

**tyco**

Electronics



# KILOVAC LEV100 Series Contactor with 1 form X contacts rated 100A continuous

## DESCRIPTION

- Lowest cost, 100 amp, hermetically sealed DC contactor in the industry
- Compact package available in side- or bottom-mount configurations -- not position sensitive

## APPLICATIONS

- Power/motor control circuit isolation, circuit protection and safety in industrial machinery
- Automotive battery switching and backup

## KEY FEATURES

- Hermetically sealed – intrinsically safe. Operates in explosive/harsh environments without oxidation or contamination of contacts, including long periods of non-operation
- 8kV isolation between open contacts permits use for high voltage isolation and carry
- 12, 24 and 48VDC coils
- Designed and built in accordance to AIAG QS9000

RoHS  
Ready 

In Development

# KILOVAC LEV100 Series Contactor

## with 1 form X contacts rated 100A continuous

### MECHANICAL

- Compact epoxy-sealed resin enclosure occupies only about 4 in<sup>3</sup> (65.5cm<sup>3</sup>)
- Robust integral mounting plate on either bottom or side of enclosure accepts two M4 screws
- Nitrogen-filled contact chamber
- Flying leads for coil connections
- Load terminals threaded for M5 bolts (not included)

### PERFORMANCE DATA

#### Physical Data

Contact Arrangement: Main Contacts	SPST-NO-DM (1 Form X)
Dimensions	See drawings on page 4
Weight	6.7 oz (190g)

#### Contact Data

Contact Arrangement: Main Contacts	SPST-NO-DM (1 Form X)
Voltage Rating: Main Contacts Switching (max)	900VDC
Current Rating: Main Contacts Switching	
Continuous (Note 1)	100A
Short Term -- 3 Minutes (Note 2)	200A
Hot Switching Performance (Polarity sensitive)	
50A make/break @ +400Vdc	50,000 cycles
100A make/break @ +400Vdc	6,000 cycles
100A make/break @ -400Vdc	1,000 cycles
200A make/break @ +400Vdc	500 cycles
1,000A break only @ +400Vdc	10 cycles
600A make only	10 cycles
Maximum Short Circuit Current (1/2 cycle, 60 Hz) (through closed contacts)	1,250A
Dielectric Withstand Voltage (Note 3)	
Between Open Contacts	5,600Vrms/8,000Vdc
Contacts to Coil	2,000Vrms/4,000Vdc
Insulation Resistance, Terminal to Terminal / Terminals to Coil	
When New	100 megohms, min. @ 500Vdc
At End of Life	50 megohms, min. @ 500Vdc
Mechanical Life	1 million cycles

#### Coil Operating Voltage (valid over temperature range)

Nominal Voltage	12Vdc	24Vdc	48Vdc
Maximum Voltage	16Vdc	28Vdc	52Vdc
Pick Up Voltage (20°C)	9Vdc	18Vdc	36Vdc
Drop Out Voltage (20°C)	≤1.2Vdc	≤2.4Vdc	≤4.8Vdc
Operating Voltage (-40°C to +85°C)	See Figure 1		
Coil Current (nominal at 20°C, 12vdc)	360mA	190mA	88mA
Coil Power			
Max @Vnom, +85°C	3.5W	3.5W	3.5W
Nominal @ Vnom, +20°C	4.5W	4.5W	4.5W
Max @ Vmax, -40°C	10W	10W	10W
Pickup (close) Voltage Max.	9.6Vdc	19.2Vdc	38.4Vdc

#### Operate & Release Time

Operate Time Max.	40ms
Operate Bounce Max.	5ms
Release Time	10ms

#### Environmental Data

Shock, 11ms 1/2 sine (operating)	20G peak
Sine Vibration, 20G peak	55-2,000 Hz.
Operating Temperature Range	-40°C to +85°C
Noise Emission (at 100 mm distance)	70dB(a)

#### Notes

Note 1: 8.4 mm<sup>2</sup> conductor. Current rating depends upon conductor size. Keep terminals below 150°C max continuous.

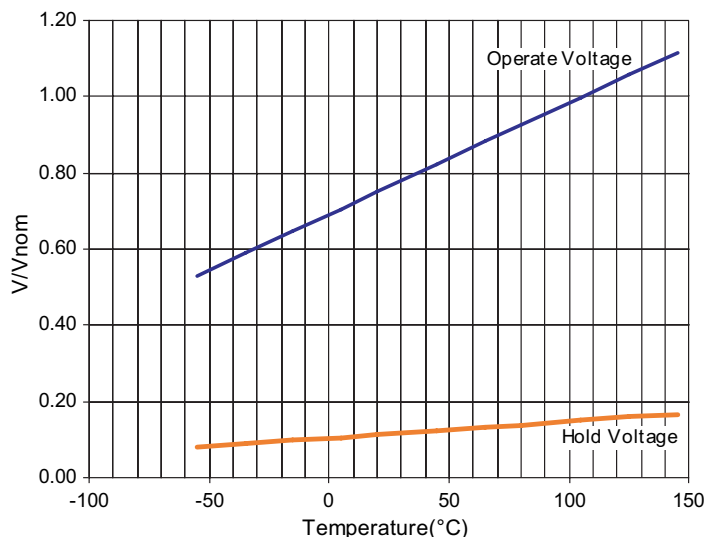
Note 2: 3 minutes at +40°C ambient with 8.4 mm<sup>2</sup> (#8 AWG) conductor.

Note 3: 2,000Vrms minimum under all conditions, until end of life.

