



# NEMA Manual Starting Switch Specifications

Bulletin Numbers 600, 609, 609U

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## Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

| Resource                                                                                    | Description                                                                         |
|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Industrial Automation Wiring and Grounding Guidelines, publication <a href="#">1770-4.1</a> | Provides general guidelines for installing a Rockwell Automation industrial system. |
| Product Certifications website, <a href="http://www.ab.com">http://www.ab.com</a>           | Provides declarations of conformity, certificates, and other certification details. |

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

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THINK.  
SOLVE.



Manual Motor Starters

|                                                                             |                                                                                                                              |                                                                                                                                                                           |                                                                                                                                                                             |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                             |                                             |                                                                                         |                                                                                          |
| Bulletin                                                                    | 600                                                                                                                          | 609                                                                                                                                                                       | 609U                                                                                                                                                                        |
| Features                                                                    | <ul style="list-style-type: none"><li>Single-phase switch</li><li>Used on compressors, fans, pumps, and table saws</li></ul> | <ul style="list-style-type: none"><li>Single- and three-phase switches</li><li>Contact position indicator</li><li>Locking feature</li><li>Reversing and 2-speed</li></ul> | <ul style="list-style-type: none"><li>Single- and three-phase switches</li><li>Contact position indicator</li><li>Locking feature</li><li>Undervoltage protection</li></ul> |
| Type of Operator<br>1-Phase Motor Voltage<br>Push Button/ Toggle Lever/ Key | Single Pole:<br>115...230V AC (1 Hp)<br>Two Pole:<br>115...230V AC (1 Hp)                                                    | 115...230V AC, 60 Hz<br>(1...5 Hp)                                                                                                                                        | 115...230V AC, 60 Hz<br>(1...5 Hp)                                                                                                                                          |
| Type of Operator<br>3-Phase Motor Voltage<br>Push Button / Toggle Lever     | —                                                                                                                            | 115...230V AC, 60 Hz<br>(3...10 Hp)                                                                                                                                       | 115...230V AC, 60 Hz<br>(3...10 Hp)                                                                                                                                         |
| Enclosures NEMA Type                                                        | 1, 4, 7 & 9                                                                                                                  | 1, 3R, 4/4X, 7 & 9, and 12                                                                                                                                                | 1, 3R, 4/4X, 7 & 9, and 12                                                                                                                                                  |

Group Fusing

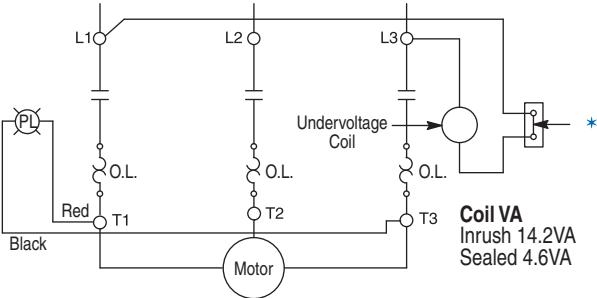
The Bulletin 609 sizes 0 and 1 in Type 1, 4X, and 12 enclosures are UL Listed for group fusing with Class J fuses only. See table below for maximum fuse ratings.

The Bulletin 609U and 609TU Sizes 0 and 1 in Type 1, 4/4X, and 3R/12 enclosures are UL Listed for group fusing with Class J fuses only. See table below for maximum fuse ratings.

| Full Load Current of Smallest Motor Amperes [A] | Maximum Fuse Ratings [A] |            |
|-------------------------------------------------|--------------------------|------------|
|                                                 | Nominal System Voltages  |            |
|                                                 | 120...240V               | 480...600V |
| 0.45...2.99                                     | 30                       | 30         |
| 3.00...6.49                                     | 60                       | 30         |
| 6.50...18.0                                     | 100                      | —          |

609U and 609TU Typical Wiring Diagram

(See Applicable Codes and Laws)



