



## Introducing KILOVAC LEV100 Series 900 Vdc Contactor

with 1 form X contacts rated 100A continuous

## PART NUMBERING

| Typical Part Number                                                                                                              |  | LEV100 | A | 4 | A | N | G |
|----------------------------------------------------------------------------------------------------------------------------------|--|--------|---|---|---|---|---|
| <b>Series:</b><br>LEV100 = 100A Contactor                                                                                        |  |        |   |   |   |   |   |
| <b>Contact Arrangement:</b><br>A = 1 Form X (SPST-NO-DM)                                                                         |  |        |   |   |   |   |   |
| <b>Coil Voltage:</b><br>4 = 12VDC                      5 = 24VDC                      6 = 48VDC                                  |  |        |   |   |   |   |   |
| <b>Coil Wire Length:</b><br>A = 15 inches [.4M]                                                                                  |  |        |   |   |   |   |   |
| <b>Coil Termination:</b><br>N = None - Stripped Wires                                                                            |  |        |   |   |   |   |   |
| <b>Mounting and Power Terminals:</b><br>G = Bottom Mount (2 x #8); M5 x 10                      H = Side Mount (2 x #8); M5 x 10 |  |        |   |   |   |   |   |

NOTE: All part numbers are RoHS compliant.  
Specifications are subject to change without notice.

## PRODUCT OFFERING

- Bottom Mount Models

|             |             |            |                 |
|-------------|-------------|------------|-----------------|
| 3-1618389-7 | LEV100A4ANG | 12Vdc coil | 15" [.4m] leads |
| 9-1618389-8 | LEV100A5ANG | 24Vdc coil | 15" [.4m] leads |
| 3-1618391-7 | LEV100A6ANG | 48Vdc coil | 15" [.4m] leads |

- Side Mount Models

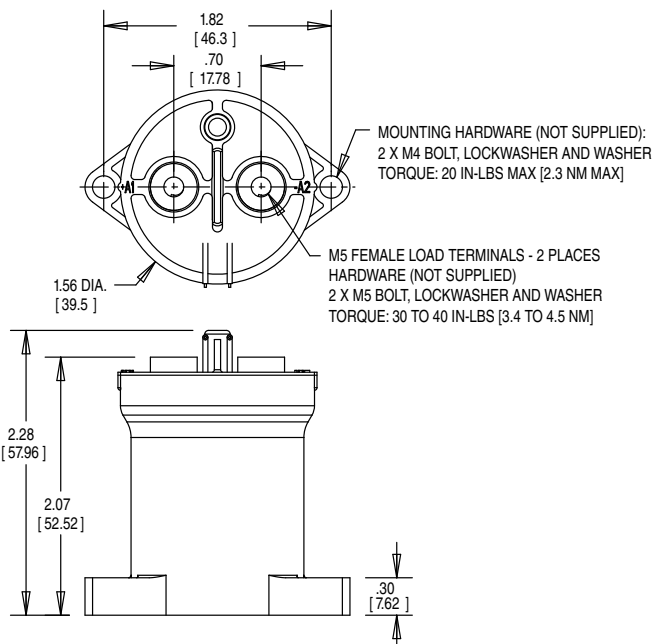
|             |             |            |                 |
|-------------|-------------|------------|-----------------|
| 4-1618391-0 | LEV100A4ANH | 12Vdc coil | 15" [.4m] leads |
| 4-1618391-1 | LEV100A5ANH | 24Vdc coil | 15" [.4m] leads |
| 4-1618391-2 | LEV100A6ANH | 48Vdc coil | 15" [.4m] leads |

# KILOVAC LEV100 Series 900 Vdc Contactor

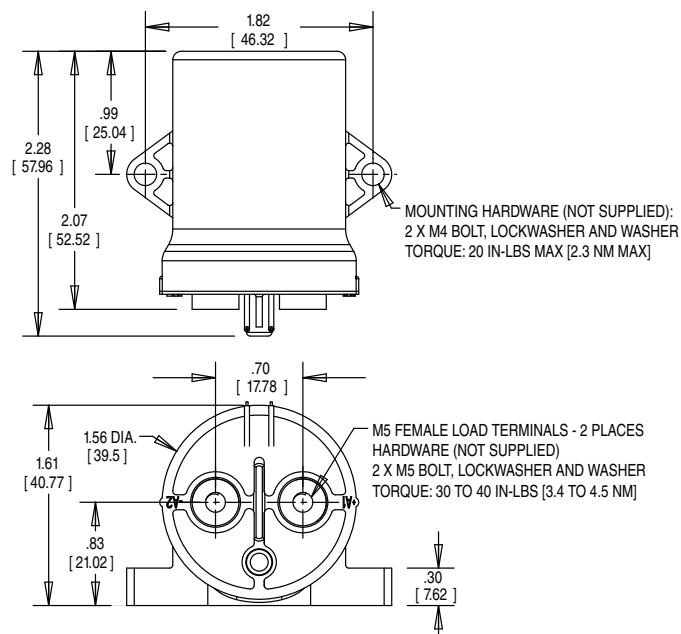
## PERFORMANCE DATA



### Bottom Mount



### Side Mount



# KILOVAC LEV100 Series 900 Vdc Contactor

## KEY FEATURES

Hermetically sealed —  
intrinsically safe. Operates  
in explosive/harsh environ-  
ments 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 48 Vdc coils

