

LEV100 Extended Performance Contactor with Aux Contact 150A/1000Vdc Power Switching SPST-NO Auxiliary Contact (Form X)

Features

- Lowest cost, 150A hermetically sealed contactor with Normally Open (NO) auxiliary contact.
- Great for HV isolation and Carry-8kVdc isolation between open main contacts
- Available in both side and bottom mount configurations – not position sensitive.
- Hermetically Sealed – Suitable for use in explosive/harsh environments without oxidation or contamination of contacts, including long periods of non-operation.
- Typical applications include automotive battery switching and backup, power/motor control circuit isolation, circuit protection and safety.
- 12, 24 and 48Vdc coils available.
- High voltage coil and auxiliary leads rated at 15kV (UL 3239) wire option “C” or rated at 1kV (UL 3557) wire option “F”.
- UL 508 Recognized
File No. E208033



550 Linden Ave, Carpinteria, CA 93013
Phone: (805) 220-2020 Fax: (805) 220-2075
<http://www.te.com>

TITLE

LEV100H Extended Performance w/ Aux Contact Data Sheet

| | | | | | | |
|-----------|-----------|-----------|-----------|----------------------|-------|--------|
| PREP. BY | J. Reyes | 9/28/2016 | DWG NO. | SD-LEV100H EP | | |
| CHKD. BY | M. Priest | 9/28/2016 | CAGE CODE | 18741 | SCALE | SHEET |
| ENG APRVL | J. Reyes | 9/28/2016 | | none | | 1 of 4 |

General Specifications

REV.
G

Physical Data

Units

| | | |
|------------------------------------|----|------------------|
| Contact Arrangement: Main Contacts | | SPST-NO (Form X) |
| Auxiliary [Note 1] | | SPST |
| Dimensions | | See Sheet 4 |
| Weight, Nominal | kg | 0.190 |

Environmental Data

| | | |
|-------------------------------------|--------|------------|
| Shock, 11ms 1/2 sine (operating) | G peak | 20 |
| Sine Vibration, 20 G pk | Hz | 55-2000 |
| Operating Temperature Range | °C | -40 to +85 |
| Noise Emission (at 100 mm distance) | dB(a) | 70 |

Electrical Data

| | | |
|--|--------|---|
| Voltage Rating: Main Contacts Switching (max) | Vdc | 1000 |
| Current Rating, Continuous: Main Contacts [Note 2] | A | 100 |
| [Note 2] | | 150 |
| Short Term Current (3 min) [Note 3] | | 200 |
| Contact Voltage Drop: Main Contacts | V | 0.05 max @ rated current |
| | | UL Recognized |
| | | Internal Qualification |
| Hot Switching performance (polarity sensitive): | Cycles | |
| 50A make/break @+1000Vdc | | 50 |
| 100A make/break @ -400Vdc | | 1000 |
| 200A make/break @ +400Vdc | | 500 |
| 1000A break only @ +400Vdc | | 2 |
| 600A make only | | 10 |
| 50A @+400Vdc | | 25000 |
| Maximum Short Circuit Current (1/2 cycle, 60 Hz) | A | 1250 |
| (through closed contacts) | | |
| Mechanical Life | Cycles | 1,000,000 |
| | | UL Recognized |
| | | Internal Qualification |
| Dielectric Withstand Voltage: | | |
| Between Open Contacts [Note 4] | Vrms | 4250 |
| Contacts to Coil | Vrms | 2200 |
| Insulation resistance | | |
| Terminal to Terminal/ Terminals to Coil | MΩ | 100 min @ 500Vdc new 50 min @ 500Vdc end of life |

