

**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





**30002D**



**40003D**



**4002**



**60002D**



**30102D,  
30103D**



**30322D,  
30323D**



**30302D,  
30303D**



**60302D,  
60303D**



**664X33D**



**664X63D**

## Toggle Switch AC Motor Controllers / Disconnects

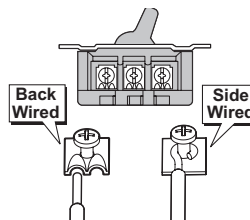
Part Number	Description	Amperage	Phase	Poles	Wired	Price
<b>30002D</b>	Switch only, 30A, 2-pole, 15 HP @ 600 VAC - Standard Toggle	30	1	2	Back and Side	\$40.50
<b>30003D</b>	Switch only, 30A, 3-pole, 20 HP @ 600 VAC - Standard Toggle	30	3	3	Back and Side	\$85.00
<b>4002*</b>	Switch only, 40A, 2-pole, 5 HP @ 600 VAC - Standard Toggle	40	1	2	Side	\$41.50
<b>40002D</b>	Switch only, 40A, 2-pole, 15 HP @ 600 VAC - Standard Toggle	40	1	2	Side	\$71.00
<b>40003D</b>	Switch only, 40A, 3-pole, 20 HP @ 600 VAC - Standard Toggle	40	3	3	Side	\$115.00
<b>60002D</b>	Switch only, 60A, 2-pole, 20 HP @ 600 VAC - Standard Toggle	60	1	2	Back	\$124.00
<b>60003D</b>	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
<b>30003FG</b>	Finger guards; red; for use with 30A and 40A Switches (Set of 2)	\$11.00
<b>30100</b>	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	Enclosure	Price
<b>30102D</b>	Enclosed, 30A, 2-pole, NEMA 1	30002D Standard Toggle	30	1	2	NEMA 1Metal	\$52.00
<b>30103D</b>	Enclosed, 30A, 3-pole, NEMA 1	30003D Standard Toggle	30	3	3		\$114.00
<b>30302D</b>	Enclosed, 30A, 2-pole, Aluminum	30002D Standard Toggle	30	1	2	NEMA 3RMetal	\$78.00
<b>30303D</b>	Enclosed, 30A, 3-pole, Aluminum	30003D Standard Toggle	30	3	3		\$139.00
<b>30322D*</b>	Enclosed, 30A, 2-pole, Plastic	30002DS Short Toggle	30	1	2	NEMA 3R Thermoplastic	\$90.00
<b>30323D*</b>	Enclosed, 30A, 3-pole, Plastic	30003DS Short Toggle	30	3	3		\$96.00
<b>60302D*</b>	Enclosed, 60A, 2-pole, Aluminum	60002FWD Standard Toggle	60	1	2	NEMA 3R Metal	\$181.00
<b>60303D*</b>	Enclosed, 60A, 3-pole, Aluminum	60003FWD Standard Toggle	60	3	3		\$211.00

\*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
<b>664X33D*</b>	Enclosed, 30A, 3-pole, NEMA 4X	66033D Rotary	30	3	3	NEMA 4X Thermoplastic	\$189.00
<b>664X63D*</b>	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
<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 buss connector	\$63.00

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



# Manual Motor Controllers / Disconnects

## Enclosed Toggle Switch

Enclosed toggle AC manual motor controllers feature NEMA 1 or NEMA 3R enclosures and can be used as motor controllers or disconnects. The NEMA 1 metal enclosed switches are ideal for use in indoor environments. The thermoplastic and metal NEMA 3R enclosed switches are raintight for use outdoors.

