

# Section F Switched Disconnects and Enclosures



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Circuit-Lock® Unfused Disconnect Switches



Fused Disconnects, MotorQuick® and VFDs



Hazardous Locations



NEMA 1, 3/3R and 4X Disconnect Switches



# Hubbell's Circuit-Lock® Manual Motor Controllers

"Suitable as Motor Disconnects"



Hubbell manufactures one of the most complete lines of motor disconnects on the market. Designed to ensure maximum reliability and performance, Hubbell Circuit-Lock® motor controllers meet or exceed all industry requirements. Because our Circuit-Lock® motor controllers are also disconnects, they ensure safety, compliance, flexibility and productivity for today's industrial and commercial environments. Whether controlling motor loads, safely terminating power or isolating equipment, Hubbell has the solution for you—no matter what the environment or application.



## Hubbell Flexibility

With Hubbell's wide range of Circuit-Lock® motor controllers and disconnects that offer several mounting options, NEC® line of sight requirements are easily achieved at the equipment or on the wall in virtually any industrial environment. Switches with a compact footprint, a variety of NEMA® type enclosures and plug-and-play LINKOSITY® make switch placement easier and more flexible than ever.



## Hubbell Productivity

Circuit-Lock® keeps assembly lines, goods and services moving. By offering a dual motor controller-disconnect rating, power can be safely terminated at any point in the circuit to perform maintenance on a single motor without shutting down the entire line. With the plug-and-play LINKOSITY® power system, MotorQuick® reduces motor change-out time by more than 65% to get equipment up and running faster.

## Hubbell Safety

Safety of personnel and equipment is paramount in any manufacturing environment. Hubbell Circuit-Lock® motor controllers withstand short circuits and provide a high degree of safety across the factory floor. Disconnect Switches for Variable Frequency Drives (VFDs) safely terminate power to prevent risk of injury and damage to high-performance output devices used for controlling today's conveyor systems.



## Hubbell Compliance

Compliance with codes and regulations is a must in any industrial environment. Hubbell motor controllers meet a variety of requirements, including OSHA lockout/tagout, NSF certification for hygiene and hazardous location ratings. Each Circuit-Lock® motor controller is UL listed as "Suitable as Motor Disconnect". The NEC® allows for the disconnect and controller to be in one unit.



## Variable Frequency Disconnects



## Each Controller is Also a Disconnect



NEC® is a registered trademark of the National Fire Protection Association (NFPA).  
NEMA® is a registered trademark of the National Electrical Manufacturers Association.





## Ratings Quick Reference Guide

### Circuit-Lock® Switched Enclosures

Amp	Description	Phase	Poles	HP				Catalog Number
				120	240	480	600	
30	TYPE 1 Non-Metallic	3	3	3	7.5	15	20	<b>HBL1389MQR</b>
	TYPE 1 Non-Metallic	3	3	3	7.5	15	20	<b>HBL1389MQ5</b>
	TYPE 1 Non-Metallic	3	3	3	7.5	15	20	<b>HBL1389MQR2</b>
	NEMA 1 Aluminum	1	2	2	5	10	15	<b>HBL1372D</b>
	NEMA 1 Aluminum	3	3	3	7.5	15	20	<b>HBL1379D</b>
	NEMA 1 Non-Metallic	1	2	2	5	10	15	<b>HBL1392D</b>
	NEMA 1 Non-Metallic	3	3	3	7.5	15	20	<b>HBL1389D</b>
	NEMA 3/3R Non-Metallic	1	2	2	5	10	15	<b>HBL13R22D</b>
	NEMA 3/3R Non-Metallic	3	3	3	7.5	15	20	<b>HBL13R23D</b>
	NEMA 3R Die Cast Aluminum	1	2	2	5	10	15	<b>HBL13R12D</b>
	NEMA 3R Die Cast Aluminum	3	3	3	7.5	15	20	<b>HBL13R13D</b>
	NEMA 3R Aluminum	1	2	2	5	10	15	<b>HBL13R92D</b>
	NEMA 3R Aluminum	3	3	3	7.5	15	20	<b>HBL13R89D</b>
	IP69k TYPE 4X Labelless Non-Metallic	3	3	1	7.5	15	15	<b>HBLDS3</b>
	IP69k TYPE 4X Labelless Non-Metallic	3	3	1	7.5	15	15	<b>HBLDS3AC</b>
	IP69k TYPE 4X Labelless Non-Metallic	3	3	1	7.5	15	15	<b>HBLDS3AC2</b>
	IP69k TYPE 4X Labelless Non-Metallic	3	3	1	7.5	15	15	<b>HBLDS3NK</b>
	IP69k TYPE 4X Labelless Non-Metallic	3	3	1	7.5	15	15	<b>HBLDS3ACNK</b>
	IP69k TYPE 4X Labelless Non-Metallic	3	3	1	5	10	10	<b>HBLDS33ACNK</b>
	TYPE 4X Labelless Non-Metallic	3	3	1	7.5	15	15	<b>HBLDS3MQR</b>
TYPE 4X Labelless Non-Metallic	3	3	1	7.5	15	15	<b>HBLDS3MQ5</b>	
TYPE 4X Labelless Non-Metallic	3	3	1	7.5	15	15	<b>HBLDS3MQR2</b>	
IP69k TYPE 4X Stainless Steel	3	3	1	7.5	15	15	<b>HBLDS3SS</b>	
IP69k TYPE 4X Stainless Steel	3	3	1	7.5	15	15	<b>HBLDS3SSAC</b>	
IP69k TYPE 4X Stainless Steel	3	3	1	7.5	15	15	<b>HBLDS3SSVFD</b>	
TYPE 4X Stainless Steel	3	3	2	7.5	15	15	<b>HBLDS3SSMQR</b>	
TYPE 4X Stainless Steel	3	3	1	7.5	15	15	<b>HBLDS3SSMQ5</b>	
TYPE 4X Non-Metallic Fused Disconnect	3	3	1	7.5	15	20	<b>FDS30</b>	
NEMA 4X Stainless Steel	3	3	3	7.5	15	20	<b>HBL13S33D</b>	
NEMA 4X Non-Metallic	3	3	3	7.5	15	20	<b>HBL13X33D</b>	
60	NEMA 3R Aluminum	1	2	—	10	15	20	<b>HBL16R92D</b>
	NEMA 3R Aluminum	3	3	—	10	25	30	<b>HBL16R93D</b>
	IP69k TYPE 4X Non-Metallic	3	3	7.5	30	50	50	<b>HBLDS6</b>
	IP69k TYPE 4X Non-Metallic	3	3	7.5	30	50	50	<b>HBLDS6AC</b>
	IP69k TYPE 4X Stainless Steel	3	3	7.5	30	50	50	<b>HBLDS6SS</b>
	IP69k TYPE 4X Stainless Steel	3	3	7.5	30	50	50	<b>HBLDS6SSAC</b>
	TYPE 4X Non-Metallic Fused Disconnect	3	3	3	15	30	40	<b>FDS60</b>
	NEMA 4X Stainless Steel	3	3	—	10	25	30	<b>HBL16S63D</b>
NEMA 4X Non-Metallic	3	3	—	10	25	30	<b>HBL16X63D</b>	
100	IP69k TYPE 4X Non-Metallic	3	3	7.5	30	50	50	<b>HBLDS10</b>
	IP69k TYPE 4X Non-Metallic	3	3	7.5	30	50	50	<b>HBLDS10AC</b>
	IP69k TYPE 4X Stainless Steel	3	3	7.5	30	50	50	<b>HBLDS10SS</b>
	IP69k TYPE 4X Stainless Steel	3	3	7.5	30	50	50	<b>HBLDS10SSAC</b>