Coil Data

| | | | | |
|-----------------------------------|-----|-------|-------|-------|
| Coil Voltage, Nominal/ Max | Vdc | 12/16 | 24/28 | 48/52 |
| Coil Resistance (20°C) | Ω | 26 | 96 | 392 |
| Pick Up Voltage (20°C) | Vdc | 8 | 16 | 33 |
| Dropout Voltage (20°C) | Vdc | ≤1.2 | ≤ 2.4 | ≤ 4.8 |
| Coil Current (nominal at 20°C) | A | 0.46 | 0.25 | 0.12 |
| Coil Power (nom @ Vnom, 20°C) | W | 5.5 | 6.0 | 6.0 |
| Main Contacts: Operate Time (max) | ms | 25 | | |
| Operate Bounce (max) | ms | 6 | | |
| Release time | ms | 10 | | |



550 Linden Ave, Carpinteria, CA 93013
Phone: (805) 220-2020 Fax: (805) 220-2075
<http://www.te.com>

SD-LEV100H EP

THIRD ANGLE PROJECTION



THIS DRAWING
PREPARED IN
ACCORDANCE WITH
ANSI/ASME Y14.5M-1982

CAGE CODE

18741

SCALE

SHEET

2 of 4

Notes:

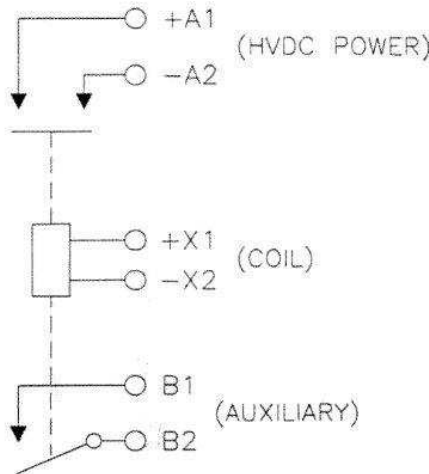
- [1] Auxiliary contact ratings: 3A, 125Vac to 10,000 cycles Min; 3A, 24Vdc to 10,000 cycles Min.; 100mA, 10Vdc to 1M cycles. Auxiliary contact is mechanically linked to the main power contacts. **Minimum Aux Contact Load 10mA/12Vdc**
- [2] 100A with 4 AWG at 85C and 150A with 2 AWG at 40C ambient. Current rating depends upon conductor size. Keep terminals below 175C max continuous.
- [3] 3 minutes at +40C ambient, 1 minute at +80C ambient with (8 AWG) conductor.
- [4] 2200 Vrms minimum under all conditions, until end of life.

Part Numbering System

| | | | | | | |
|---|--------------------------------------|----------|----------|----------|----------|----------|
| Typical PN | LEV100 | H | 5 | C | N | G |
| Series: LEV100=100A, 1000 Vdc Contactor | | | | | | |
| Contact Form: H = NO with 1PST NO Aux | | | | | | |
| Coil Voltage: 4 = 12Vdc 5 = 24 Vdc 6 = 48 Vdc | | | | | | |
| Wire Lengths: A = 15.3" [.39m], 600V Coil and Aux Wires C = 10" [.25m], 15KV Coil and Aux Wires F = 15.3" [.39m], 1000V Coil and Aux Wires | | | | | | |
| Coil Termination: N = None – Stripped Wires | | | | | | |
| Mounting: G = Bottom Mount 2x #8, M5x10 Mains | H = Side Mount 2x #8, M5x10 Mains | | | | | |

Schematic

NOTES: Contactors should be installed so that current flows from A1 (+) to A2 (-)



