DCNLB Series
60V DC Max Contactor Relays



DCNLB400NB

Specifications

Max Voltage Rating (V DC):	60
Current Rating Continuous (A):	100, 200, 400
Coil Voltage Rating (V DC):	24, 48, 60
Ingress Protection:	IP 40
Operating Temperature (°C):	-40 to +85

Applications

- Communication Power Supplies
- UPS

Description

Designed for the electric control systems of communication power supplies, uninterruptible power supplies (UPS), engineering machines, and more, the DCNLB Series 48V High-Current DC Contactor Relay is a normally closed relay that is available in single-coil and double-coil configurations. The high-current contactor relay is also available with coil voltage ratings of 24V, 48V, and 60V to suit various stationary applications.

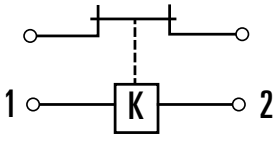
Features and Benefits

- Up to 400A continuous current rating for high-current contact switching
- Able to make and break up to 1600A
- Main contacts are rated for 48V (typical) and 60V (max)
- Coil voltage options include 24V, 48V, and 60V
- Normally closed, monostable relay design
- Available in single-coil and double-coil configurations
- Non-polarized contacts

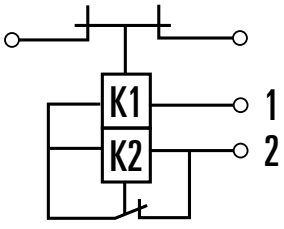
Web Resources

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

Electrical Diagram



Single Coil



Dual Coil

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DCNLB Series
60V DC Max Contactor Relays

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)						
DCNLB100NB48	100	48	60	SIDE MOUNT	48	Single	No	No	
DCNLB200NB24	200	48	60	SIDE MOUNT	24	Single	No	No	
DCNLB200NB48	200	48	60	SIDE MOUNT	48	Single	No	No	
DCNLB200NB48-01	200	48	60	SIDE MOUNT	48	Dual	No	No	
DCNLB200NB60	200	48	60	SIDE MOUNT	60	Single	No	No	
DCNLB400NB24	400	48	60	SIDE MOUNT	24	Dual	No	No	
DCNLB400NB48	400	48	60	SIDE MOUNT	48	Dual	No	No	

Performance Data

MAIN CONTACT		
Contact Arrangement		SPST NC
Rated Operating Voltage		48V DC
Max Short Circuit Current	DCNLB100NB	400A @ 48V DC
	DCNLB200NB	800A @ 48V DC
	DCNLB400NB	1600A @ 48V DC
Dielectric Withstand Voltage		1000V AC
Insulation Resistence		≥50MΩ @ 500VDC
Max Voltage Drop		≤ 50mV @ 100A

LIFE	
Electrical Life	3,000
Mechanical Life	100,000

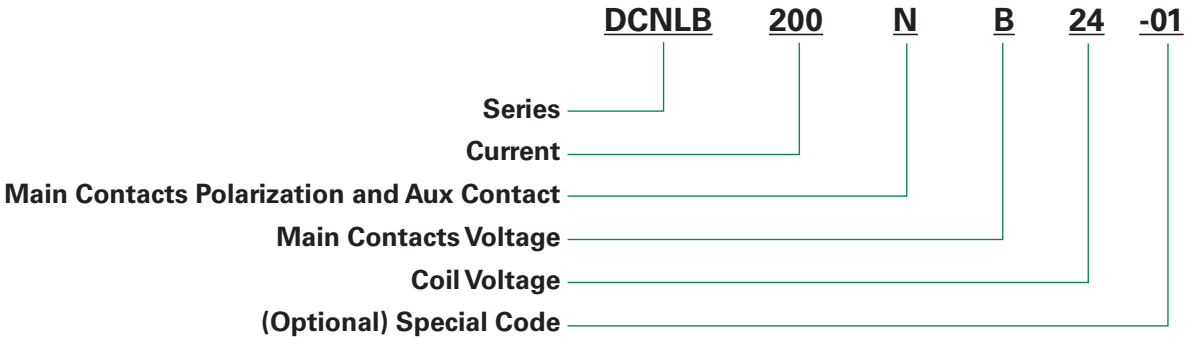
OPERATE / RELEASE TIME		
Release (ms)	DCNLB100NB DCNLB200NB	50
	DCNLB200NB48-01 DCNLB400NB	30

PART NUMBER	COIL VOLTAGE (V DC)	COIL TYPE	PICKUP VOLTAGE @ 25°C (V DC MAX)	DROPOUT VOLTAGE @ 25°C (V DC MIN)	HOLD CURRENT (A)	COIL WATTS @ 25°C (W)	
						Start Up	Hold
DCNLB100NB48	48	Single	30	4	0.23	11	-
DCNLB200NB24	24	Single	15	2	0.4	10	-
DCNLB200NB48	48	Single	30	4	0.26	12	-
DCNLB200NB48-01	48	Dual	30	4	0.12	230	8
DCNLB200NB60	60	Single	37	5	0.24	14.5	-
DCNLB400NB24	24	Dual	15	2	0.23	180	8
DCNLB400NB48	48	Dual	30	4	0.13	180	8

ENVIRONMENTAL DATA		
Shock		3G
Vibration		1~50Hz (freq.1~10Hz, amp;.25/f²; freq.10~50Hz, ampl.250/f²)
Operating Ambient Temperature		-40°C~+85°C
Weight (g)	DCNLB100NB	193.3
	DCNLB200NB	535
	DCNLB400NB	764

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Part Number System



MAIN CONTACTS POLARIZATION AND AUX CONTACT		
	POLARIZED?	INCLUDE AUX CONTACT?
N:	No	No

MAIN CONTACTS VOLTAGE RATING		
B:	48	V DC

COIL VOLTAGE		
24:	24	V DC
48:	48	V DC
60:	60	V DC

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Application Notes & Definitions

- Be sure to use a washer to prevent screws from loosening. Tighten the screw so that the torque is in the range specified below. Exceeding the maximum torque can lead to product rupture.

PRODUCT SERIES	PRODUCT MODEL	CONTACT TERMINAL		COIL TERMINAL		MOUNTING	
		HOLE OR BOLT	REFERENCE TORQUE	HOLE/BOLT/WIRE/TERMINAL	REFERENCE TORQUE	REFERENCE TORQUE	REFERENCE BOLT SIZE
DCNLB100NB48	DCNLB100NB48	Bolt: M8	9~11N.m	Bolt: M4	1.7~2.5N.m	4~5N.m	M5
DCNLB200NB	DCNLB200NB24 DCNLB200NB48 DCNLB200NB60						
DCNLB200NB48-01	DCNLB200NB48-01						
DCNLB400NB	DCNLB400NB24 DCNLB400NB48	Bolt: M10	30.8-33N.m			6.8-7.8N.m	M6

- Please refer to the drawing for connection polarity.
- Do not use dropped products.
- Avoid installing the product in a strong magnetic field (Close to the transformer or magnet), or near an object with heat radiation.
- Electrical life
  Please use under load capability and life cycle so as not to cause a function failure. (Please also treat the contactor as a product with specified life and replace it when necessary). It is possible to make parts burn around the contactor once operating failure happens. So it is necessary to take layout into account to make sure power shall be cut off within 1 second.
- Do not let particle and oil stain on the main terminal with which the load shall make a reliable contact or it will cause a lot of heat.

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