

AIRPAX®

LEJ & LEJA Series Hydraulic-Magnetic Circuit Breakers



- Introduction* • **133**
- Configurations* • **134**
- Delay Curves* • **142**
- Decision Tables* • **143**





AIRPAX® | LEJ & LEJA Series

Hydraulic-Magnetic Circuit Breakers

INTRODUCTION

The LEJ/LEJA series circuit breaker meets the evolving demand for the high performance protection of critical data center and telecommunications applications requiring up to 277VAC per pole, UL 489 listing in the smallest case size currently available in the marketplace. The LEJ/LEJA platform is based on the highly successful and field proven LEG/LEGA designs while incorporating state-of-the-art arc quenching technologies and offering voltage ratings that are well suited for global applications that require 208VAC through 277VAC ratings for increased power efficiency.

Typical applications include power distribution units (PDUs) used in data center enclosures, telecom AC power supplies and a variety of Industrial applications benefiting from the higher power density. Like the LEG/LEGA product family, the LEJ/LEJA series offers a variety of features including different terminations and actuators to meet most any requirements.

FEATURES

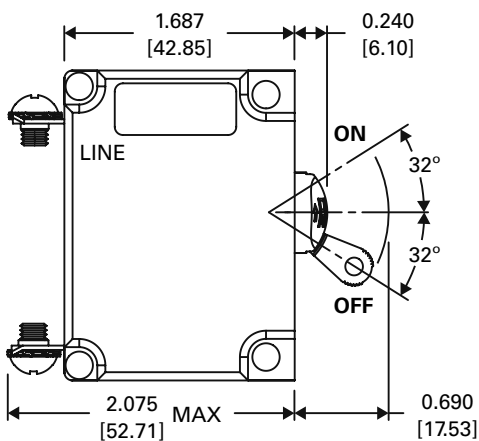
- Up to two poles, 2 amps to 20 amps rated current at 240VAC per pole
- UL 489 listed and TÜV approvals available
- Up to 10,000AIC short circuit amperage rating
- Low Depth "A" option provides a 31% lower depth compared to standard LEJ product
- Maintains the high performance characteristics, reliability, panel cut out and mounting dimensions of LEG/LEGA products

SPECIFICATIONS

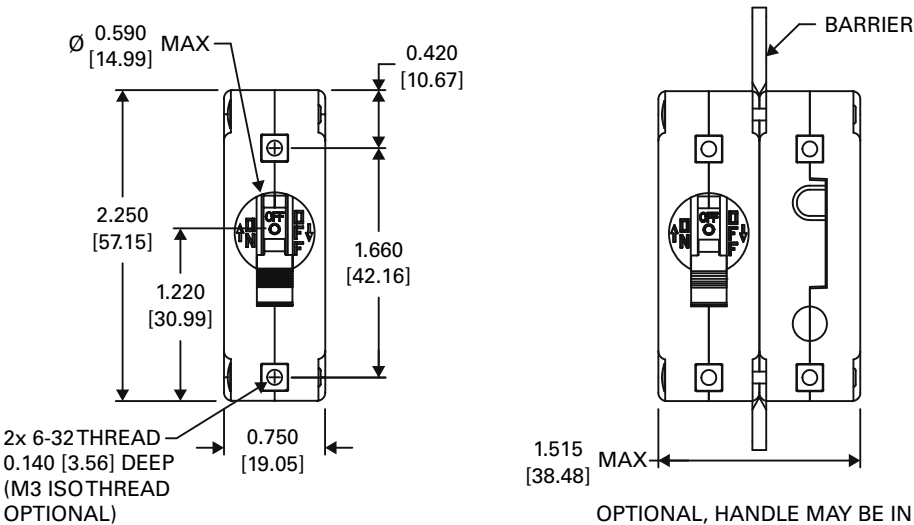
| Agency Certification | Rated Amperage | Maximum Voltage per Pole | Short Circuit Amperage |
|----------------------|----------------|--------------------------|------------------------|
| UL 489 | 2 to 20 amps | 240 VAC, 50/60 Hz | 5000 |
| TÜV (EN60947-2) | 2 to 20 amps | 240 VAC, 50/60 Hz | 5000 |
| UL489 | 2 to 20 amps | 240 VAC, 50/60 Hz | 10000 |
| UL489 | 2 to 20 amps | 277 VAC, 50/60 Hz | 10000 |

CONFIGURATIONS: LEJ TOGGLE HANDLE

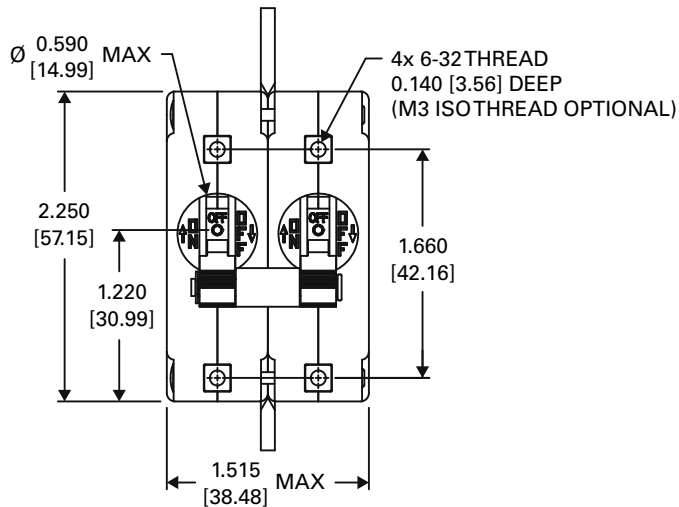
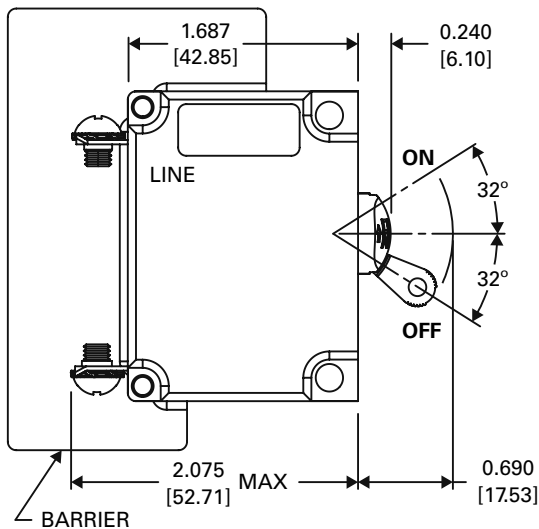
SINGLE POLE