550 Linden Ave, Carpinteria, CA 93013
Phone: (805) 220-2020 Fax: (805) 220-2075
<http://www.te.com>

SD-LEV100H EP

THIRD ANGLE PROJECTION



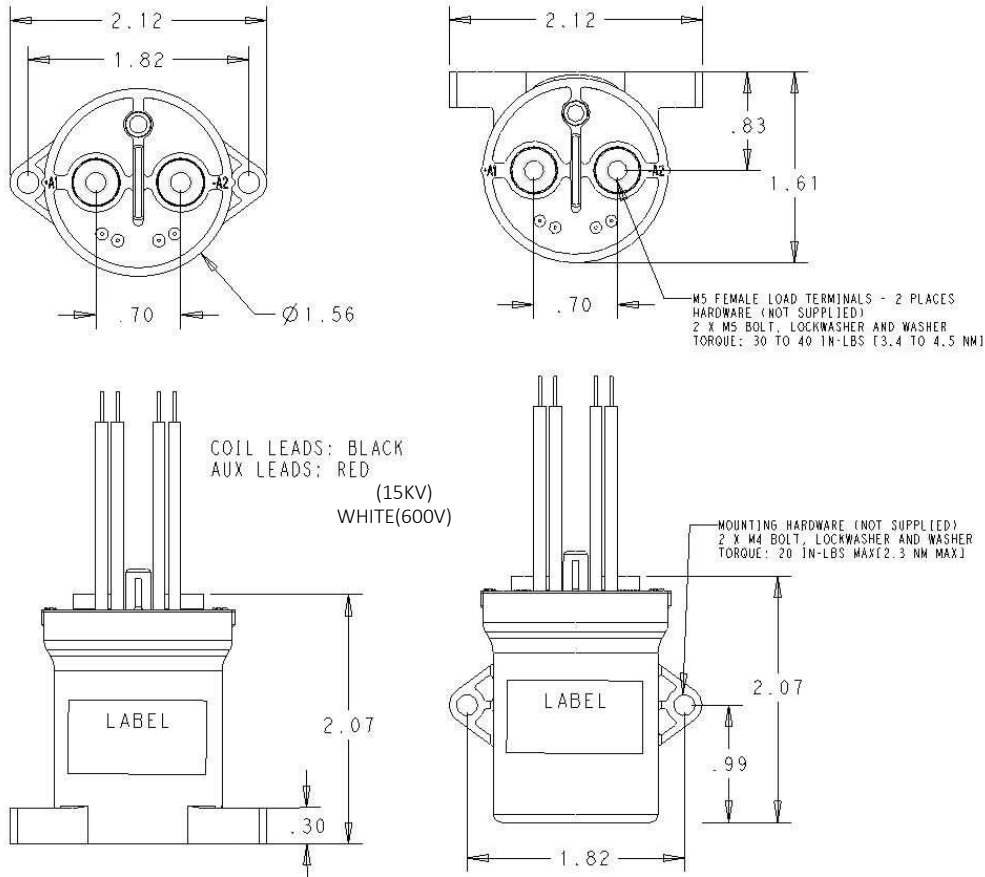
THIS DRAWING
PREPARED IN
ACCORDANCE WITH
ANSI/ASME Y14.5M-1982

CAGE CODE
18741

SCALE

SHEET
3 of 4

Part Drawing



Revisions

| REV | DESCRIPTION | DCO | APPROVAL AND DATE |
|-----|---|-------|-------------------|
| A | INITIAL RELEASE | 16366 | JR 08/03/2016 |
| B | CLARIFICATION PAGE 1, REVISE NOTES 1-3 | 16371 | JR 09/26/2016 |
| C | ADD 'EP' DESCRIPTION TO SD | 16377 | JR 11/15/2016 |
| D | ADD 1000VDC TO TITLE. ADD TO NOTE 1 "MINIMUM AUX CONTACT LOAD 10 mA/12VDC | 16378 | JR 12/08/2016 |
| E | ADD WIRE OPTION 'A' | 16421 | JR 01/04/2018 |
| F | ADD WIRE OPTION 'F' | 16533 | DM 04/30/2020 |
| G | UPDATE TEMPERATURE DATA | 16535 | JR 06/03/2020 |



550 Linden Ave, Carpinteria, CA 93013
 Phone: (805) 220-2020 Fax: (805) 220-2075
<http://www.te.com>

SD-LEV100H EP

THIRD ANGLE PROJECTION



THIS DRAWING
 PREPARED IN
 ACCORDANCE WITH
 ANSI/ASME Y14.5M-1982

CAGE CODE

18741

SCALE

SHEET

4 of 4