

# NEMA Manual Starting Switch Specifications

Bulletin Numbers 600, 609, 609U

Topic	Page
Product Overview and Specifications	2
600 Approximate Dimensions	3
609, 609U Approximate Dimensions	4...5

## 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.



Manual Motor Starters

			
Bulletin	600	609	609U
<b>Features</b>	<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>
<b>Type of Operator</b> <b>1-Phase Motor Voltage</b> Push Button/ Toggle Lever/ Key	<p><b>Single Pole:</b> 115...230V AC (1 Hp)</p> <p><b>Two Pole:</b> 115...230V AC (1 Hp)</p>	115...230V AC, 60 Hz (1...5 Hp)	115...230V AC, 60 Hz (1...5 Hp)
<b>Type of Operator</b> <b>3-Phase Motor Voltage</b> Push Button / Toggle Lever	—	115...230V AC, 60 Hz (3...10 Hp)	115...230V AC, 60 Hz (3...10 Hp)
<b>Enclosures NEMA Type</b>	1, 4, 7 & 9	1, 3R, 4/4X, 7 & 9, and 12	1, 3R, 4/4X, 7 & 9, and 12

Group Fusing

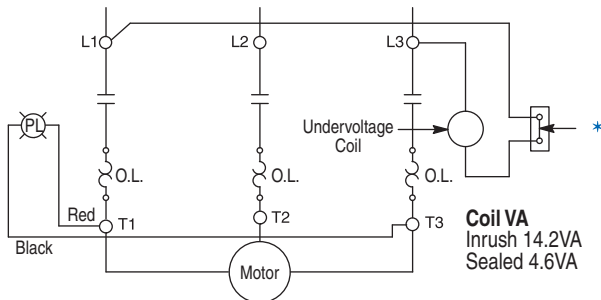
The Bulletin 609 sizes 0 and 1 in Type 1, 4X, and 12 enclosures are UL Listed for group fusing with Class J fuses only. See table below for maximum fuse ratings.

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)



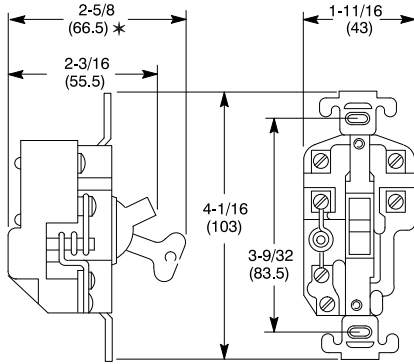
★ Remove Jumper "A" to connect remote stop operator wires to vacated terminals.  
Note: Jumper not available on devices in Type 7 and 9 Enclosure.

## Approximate Dimensions

## 600 Single-Phase Manual Starting Switch

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

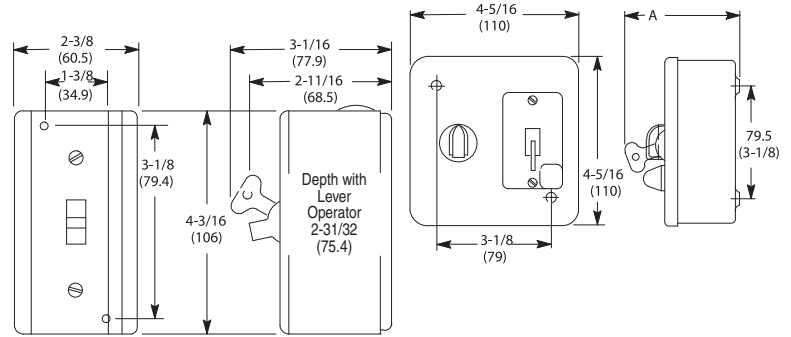
### Open Type without Enclosure



Cat. Nos.

600- TOX4    600- TOX109    600- TOX216  
 TOX5    TOX110  
 TOX49    TOX149

### Type 1 General Purpose Enclosure Surface Mounting



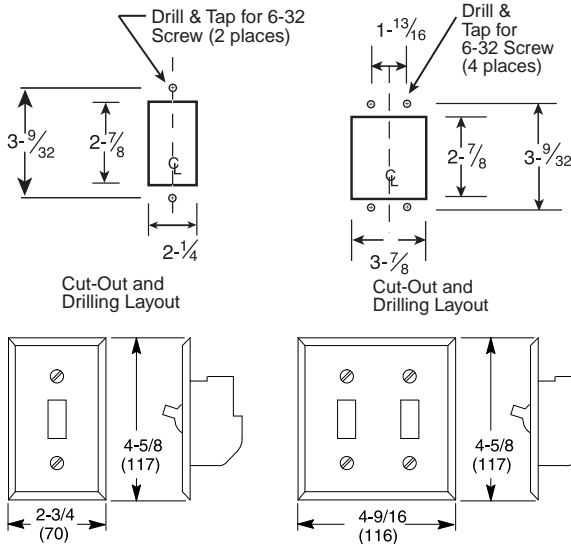
Cat. Nos.