## Enclosed Toggle Switch Features

### NEMA 1 Motor Controllers / Disconnects

Wiring conduit knockouts

- 1/2 inch and 3/4 inch NPT
- Top, bottom or back wire entry points
- Surface mount control

### NEMA 3 / 3R Motor Controllers / Disconnects

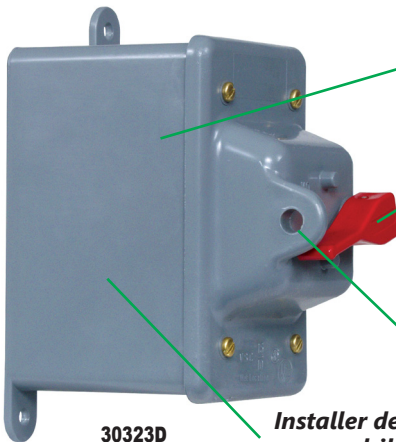
- Raintight enclosures
- Designed for surface mounting



All aluminum cover and base; base is pre-drilled for rear surface mounting

Lockout / Tagout capability

30103D



Valox® enclosure; chemical and impact resistant

External activation lever switch

Lockout / Tagout capability

30323D

Installer determined wire entry; no pre-drilled openings or knockouts



Rain tight drip shield top; rolled seamless sides

All aluminum cover and base; base is pre-drilled for rear surface mounting

Wiring conduit knockouts; 1/2 inch NPT KO for 30 amp; bottom or back wire entry points

30303D

Lockout / Tagout capability



All aluminum cover and base; base is pre-drilled for rear surface mounting

Wiring conduit knockouts; 3/4 inch / 1 inch NPT KO for 60 amp; bottom or back wire entry points

60303D

Valox® is a registered trademark of SABIC Innovative Plastics.

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## Enclosed Toggle Switch

# Manual Motor Controllers / Disconnects



**30102D, 30103D**



**30302D, 30303D**



**30322D, 30323D**



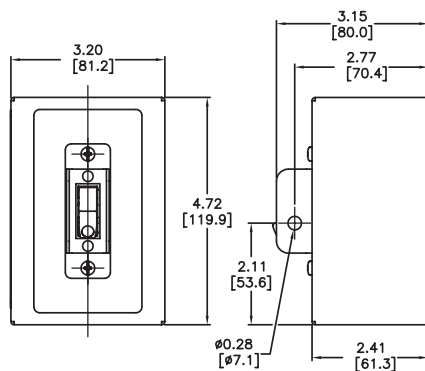
**60302D, 60303D**

Enclosed Toggle Switch AC Motor Controllers / Disconnects									
Part Number	Amperage	Phase	Poles	HP Ratings				Enclosure	Price
				120 VAC	240 VAC	480 VAC	600 VAC		
<b>30102D</b>	30	1	2	2	5	10	15	NEMA 1 Metal	\$52.00
<b>30103D</b>	30	3	3	3	7.5	15	20		\$114.00
<b>30302D</b>	30	1	2	2	5	10	15	NEMA 3R Metal	\$78.00
<b>30303D</b>	30	3	3	3	7.5	15	20		\$139.00
<b>30322D*</b>	30	1	2	2	5	10	15	NEMA 3R Thermoplastic	\$90.00
<b>30323D*</b>	30	3	3	-	7.5	15	20		\$96.00
<b>60302D*</b>	60	1	2	-	10	15	20	NEMA 3R Metal	\$181.00
<b>60303D*</b>	60	3	3	-	10	25	30		\$211.00

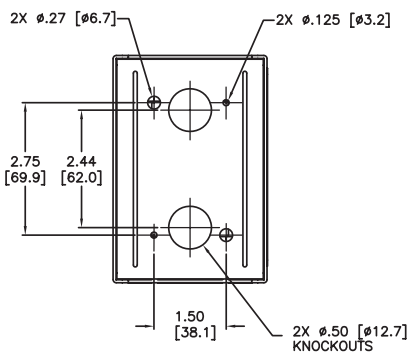
\*Switch is not available as a separate item



