

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)			
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.

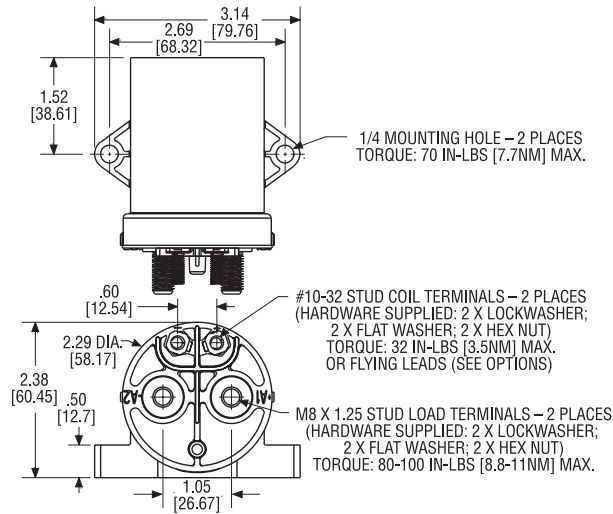
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LEV200 Series (Continued)

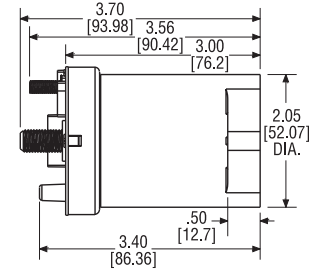
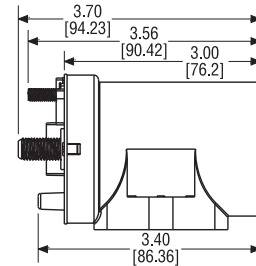
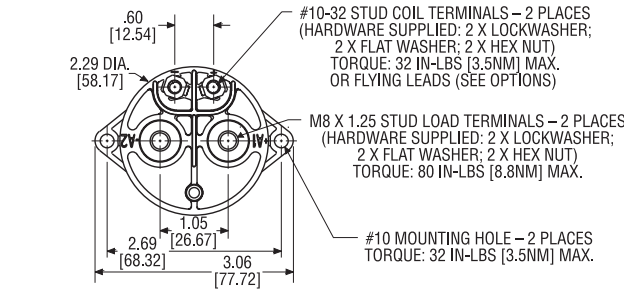
Outline Dimensions

Side Mount Enclosure

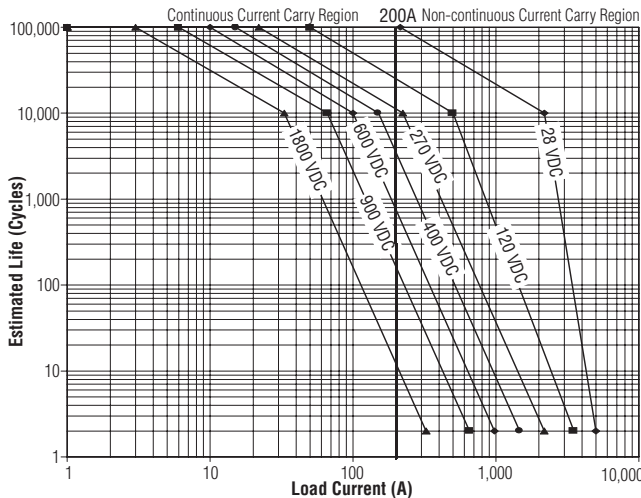


NOTE: When stud terminals are specified for coil connections, the electrical connection is actually made at the tab located at the base of the stud.

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

