

**BRYANT®**

# Manual Motor Controllers / Disconnects



## Overview

Bryant motor controllers are "suitable as motor disconnects," which means that a motor controller marked as such can also be used as a motor disconnect. From a safety perspective, this means a motor load can now be isolated and locked-out in one convenient location. By utilizing Bryant's compact motor controllers and disconnects, you benefit through the convenience of one device fulfilling two needs. A motor controller is simply used to activate a motor load "ON" or "OFF" and perform this function thousands of times. A motor disconnect, however, is designed and tested to withstand motor overloads and high short-circuit fault currents while maintaining the ability to disconnect the motor for service or maintenance.

According to the 2008 National Electric Code (NEC®) article 430.102, all motor controllers must have a disconnecting means located within the line of sight of the controller. Because the NEC® recognizes that a controller and disconnect can be the same unit (article 430.109), Bryant has designed a compact controller that will also meet the rigorous demands of a motor disconnect. Bryant's controllers are listed as "Suitable as Motor Disconnect" under UL Standard 508 – Industrial Control Equipment – qualifying them to perform both operations in one compact package.

**TECH·SPEC®**

## Features and Benefits

- Thermoset body provides high resistance to electrical arc tracking.
- Silver alloy contacts for excellent conductivity and extended life
- Available NEMA 1, 3/3R and 4X enclosures
- Undrilled enclosures available for custom placement of entry positions
- Lockout / Tagout capability
- Switch sizes in 30, 40 and 60 Amps up to 600 VAC
- 2-pole and 3-pole switch configurations
- Use in indoor and outdoor environments
- Quick make, slow break design
- UL Listed as "Suitable as Motor Disconnect" under UL 508
- Wiring conduit knockouts on NEMA 1 and 3R controllers / disconnects
- Compact design

## Applications

- Can be used locally at the motor
- "Suitable as a motor disconnect"
- Across-the-line motor starting
- Industrial machines
- Automation
- Switch contacts AC rated only (not DC rated).

## Listings

- UL Listed and Recognized Category NLRV, UL file #E70402
- CSA Certified File 46186
- Flammability - UL94HB/V
- Standards
  - UL508
  - UL60947-1
  - CSA C22.2 No 14



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Quick Selection Guide

# Manual Motor Controllers / Disconnects

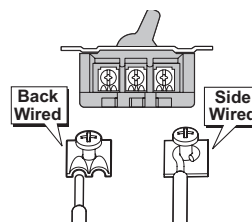
**TECH·SPEC®**

| Toggle Switch AC Motor Controllers / Disconnects |                                                             |          |       |       |               |          |
|--------------------------------------------------|-------------------------------------------------------------|----------|-------|-------|---------------|----------|
| Part Number                                      | Description                                                 | Amperage | Phase | Poles | Wired         | Price    |
| <a href="#"><u>30002D</u></a>                    | Switch only, 30A, 2-pole, 15 HP @ 600 VAC - Standard Toggle | 30       | 1     | 2     | Back and Side | \$40.50  |
| <a href="#"><u>30003D</u></a>                    | Switch only, 30A, 3-pole, 20 HP @ 600 VAC - Standard Toggle | 30       | 3     | 3     | Back and Side | \$85.00  |
| <a href="#"><u>4002*</u></a>                     | Switch only, 40A, 2-pole, 5 HP @ 600 VAC - Standard Toggle  | 40       | 1     | 2     | Side          | \$41.50  |
| <a href="#"><u>40002D</u></a>                    | Switch only, 40A, 2-pole, 15 HP @ 600 VAC - Standard Toggle | 40       | 1     | 2     | Side          | \$71.00  |
| <a href="#"><u>40003D</u></a>                    | Switch only, 40A, 3-pole, 20 HP @ 600 VAC - Standard Toggle | 40       | 3     | 3     | Side          | \$115.00 |
| <a href="#"><u>60002D</u></a>                    | Switch only, 60A, 2-pole, 20 HP @ 600 VAC - Standard Toggle | 60       | 1     | 2     | Back          | \$124.00 |
| <a href="#"><u>60003D</u></a>                    | Switch only, 60A, 3-pole, 30 HP @ 600 VAC - Standard Toggle | 60       | 3     | 3     | Back          | \$152.00 |