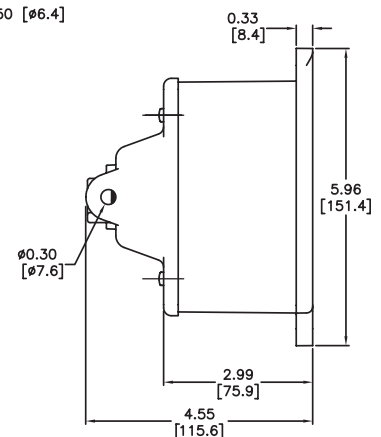
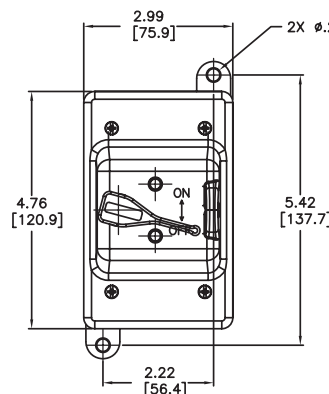
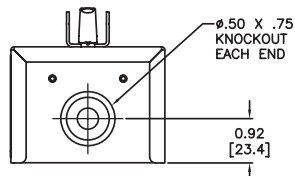
## Dimensions [in (mm)]



**30102D, 30103D**



**30322D, 30323D**



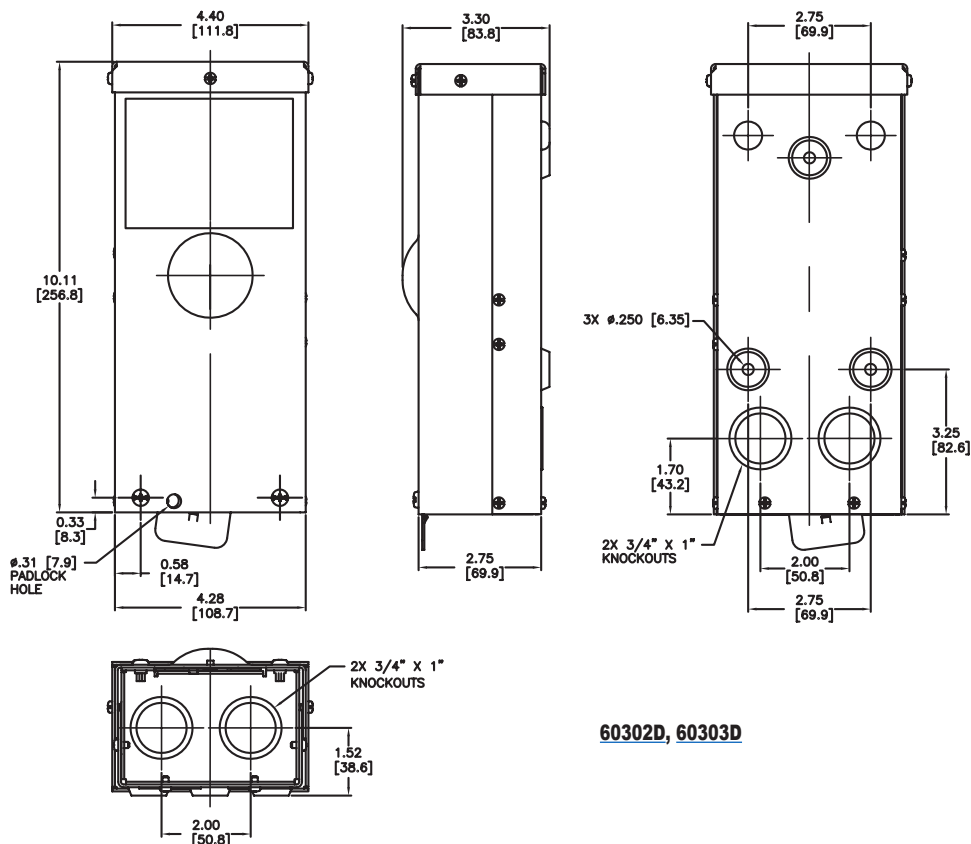
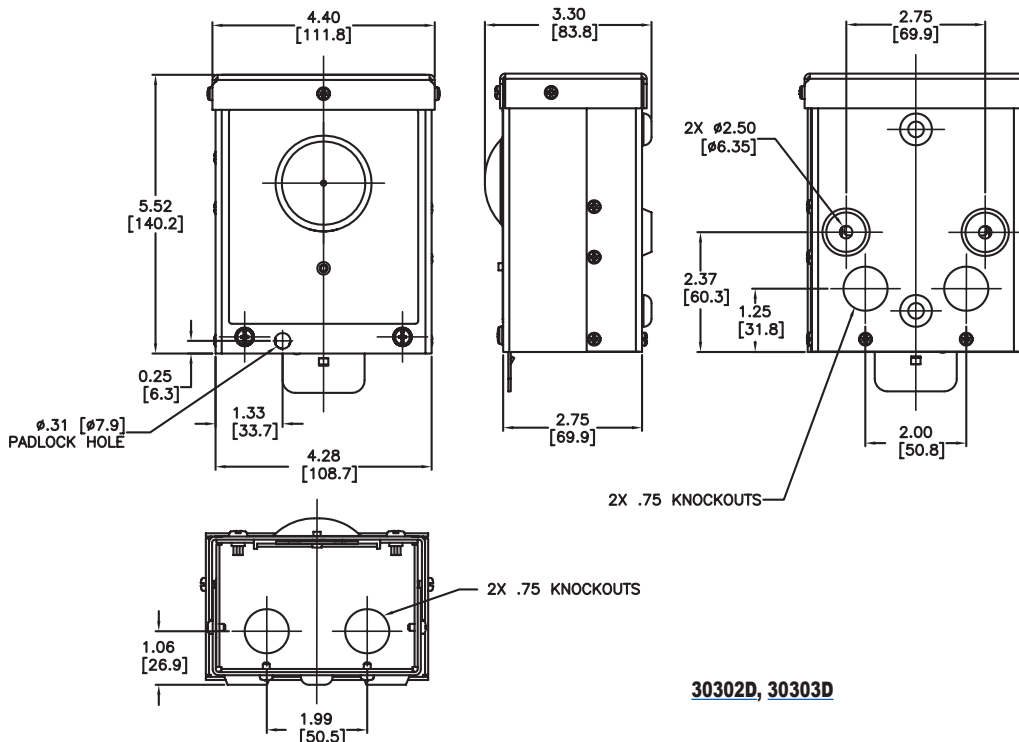
Dimensions are approximate - Not for construction purposes

