

Product Facts

- Designed to be the lowest cost sealed contactor in the industry with its current rating (500+A carry, 2000A interrupt at 320VDC).
- Available with bottom or side mounting -- not position sensitive.
- Optional auxiliary contact for easy monitoring of power contact position.
- Hermetically sealed – intrinsically safe, operates in explosive/harsh environments with no oxidation or contamination of coils or contacts, including long periods of non-operation.
- Typical applications include battery switching and backup, DC voltage power control, circuit protection and safety.
- Versatile coil/power connections.
- Designed and built in accordance to AIAG QS9000.



For factory-direct application assistance, contact Earle Alldredge, product manager. Dial 800-253-4560, ext. 2055, or 805-220-2055. Email earle.alldredge@tycoelectronics.com

Performance Data

Parameter	Units	Value for LEV200 Series
Contact Arrangement, power contacts		1 Form X (SPST-NO-DM)
Rated Operating Voltage	VDC	12 - 900
Continuous (Carry) Current, Typical	A	500 @ 65°C, 400 mcm conductors <i>Consult Factory for required conductors for higher (500+ A) currents</i>
Make/Break Current at Various Voltages ^{1/}	A	See next page
Break Current at 320VDC ^{1/}	A	2,000, 1 cycle ^{3/}
Contact Resistance, Typ. (@200A)	mohms	0.2
Load Life	Cycles	See next page
Mechanical Life	Cycles	100,000
Contact Arrangement, auxiliary contacts		1 Form A (SPST-NO)
Aux. Contact Current, Max.	A	2A @ 30VDC / 3A @ 125VAC
Aux. Contact Current, Min.	mA	100mA @ 8V
Aux. Contact Resistance, Max.	ohms	0.417@ 30VDC / .150 @ 125VAC
Operate Time @ 25°C		
Close (includes bounce), Typ.	ms	40
Bounce (after close only), Max.	ms	7
Release (includes arcing), Max @ 2000A	ms	12
Dielectric Withstanding Voltage	Vrms	2,200 @ sea level (leakage <1mA)
Insulation Resistance @ 500VDC	megohms	100 ^{2/}
Shock, 11ms 1/2 sine, peak, operating	G	20
Vibration, sine, 80-2000Hz., peak	G	20
Operating Ambient Temperature	°C	-40 to +65
Weight, Typical	lb.(kg)	1.3 (.60)

^{1/} Main power contacts

^{2/} 50 at end of life

^{3/} Does not meet dielectric & IR after test, 1700 amp for unit with Aux. Contacts

Coil Operating Voltage (valid over temperature range)

	12VDC	24VDC	48VDC
Nominal Voltage	12VDC	24VDC	48VDC
Voltage (will operate)	9.6-13.2VDC	19.2-26.9VDC	38.4-52.8VDC
Voltage (Max.)	13.2VDC	26.9VDC	52.8VDC
Pickup (close) Voltage Max.	9.6VDC	19.2VDC	38.4VDC
Holding Current (Avg.)	1.0A@12V	0.59A@24V	0.33A@48V

Part Numbering System

Typical Part Number	LEV200	A	4	N	A	A
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Series:
LEV200 = 500+ Amp, 12-900VDC Contactor

Contact Form:
A = Normally Open H = Normally Open with Aux. Contacts.

Coil Voltage:
4 = 12VDC 5 = 24VDC 6 = 48VDC
Note: Consult factory for detailed specifications and availability of coils for operation on 96VDC, 115VAC or 115VDC.

Coil Wire Length:
A = 15.3 in (390 mm) N = None (Requires option "A" in next step.)

Coil Terminal Connector:
N = None, stripped wires (Requires option "A" in previous step.)
A = Studs, #10-32 Threaded (Electrical connection is actually made to the tab at the base of the stud.)

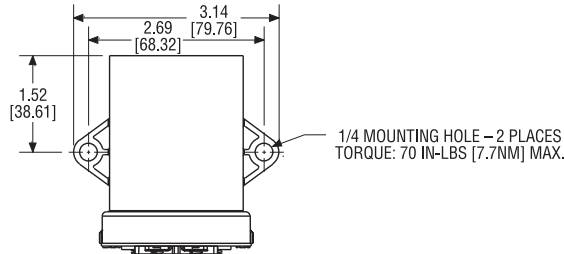
Mounting & Power Terminals:
A = Bottom Mount & Male 10mm x M8 Threaded Terminals
F = Side Mount & Male 10mm x M8 Threaded Terminals
Consult factory regarding other available mountings and power terminals.