\*Motor controller only ("Not suitable as disconnect")

| Toggle Switch AC Motor Controller Accessories |                                                                  |         |
|-----------------------------------------------|------------------------------------------------------------------|---------|
| Part Number                                   | Description                                                      | Price   |
| <a href="#"><u>30003FG</u></a>                | Finger guards; red; for use with 30A and 40A Switches (Set of 2) | \$11.00 |
| <a href="#"><u>30100</u></a>                  | NEMA 1 enclosure without switch, use with 30002D and 30003D      | \$25.50 |

**Example  
Back and Side  
Wired**



| Enclosed Toggle Switch AC Motor Controllers / Disconnects |                                 |                          |          |       |       |                               |
|-----------------------------------------------------------|---------------------------------|--------------------------|----------|-------|-------|-------------------------------|
| Part Number                                               | Description                     | Included Switch          | Amperage | Phase | Poles | Price                         |
| <a href="#"><u>30102D</u></a>                             | Enclosed, 30A, 2-pole, NEMA 1   | 30002D Standard Toggle   | 30       | 1     | 2     | NEMA 1Metal \$52.00           |
| <a href="#"><u>30103D</u></a>                             | Enclosed, 30A, 3-pole, NEMA 1   | 30003D Standard Toggle   | 30       | 3     | 3     |                               |
| <a href="#"><u>30302D</u></a>                             | Enclosed, 30A, 2-pole, Aluminum | 30002D Standard Toggle   | 30       | 1     | 2     | NEMA 3RMetal \$78.00          |
| <a href="#"><u>30303D</u></a>                             | Enclosed, 30A, 3-pole, Aluminum | 30003D Standard Toggle   | 30       | 3     | 3     |                               |
| <a href="#"><u>30322D*</u></a>                            | Enclosed, 30A, 2-pole, Plastic  | 30002DS Short Toggle     | 30       | 1     | 2     | NEMA 3R Thermoplastic \$90.00 |
| <a href="#"><u>30323D*</u></a>                            | Enclosed, 30A, 3-pole, Plastic  | 30003DS Short Toggle     | 30       | 3     | 3     |                               |
| <a href="#"><u>60302D*</u></a>                            | Enclosed, 60A, 2-pole, Aluminum | 60002FWD Standard Toggle | 60       | 1     | 2     | NEMA 3R Metal \$181.00        |
| <a href="#"><u>60303D*</u></a>                            | Enclosed, 60A, 3-pole, Aluminum | 60003FWD Standard Toggle | 60       | 3     | 3     |                               |

\*Switch is not available as a separate item

## NEMA 4X Enclosed Rotary Switch AC Motor Controllers / Disconnects

| Part Number                     | Description                    | Included Switch | Amperage | Phase | Poles | Enclosure             | Price    |
|---------------------------------|--------------------------------|-----------------|----------|-------|-------|-----------------------|----------|
| <a href="#"><u>664X33D*</u></a> | Enclosed, 30A, 3-pole, NEMA 4X | 66033D Rotary   | 30       | 3     | 3     | NEMA 4X Thermoplastic | \$189.00 |
| <a href="#"><u>664X63D*</u></a> | Enclosed, 60A, 3-pole, NEMA 4X | 66033D Rotary   | 60       | 3     | 3     |                       | \$237.00 |