HBL1379D



HBL1389D



HBLDS3



HBL16R93D



HBL13S33D



FDS30



HBLDS3SS



HBLDS3SSR



HBLDS3MQR



HBLDS3MQ5

### Circuit-Lock® Switches

Amp	Description	Phase	Poles	HP				Catalog Number
				120	240	480	600	
30	Toggle Switch	1	2	2	5	10	15	<b>HBL7832D</b>
	Short Toggle Switch	1	2	2	5	10	15	<b>HBL7832DS</b>
	Toggle Switch, Bulk Pack	1	2	2	5	10	15	<b>HBL7832DX</b>
	Toggle Switch	3	3	3	7.5	15	20	<b>HBL7810D</b>
	Short Toggle Switch	3	3	3	7.5	15	20	<b>HBL7810DS</b>
40	Toggle Switch	1	2	2	5	10	15	<b>HBL7842D</b>
	Toggle Switch	3	3	3	7.5	15	20	<b>HBL7843D</b>
50	Toggle Switch	1	2	2	5	10	15	<b>HBL7852D</b>
	Toggle Switch	3	3	3	7.5	15	25	<b>HBL7853D</b>
—	Finger guard (30–50A Switches)	—	—	—	—	—	—	<b>HBLFG30</b>
60	Toggle Switch	1	2	—	10	15	20	<b>HBL7862D</b>
	Toggle Switch	3	3	—	10	25	30	<b>HBL7863D</b>
	Toggle Switch – Front Wire	1	2	—	10	15	20	<b>HBL7862FWD</b>
	Toggle Switch – Front Wire	3	3	—	10	25	30	<b>HBL7863FWD</b>
85	Toggle Switch	1	2	—	10	15	20	<b>HBL7882D</b>
	Toggle Switch	3	3	—	10	25	40	<b>HBL7883D</b>



HBL7810D



HBL7853D



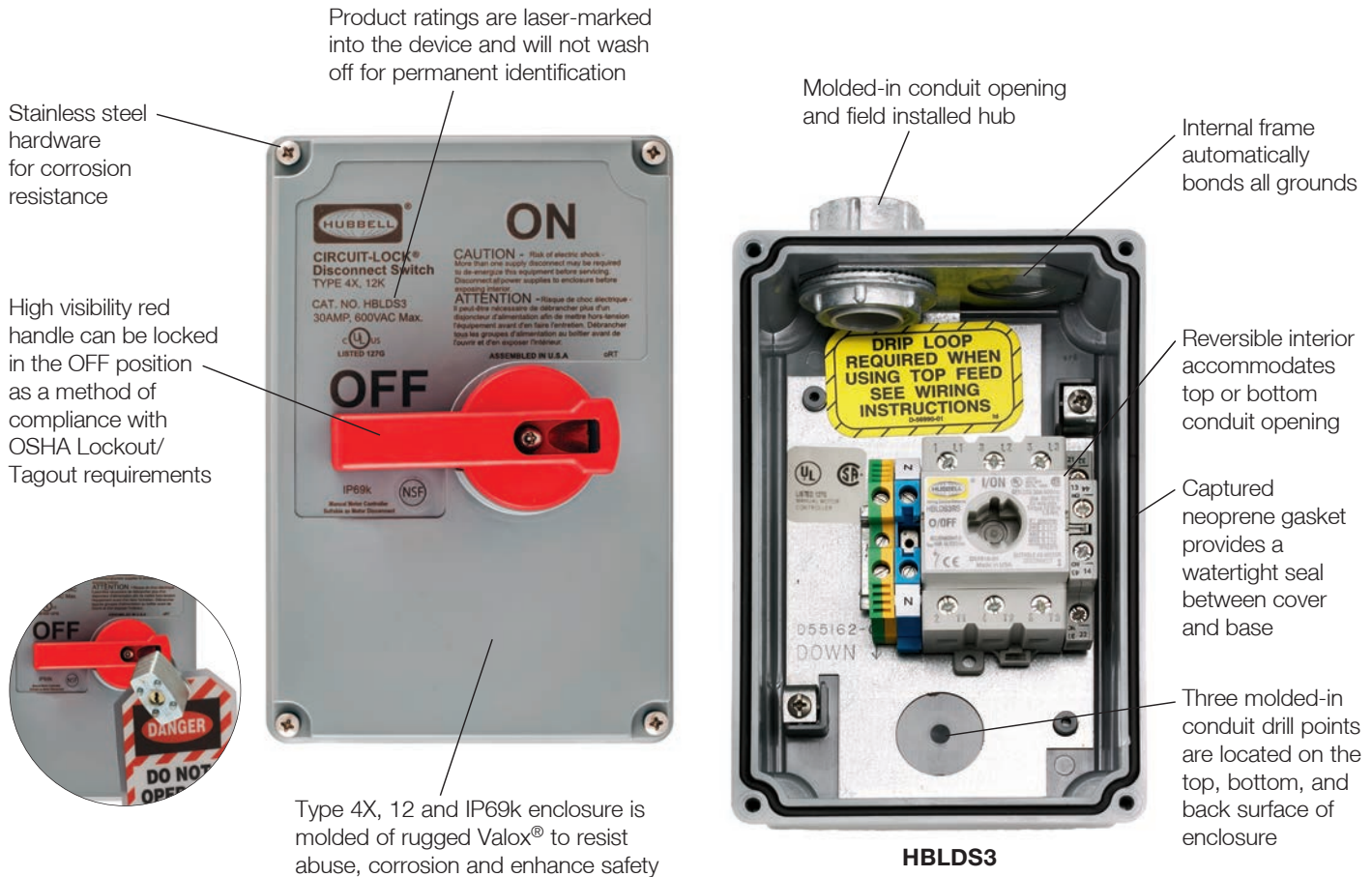
HBL7862D



HBL7863D

**Labelless Circuit-Lock® 30, 60, and 100 Ampere Unfused Disconnect Switches**

NEC section 430.102(B) requires each motor controller to have a disconnect within line of sight from the motor and driven equipment. NEC section 430.109(A)(6) recognizes that a manual motor controller and disconnect can be the same unit, provided it has been tested for this purpose. Hubbell's Circuit-Lock® Unfused Disconnect Switches are UL listed as a manual motor controller and also "suitable as a motor disconnect" and meet these code requirements. In addition, the enclosure offers the ability to lock directly wired motor loads in the OFF position to comply with OSHA Lockout/Tagout regulations. This safety enclosure is Type 4X (Wash down, Corrosion resistant) IP69k and is also suitable for use with metallic conduit. The switch is mounted on an internal frame that is integral with the enclosure and bonds all grounds, and it accepts auxiliary contacts that can be used to signal PLC controllers.



Labelless Circuit-Lock® Unfused Disconnect Switches are available in 30, 60 and 100 Amp, 600V AC ratings.



Auxiliary contacts are available for control circuit applications including the ON/OFF control of pilot lights or signal for programmable controllers.



Conduit hub and adjustable mounting feet are supplied for ease of installation.

Valox® is a trademark of SABIC Innovative Plastics, acquired from General Electric Company.

# Switched Disconnects and Enclosures

## Circuit-Lock® Unfused Disconnect Switches

"Suitable as Motor Disconnects"



### Labelless Circuit-Lock® Unfused Disconnect Switches in Non-Metallic Enclosures\*

Description	30 Amp	60 Amp	100 Amp
Labelless disconnect switch.	<b>HBLDS3</b>	<b>HBLDS6</b>	<b>HBLDS10</b>
Labelless disconnect switch for use with variable frequency drives.	<b>HBLDS3VFD</b>	<b>HBLDS6VFD</b>	<b>HBLDS10VFD</b>
Labelless disconnect switch with HBLAC1 auxiliary contact.	<b>HBLDS3AC</b>	<b>HBLDS6AC</b>	<b>HBLDS10AC</b>
Labelless disconnect switch with HBLAC2 auxiliary contact.	<b>HBLDS3AC2</b>	—	—
Labelless disconnect switch without conduit knockout or conduit fitting.	<b>HBLDS3NK</b>	—	—
Labelless disconnect switch with HBLAC1 auxiliary contact without conduit knockout or conduit fitting.	<b>HBLDS3ACNK</b>	—	—
Labelless disconnect switch with 3 auxiliary contacts, without conduit knockouts. Break before main break – 1 set "normally open", 1 set "normally closed". Break after main break – 2 sets "normally open", 1 set "normally closed".	<b>HBLDS33ACNK</b>	—	—