TWO POLE, 1 HANDLE

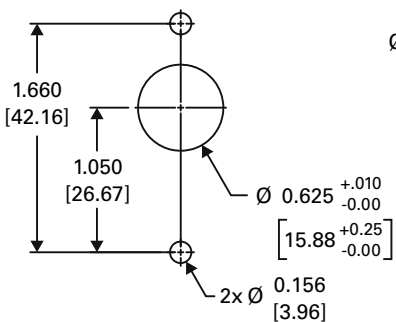


TWO POLE, 2 HANDLE

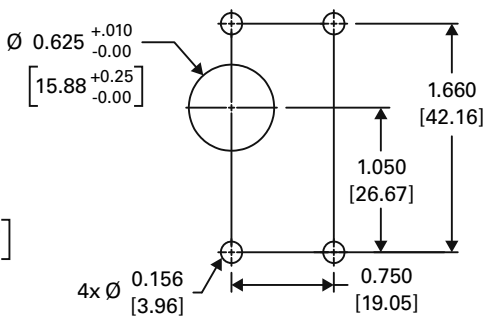


OPTIONAL, HANDLE MAY BE IN POLE 1 INSTEAD OF POLE 2

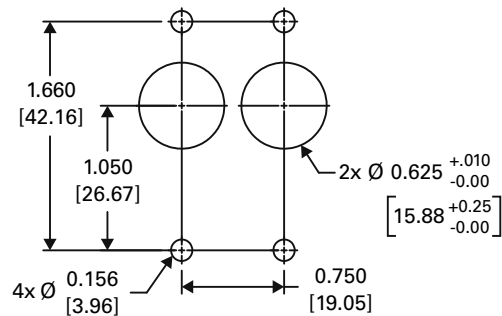
PANEL MOUNT CUTOUT - 1 POLE



PANEL MOUNT CUTOUT - 2 POLE, 1 HANDLE



PANEL MOUNT CUTOUT - 2 POLE, 2 HANDLE

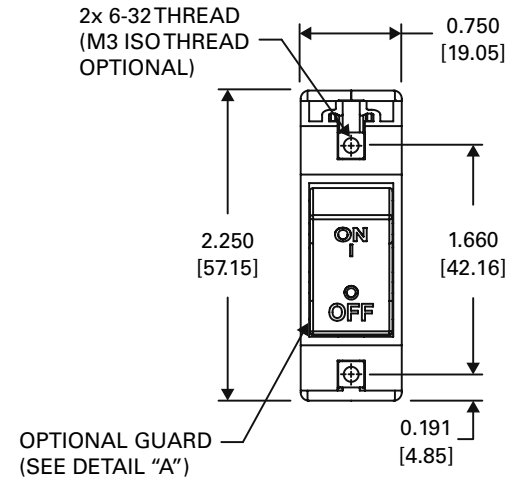
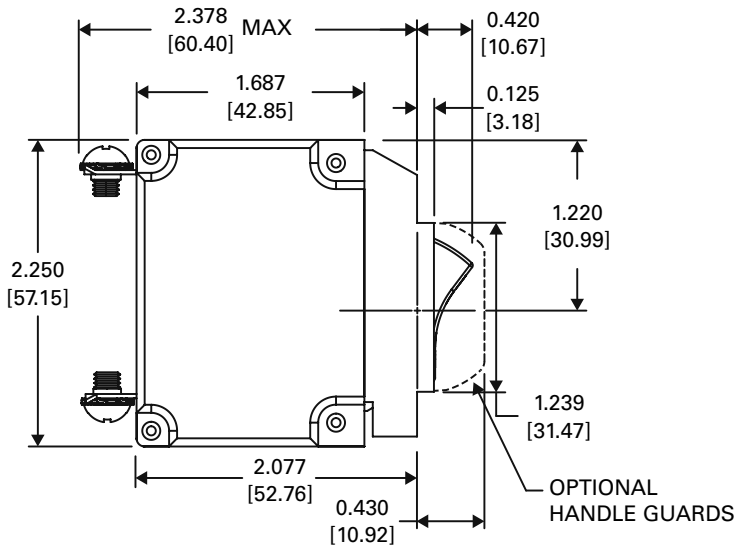


NOTES:

1. All mounting inserts shall be utilized when panel mounting circuit breakers. Panel mounting screws shall have recommended torque applied: 6/32 mounting inserts 6 - 8 inch pounds. M3 mounting inserts 4 - 5 inch pounds.
2. Panel mounting screws shall not extend beyond back of mounting panel more than specified mounting insert depth.
3. Mounting detail tolerance: ± 0.005 [0.13] unless noted.

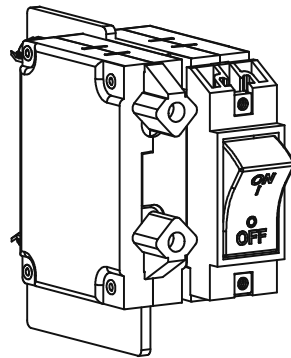
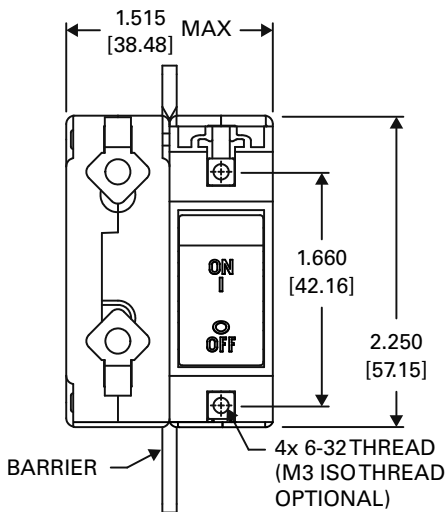
CONFIGURATIONS: LEJZX ROCKER HANDLE

SINGLE POLE

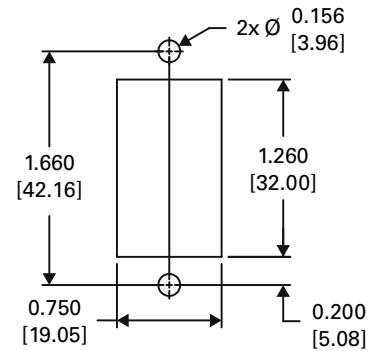


PANEL MOUNT CUTOUT - 1 or 2 POLE

TWO POLE



OPTIONAL, HANDLE MAY BE IN POLE 2 INSTEAD OF POLE 1

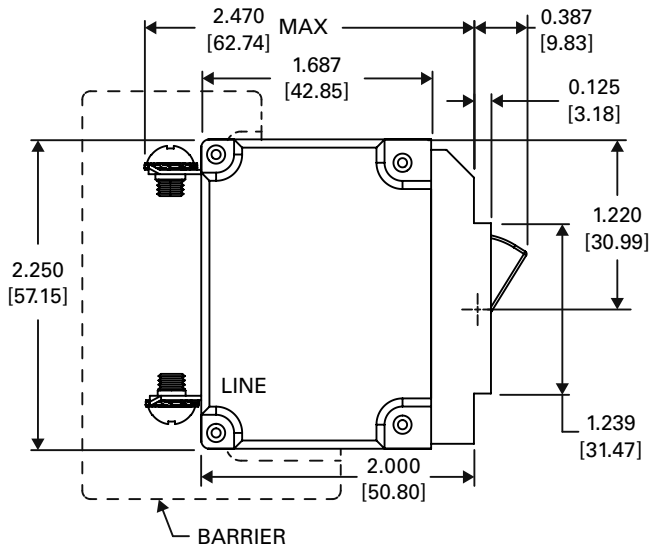


NOTES:

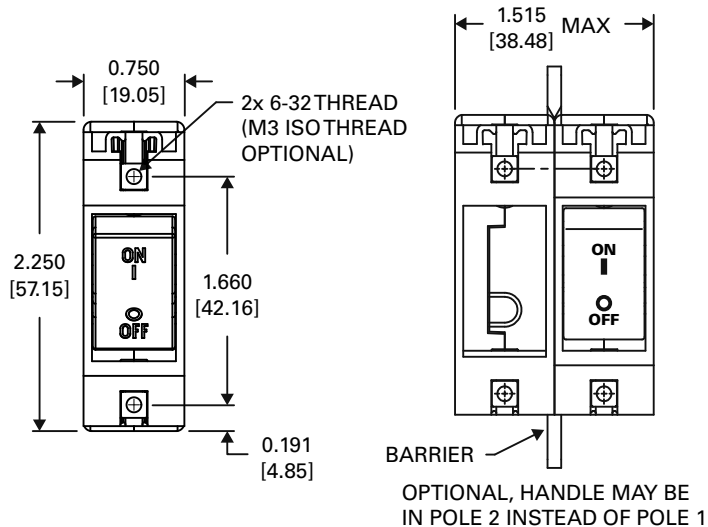
1. All mounting inserts shall be utilized when panel mounting circuit breakers. Panel mounting screws shall have recommended torque applied: 6/32 mounting inserts 6 - 8 inch pounds. M3 mounting inserts 4 - 5 inch pounds.
2. Panel mounting screws shall not extend beyond back of mounting panel more than specified mounting insert depth.
3. Mounting detail tolerance: ± 0.005 [0.13] unless noted.
4. Two pole ZX has standoffs (as shown). It uses 2 panel screws. A higher shock capability (4 panel screws) is available (consult factory).

CONFIGURATIONS: LEJBX ROCKER HANDLE

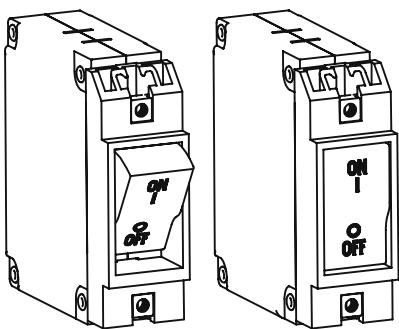
SINGLE POLE



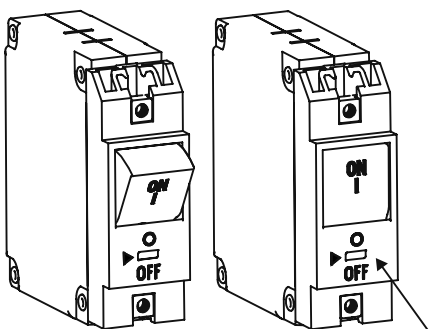
TWO POLE



BX HANDLE WITHOUT GUARD

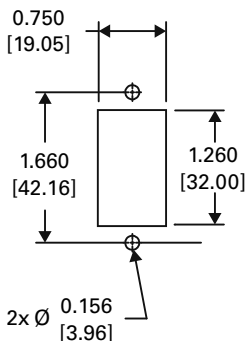


GUARD (LIMITED ACCESS ACTUATE-OFF)

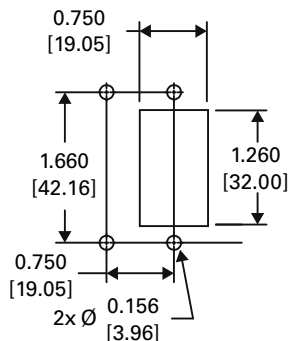


ACCESS TO ACTUATE OFF IS LIMITED TO A DEVICE SMALLER THAN 0.069 [1.75] x 0.155 [3.94]

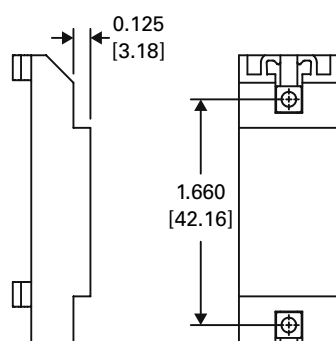
PANEL MOUNT CUTOUT (1 POLE)



PANEL MOUNT CUTOUT (2 POLE)