# Manual Motor Controllers / Disconnects

## Enclosed Toggle Switch



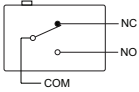
### Dimensions [in (mm)]



# 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 60A max J fuses or 125A max RK5 fuses	2,200V AC minimum for 1 minute	6,000 cycles at rated switch load	600 VAC RMS	10,000 minimum cycles	-40 °C (-40 °F) 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)						
<a href="#">60003D</a>								
Enclosed Toggle Switch	<a href="#">30102D</a>	1.0 lb (454g)	10 kA 60A max J fuses or 125A max RK5 fuses	2,200V AC minimum for 1 minute	6,000 cycles at rated switch load	600 VAC RMS	10,000 minimum cycles	-40 °C (-40 °F) to 60 °C (140 °F)
	<a href="#">30103D</a>							
	<a href="#">30302D</a>	1.3 lb (590g)						
	<a href="#">30303D</a>							
	<a href="#">30322D</a>	2.2 lb (998g)						
	<a href="#">30323D</a>							
<a href="#">60302D</a>	1.9 lb (861g)	10 kA 80A max J fuses or 125A max RK5 fuses						
<a href="#">60303D</a>	2.0 lb (907g)							
Enclosed Rotary Switch	<a href="#">664X33D</a>	2.5 lb (1,134g)	10 kA 80A max J fuses or 125A max RK5 fuses	2,200V AC minimum for 1 minute	6,000 cycles at rated switch load	600 VAC RMS	10,000 minimum cycles	-40 °C (-40 °F) to 60 °C (140 °F)
	<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>	 SPDT	15A @ 250 VAC Resistive, 10A @ 250 VAC Inductive 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>	14 to 6 AWG	2.5 to 16 mm <sup>2</sup>	25 lb·in	2.8 N·m
<a href="#">60003D</a>					
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	
<a href="#">60303D</a>					
Enclose Rotary Switch	<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.