HBLDS3AC



HBLDS3SS



HBLDS3SSR

### Circuit-Lock® Unfused Disconnect Switches in Stainless Steel Enclosures\*

Description	30 Amp	60 Amp	100 Amp
Square Top disconnect switch.	<b>HBLDS3SS</b>	<b>HBLDS6SS</b>	<b>HBLDS10SS</b>
Square Top disconnect switch for use with variable frequency drives.	<b>HBLDS3SSVFD</b>	<b>HBLDS6SSVFD</b>	<b>HBLDS10SSVFD</b>
Square Top disconnect switch with HBLAC1 auxiliary contact.	<b>HBLDS3SSAC</b>	<b>HBLDS6SSAC</b>	<b>HBLDS10SSAC</b>
Sloped Top disconnect switch.	<b>HBLDS3SSR</b>	<b>HBLDS6SSR</b>	<b>HBLDS10SSR</b>
Sloped Top disconnect switch for use with variable frequency drives.	<b>HBLDS3SSRVFD</b>	<b>HBLDS6SSRVFD</b>	<b>HBLDS10SSRVFD</b>
Sloped Top disconnect switch with HBLAC1 auxiliary contact.	<b>HBLDS3SSRAC</b>	<b>HBLDS6SSRAC</b>	<b>HBLDS10SSRAC</b>

### Auxiliary Contacts for 30, 60 and 100 Amp Switch, NEMA A600 Pilot Duty

Description	Catalog Number
"Break After Main Break", 1 set of n/o contacts, 1 set of n/c contacts.	<b>HBLAC1**</b>
"Break Before Main Break", 1 set of n/o contacts.	<b>HBLAC2**</b>

Note: \*Certified by NSF, International.

\*\*Up to two auxiliary contacts per enclosure. Not for use with HBLDS33ACNK.  
30A Units are supplied with one 3/4 in. NPT Raintight conduit fitting.  
60A and 100A Units are supplied with two 1 1/4 in. NPT Raintight conduit fittings.

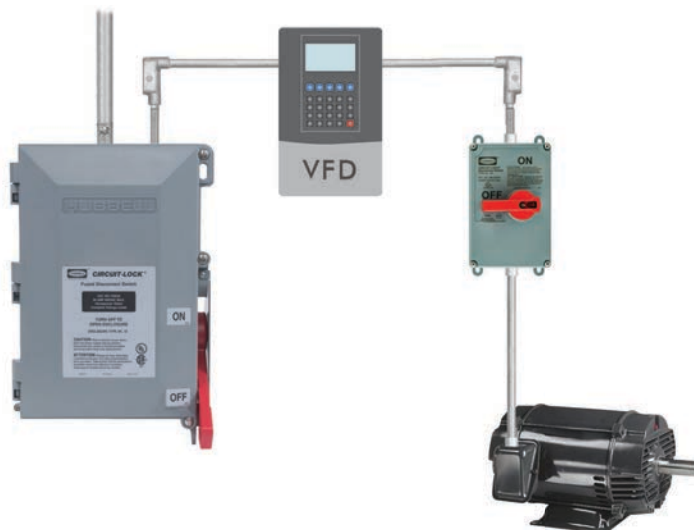


HBLAC1



HBLAC2

### Variable Frequency Drive Diagram





**IP66**  
 SUITABILITY



HBLDS3RC



HBLDS3SSRC



HBLD3SSRRC



HBL30RGB



HBL30RNB



HBLDS3RS



HBLRFT1

### Labelless Replacement Covers

Description	30 Amp	60 Amp	100 Amp
For non-metallic switches.	<b>HBLDS3RC</b>	<b>HBLDS6RC</b>	<b>HBLDS10RC</b>
For square top stainless steel switches.	<b>HBLDS3SSRC</b>	<b>HBLDS6SSRC</b>	<b>HBLDS10SSRC</b>
For sloped top stainless steel switches.	<b>HBLD3SSRRC</b>	<b>HBLD60100SSRRC</b>	<b>HBLD60100SSRRC</b>

### Replacement Ground Block

Description	Catalog Number
For 30A switches.	<b>HBL30RGB</b>
For 60A and 100A switches.	<b>HBL60100RGB</b>

### Replacement Neutral Block

Description	Catalog Number
For 30A switches.	<b>HBL30RNB</b>
For 60A switches.	<b>HBL60RNB</b>
For 100A switches.	<b>HBL100RNB</b>

### Replacement Switches

Description	Catalog Number
For 30A switches.	<b>HBLDS3RS</b>
For 60A and 100A switches.	<b>HBLDS60100RS</b>
For HBLDS33ACNK.	<b>HBLDS33ACRS</b>

### Replacement Mounting Feet

Description	Catalog Number
For 30A non-metallic switches.	<b>HBLRFT1<sup>Δ</sup></b>
For 60A and 100A non-metallic switches.	<b>HBLRFT2<sup>Δ</sup></b>

Note: <sup>Δ</sup> Package of 10 feet and 10 screws.



# Switched Disconnects and Enclosures Circuit-Lock® Unfused Disconnect Switches

Dimensions and Specifications



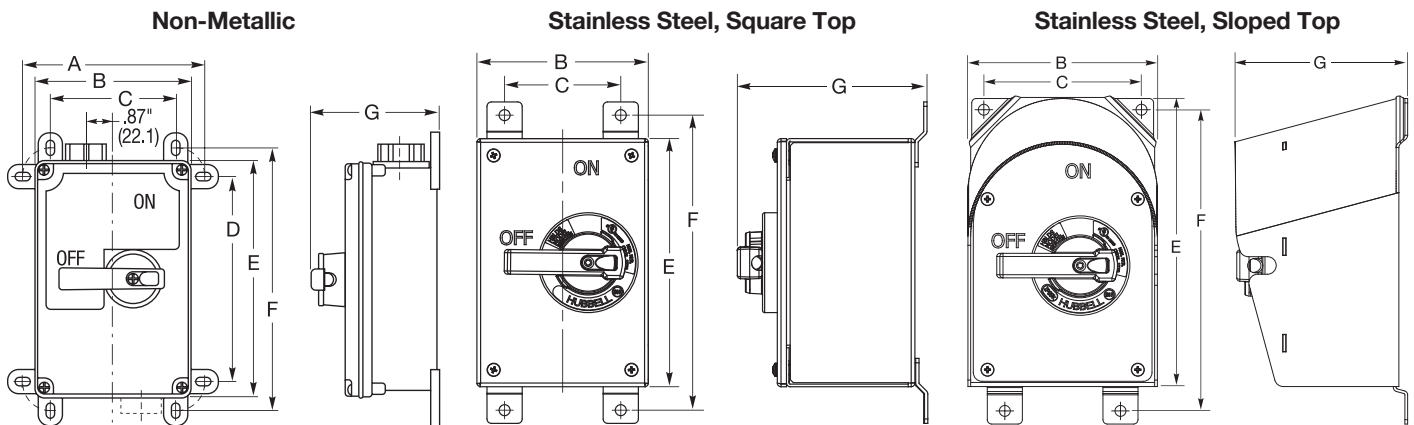
## Dimensions

Key	Labelless Non-Metallic		Stainless Steel, Square Top		Stainless Steel, Sloped Top	
	30A inch (mm)	60A/100A inch (mm)	30A inch (mm)	60A/100A inch (mm)	30A inch (mm)	60A/100A inch (mm)
<b>A</b>	6.00 (152)	7.75 (197)	—	—	—	—
<b>B</b>	5.12 (130)	6.87 (175)	4.87 (124)	7.30 (185)	5.41 (137)	7.66 (195)
<b>C</b>	4.12 (105)	4.75 (121)	3.30 (84)	5.50 (140)	4.50 (114)	6.45 (164)
<b>D</b>	6.62 (168)	8.00 (203)	—	—	—	—
<b>E</b>	7.62 (194)	9.95 (253)	7.05 (179)	10.30 (262)	8.60 (218)	11.41 (290)
<b>F</b>	8.50 (216)	11.00 (279)	8.38 (213)	11.63 (296)	8.22 (209)	11.17 (284)
<b>G</b>	4.12 (105)	5.94 (151)	5.39 (137)	5.93 (151)	4.92 (125)	6.10 (155)

## Horsepower Ratings

Voltage	30A	30A*	60A	100A
1Ø 120V AC	1	1	7.5	7.5
1Ø 200–240V AC	3	2.5	15	15
1Ø 480V AC	5	5	30	30
3Ø 200–240V AC	7.5	5	30	30
3Ø 480V AC	15	10	50	50
3Ø 600V AC	15	10	50	50

Note: \*HBLDS33ACNK.