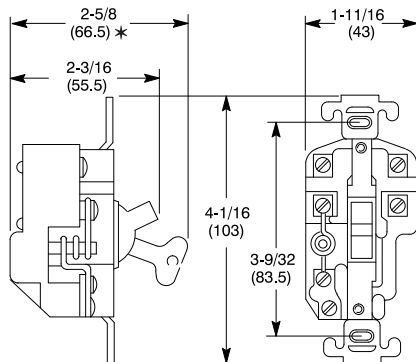
★ Remove Jumper “A” to connect remote stop operator wires to vacated terminals.  
Note: Jumper not available on devices in Type 7 and 9 Enclosure.

## Approximate Dimensions

## 600 Single-Phase Manual Starting Switch

Dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

### Open Type without Enclosure



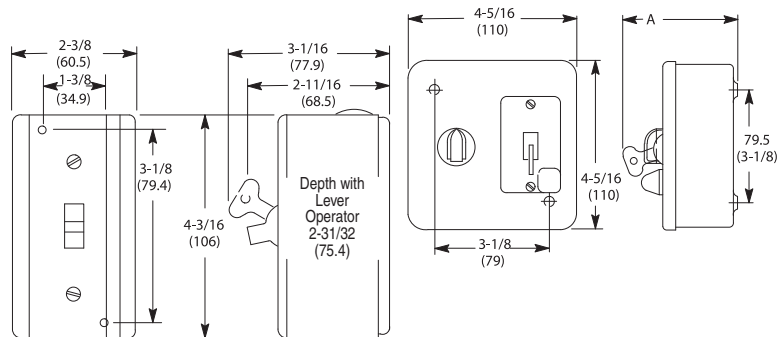
Cat. Nos.

600- TOX4  
TOX5  
TOX49

600- TOX109  
TOX110  
TOX149

600- TOX216

### Type 1 General Purpose Enclosure Surface Mounting



Cat. Nos.

600- TAX4  
TAX5  
TAX9  
TAX10

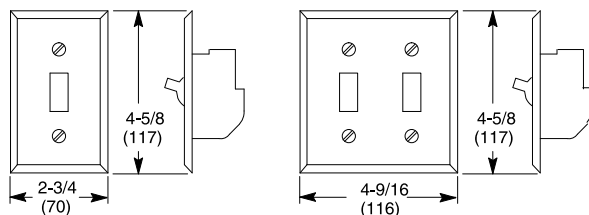
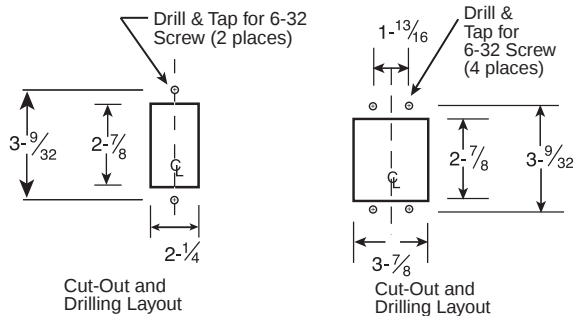
600- TAX49  
TAX109  
TAX110  
TAX142

600- TAX142  
TAX145  
TAX149  
TAX216

Dimension A in inches (millimeters)

|                 |              |
|-----------------|--------------|
| Key Inserted    | 1-1/8 (79.5) |
| Selector Switch | 2-3/4 (70)   |
| Toggle Operator | 2-9/16 (65)  |

### Type 1 General Purpose Enclosure Flush Mounting



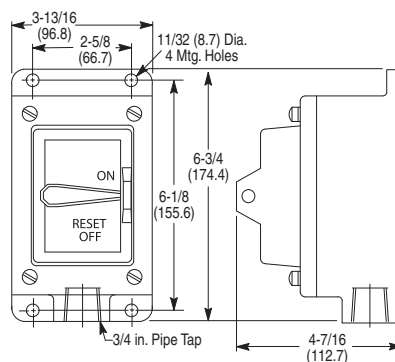
Cat. Nos.