600- TAX4    600- TAX49    600- TAX142  
 TAX5    TAX109    TAX145  
 TAX9    TAX110    TAX149  
 TAX10    TAX142    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)

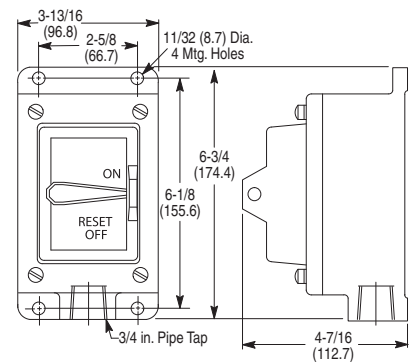
### Type 1 General Purpose Enclosure Flush Mounting



Cat. Nos.

600- TQX4    600- TQX49  
 TQX5    TQX109  
 TQX9    TQX110  
 600- TQX142  
 TQX144  
 TQX216

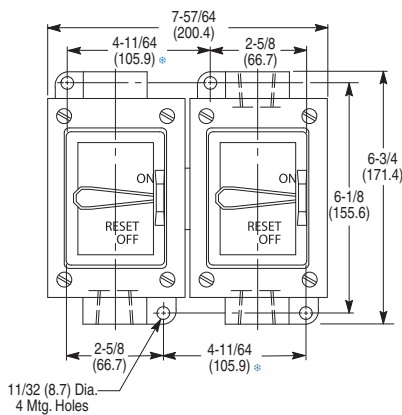
### Type 4 Watertight Enclosure; Type 7 and 9 Hazardous Locations Enclosure



Cat. Nos.

600- TCX5    600- TEX5

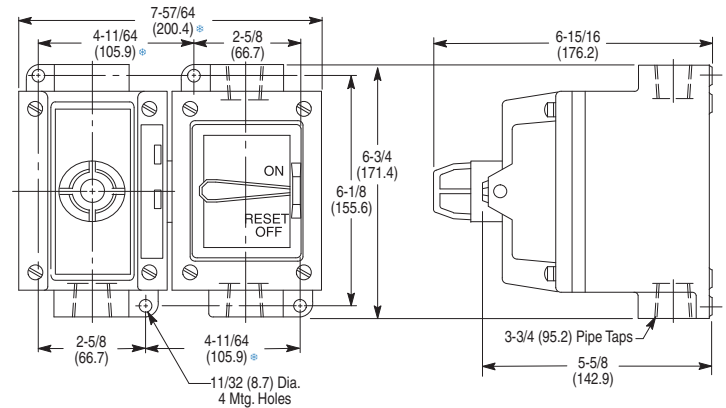
### Type 4 Watertight Enclosure, Type 7 & 9



Cat. Nos.

600- TCX9    600- TEX9  
 TCX142    TTX10

### Type 7 & 9 Hazardous Locations Enclosure



Cat. Nos.

600- TCA7    600- TEA7  
 TCD75    TED7

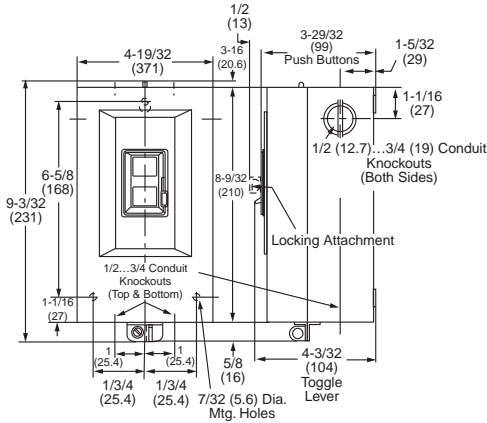
\* Lever Type Dimension is 2-17/32 in. (64.5 mm).

\* 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.