## Circuit-Lock® Unfused Disconnect Switches

### Specifications

Moisture Resistance

Indoor and Outdoor – Type 4X (Wash down, Corrosion resistant);  
Indoor – 30, 60A and 100A Type 12 (Dust-tight, Falling Dirt, Noncorrosive Liquids).  
UL94-5VA and V0 Classification.

Flammability

Maximum Continuous 75°C; Minimum Continuous -40°C without impact.

Operating Temperature

All materials are UV stabilized.

UV Resistance

Withstands 3000V AC minimum.

Dielectric Voltage

600V AC RMS.

Max. Working Voltage

Certified for current interrupting at full rated current and voltage.

Current Interrupting

- 30/60/100A: Suitable for use on a circuit capable of delivering not more than 10kA RMS symmetrical, 600V AC max.

Short Circuit Current Ratings (SCCR):  
(Motor Disconnect)

- 30A: Suitable for use on a circuit capable of delivering not more than 65kA RMS symmetrical, 600V AC max. when protected by Class J fuses rated 30A max.

- 60/100A: Suitable for use on a circuit capable of delivering not more than 65kA RMS symmetrical, 600V AC max. when protected by Class J fuses rated 100A max.

Terminal Identification

In accordance with UL, CSA and international conventions.

Product Identification

Identification and ratings are part of external label.

Mounting

Non-Metallic - External fully adjustable feet. Stainless Steel - Feet are fixed.

Impact Resistance

In accordance with UL 746C.

### Materials

Part	Non-Metallic	Stainless Steel
Base	Valox®	#14 Gauge Type 304 Stainless Steel
Top	Valox®	#14 Gauge Type 304 Stainless Steel
Handle	Valox®	Valox®
Conduit Hub	Zinc 30A Unfused - 3/4 in. Zinc 60/100A Unfused - 1 1/4 in.	Zinc 30A - 3/4 in. Zinc 60/100A - 1 1/4 in.
Enclosure Gasket	Neoprene	Neoprene
Shaft (Unfused)	Valox®	Valox®
Shaft Seal	Molded Neoprene	Molded Neoprene
Frame	Galvanized Steel	N/A
Enclosure Screws	Stainless Steel 300 Series	Stainless Steel

Valox® is a trademark of SABIC Innovative Plastics, acquired from General Electric Company.

Dimensions in Inches (mm)



MotorQuick® significantly reduces the time it takes to replace motors by combining the plug-and-play technology of the LINKOSITY® power system with the versatility of Circuit-Lock® motor disconnect switches. Quick disconnect terminations will reduce motor change-out time by approximately 65%. Keeping spare motors

already pre-wired with a LINKOSITY® inlet enables wiring to be done off-line when it is convenient, not critical. Motor rotation can be pre-checked in a maintenance shop to further speed the installation. The net result is that equipment is up and running in a fraction of the time, helping improve the bottom line.



## MotorQuick® Cost of Ownership Analysis

### Traditional Motor Changeout

Catalog Number	Total Material Cost	Labor Cost/ Hr	Downtime	Total Labor Cost	Downtime Cost/hr	Total Downtime Cost	Total Cost
<b>HBL1389D</b>	\$106.00	\$53.00	1 hour	\$53.00	\$750.00	\$750.00	\$909.00
<b>HBLDS3</b>	\$185.00	\$53.00	1 hour	\$53.00	\$750.00	\$750.00	\$988.00

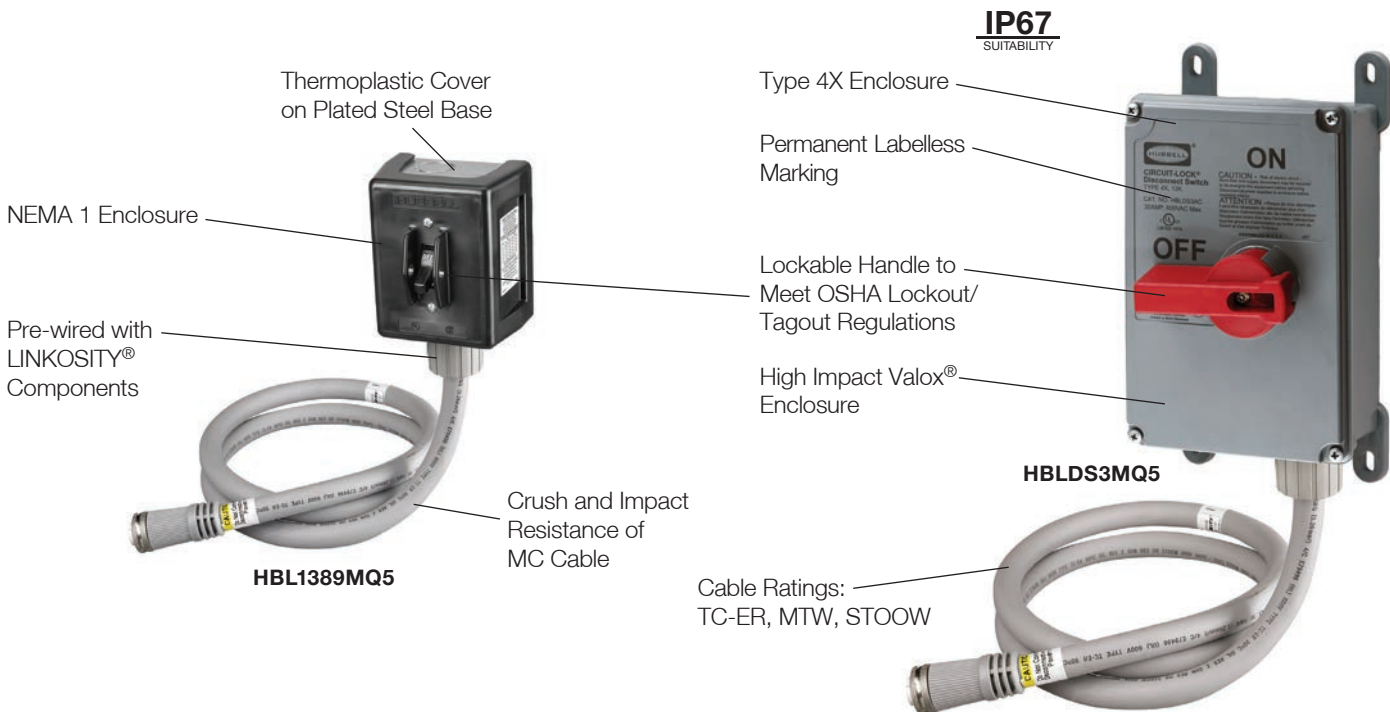
### MotorQuick® Motor Changeout

Catalog Number	Total Material Cost	Labor Cost/ Hr	Downtime	Total Labor Cost	Downtime Cost/hr	Total Downtime Cost	Total Cost	Total Savings
<b>HBL1389MQ*</b>	\$299.00	\$53.00	20 minutes	\$17.67	\$750.00	\$250.00	\$566.67	<b>\$342.33</b>
<b>HBLDS3MQ*</b>	\$411.00	\$53.00	20 minutes	\$17.67	\$750.00	\$250.00	\$678.67	<b>\$309.33</b>

Note: \*MotorQuick catalog numbers are based on the average cost of the various designs.