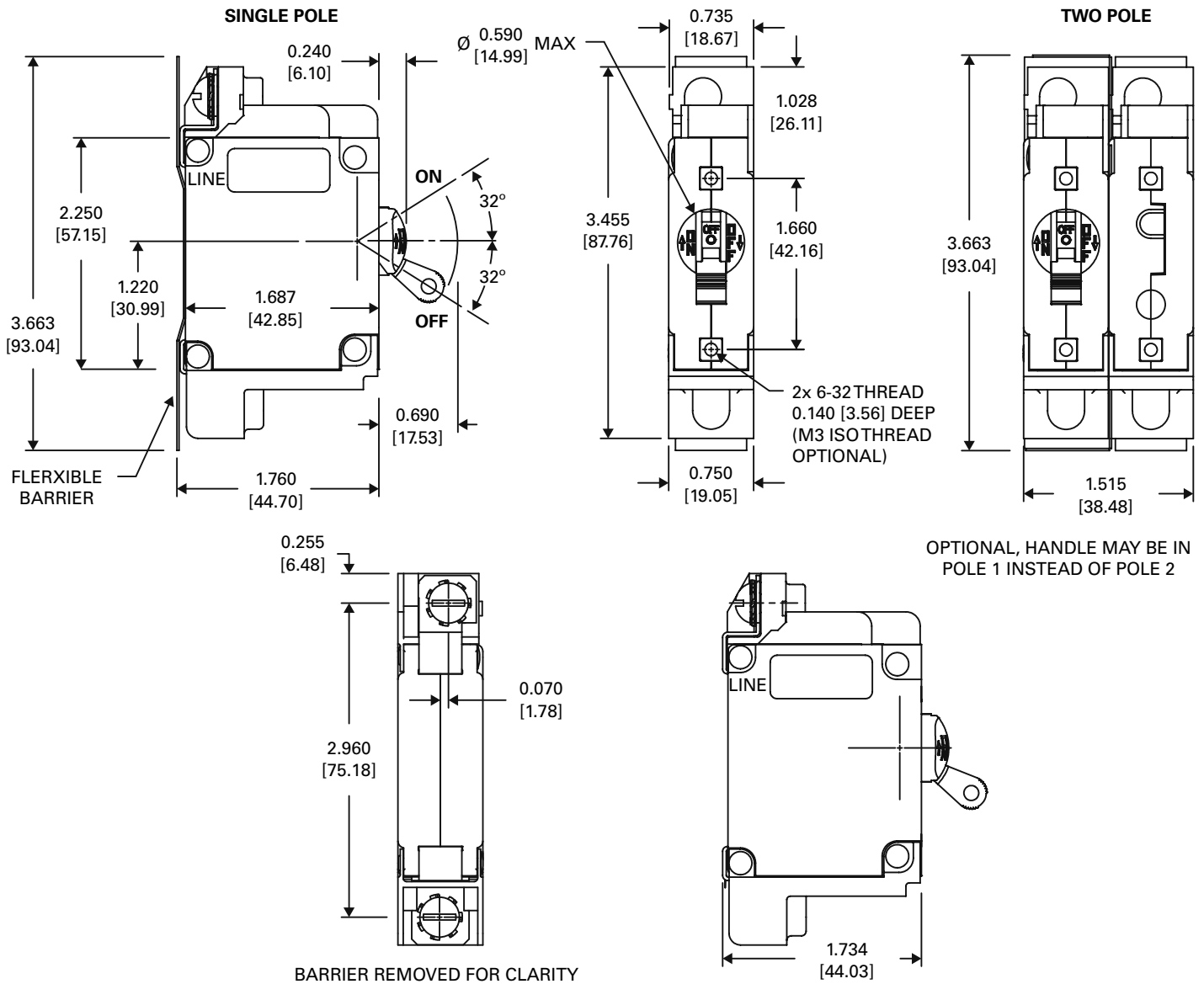


PANEL PLUG (CONSULT FACTORY FOR AVAILABILITY)

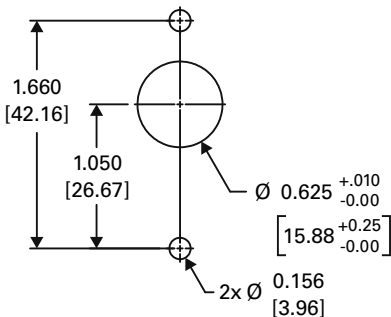


- P/N: 121-710-2450**
6-32 THD. (BLACK)
- P/N: 121-710-2451**
M3 THD. (BLACK)
- P/N: 121-450-3000**
6-32 THD. (BLACK)
- P/N: 121-450-3001**
M3 THD. (BLACK)

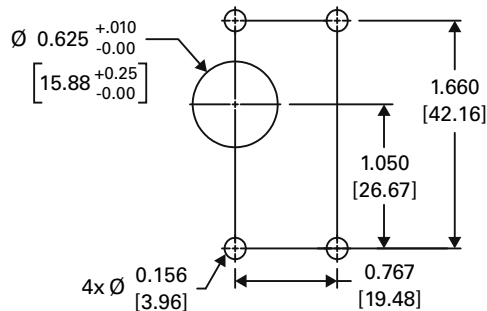
CONFIGURATIONS: LEJA, TOGGLE HANDLE



PANEL MOUNT CUTOUT - 1 POLE



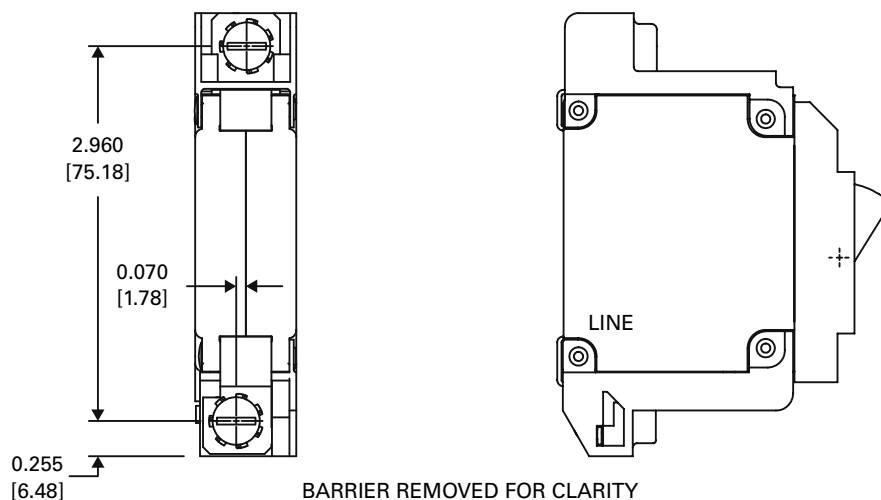
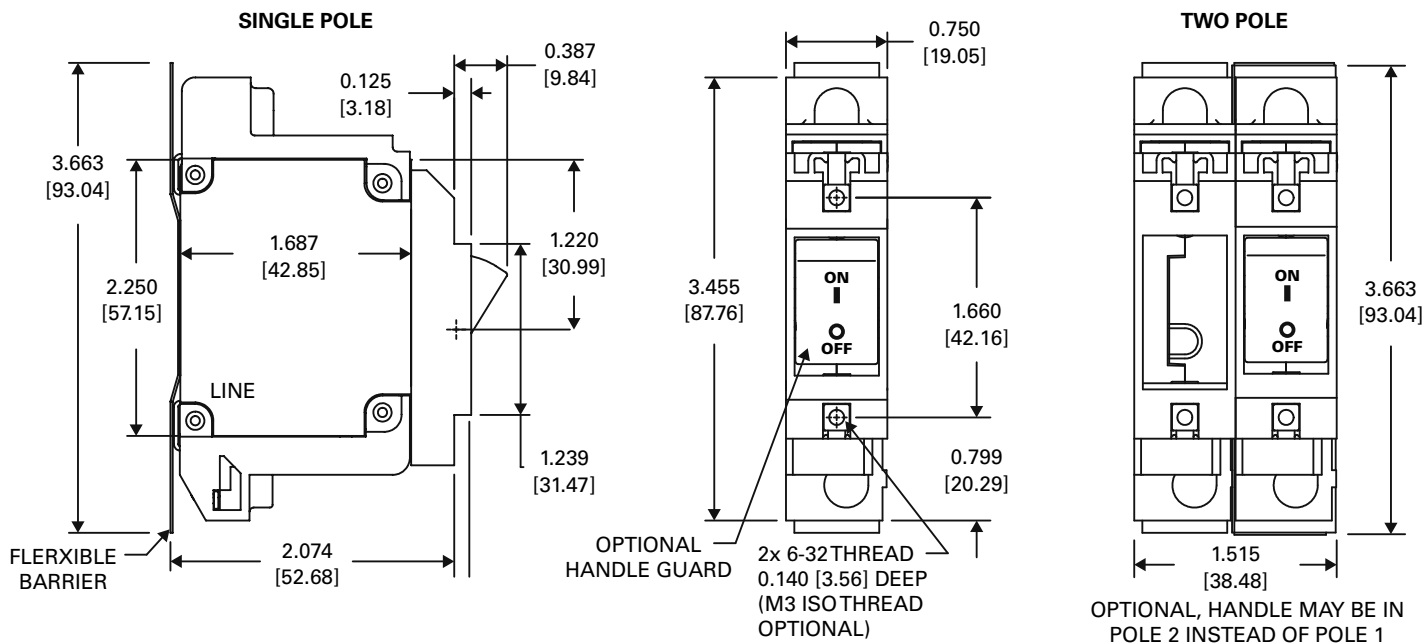
PANEL MOUNT CUTOUT - 2 POLE, 1 HANDLE