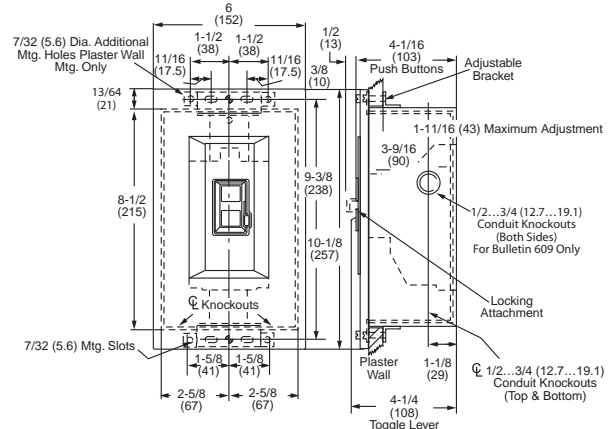
Dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

Bulletin 609 – 609U

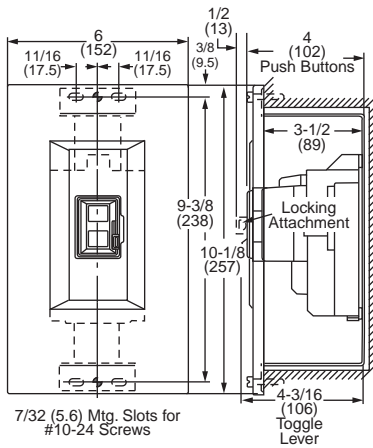
NEMA Type 1



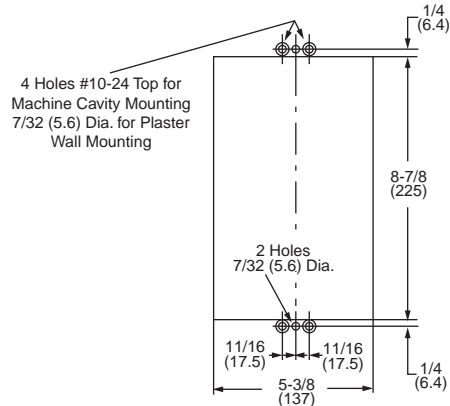
Surface Mounting



Flush Mounting for Plaster Wall

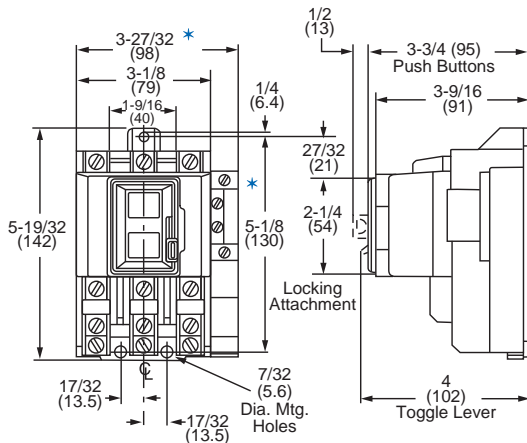


Flush Mounting for Machine Cavity



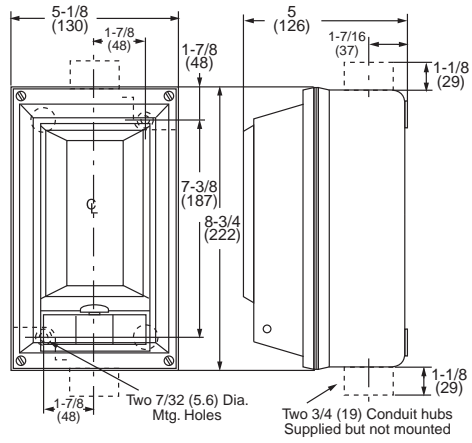
Flush Mounting Cavity and Drilling Layout

Open Type — Without Enclosure



\* Undervoltage solenoid applies only to Bulletins 609U and 609TU.