# 30 Ampere, 600 Volts AC



## MotorQuick® Disconnect Switches

Type 1 Non-Metallic Enclosure 30A 3 Pole 600V AC	Catalog Number	
HBL1389D with one pre-wired LINKOSITY® female receptacle (load side).	<b>HBL1389MQR</b>	
HBL1389D with 5 foot pre-wired LINKOSITY® female cable (load side).	<b>HBL1389MQ5</b>	
HBL1389D with one pre-wired LINKOSITY® male receptacle (line side) and one pre-wired LINKOSITY® female receptacle (load side).	<b>HBL1389MQR2</b>	
Type 4X Non-Metallic Labelless Enclosure 30A 3 Pole 600V AC	Catalog Number	
HBLDS3 with one pre-wired LINKOSITY® female receptacle (load side).	<b>HBLDS3MQR</b>	
HBLDS3 with 5 foot pre-wired LINKOSITY® female cable (load side).	<b>HBLDS3MQ5</b>	
HBLDS3 with one pre-wired LINKOSITY® male receptacle (line side) and one pre-wired LINKOSITY® female receptacle (load side).	<b>HBLDS3MQR2</b>	
Type 4X Stainless Steel Enclosure 30A 3 Pole 600V AC	Sloped Top	Square Top
HBLDS3SS with one pre-wired LINKOSITY® female receptacle (load side).	<b>HBLDS3SSRMQR</b>	<b>HBLDS3SSMQR</b>
HBLDS3SS with 5 foot pre-wired LINKOSITY® female cable (load side).	<b>HBLDS3SSRMQ5</b>	<b>HBLDS3SSMQ5</b>
HBLDS3SS with one pre-wired LINKOSITY® male receptacle (line side) and one pre-wired LINKOSITY® female receptacle (load side).	<b>HBLDS3SSRMQR2</b>	<b>HBLDS3SSMQR2</b>



## Accessories

Description	Catalog Number
3P 4W LINKOSITY® male receptacle for installation on motor.	<b>RM3004PA001</b>
3P 4W LINKOSITY® female receptacle for installation in switch.	<b>RF3004PA001</b>
3P 4W LINKOSITY® double ended (male/female) 5-50 foot cable.	<b>PH3004PAxxx*</b>
3P 4W LINKOSITY® single ended (female) 5-50 foot cable.	<b>PF3004PAxxx*</b>
Cord connector, ¼ in. NPT .63-.75 in. (16.0-19.1) diameter.	<b>SHC1037CR</b>
Lock-on cover for LINKOSITY® connections.	<b>PH2030C</b>

Note: \*Cables available from 5-50 feet in 5 foot increments. To purchase larger cable, replace the **xxx** with the required length in feet. (Examples: **PH3004PA005** = 5 foot cable, **PH3004PA050** = 50 foot cable.)

## Sample Set Up

(1) **HBLDS3MQR** + (1) **PH3004PAxxx** + (1) **RM3004PA001** = Total Set Up\*\*

Note: \*\* Retrofit parts available for pre-existing disconnect switch installations. Please consult factory for availability.

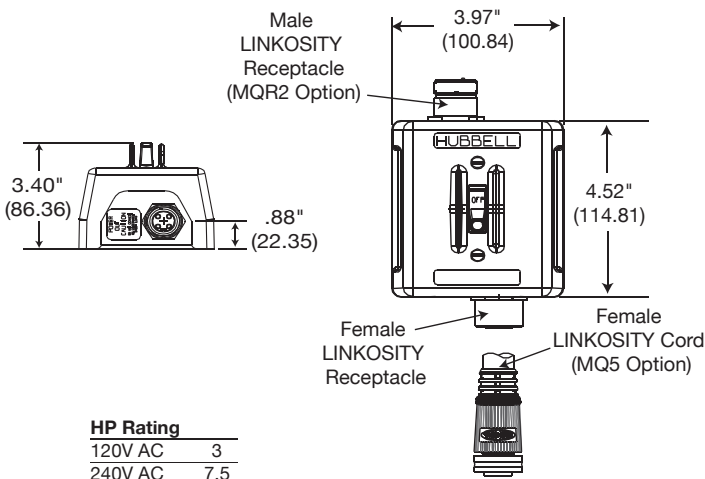
Valox® is a trademark of SABIC Innovative Plastics, acquired from General Electric Company.



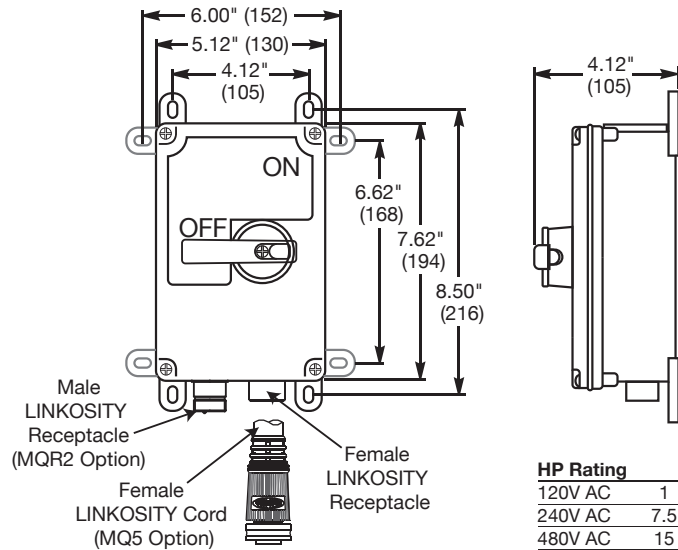
## Dimensions

### Type 1

### Type 4X



HP Rating	
120V AC	3
240V AC	7.5
480V AC	15
600V AC	20



HP Rating	
120V AC	1
240V AC	7.5
480V AC	15
600V AC	15

## Specifications

### Type 1

### Type 4X

#### Electrical Performance

Dielectric Voltage	2,200V AC minimum for 1 minute.	2,200V AC minimum for 1 minute.
Electrical Life	6,000 cycles with load.	6,000 cycles with load.
Max. Working Voltage	600V AC RMS.	600V AC RMS.
Short Circuit Current Ratings (SCCR): (Motor Disconnect)	10,000 RMS symmetrical amps when tested with 60A max J fuses.	• 30: Suitable for use on a circuit capable of delivering not more than 10kA RMS symmetrical, 600V AC max.
Short Circuit Current Ratings (SCCR): (Motor Controller)	10,000 RMS symmetrical amps when tested with 125A RK5 fuses.	• 30A: Suitable for use on a circuit capable of delivering not more than 65kA RMS symmetrical, 600V AC max. when protected by Class J fuses rated 30A max.

#### Mechanical

Mechanical Life	10,000 minimum cycles.	10,000 minimum cycles.
Terminal Accommodations	Amps AWG Min. AWG Max.	Amps AWG Min. AWG Max.
Terminal Torque	30 #14 #10	30 #14 #10
Impact Resistance	30 20 inch pounds	30 20 inch pounds
	— — —	UL746C

#### Environmental

Flammability	UL94HB/V-0.	UL94-5VA and V0 Classification.
Operating Temp.	Max. continuous 60°C Min. continuous w/o impact -40°C	Max. continuous 75°C Min. continuous -40°C

#### Listings

UL 508	Industrial Control Equipment File #E36355	Industrial Control Equipment File #E36355
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## LINKOSITY® Connection

#### Certifications

Connecting Components	Listed to UL 2238 and UL 50E.
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#### Electrical Performance

Voltage	Up to 600V AC.
Amperage	Up to 30A.

#### Environmental

Connectivity System Components	
Moisture Resistance	UL Type 4, 4X, 12 and 13.
Ingress Protection	IP67 Suitability.
Flammability	UL94HB cables / UL94V-0 receptacles.

#### Materials

Connectivity System Components	
Contact Carrier	Nylon 6/6, white.
Contact Materials	Pins - brass. Sockets - leaded nickel copper w/ stainless steel sleeve.
Contact Plating	Hard gold over palladium/nickel.
Overmold Material	Glass filled polyurethane, gray.
Coupling Hardware	Nickel plated brass.
Cable (16 AWG and Up)	UL 600V Type TC-ER, MTW 90°C or STOOV 600V 105°C.

Dimensions in Inches (mm)



**Circuit-Lock® 30 and 60 Ampere Fused Disconnect Switches**

The Circuit-Lock Fused Disconnect Switch provides fused switched control of a directly wired load. The switch cannot be turned ON unless the enclosure cover is closed. The fuses cannot be accessed until the switch is turned OFF. The fuse holder accepts Class "J" fuses. This enclosure is non-metallic and is listed for Outdoor/Indoor (Type 4X Wash down, Corrosion resistant). The handle can be locked in the OFF position to comply with OSHA Lockout/Tagout regulations.