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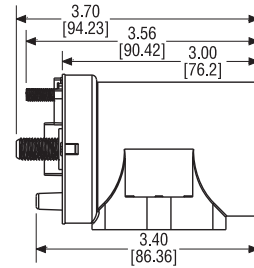
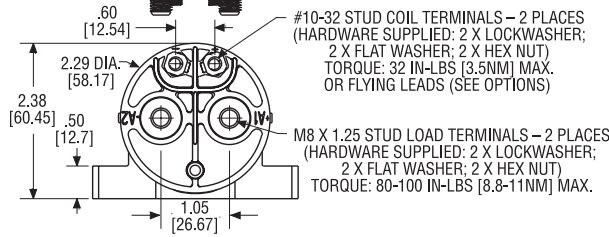
LEV200 Series (Continued)

Outline Dimensions

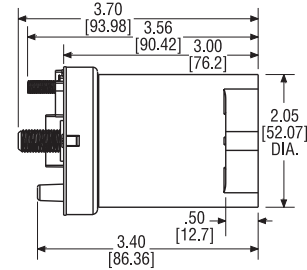
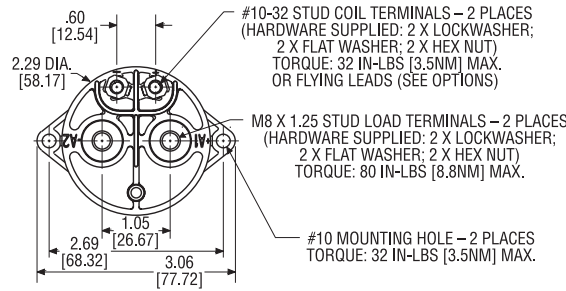


NOTE: When stud terminals are specified for coil connections, the electrical connection is actually made at the tab located at the base of the stud.

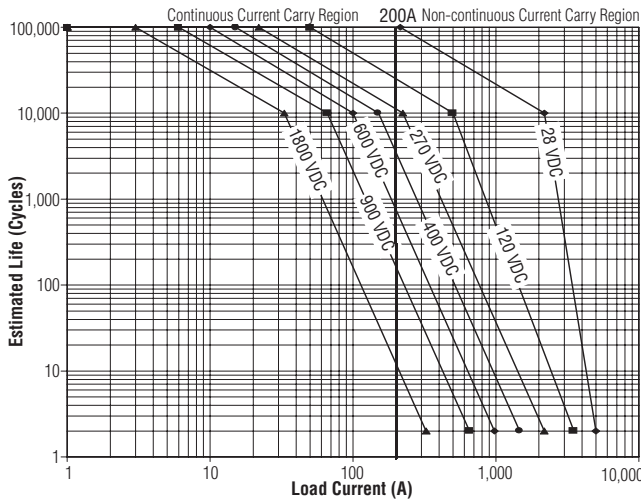
Side Mount Enclosure



Bottom Mount Enclosure



Estimated Make & Break Power Switching Ratings



- NOTES:**
- 1) For resistive loads with 300μH maximum inductance
 - 2) Estimates based on extrapolated data. User is encouraged to verify rating in actual application.
 - 3) End of life when dielectric strength between terminals falls below 50 megohms @ 500VDC.
 - 4) The maximum contact make and break power is estimated at 208KW. Break only above 208KW to avoid contact welding.

Electrical Load Life Ratings for Typical LEV Applications

Make/Break Life Capacitive & Resistive Loads at 320VDC (1) (2)	
@90% capacitive pre-charge (make only) see chart below	Cycles 50,000
@80% capacitive pre-charge (make only) see chart below	Cycles 50
@200A make/break (2 consecutive, reverse polarity) (1)	Cycles 12
2,000A (break only) (1)	Cycles 1*
Mechanical Life	Cycles 100,000

- (1) Resistive load includes inductance L = 25μH. Load @ 2500A tested @ 200μH.
 - (2) Life based on projected Weibull Life with 95% reliability.
- * Does not meet dielectric and IR after test.

LEV200 Capacitive Make Test Curves for Pre-Charged Motor Controller