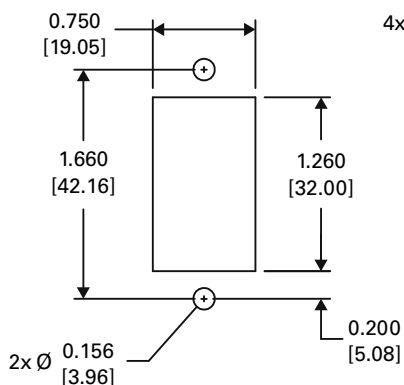
NOTES:

1. All mounting inserts shall be utilized when panel mounting circuit breakers. Panel mounting screws shall have recommended torque applied: 6/32 mounting inserts 6 - 8 inch pounds. M3 mounting inserts 4 - 5 inch pounds.
2. Panel mounting screws shall not extend beyond back of mounting panel more than specified mounting insert depth.
3. Mounting detail tolerance: \pm 0.005 [0.13] unless noted.

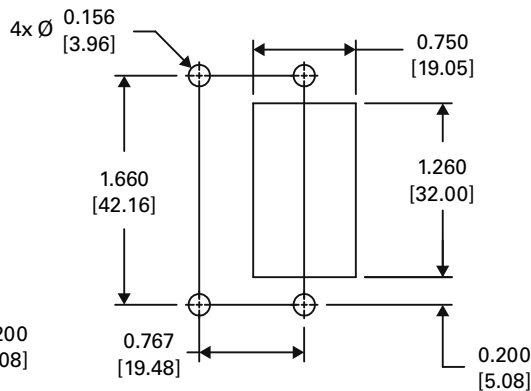
CONFIGURATIONS: LEJXA ROCKER HANDLE



PANEL MOUNT CUTOUT - 1 POLE



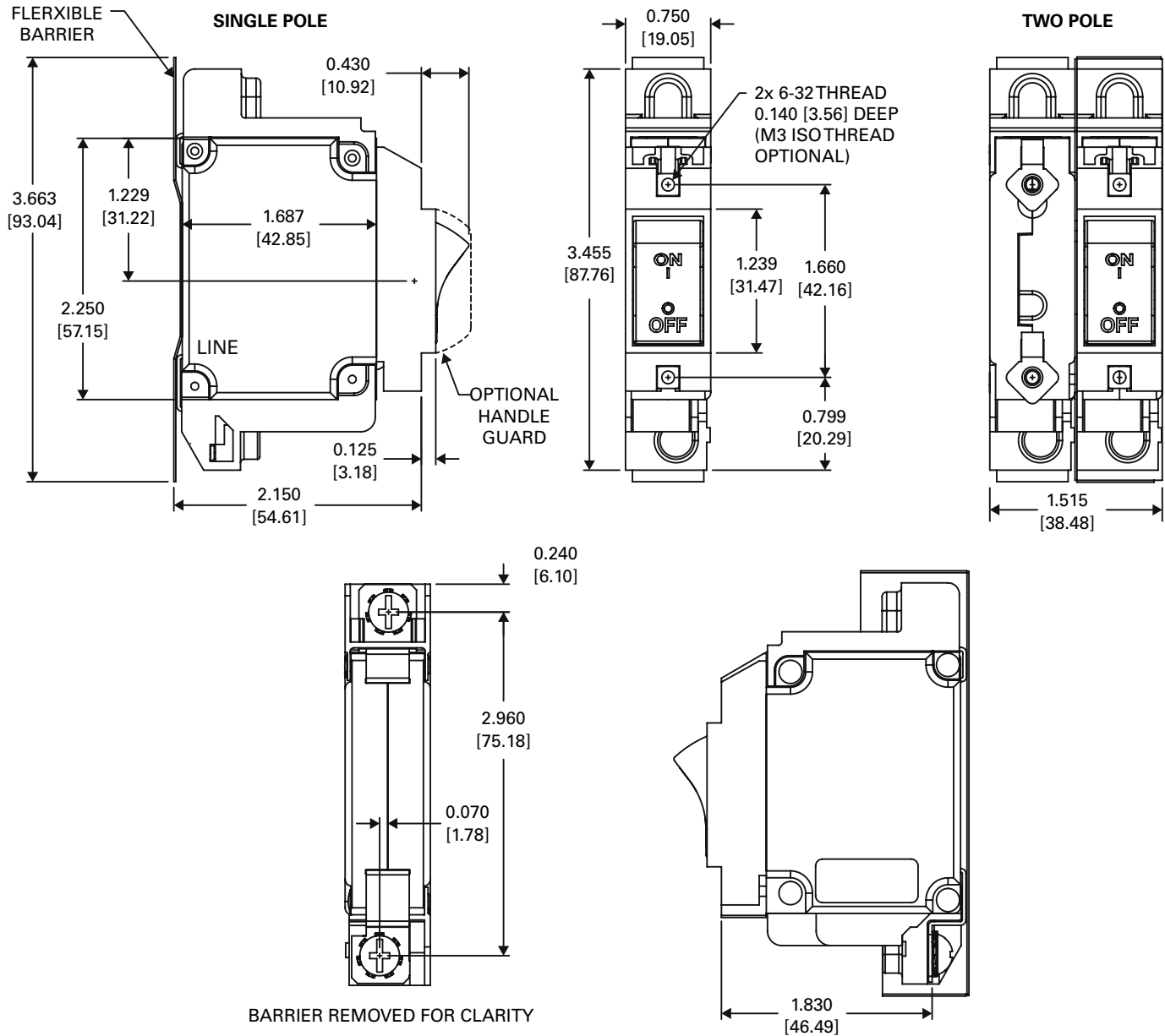
PANEL MOUNT CUTOUT - 2 POLE



NOTES:

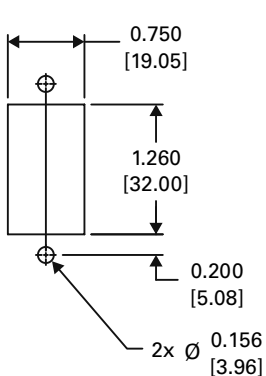
1. All mounting inserts shall be utilized when panel mounting circuit breakers. Panel mounting screws shall have recommended torque applied: 6/32 mounting inserts 6 - 8 inch pounds. M3 mounting inserts 4 - 5 inch pounds.
2. Panel mounting screws shall not extend beyond back of mounting panel more than specified mounting insert depth.
3. Mounting detail tolerance: ± 0.005 [0.13] unless noted.