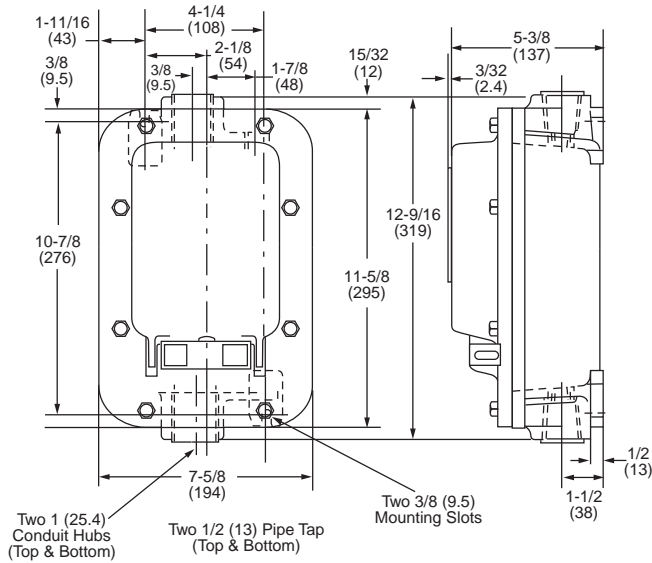
NEMA Type 4/4X



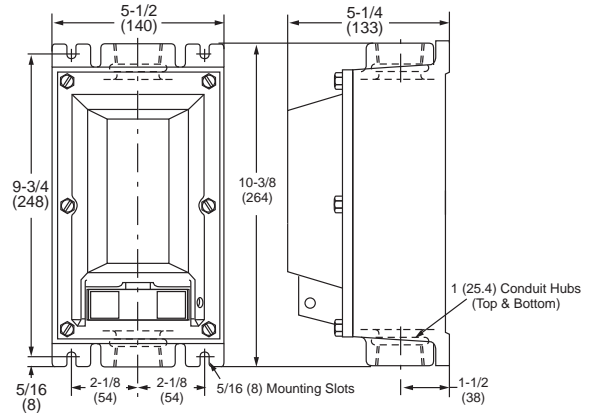
Dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

Bulletin 609 – 609U, Continued

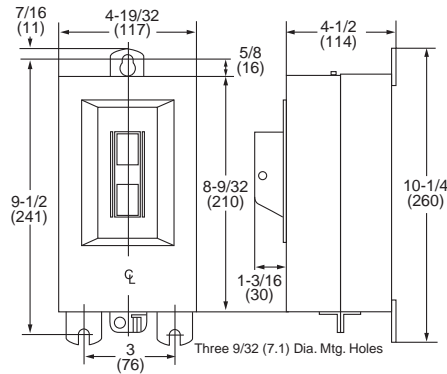
NEMA Type 3R, 7 & 9



NEMA Type 7 & 9

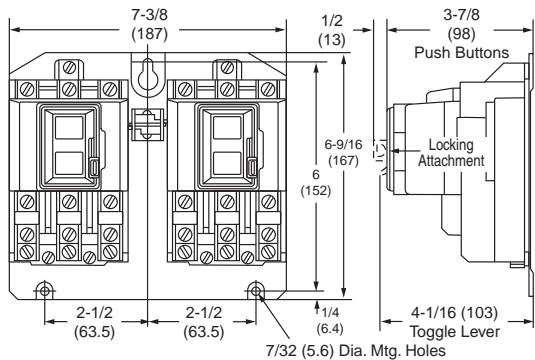


NEMA Type 12

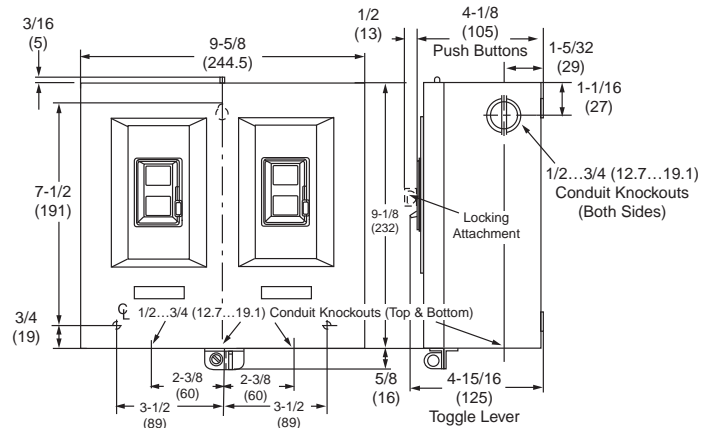


Bulletin 609RS, 609TS

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.

In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

Reproduction of the contents of this manual, in whole or in part, without written permission of Rockwell Automation, Inc., is prohibited.

## Documentation Feedback

Your comments will help us serve your documentation needs better. If you have any suggestions on how to improve this document, complete this form, publication [RA-DU002](#), available at <http://www.rockwellautomation.com/literature/>.

Allen-Bradley, Rockwell Software, Rockwell Automation, and LISTEN. THINK. SOLVE are trademarks of Rockwell Automation, Inc.  
Trademarks not belonging to Rockwell Automation are property of their respective companies.

Rockwell Otomasyon Ticaret A.Ş., Kar Plaza İş Merkezi E Blok Kat:6 34752 İçerenköy, İstanbul, Tel: +90 (216) 5698400

**[www.rockwellautomation.com](http://www.rockwellautomation.com)**

---

### Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444  
Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640  
Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846