keep the contacts closed due to Pulse Width Modulation (PWM) reducing the average power delivered by pulsing the electrical signal.

Applications

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

Ordering Information

Please see page 2 for more information



Specifications Overview

Amperage:	250A Continuous Carry
Housing:	Nylon UL 94-V0
Voltage Rating:	900V
Output Connectors:	M8 x 1.25 High Current Connections
Connectors:	Wire Leads for Control Circuit
Ingress Protection:	IP67
Operating Temperature:	-40°C to 85°C
Circuitry:	A, N, P: SPST NO B: SPST NC
Voltage:	M: 12-24V DC Nominal, 9-36V DC Working F: 72V DC Nominal, 48-95V DC Working G: 48-72V DC Nominal, 32-95V DC Working
Max Coil Inrush Current:	0.7-3.8A
Mounting:	#10 with Compression Limiters
Size:	Reference Dimensions on Page 2
Mounting Bolt Torque:	1.7-3.3 Nm (15-30 in-lb)
Contact Torque:	8.8-11 Nm (80-100 in-lb)
Terminals:	M8 Silver Plated Copper
Approvals:	UL File No. E510407

Features and Benefits

- High current (250A) and high voltage (900V) contactor for EV applications
- Compact structure, helping reduce noise when turned on
- Coil Enonomizer greatly reduces coil power and heating
- Sealed IP67, gas-filled relay which mitigates arcing
- No mounting orientation restrictions

Web Resources

Download 2D print and technical resources at:
littelfuse.com/DCNEV250



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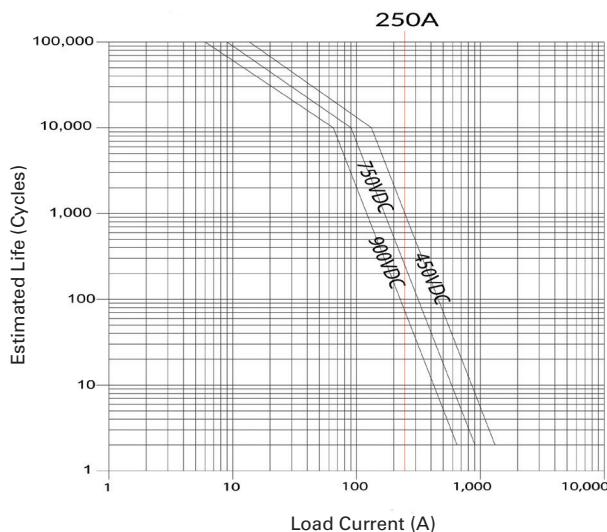
Ordering Information

PART NUMBER	DESCRIPTION	COIL VOLTAGE 12-24V DC	COIL VOLTAGE 72V DC	COIL VOLTAGE 48-72 VDC	BOTTOM MOUNT	AUXILIARY CONTACT SPST-NO	AUXILIARY CONTACT SPST-NC	NON-POLARIZED TERMINALS	POTTED PCB
DCNEV250-M	High Voltage DC Contactor Relay Bottom Mount with Polar Load Terminals	●			●				
DCNEV250-MN	High Voltage DC Contactor Relay Bottom Mount with Non-Polar Load Terminals	●			●		●		
DCNEV250-MA	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit with Polar Load Terminals	●			●	●			
DCNEV250-MAN	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit & Non-Polar Load Terminals	●			●	●		●	
DCNEV250-MP	High Voltage DC Contactor Relay Bottom Mount with Potted PCB with Polar Load Terminals	●			●				●
DCNEV250-MB	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit with Polar Load Terminals	●			●		●		
DCNEV250-F	High Voltage DC Contactor Relay Bottom Mount with Polar Load Terminals		●		●				
DCNEV250-FA	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit with Polar Load Terminals		●		●	●			
DCNEV250-FAN	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit & Non-Polar Load Terminals		●		●	●		●	
DCNEV250-FB	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit with Polar Load Terminals		●		●		●		
DCNEV250-FN	High Voltage DC Contactor Relay Bottom Mount with Non-Polar Load Terminals		●		●			●	
DCNEV250-G	High Voltage DC Contactor Relay Bottom Mount with Polar Load Terminals			●	●				
DCNEV250-GA	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit with Polar Load Terminals			●	●	●			
DCNEV250-GAN	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit & Non-Polar Load Terminals			●	●	●		●	
DCNEV250-GB	High Voltage DC Contactor Relay Bottom Mount with Auxiliary Circuit with Polar Load Terminals			●	●		●		
DCNEV250-GN	High Voltage DC Contactor Relay Bottom Mount with Non-Polar Load Terminals			●	●			●	