CONFIGURATIONS: LEJZX, ROCKER HANDLE

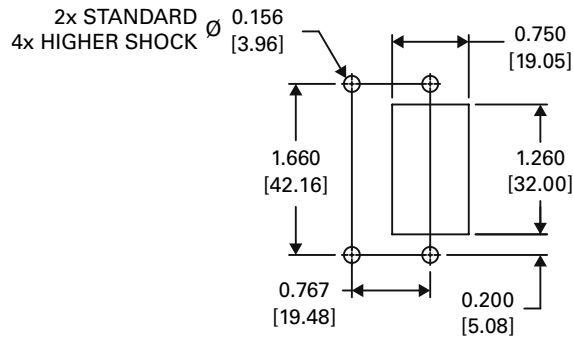


BARRIER REMOVED FOR CLARITY

PANEL MOUNT CUTOUT - 1 POLE



PANEL MOUNT CUTOUT - 2 POLE

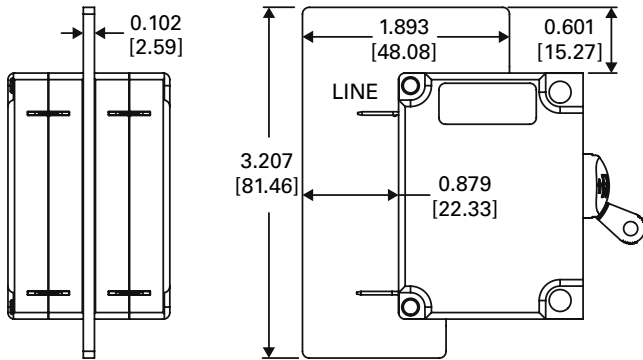


NOTES:

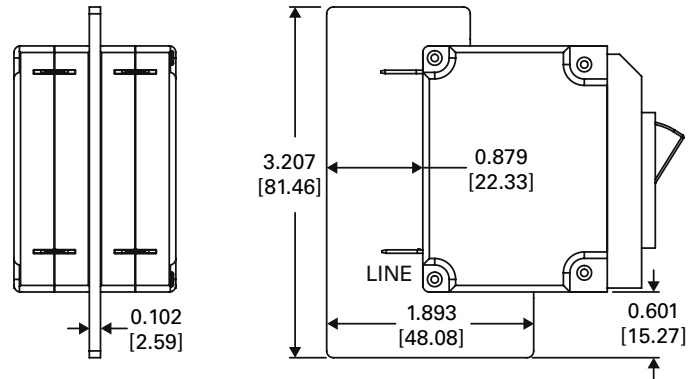
1. All mounting inserts shall be utilized when panel mounting circuit breakers. Panel mounting screws shall have recommended torque applied: 6/32 mounting inserts 6 - 8 inch pounds. M3 mounting inserts 4 - 5 inch pounds. Panel mounting screws shall not extend beyond back of mounting panel more than specified mounting insert depth.
2. Mounting detail tolerance: ± 0.005 [0.13] unless noted.