Three molded-in conduit drill points are located on the top, bottom, and back surface of enclosure. Conduit hub provided: 30A 1 inch NPT, 60A 1 1/4 inch NPT

Adjustable mounting feet (4) can be mounted in any of three positions for ease of installation

Stainless steel hardware for corrosion resistance

Safety interlocked fuse access door

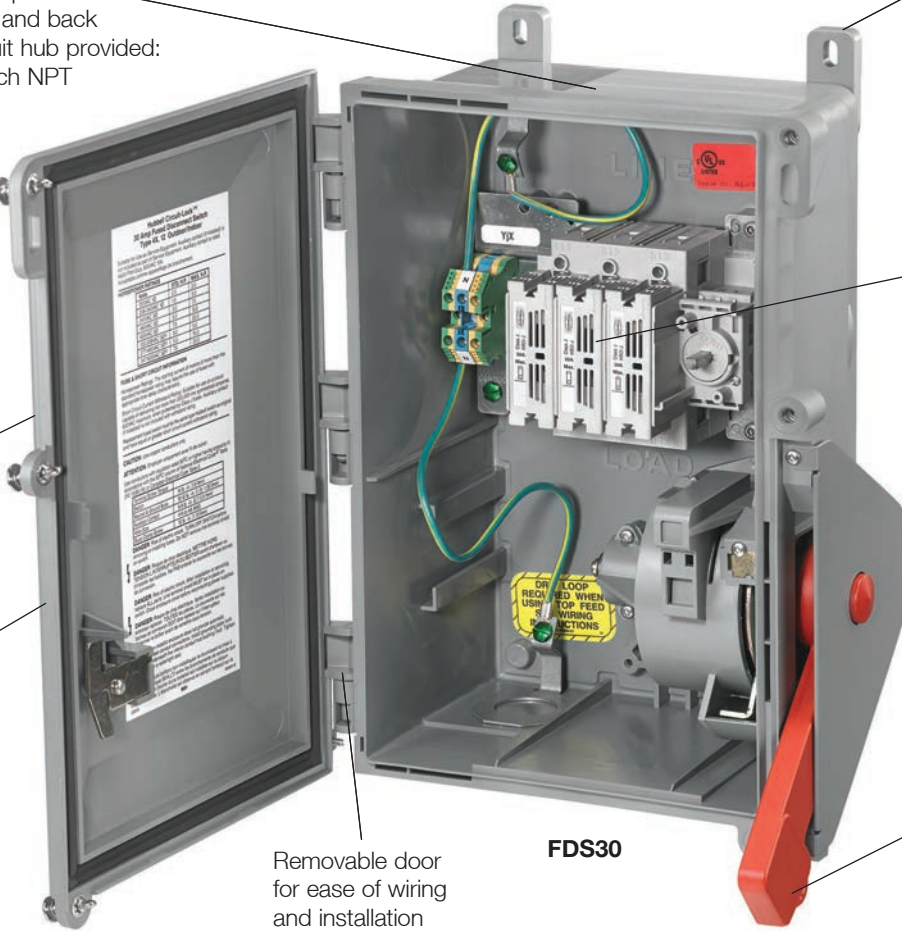
Non-metallic enclosure meets UL 50E Type 4X (watertight) 12 (dust-tight) and IP66 suitability requirements. Enclosure is molded of rugged Valox® to resist abuse, corrosion and enhance safety. All external hardware is stainless steel

Removable door for ease of wiring and installation

**FDS30**

Fused disconnect switches accept Class "J" fuses

Lockable high visibility red handle to meet OSHA Lockout/Tagout



Conduit hub and adjustable mounting feet are supplied with each Circuit-Lock® Fused Disconnect Switch.



Stainless steel 1/4 inch turn door fasteners for quick, easy access to fuses.



Enclosure door can be locked to prevent unauthorized access. Additionally, if the switch is ON, the door cannot be opened.



Compact Fused Disconnect Switch accepts Class "J" fuses. Fuse holders are top mounted for easy access. The switch accepts auxiliary contacts for control circuit applications including the ON/OFF control of remote pilot lights or signal for programmable controllers.

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**IP66**  
SUITABILITY



**FDS30**

**30 and 60 Amp Fused Disconnect Switches**

Description	Catalog Number
30A Circuit-Lock fused disconnect switch.	<b>FDS30*</b>
60A Circuit-Lock fused disconnect switch.	<b>FDS60*</b>

Note: \*Class "J" fuses not included.

**Auxiliary Contacts**

Description	Black Style Switch Catalog Number	Gray Style Switch Catalog Number
Auxiliary contact, normally open, A600 pilot duty, break before break.	<b>ACFSNO</b>	<b>HBLACFSNO</b>
Auxiliary contact, normally closed, A600 pilot duty, break before break.	<b>ACFSNC</b>	<b>HBLACFSNC</b>

Note: Auxiliary contacts are specific to the style switch noted and are NOT interchangeable.

Gray Style Switch



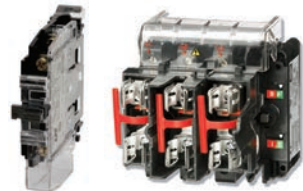
**HBLACFSNO HBL30MIFRS**

**Replacement Switches**

Description	Black Style Switch Catalog Number	Gray Style Switch Catalog Number
For 30A fused switches.	<b>30MIFRS</b>	<b>HBL30MIFRS</b>
For 60A fused switches. Gray Style switch will retro fit Black Style switch.	—	<b>HBL60MIFRS</b>

Note: If replacing a Black Style switch, you must use the **30MIFRS**. All other applications can use the Gray Style switch.

Black Style Switch



**ACFSNO 30MIFRS**

**Watertight Closure Plug Kits**

Description	Catalog Number
For 30A Circuit-Lock® unfused and fused Pin and Sleeve mechanical interlocks.	<b>MICPK30</b>
For 60 and 100A Circuit-Lock® unfused and fused Pin and Sleeve mechanical interlocks.	<b>MICPK60</b>

**Replacement Mounting Feet**

Description	Catalog Number
Replacement mounting feet and screws for 30 and 60A fused mechanical interlocks.	<b>HBLRFT2<sup>A</sup></b>

Note: 30A Units supplied with two 1 in. NPT raintight conduit fittings.  
60A Units supplied with two 1¼ in. NPT raintight conduit fittings.  
<sup>A</sup> Package of 10 feet and 10 screws.

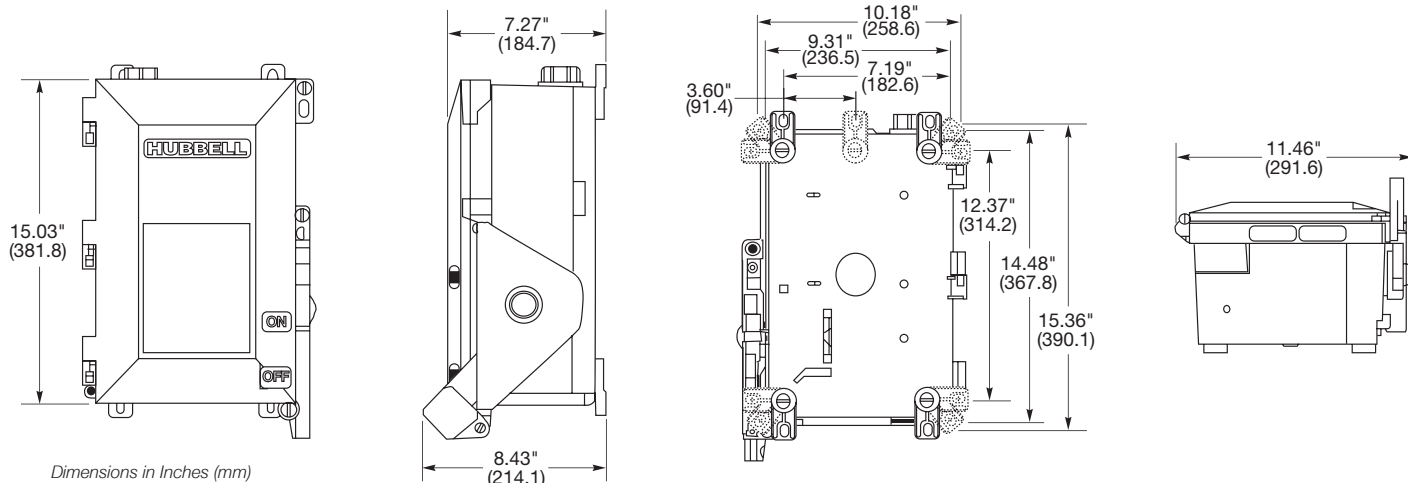


**MICPK30**



**HBLRFT2**

**Dimensions**



Dimensions in Inches (mm)