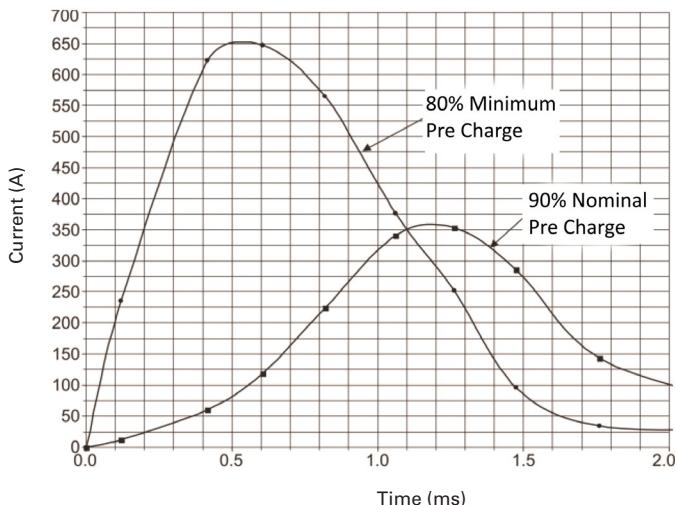
* Box Packaging Available

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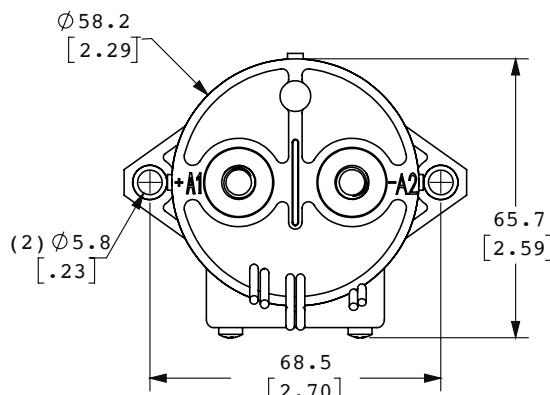
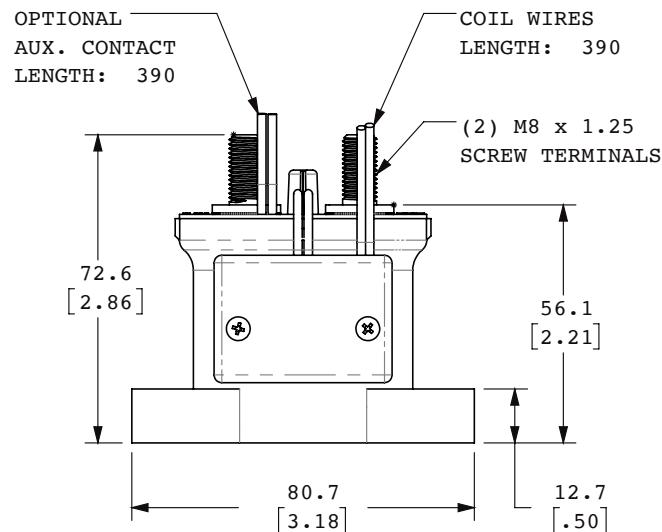
Estimated Make Break Chart



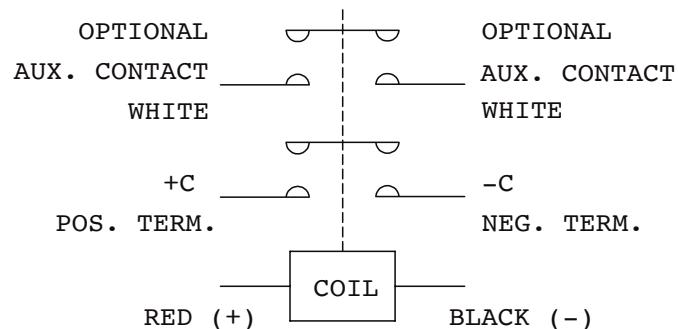
Capacitive Make Test Curve



Dimensions in MM



Electrical Diagram



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Littelfuse:

[DCNEV250-FN](#) [DCNEV250-GAN](#) [DCNEV250-MA](#) [DCNEV250-GA](#) [DCNEV250-G](#) [DCNEV250-FB](#) [DCNEV250-GN](#)
[DCNEV250-MB](#) [DCNEV250-MAN](#) [DCNEV250-GB](#) [DCNEV250-FA](#) [DCNEV250-FAN](#) [DCNEV250-F](#) [DCNEV250-MP](#)
[DCNEV250-M](#) [DCNEV250-MN](#)