600- TQX4  
TQX5  
TQX9

600- TQX49  
TQX109  
TQX110

600- TQX142  
TQX144  
TQX216

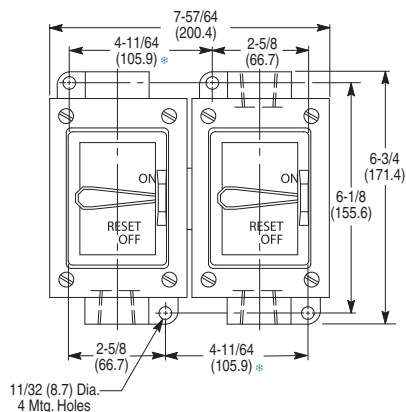
### Type 4 Watertight Enclosure; Type 7 and 9 Hazardous Locations Enclosure



Cat. Nos.

600- TCX5 600- TEX5

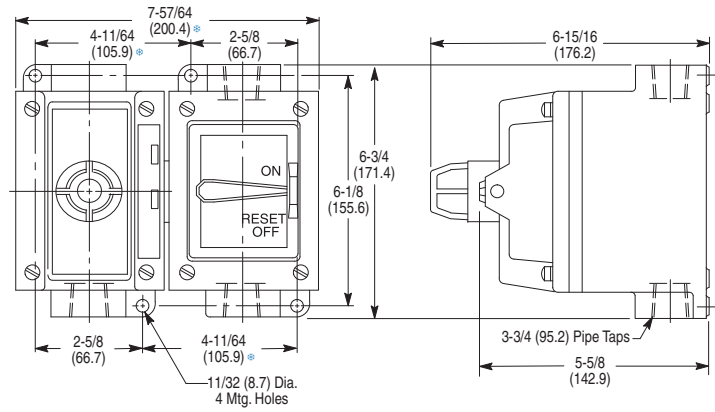
### Type 4 Watertight Enclosure, Type 7 & 9



Cat. Nos.

600- TCX9 600- TEX9  
TCX142 TEX10

### Type 7 & 9 Hazardous Locations Enclosure



Cat. Nos.

600- TCA7 600- TEA7  
TCD75 TED7

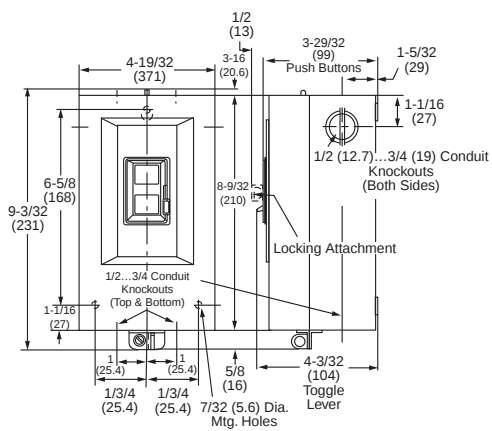
\* Lever Type Dimension is 2-17/32 in. (64.5 mm).

\* This dimension may vary up to ±1/8 in. (3.2 mm). Mounting holes should be located at time of installation using device as a template.

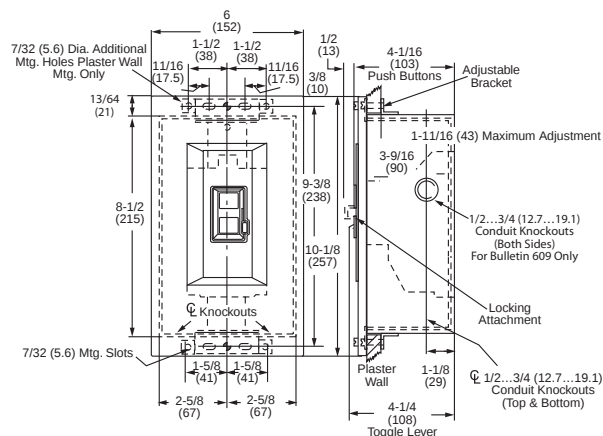
Dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