\*Switch is not available as a separate item

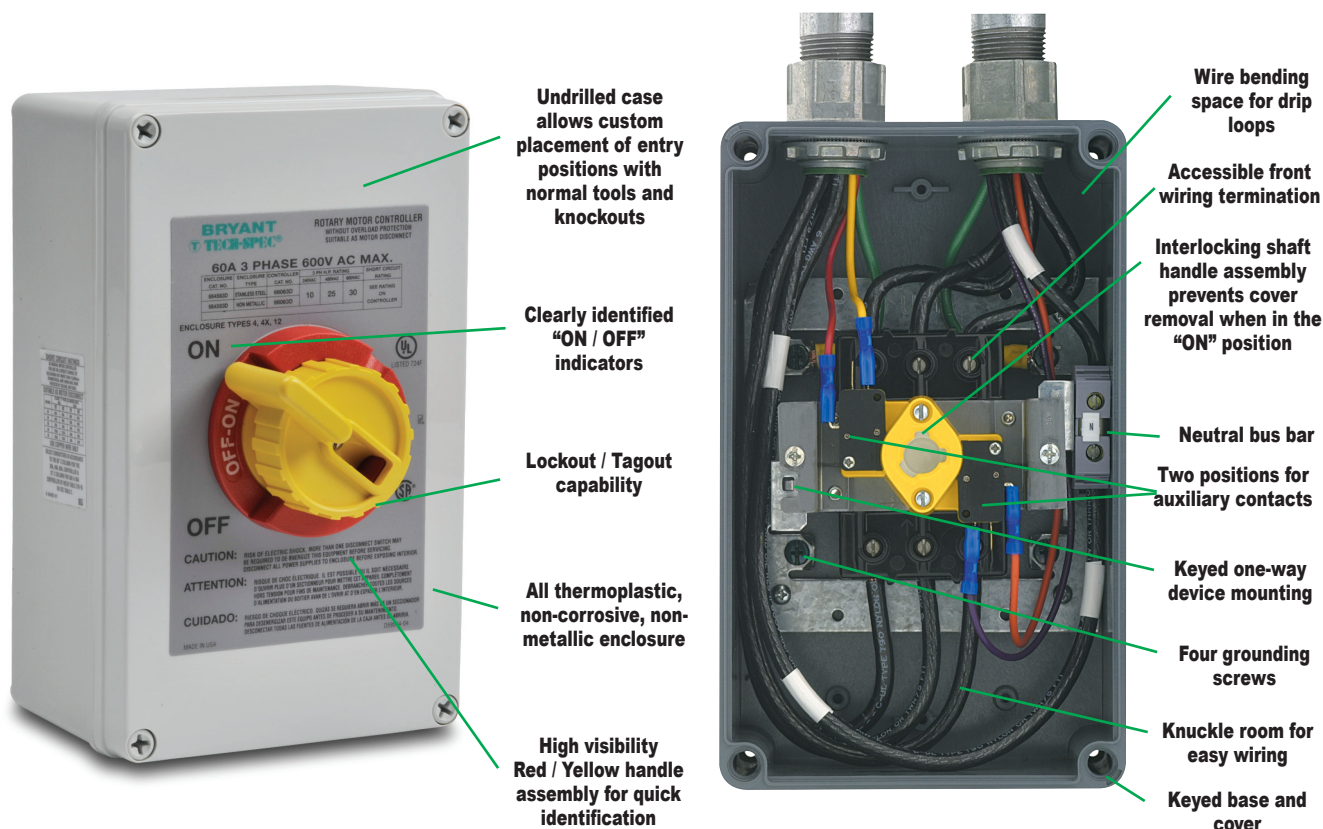
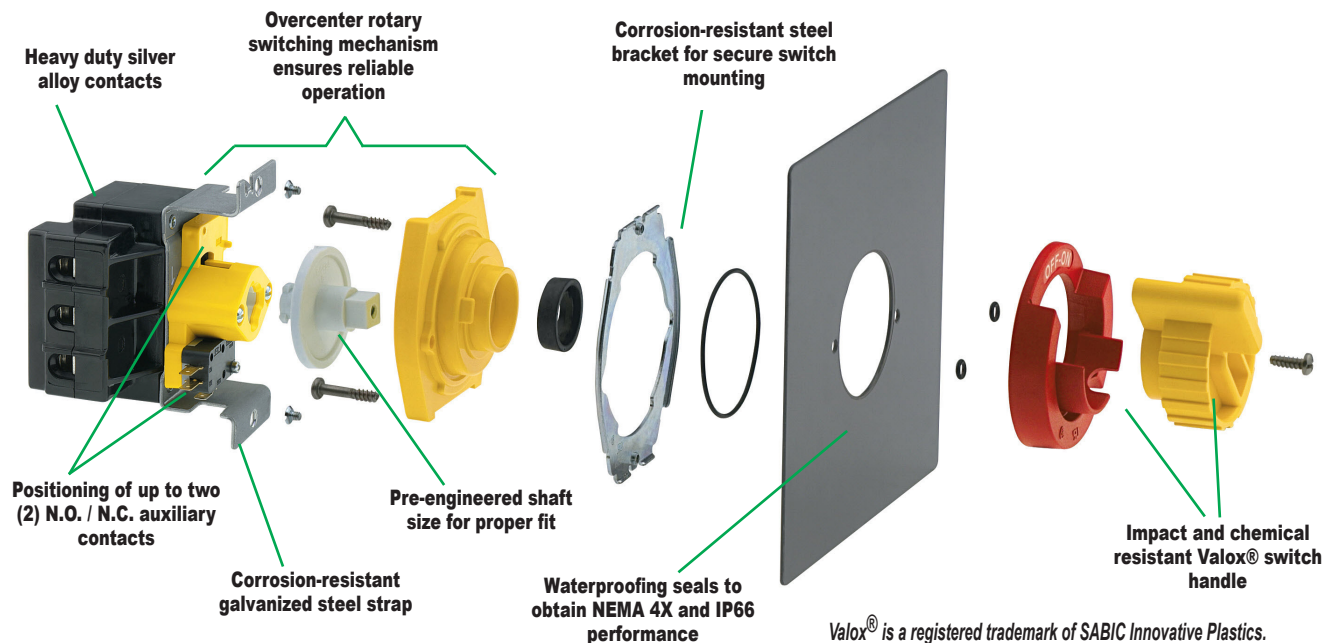