BARRIER OPTIONS FOR MULTI-POLE UNITS

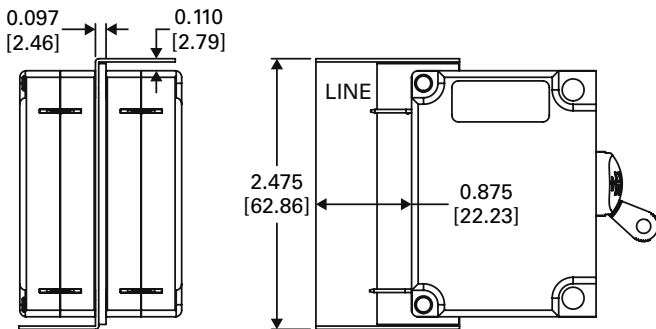
STANDARD BARRIER - TOGGLE HANDLE



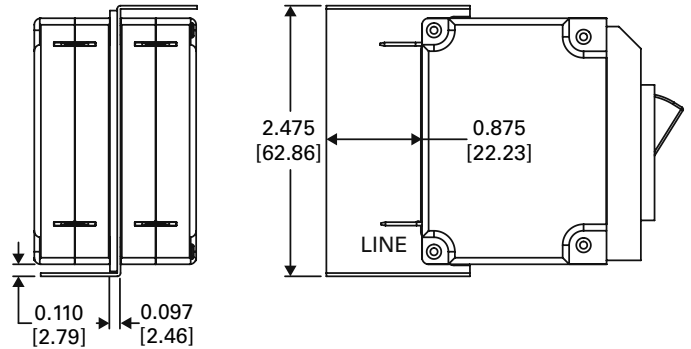
STANDARD BARRIER - ZX & BX HANDLE



OPTIONAL (-Z) BARRIER - TOGGLE HANDLE

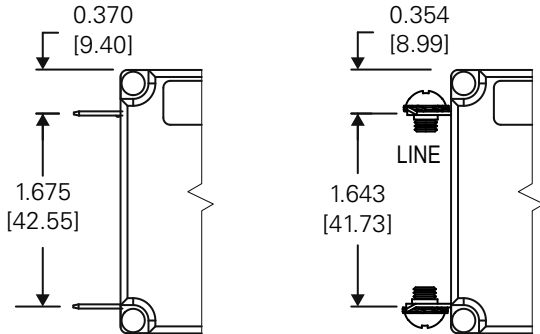


OPTIONAL (-Z) BARRIER - ZX & BX HANDLE

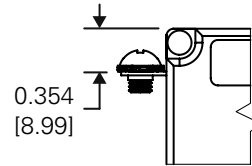


TERMINAL OPTIONS

STANDARD - QUICK CONNECT & SCREW TERMINALS



OPTIONAL - FLAT BUS CONNECT SCREW TERMINAL

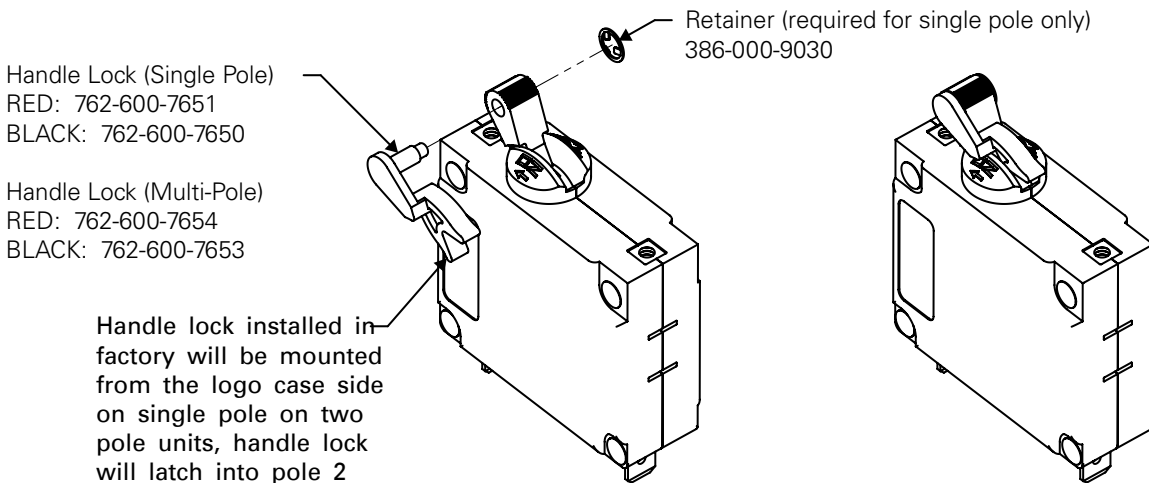


NOTES:

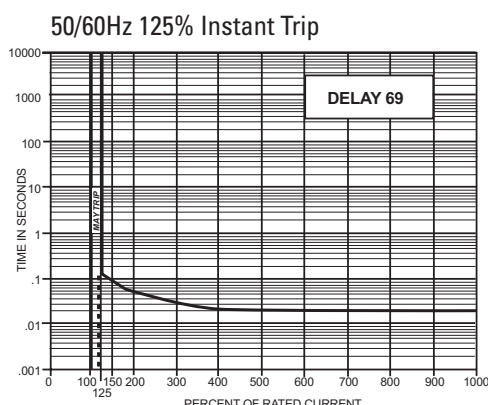
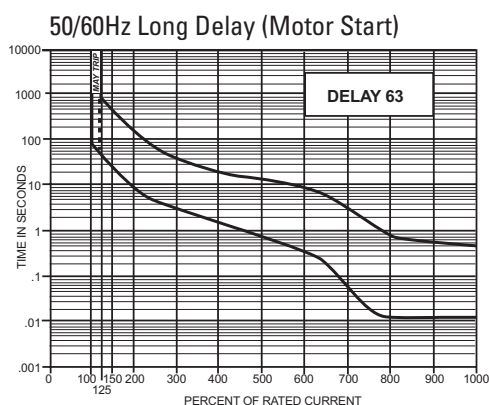
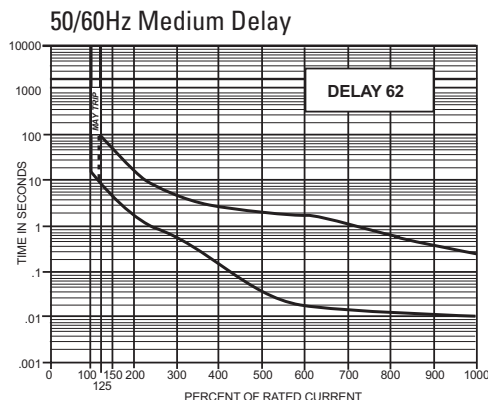
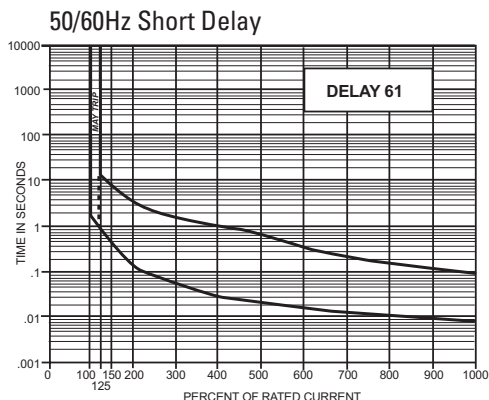
- Terminals:
 Quick Connect = 0.250 [6.35] wide x 0.031 [0.79] thick
 Screw = 10-32 or M5 x 0.8
 TÜV approval with screw terminals include external tooth lockwashers
- 10000 AIC available only with screw terminals

OPTIONAL HANDLE LOCK FOR TOGGLE HANDLE

A handle lock option is available to prevent accidental actuation of the handle. The handle lock may be used in the ON or OFF position. This option is available pre-assembled or separately. Consult factory for ordering information.



DELAY CURVES



PERCENTAGE OF RATED CURRENT VS TRIP TIME IN SECONDS

| Delay | 100% | 125% | 150% | 200% | 400% | 600% | 800% | 1000% |
|-------|---------|------------|------------|-------------|-----------|------------|-------------|------------|
| 61 | No Trip | .700 to 12 | .35 to 7.0 | .130 to 3.0 | .030 to 1 | .015 to .3 | .01 to .15 | .008 to .1 |
| 62 | No Trip | 10 to 120 | 6 to 60 | 2 to 20 | .2 to 3.0 | .015 to 2 | .015 to .8 | .01 to .25 |
| 63 | No Trip | 50 to 700 | 30 to 400 | 10 to 150 | 1.5 to 20 | .015 to 10 | .013 to .85 | .013 to .5 |
| 69 | No Trip | 0.120 max | 0.100 max | 0.050 max | 0.022 max | 0.017 max | 0.017 max | 0.017 max |

INRUSH PULSE TOLERANCE

| Delay | Pulse Tolerance |
|------------|---------------------------------|
| 61, 62, 63 | 10 times rated current (approx) |

The table above provides a comparison of inrush pulse tolerance for each of the 50/60Hz delays. Pulse tolerance is defined as a single pulse of half sine wave peak current amplitude of 8 milliseconds duration that will not trip the circuit breaker. Consult Sensata Technologies for further assistance.