### Horsepower Ratings

Ratings	Volts	Standard HP	Maximum HP*	Catalog Number
30A	120V AC	0.5	2	<b>FDS30</b>
600V AC	208-240V AC	1.5	3	
Max.	3Ø 240V AC	3	7.5	
	3Ø 480V AC	5	15	
	3Ø 600V AC	7.5	20	
	3Ø Y 120/208V AC	3	5	
	3Ø Y 277/480V AC	5	15	
	3Ø Y 347/600V AC	7.5	20	
60A	120V AC	1.5	3	<b>FDS60</b>
600V AC	208-240V AC	3	7.5	
Max.	3Ø 240V AC	7.5	15	
	3Ø 480V AC	15	30	
	3Ø 600V AC	15	50	
	3Ø Y 120/208V AC	7.5	15	
	3Ø Y 277/480V AC	15	30	
	3Ø Y 347/600V AC	15	40	

Note: \*Requires time delay fuses.

### Fuse and Short Circuit Information

Horsepower Ratings	The starting current of motors of more than the standard horsepower rating may require the use of fuses with appropriate time-delay characteristics.
Short Circuit Withstand Rating	Suitable for use on a circuit capable of delivering not more than 200,000 RMS symmetrical amperes at the voltage rating of receptacle when protected by Class "J" fuses.

Note: Replacement fused switch must be the same type Hubbell switch as original and have equal or greater short circuit current withstand rating.

### Circuit-Lock® Fused Disconnect Switch

Specifications	
Moisture Resistance	Indoor and Outdoor – Type 4X (Wash down, Corrosion resistant); Indoor – Type 12 (Dust-tight, Falling Dirt, Noncorrosive Liquids).
Flammability	UL94-5VA and V0 Classification.
Operating Temperature	Maximum Continuous 75°C; Minimum Continuous -40°C without impact.
UV Resistance	All materials are UV stabilized.
Dielectric Voltage	Withstands 3000V AC minimum.
Max. Working Voltage	600V AC RMS.
Impact Resistance	In accordance with UL 746C.
Terminal Identification	In accordance with UL, CSA and international conventions.
Product Identification	Identification and ratings are part of external label.
Mounting	External fully adjustable feet.
Fuse Types	UL Listed, Class "J"; CSA Certified, HRCI-J.

Materials	
Part	Material
Base	Valox®
Door	Valox®
Handle	Valox®
Conduit Hub	Zinc, 30A Fused – 1 in., 60A Fused – 1¼ in.
Enclosure Gasket	Neoprene
Shaft	Brass
Shaft Seal	Neoprene
Frame	Galvanized Steel
Ground Plate	Galvanized Steel
Enclosure Screws	Stainless Steel 300 Series

Valox® is a trademark of SABIC Innovative Plastics, acquired from General Electric Company.



## Hazardous Location Non-Fused Disconnect Switches

Hubbell's hazardous location line of non-fused disconnect switches are typically used for applications with the presence of flammable gasses or vapors, ignitable dusts and fibers. They are also suitable for use in outdoor or indoor damp, wet and dirty locations or in areas where frequent wash downs, heavy rain, or water spray routinely occurs. These switches are compact in size to reduce cost and make it easier to position on the wall or piece of equipment. The enclosures are made of copper-free aluminum and have a polyester/epoxy finish to prevent corrosion. The high visibility handles can be locked out to comply with OSHA lock out/tag out regulations.



Class I, Div. 1 & 2, Groups B,C,D  
Class I, Zones 1 & 2, Groups IIB+ H2, IIA  
Class II, Div. 1 & 2, Groups E,F,G  
Class III, NEMA 3, 4, 4X, 7(B,C,D), 9(E,F,G)

Copper-free aluminum construction with electrostatically applied polyester/epoxy finish to prevent corrosion

Compact NEMA 4X enclosure and footprint allows easy installation in tight locations

- 316 Stainless steel bolts
- Top and bottom drilled and tapped conduit entrances
- For use as motor disconnects



HBLB7NFD13A



Lockable handle to meet OSHA Lockout/Tagout regulations

Large visible rotary handle with "On-Off" indicator allows a quick means of disconnecting power



HBLB7NFD26A

Lockable handle to meet OSHA Lockout/Tagout regulations



### Features

- Compact size enclosures provide application flexibility with cost savings over industry standard sizes.
- Fewer cover bolts reduces installation and maintenance time.
- Gasketed flange with O-ring located inside bolt circle to seal out moisture.
- Rotary handle style operating mechanism with lockout provision as standard.
- Removable ductile mounting lugs adjust to irregular mounting surfaces.
- Bodies have top and bottom drilled and tapped conduit entrances for power connection.
- UL98 certified switch.

### Applications

- Grain manufacturing and storage
- Industrial chemical and gas manufacturing
- Petroleum refining
- Fertilizer manufacturing
- Vehicle repair/paint shops
- Coal mining
- Cotton and fabric mills





### Standard Materials/Finish

- Enclosures: Copper-free aluminum (less than 4/10 of 1% copper content)
- Cover Bolts: 316 Stainless Steel
- O-Ring Gasket: Silicone
- Finish: Grey Powder Polyester painted exterior, electrostatically applied
- Ratings: 600V AC, 230V DC 30–100 Amp

### 30, 60 and 100 Amp Unfused Hazardous Location Disconnect Switches

Description	Catalog Number
30A 3 Pole disconnect switch.	<b>HBLB7NFD13A</b>
30A 3 Pole disconnect switch with auxiliary contact.	<b>HBLB7NFD13AA</b>
60A 3 Pole disconnect switch.	<b>HBLB7NFD26A</b>
60A 3 Pole disconnect switch with auxiliary contact.	<b>HBLB7NFD26AA</b>
100A 3 Pole disconnect switch.	<b>HBLB7NFD21A</b>
100A 3 Pole disconnect switch with auxiliary contact.	<b>HBLB7NFD21AA</b>



**HBLB7NFD13A**



**HBLB7NFD26A**



**HBLB7NFD21A**



**HBLVP3485**

### Unfused Mechanical Interlocks and Plugs

Amp	Poles/Wires	Voltage AC	Receptacle	Plug
30	3 Pole, 2 Wire	600V AC	<b>HBLVSQ3023</b>	<b>HBLVP3385</b>
	4 Pole, 3 Wire	600V AC	<b>HBLVSQ3034</b>	<b>HBLVP3485</b>
60	3 Pole, 2 Wire	600V AC	<b>HBLVSQ6023</b>	<b>HBLVP6385</b>
	4 Pole, 3 Wire	600V AC	<b>HBLVSQ6034</b>	<b>HBLVP6485</b>

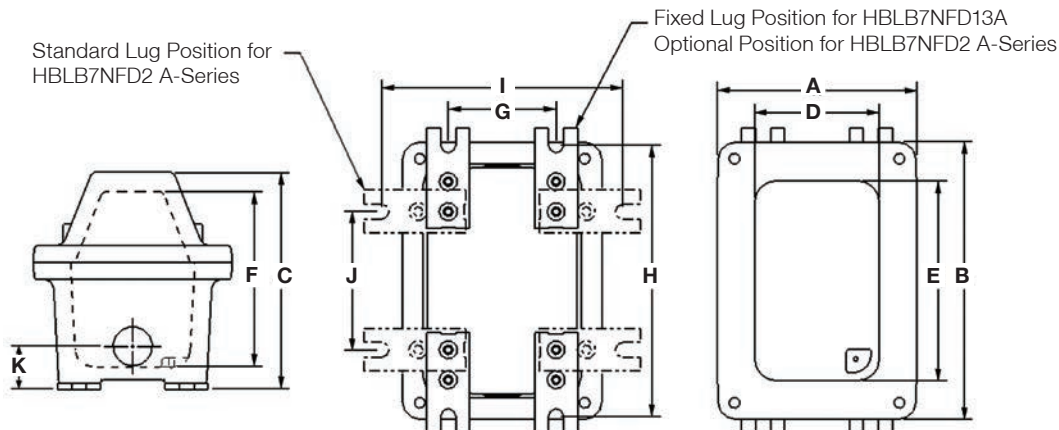
Note: HBLVSQ 30 amp models come standard with 1" drilled and tapped conduit openings top and bottom plus two 1" x 3/4" reducers and one 3/4" close-up plug for maximum flexibility. 60 amp models come with one 1 1/2" opening on top and bottom and one 1 1/2" close-up plug.