### Bulletin 609 – 609U

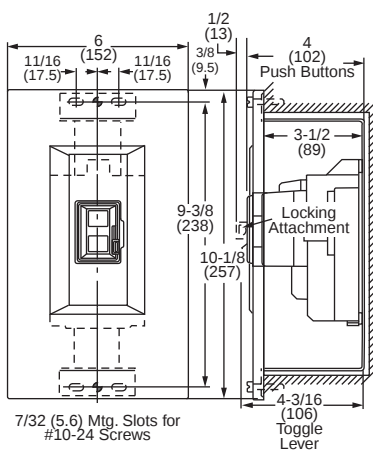
#### NEMA Type 1



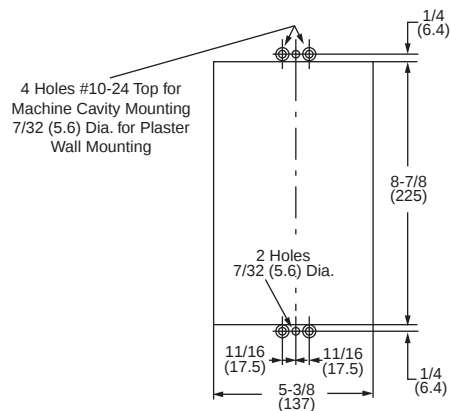
**Surface Mounting**



**Flush Mounting for Plaster Wall**

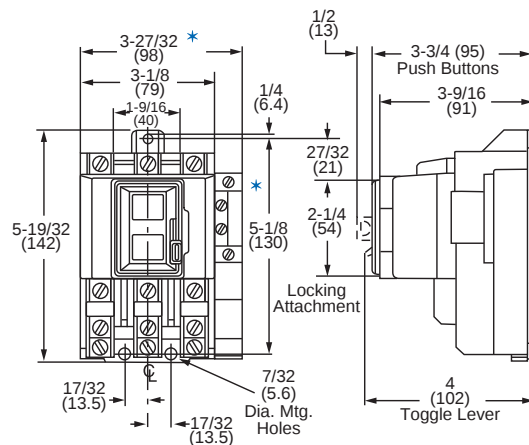


**Flush Mounting for Machine Cavity**

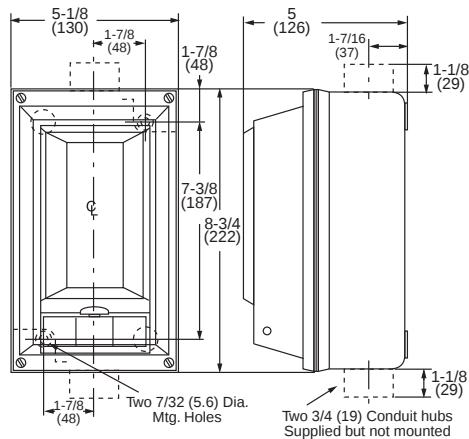


**Flush Mounting Cavity and Drilling Layout**

#### Open Type — Without Enclosure



#### NEMA Type 4/4X

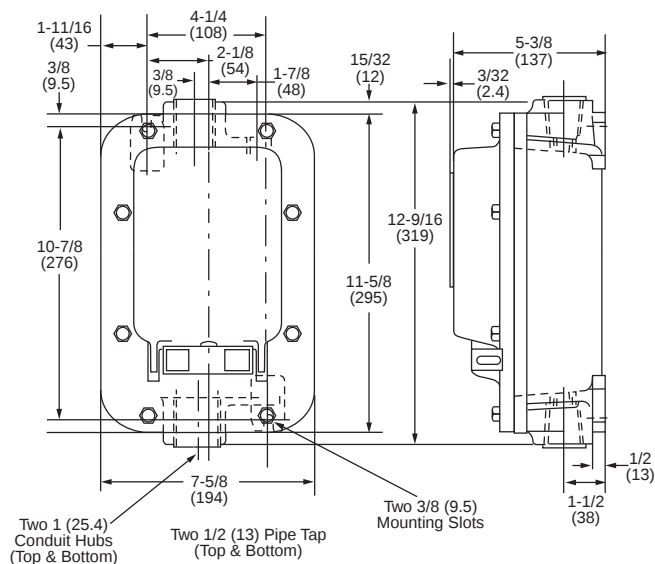


★ Undervoltage solenoid applies only to Bulletins 609U and 609TU.