TYPICAL RESISTANCE / IMPEDANCE

| Current Ratings (Amps) | Impedance | DCR and Impedance based on 100% rated current applied and stabilized for a minimum of one hour. Tolerance .05-2.5 amperes ± 20%; 2.6 -20 amperes ± 25%. Consult factory for special values and for coil impedance of delays not shown. |
|------------------------|--------------------------------------|--|
| | AC, 50/60Hz (ohms) 61, 62, 63, 69 | |
| 2.00 | 0.29 | |
| 5.00 | 0.051 | |
| 10.0 | 0.016 | |
| 20.0 | 0.006 | |

DECISION TABLES

| 1. Type & Handle | | | | | |
|------------------|---|---|---|--------------------|--|
| Step 1a | | Step 1b (optional) | | Step 1c (optional) | |
| LEJ | One Handle per Unit, UL 489 Listed, CSA, TÜV* | | Standard toggle & mounting (no entry, proceed to step 1c) | F | Flat bus connect screw terminal (ex. LUJZXF) |
| LEJH | One Handle per Pole, UL 489 Listed, CSA, TÜV* | BX | BX flat rocker with integral mounting | A | Low depth construction (ex. LEJA) |
| | | ZX | ZX rocker with integral mounting | | |
| LUJ | One Handle per Unit, UL 489 Listed | <i>* TÜV approval (EN60947-2) requires "T" added to end of part number</i> <i>"ZX" & "BX" versions are single handle construction only. 2-pole units handle may be located on either pole, other than standard handle locations shown. Units must be ordered as non descript part numbers.</i> | | | |
| LUJH | One Handle per Pole, UL 489 Listed | | | | |

| 2. Poles & Terminals | |
|----------------------------------|--------------------------------------|
| 1 | Single Pole, Quick Connect Terminals |
| 11 | Two Poles, Quick Connect Terminals |
| 6 | Single Pole, Screw Terminals* |
| 66 | Two Poles, Screw Terminals* |
| *Screw terminals only for 10KAIC | |

| 3. Internal Configuration | |
|---------------------------|--------|
| 1 | Series |

| 4. Frequency & Delay | |
|----------------------|----------------------------------|
| 61 | 50/60Hz Short Delay |
| 62 | 50/60Hz Medium Delay |
| 63 | 50/60Hz Long Delay (Motor Start) |
| 69 | 50/60Hz 125% Instant Trip |

| 5. Rated Current | |
|--|--|
| Use three numbers in build (2.00 or 15.0 or 20.0) | |
| Required value between 2.00 amps minimum and 20.0 amps maximum, full integers only | |
| (specials available upon request) | |

| 6. Additional Options | |
|-----------------------|--|
| | Standard hardware, no options required |
| A | Metric thread mounting inserts and terminal hardware |
| G | Handle guard w/ limited access (available for ZX & BX versions only) |
| M | Handle in opposite pole (2-pole only) |
| Z | Optional "Z" barrier (not available on "A" low depth) |
| R | 240VAC, 10KAIC |
| E | 277VAC, 10KAIC |

| 8. Approvals | |
|--------------|--|
| T | TÜV approved Certified to EN60947-2 Includes the CE mark |

LEJBXA 66-1-62-20.0-AG-M6-T

7. Handle Colors, Indicators & Markings

Toggle Handle

| Unmarked | Marked ON - OFF I - O | Handle Color | Unmarked | Marked ON - OFF I - O | Handle Color | Unmarked | Marked ON - OFF I - O | Handle Color | Unmarked | Marked ON - OFF I - O | Handle Color |
|----------|-----------------------|--------------|----------|-----------------------|--------------|----------|-----------------------|--------------|----------|-----------------------|--------------|
| - 00 | - 01 | Black | - 10 | - 11 | Yellow | - 20 | - 21 | Red | - 30 | - 31 | Blue |
| - 40 | - 41 | Green | - 60 | - 61 | Orange | - 90 | - 91 | White | | | |

ZX Rocker Handle (Two-Color Rocker, Marking Detail "A")

| Vertical Mount ON - OFF (fig 1) | Vertical Mount I - O (fig 2) | Vertical Mount ON - OFF I - O (fig 3) | Horizontal Mount ON - OFF (fig 4) | Horizontal Mount I - O (fig 5) | Horizontal Mount ON - OFF I - O (fig 6) | Handle Color | Indicating Color | Marking Color | Indicates |
|---------------------------------|------------------------------|---------------------------------------|-----------------------------------|--------------------------------|---|--------------|------------------|---------------|-----------|
| - F1 | - F2 | - F3 | - F4 | - F5 | - F6 | Black | White | White | OFF |
| - G1 | - G2 | - G3 | - G4 | - G5 | - G6 | Black | Red | White | OFF |

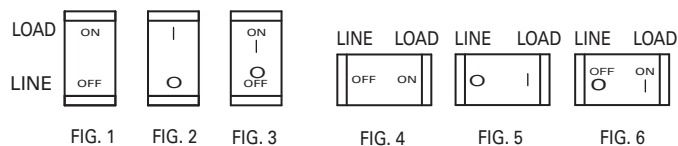
BX Rocker Handle (Two-Color Rocker, Marking Detail "A")

| Vertical Mount ON - OFF (fig 1) | Vertical Mount I - O (fig 2) | Vertical Mount ON - OFF I - O (fig 3) | Horizontal Mount ON - OFF (fig 4) | Horizontal Mount I - O (fig 5) | Horizontal Mount ON - OFF I - O (fig 6) | Handle Color | Indicating Color | Marking Color | Indicates |
|---------------------------------|------------------------------|---------------------------------------|-----------------------------------|--------------------------------|---|--------------|------------------|---------------|-----------|
| - | - M2 | - M3 | - | - | - M6 | Black | White | White | OFF |
| - | - N2 | - N3 | - | - | - N6 | Black | Red | Red | OFF |

For BX: Bezel of BX is black. BX markings are same color as indicating color. Consult factory for other marking options.

For ZX: Black, red, blue and green handles have white marking. White, yellow and orange handles have black marking.

Note, these are just a few of the options/orientations/colors available, please consult the factory for additional information.



MARKING DETAIL "A"

NOTE: "ON" actuates towards the "up" and "right" direction

Datasheets provided by Sensata Technologies, Inc., its subsidiaries and/or affiliates (“Sensata”) are solely intended to assist third parties (“Buyers”) who are developing systems that incorporate Sensata products (also referred to herein as “components”). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, valuation, and judgment in designing Buyer’s systems and products. Sensata datasheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular datasheet. Sensata may make corrections, enhancements, improvements, and other changes to its datasheets or components without notice.

Buyers are authorized to use Sensata datasheets with the Sensata component(s) identified in each particular datasheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATASHEETS ARE PROVIDED “AS IS”. SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATASHEETS OR USE OF THE DATASHEETS, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATASHEETS OR USE THEREOF.

All products are sold subject to Sensata’s terms and conditions of sale supplied at www.sensata.com. SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS’ PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY, AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA

CONTACT US

Regional head offices:

United States of America

Sensata Technologies

Attleboro, MA

Phone: 508-236-3800

E-mail: support@sensata.com

Netherlands

Sensata Technologies Holland B.V.

Hengelo

Phone: +31 74 357 8000

E-mail: support@sensata.com

China

Sensata Technologies China Co., Ltd.

Shanghai

Phone: +8621 2306 1500

E-mail: support@sensata.com

Copyright © 2023 Sensata Technologies, Inc.