| NEMA 4X Enclosed Rotary Switch AC Motor Controller Accessories |                                                                                                                                         |         |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------|
| Part Number                                                    | Description                                                                                                                             | Price   |
| <a href="#"><u>30003FG</u></a>                                 | Finger Guards; red; for use with 30A and 40A Switches (Set of 2)                                                                        | \$11.00 |
| <a href="#"><u>660AC*</u></a>                                  | SPDT Auxiliary contact NO / NC; includes one contact for use with push-on terminals; use with 664X33D and 664X63D                       | \$27.00 |
| <a href="#"><u>6610MK</u></a>                                  | Rotary handle replacement kit, use with 664X33D and 664X63D. (Nema 1 rating) Must use gasket replacement kit 664XWP for NEMA 4X rating. | \$22.00 |
| <a href="#"><u>664XWP</u></a>                                  | NEMA 4X enclosure gasket replacement kit; includes 4 seals, neoprene bushing and 3 o-rings; use with 664X33D and 664X63D                | \$14.00 |
| <a href="#"><u>664XFT</u></a>                                  | NEMA 4X enclosure mounting feet                                                                                                         | \$13.00 |
| <a href="#"><u>6603N</u></a>                                   | NEMA 4X enclosure neutral buss connector                                                                                                | \$63.00 |

\*660AC Terminal is a quick connect terminal #250

**BRYANT®****NEMA 4X Enclosed Rotary Switch****Manual Motor Controllers/Disconnects**

NEMA 4X enclosed toggle switch AC manual motor controllers are ideal for heavy wash down and corrosive environments. They feature thermoplastic bodies and can be used as a motor controller or disconnect.