Designed and built in  
accordance to AIAG  
QS9000



## DESCRIPTION

Lowest cost, 900 Vdc 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

## MECHANICAL

Compact epoxy-sealed resin enclosure occupies only about 4 in<sup>3</sup> (65.5 cm<sup>3</sup>)

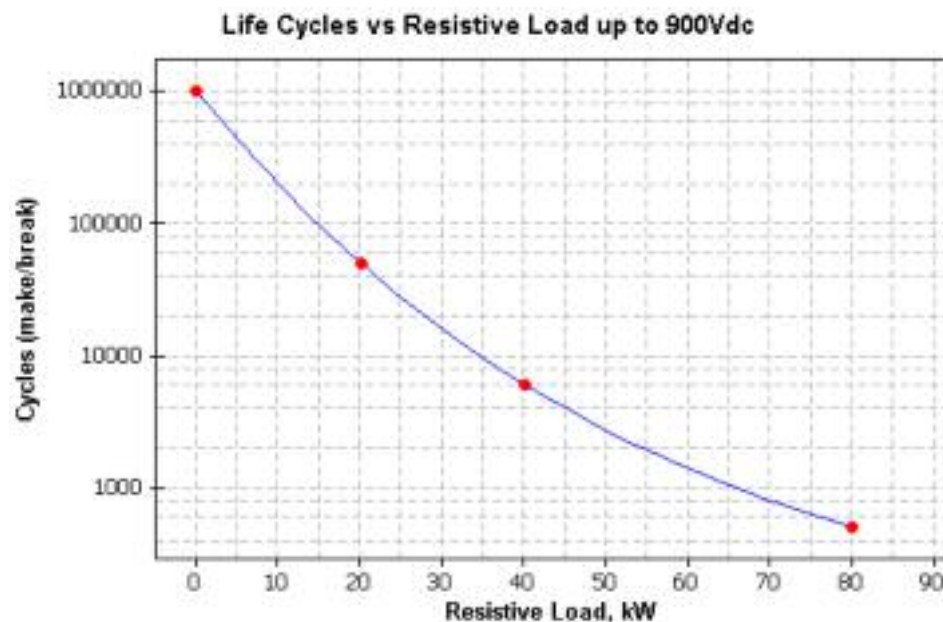
Robust integral mounting plate on either bottom or side of enclosure accepts two M4 screws

Inert gas filled contact chamber

Flying leads for coil connections

Load terminals threaded for M5 bolts (not included)

## LOAD LIFE VS. RESISTIVE POWER SWITCHING



# KILOVAC LEV100

## Series 900 Vdc

### Contactor

## 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                                     | 25 cycles                  |
| 600A make only                                                  | 25 cycles                  |
| Maximum Short Circuit Current (1/2 cycle, 60 Hz)                | 1,250A                     |
| (through closed contacts)                                       |                            |
| 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)                | 8Vdc   | 16Vdc   | 33Vdc   |
| Drop Out Voltage (20°C)               | 1.2Vdc | 2.4Vdc  | 4.8Vdc  |
| Coil Current (nominal at 20°C, 12vdc) | 461mA  | 250mA   | 122mA   |
| Coil Power                            |        |         |         |
| Nominal @ Vnom, +20°C                 | 5.5W   | 6.0W    | 6.0W    |
| Pickup (close)                        |        |         |         |
| Voltage Max.@85 °C                    | 9.6Vdc | 19.2Vdc | 38.4Vdc |
| Coil Resistance                       |        |         |         |
| Nominal @ +20°C ± 5% (ohms)           | 26     | 96      | 392     |

### Operate & Release Time

|                     |      |
|---------------------|------|
| Operate Time Max.   | 25ms |
| 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 175°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.

## FOR MORE INFORMATION

### Technical Support

|                |                                                                                      |
|----------------|--------------------------------------------------------------------------------------|
| Internet:      | <a href="http://www.tycoelectronics.com">www.tycoelectronics.com</a>                 |
| E-mail:        | <a href="mailto:newproducts@tycoelectronics.com">newproducts@tycoelectronics.com</a> |
| USA:           | 1-800-522-6752                                                                       |
| Canada:        | 1-905-470-4425                                                                       |
| Mexico:        | 1-800-733-8926                                                                       |
| C. America:    | 52-55-1106-0803                                                                      |
| South America: | 55-11-2103-6000                                                                      |
| Hong Kong:     | 852-2735-1628                                                                        |
| Japan:         | 81-44-844-8013                                                                       |
| UK:            | 44-208-420-8341                                                                      |

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