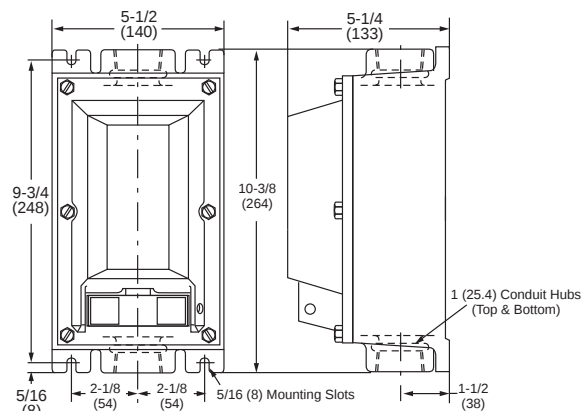
Dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

### Bulletin 609 – 609U, Continued

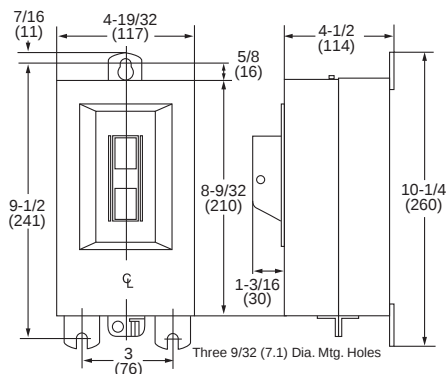
#### NEMA Type 3R, 7 & 9



#### NEMA Type 7 & 9

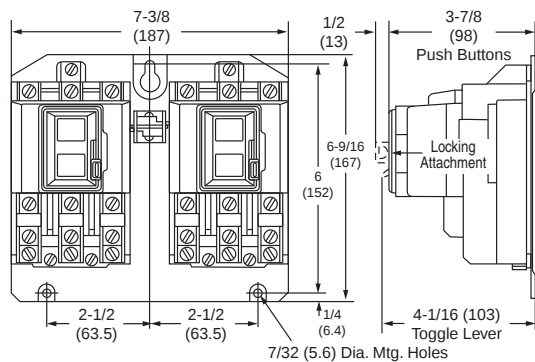


#### NEMA Type 12

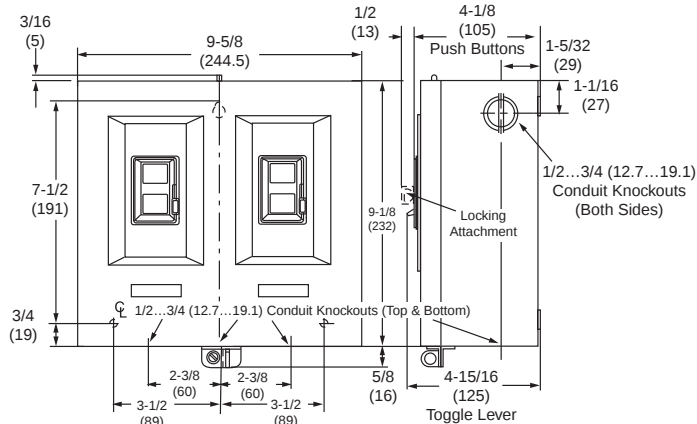


### Bulletin 609RS, 609TS

#### Open Type Without Enclosure



#### NEMA Type 1



## Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

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