**TECH·SPEC®****NEMA 4X Enclosed Rotary Switch Features**

**BRYANT®**

NEMA 4X Enclosed Rotary Switch

# Manual Motor Controllers/Disconnects

**NEMA 4X Enclosed Rotary Switch AC Motor Controllers**

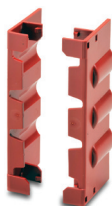
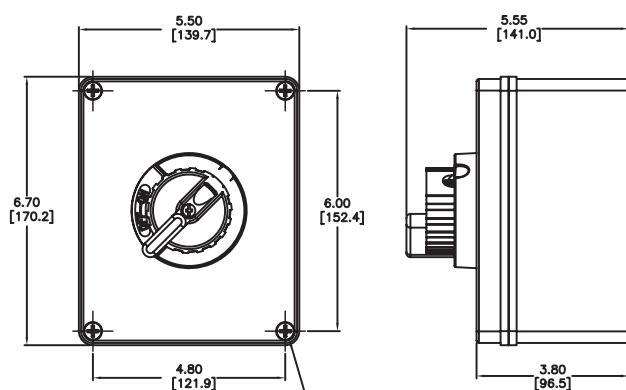
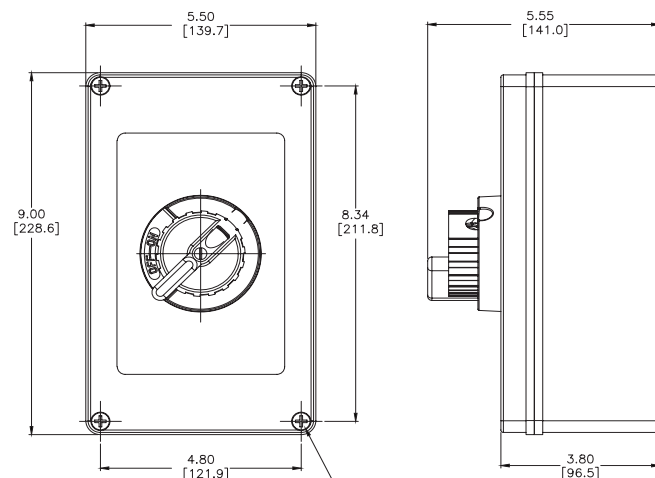
| Part Number     | Amperage | Phase | Poles | HP Ratings |         |         |         | Enclosure     | Price    |
|-----------------|----------|-------|-------|------------|---------|---------|---------|---------------|----------|
|                 |          |       |       | 120 VAC    | 240 VAC | 480 VAC | 600 VAC |               |          |
| <b>664X33D*</b> | 30       | 3     | 3     | 3          | 7.5     | 15      | 20      | NEMA 4X       | \$189.00 |
| <b>664X63D*</b> | 60       | 3     | 3     | —          | 10      | 25      | 30      | Thermoplastic | \$237.00 |

\*Sold as a complete unit only

**664X33D****664X63D****NEMA 4X Enclosed Rotary Switch AC Motor Controller Accessories**

| Part Number    | Description                                                                                                                            | Price   |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b>30003FG</b> | Finger Guards; red; for use with 30A and 40A Switches (Set of 2)                                                                       | \$11.00 |
| <b>660AC*</b>  | SPDT Auxiliary contact NO / NC. includes one contact for use with push-on terminals, use with 664X33D and 664X63D                      | \$27.00 |
| <b>6610MK</b>  | Rotary handle replacement kit, use with 664X33D and 664X63D (Nema 1 rating) Must use gasket replacement kit 664XWP for NEMA 4X rating. | \$22.00 |
| <b>664XWP</b>  | NEMA 4X enclosure gasket replacement kit; includes 4 seals, neoprene bushing and 3 o-rings; use with 664X33D and 664X63D               | \$14.00 |
| <b>664XFT</b>  | NEMA 4X enclosure mounting feet                                                                                                        | \$13.00 |
| <b>6603N</b>   | NEMA 4X enclosure neutral bus connector                                                                                                | \$63.00 |

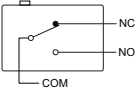
\*660AC Terminal is a quick connect terminal #250

**30003FG****660AC****6610MK****664XWP****664XFT****6603N****TECH·SPEC®****Dimensions [in (mm)]****664X33D****664X63D**Dimensions are approximate  
Not for construction purposes

