

# DCNLJ Series

60V and 110V MAX High-Current High-Voltage DC Contactor Relays



DCNLJ250PD12



DCNLJ125PD60

## Description

The DCNLJ Series Max High-Current High-Voltage DC Contactor Relay is designed for high-current contact switching in electric control systems of communication power supplies and uninterruptible power supplies (UPS) as well as other industrial and vehicle applications.

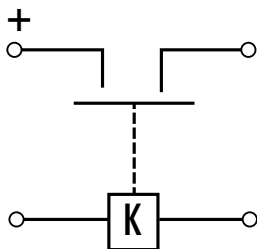
This normally open relay comes in a variety of configurations to suit your application requirements. Polarized models with main contacts rated for 96V (110V max) and non-polarized models with main contacts rated for 48V (60V max) are available with a continuous current rating of 125A, 200A, or 250A.

Available coil options for the DCNLJ contactor relay vary depending on the model's continuous current rating and include 12V, 24V, 48V, and 60V.

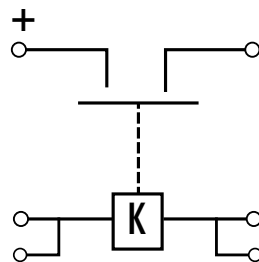
## Web Resources

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

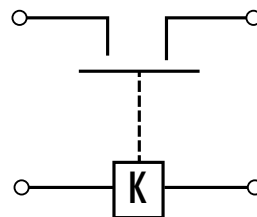
## Electrical Diagram



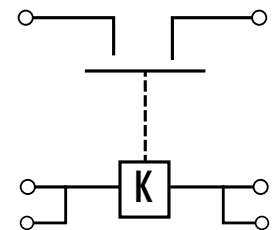
DCNLJ250PD12



DCNLJ125PD12, DCNLJ125PD24,  
DCNLJ125PD60, DCNLJ200PD24



DCNLJ250NB12-01



DCNLJ125NB12, DCNLJ125NB24,  
DCNLJ125NB60, DCNLJ200NB24  
DCNLJ200NB48, DCNLJ200NB60

## Specifications

<b>Max Voltage Rating (V DC):</b>	60, 110
<b>Current Rating Continuous (A):</b>	125, 200, 250
<b>Coil Voltage Rating (V DC):</b>	12, 60
<b>Ingress Protection:</b>	IP 40
<b>Operating Temperature (°C):</b>	-40 to +85

## Applications

- Communication Power Supplies
- UPS
- Material Handling
- Industrial Machinery

## Features and Benefits

- Available with a 125A, 200A, or 250A continuous current rating for high-current contact switching
- Main contacts rated for 48V typical (60V max) or 96V typical (110V max)
- 48V units have non-polarized magnets and 96V units have polarized magnets
- Single-pole, single-throw (SPST), normally open contact arrangement
- Coil rating options include 12V, 24V, 48V, and 60V (availability varies with the unit's continuous current rating)
- Robust standard industrial footprint

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## Ordering Information

PART NUMBER	CONTINUOUS CURRENT (A)	VOLTAGE RATING		MOUNTING	COIL VOLTAGE (V DC)	COIL TYPE	AUX CONTACT	POLARIZED	2D PRINT
		SYSTEM NOMINAL (V DC)	MAX VOLTAGE (V DC)						
<a href="#">DCNLJ125NB12</a>	125	48	60	SIDE MOUNT	12	Single	No	No	<a href="#">↓</a>
<a href="#">DCNLJ125NB24</a>	125	48	60	SIDE MOUNT	24	Single	No	No	<a href="#">↓</a>
<a href="#">DCNLJ125NB60</a>	125	48	60	SIDE MOUNT	60	Single	No	No	<a href="#">↓</a>
<a href="#">DCNLJ125PD12</a>	125	96	110	SIDE MOUNT	12	Single	No	Yes	<a href="#">↓</a>
<a href="#">DCNLJ125PD24</a>	125	96	110	SIDE MOUNT	24	Single	No	Yes	<a href="#">↓</a>
<a href="#">DCNLJ125PD60</a>	125	96	110	SIDE MOUNT	60	Single	No	Yes	<a href="#">↓</a>
<a href="#">DCNLJ200NB24</a>	200	48	60	SIDE MOUNT	24	Single	No	No	<a href="#">↓</a>
<a href="#">DCNLJ200NB48</a>	200	48	60	SIDE MOUNT	48	Single	No	No	<a href="#">↓</a>
<a href="#">DCNLJ200NB60</a>	200	48	60	SIDE MOUNT	60	Single	No	No	<a href="#">↓</a>
<a href="#">DCNLJ200PD24</a>	200	96	110	SIDE MOUNT	24	Single	No	Yes	<a href="#">↓</a>
<a href="#">DCNLJ250PD12</a>	250	96	110	SIDE MOUNT	12	Single	No	Yes	<a href="#">↓</a>
<a href="#">DCNLJ250NB12-01<sup>1</sup></a>	250	48	60	SIDE MOUNT	12	Single	No	No	<a href="#">↓</a>

<sup>1</sup> Includes coil wires and connector. Refer to the 2D print for details.

## Performance Data

MAIN CONTACT		
Contact Arrangement	SPST NO	
Rated Operating Voltage	DCNLJ125PDXX DCNLJ200PDXX DCNLJ250PDXX	96V DC
	DCNLJ125NBXX DCNLJ200NBXX DCNLJ250NBXX	48V DC
	DCNLJ125NBXX	500A @48V DC
Max Short Circuit Current	DCNLJ125PDXX	500A @96V DC
	DCNLJ200NBXX	800A @48V DC
	DCNLJ200PDXX	800A @96V DC
	DCNLJ250PD12	1000A @96V DC
	DCNLJ250NB12-01	1000A @48V DC
Dielectric Withstand Voltage	1000V AC	
Insulation Resistance	DCNLJ125, DCNLJ200	≥50MΩ @ 500V DC
	DCNLJ250	≥50MΩ @ 500V DC
Max Voltage Drop	DCNLJ125	≤80mV @ 100A
	DCNLJ200, DCNLJ250	≤50mV @ 100A

LIFE	
Electrical Life	6,000
Mechanical Life	300,000

OPERATE / RELEASE TIME		
Close (ms)	DCNLJ125, DCNLJ250	60
	DCNLJ200	50
Release (ms)		25

ENVIRONMENTAL DATA	
Shock	3G
Vibration	1~50Hz (freq.1~10Hz, amp;.25/f <sup>2</sup> ; freq.10~50Hz, ampl.250/f <sup>2</sup> )
Operating Ambient Temperature	-40°C~+85°C
Weight (g)	776

COIL DATA					
Voltage Rating (V DC)	12	24	48	60	
Pickup Voltage @ 25°C (V DC MAX)	8.4	16.8	33.6	42	
Dropout Voltage @ 25°C (V DC MIN)	1	2	4	6	
Hold Current (A)	DCNLJ125	0.92	0.46	-	0.18
	DCNLJ200	/	0.6	0.31	0.28
	DCNLJ250	1.3	-	-	-
Coil Watts @ 25°C (W)	DCNLJ125	11W	11W	-	11W
	DCNLJ200	-	15W	15W	16.5W
	DCNLJ250	16	-	-	-