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FIGURE 1 – OPERATING VOLTS VS. COIL TEMPERATURE



## PART NUMBERING

Typical Part Number >		LEV100	A	4	A	N	G
Series: LEV100 = 100A, 400Vdc Contactor							
Contact Arrangement: A = 1 Form X (SPST-NO-DM)							
Coil Voltage: 4 = 12Vdc                      5 = 25Vdc                      6 = 48Vdc							
Coil Wire Length: A = 15 inches [.4M]              B = 6 inches [.15M]							
Coil Termination: N = None – Stripped Wires							
Mounting and Power Terminals: G = Bottom Mount (2 x M4); 2 x M5		H = Side Mount (2 x M4); 2 x M5					

Chart above reflects initial standard product offering. Please consult factory regarding other available options.

NOTE: All part numbers are RoHS compliant.

Specifications are subject to change without notice.

## PRODUCT OFFERING

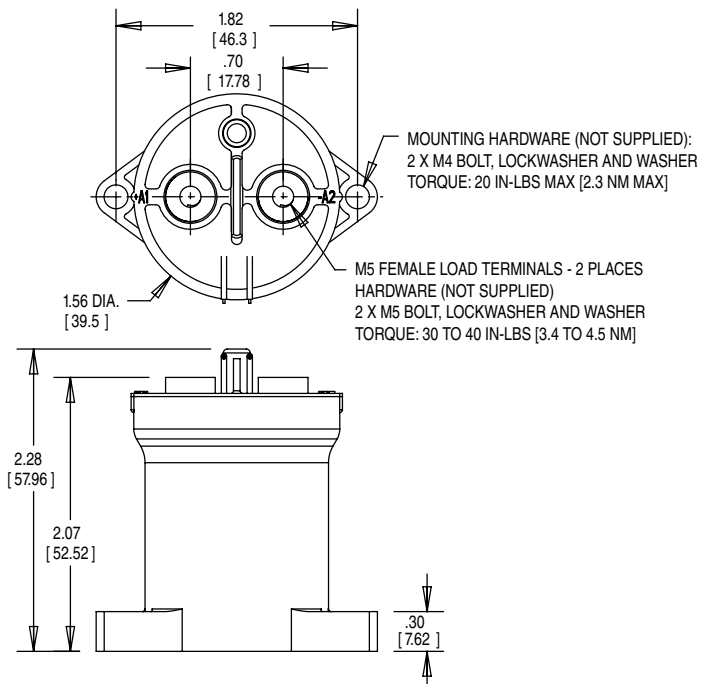
- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Bottom Mount Models</li> </ul> | <ul style="list-style-type: none"> <li>• Side Mount Models</li> </ul> |
| 3-1618389-8 LEV100A4BNG 12Vdc coil 6" [.15m] leads                      | 4-1618391-3 LEV100A4BNH 12Vdc coil 6" [.15m] leads                    |
| 3-1618389-7 LEV100A4ANG 12Vdc coil 15" [.4m] leads                      | 4-1618391-0 LEV100A4ANH 12Vdc coil 15" [.4m] leads                    |
| 3-1618391-8 LEV100A5BNG 24Vdc coil 6" [.15m] leads                      | 4-1618391-4 LEV100A5BNH 24Vdc coil 6" [.15m] leads                    |
| 9-1618389-8 LEV100A5ANG 24Vdc coil 15" [.4m] leads                      | 4-1618391-1 LEV100A5ANH 24Vdc coil 15" [.4m] leads                    |
| 3-1618391-9 LEV100A6BNG 48Vdc coil 6" [.15m] leads                      | 4-1618391-5 LEV100A6BNH 48Vdc coil 6" [.15m] leads                    |
| 3-1618391-7 LEV100A6ANG 48Vdc coil 15" [.4m] leads                      | 4-1618391-2 LEV100A6ANH 48Vdc coil 15" [.4m] leads                    |

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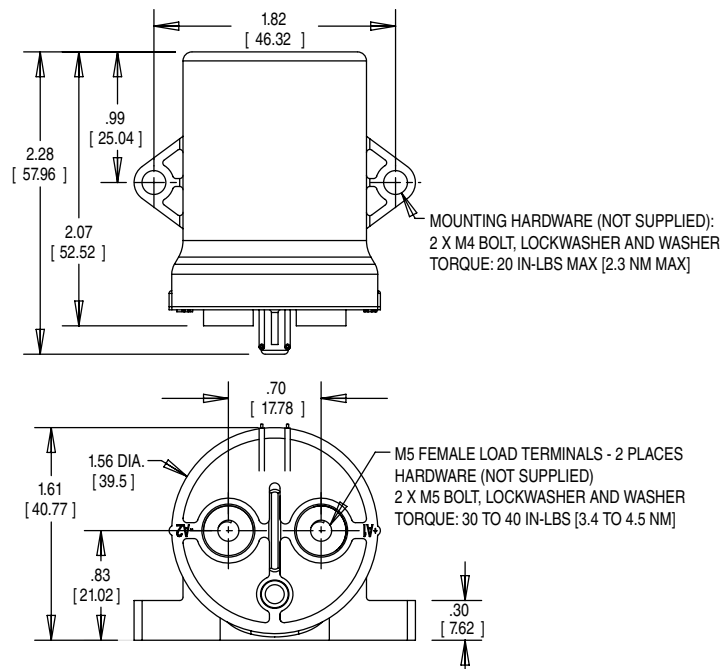
with 1 form X contacts rated 100A continuous

## OUTLINE DIMENSIONS

### Bottom Mount



### Side Mount



## FOR MORE INFORMATION

Earle Alldredge, Product Manager  
Phone: 805-220-2055  
Fax: 805-220-2075  
E-mail: earle.allredge@tycoelectronics.com