# Manual Motor Controllers / Disconnects

## Specifications

| General Specifications |                         |                 |                                                   |                                      |                                      |                     |                          |                                      |  |
|------------------------|-------------------------|-----------------|---------------------------------------------------|--------------------------------------|--------------------------------------|---------------------|--------------------------|--------------------------------------|--|
| Type                   | Part Number             | Weight          | Short Circuit Withstand Rating                    | Dielectric Voltage                   | Electrical Life                      | Max Working Voltage | Mechanical Life          | Operating Temperature                |  |
| Standard Toggle Switch | <a href="#">30002D</a>  | 0.4 lb (181g)   | 10 kA<br>60A max J fuses<br>or 125A max RK5 fuses | 2,200V AC<br>minimum<br>for 1 minute | 6,000 cycles at<br>rated switch load | 600 VAC RMS         | 10,000 minimum<br>cycles | -40 °C (-40 °F)<br>to 60 °C (140 °F) |  |
|                        | <a href="#">30003D</a>  | 0.5 lb (227g)   |                                                   |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">4002</a>    | 0.1 lb (45g)    |                                                   |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">40002D</a>  | 0.4 lb (181g)   |                                                   |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">40003D</a>  | 0.5 lb (227g)   |                                                   |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">60002D</a>  | 0.7 lb (318g)   | 10 kA<br>80A max J fuses<br>or 125A max RK5 fuses |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">60003D</a>  |                 |                                                   |                                      |                                      |                     |                          |                                      |  |
| Enclosed Toggle Switch | <a href="#">30102D</a>  | 1.0 lb (454g)   | 10 kA<br>60A max J fuses<br>or 125A max RK5 fuses |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">30103D</a>  | 1.3 lb (590g)   |                                                   |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">30302D</a>  |                 |                                                   |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">30303D</a>  |                 |                                                   |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">30322D</a>  | 2.2 lb (998g)   |                                                   |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">30323D</a>  | 1.9 lb (861g)   | 10 kA<br>80A max J fuses<br>or 125A max RK5 fuses |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">60302D</a>  |                 |                                                   |                                      |                                      |                     |                          |                                      |  |
| Enclosed Rotary Switch | <a href="#">60303D</a>  | 2.0 lb (907g)   |                                                   |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">664X33D</a> | 2.5 lb (1,134g) | 10 kA<br>80A max J fuses<br>or 125A max RK5 fuses |                                      |                                      |                     |                          |                                      |  |
|                        | <a href="#">664X63D</a> | 3.0 lb (1,361g) |                                                   |                                      |                                      |                     |                          |                                      |  |

| NEMA 4X Enclosed Rotary Switch AC Motor Controller Accessory Specifications |                                                                                             |                                                                                         |                  |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------|
| Part Number                                                                 | Switch Type                                                                                 | Load                                                                                    | Contact Material |
| <a href="#">660AC</a>                                                       | <br>SPDT | 15A @ 250 VAC Resistive, 10A @ 250 VAC Inductive<br>10A @ 30VDC Resistive and Inductive | Silver Alloy     |

| Wiring Specifications  |                         |              |                           |                   |         |
|------------------------|-------------------------|--------------|---------------------------|-------------------|---------|
| Type                   | Part Number             | Cable Size   |                           | Tightening Torque |         |
| Toggle Switch          | <a href="#">30002D</a>  | 14 to 10 AWG | 2.5 to 6 mm <sup>2</sup>  | 20 lb·in          | 2.3 N·m |
|                        | <a href="#">30003D</a>  |              |                           |                   |         |
|                        | <a href="#">4002</a>    |              |                           |                   |         |
|                        | <a href="#">40002D</a>  | 14 to 8 AWG  | 2.5 to 10 mm <sup>2</sup> | 25 lb·in          | 2.8 N·m |
|                        | <a href="#">40003D</a>  |              |                           |                   |         |
|                        | <a href="#">60002D</a>  |              |                           |                   |         |
|                        | <a href="#">60003D</a>  | 14 to 6 AWG  | 2.5 to 16 mm <sup>2</sup> | 25 lb·in          | 2.8 N·m |
| Enclosed Toggle Switch | <a href="#">30102D</a>  | 14 to 10 AWG | 2.5 to 6 mm <sup>2</sup>  | 20 lb·in          | 2.3 N·m |
|                        | <a href="#">30103D</a>  |              |                           |                   |         |
|                        | <a href="#">30302D</a>  |              |                           |                   |         |
|                        | <a href="#">30303D</a>  |              |                           |                   |         |
|                        | <a href="#">30322D</a>  |              |                           |                   |         |
|                        | <a href="#">30323D</a>  |              |                           |                   |         |
|                        | <a href="#">60302D</a>  | 14 to 6 AWG  | 2.5 to 16 mm <sup>2</sup> | 25 lb·in          | 2.8 N·m |
| Enclose Rotary Switch  | <a href="#">60303D</a>  |              |                           |                   |         |
|                        | <a href="#">664X33D</a> | 14 to 6 AWG  | 2.5 to 16 mm <sup>2</sup> | 25 lb·in          | 2.8 N·m |
|                        | <a href="#">664X63D</a> |              |                           |                   |         |

Note: Bryant does not recommend the use of wire ferrules or crimping terminals. The wire gauges are specified above and in the installation instructions included with each manual motor controller.