### Horsepower Ratings

Switch Amps/Phase	Single Phase HP			Three Phase HP			DC HP	Terminal Wire Size	Conduit Sizes	Catalog Number
	120V AC	230V AC	208V AC	230V AC	480V AC	600V AC	230V DC			
30A / 3P	2	5	10	10	20	30	1	#14-10	1 NPT	<b>HBLB7NFD13A</b>
60A / 3P	3	7.5	20	20	40	40	10	#14-4	1 1/2 NPT	<b>HBLB7NFD26A</b>
100A / 3P	5	15	25	30	50	50	20	#8-1	1 1/2 NPT	<b>HBLB7NFD21A</b>

### Dimensions

	Outside Box			Inside Box				Mounting Dimensions				
	A	B	C	D	E	F	G	H	I	J	K	
30 Amp	5 3/4	8 1/16	6 5/16	3 5/8	5 19/16	5 1/16	3 1/8	8 1/8	–	–	1 1/4	
60 & 100 Amp	8 1/8	13 1/16	7 13/16	4 1/4	9 9/16	6 5/16	2 1/2	11 3/8	6 3/8	7 1/2	1 13/16	



Dimensions in Inches (mm)



**Circuit-Lock® controllers rated “Suitable as Motor Disconnect”**

The most complete offering of controllers with top horsepower and high amperage ratings in such a compact device.



30A, 40A and 50A

**#10 Brass Terminal Screw**  
 Clamping plate for secure back or side wiring (30A only)

**Optional Side Guard**  
 For close wall applications and finger safe environments

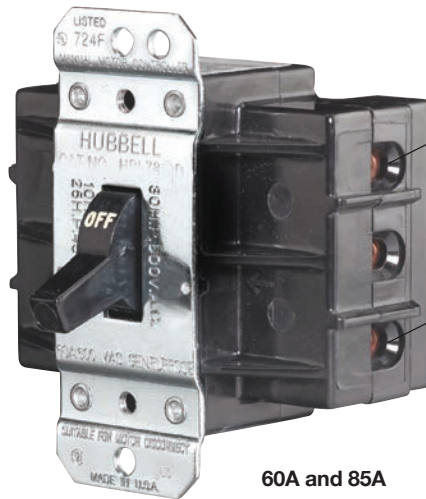


**Shared Features**

- Strong on/off action with quick-make, slow break operation
- Provides long-life reliability
  - 10,000 Amp High Fault Short Circuit Withstand Rating

**Thermoset Body**

- Provides high resistance to electrical arc tracking
- Withstands high temperatures
- Excellent dimensional stability
- Superior dielectric strength



60A and 85A

**Front and Back Wiring**  
 Steel Screws and Copper Terminals

**Recessed Wiring Wells**  
 Finger safe environments

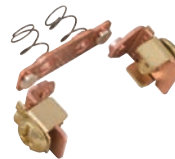


**Optional Side Finger Guards**  
 For close wall applications and finger safe environments. For 30A, 40A and 50A controllers.



**Four Large Silver Alloy Contacts per Pole**

- Excellent conductivity
- Maximum longevity



**100% Copper Contact Arm**

- High heat management
- Reliability



**Lubrication-Free Controller**

- Continued on/off cycling even in harsh, dust and high heat environments

# Switched Disconnects and Enclosures AC Manual Toggle Controllers/Disconnects

30, 40, 50, 60 and 85A 600V AC



## 600V AC Manual Motor Controllers/Disconnects

For use in almost any industrial environment. Ideal component switch for motor control and as a disconnect. Toggle controllers can be built into equipment and enclosures for either box or panel-mount installation.

Amp	Poles	ToggleType	Wire	HP Rating				Catalog Number
				120V AC 1Ø	240V AC 3Ø	480V AC 3Ø	600V AC 3Ø	
30	2	Standard	Back/Side	2	5	10	15	<b>HBL7832D</b>
	2	Short	Back/Side	2	5	10	15	<b>HBL7832DS</b>
	2	Standard	Back/Side	2	5	10	15	<b>HBL7832DX</b>
	3	Standard	Back/Side	3	7.5	15	20	<b>HBL7810D</b>
	3	Short	Back/Side	3	7.5	15	20	<b>HBL7810DS</b>
40	2	Standard	Side	2	5	10	15	<b>HBL7842D</b>
	3	Standard	Side	3	7.5	15	20	<b>HBL7843D</b>
50	2	Standard	Side	2	5	10	15	<b>HBL7852D</b>
	3	Standard	Side	3	7.5	15	25	<b>HBL7853D</b>
60	2	Standard	Back	—	10	15	20	<b>HBL7862D</b>
	3	Standard	Back	—	10	25	30	<b>HBL7863D</b>
	2	Standard	Front	—	10	15	20	<b>HBL7862FWD</b>
	3	Standard	Front	—	10	25	30	<b>HBL7863FWD</b>
85	2	Standard	Back	—	10	15	20	<b>HBL7882D</b>
	3	Standard	Back	—	10	25	40	<b>HBL7883D</b>
Optional Side Guard, for close wall applications and finger safe environments.								<b>HBLFG30*</b>

Note: \*For 30A, 40A and 50A controllers.



HBL7810D



HBL7853D



HBL7863D



HBLFG30

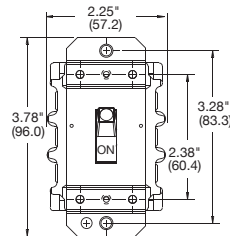
## Specifications

Electrical Performance		
Dielectric Voltage	Min. 2,200V AC minimum for 1 minute	
Electrical Life	Min. 6,000 Cycles at rated switch load	
Max. Working Voltage	600V AC RMS	
Short Circuit	Switches	10,000 RMS
Withstand Rating as Motor Disconnect	30A & 40A	60A max. when protected by J fuses
Short Circuit	50A	50A max. when protected by J fuses
Withstand Rating as Motor Controller	60A & 85A	80A max. when protected by J fuses
Short Circuit	All Switches	125A max. RK5 fuses
Mechanical		
Mechanical Life	Min. 10,000 minimum cycles	
Terminal	Switch Rating	AWG Max.
Accommodations	30A	#10
	40A & 50A	#8**
	60A & 85A	#4
Wire Type	Solid and stranded copper wire only.	
Terminal Torque	30A – 50A	20 inch pounds
Switch Rating	60A – 85A	25 inch pounds
Environmental		
Flammability	UL94HB/VO	
Operating Temp.	Max. 75°C	
	Min. -40°C continuous without impact	
Listings		
UL 508	Industrial Control File #E70402	
CSA-C22.2 No.14	LR-46186	

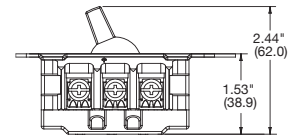
Note: \*\*Use listed certified ring terminal.

## Dimensions

### 30, 40 and 50 Amp Standard Toggles

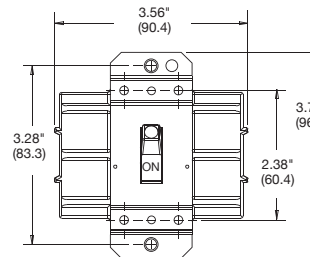


Front

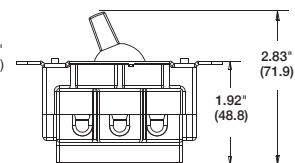


Side

### 60 and 85 Amp Standard Toggles



Front



Side

Dimensions in Inches (mm)





HBL1389D

**Thermoplastic Cover on a Plated Steel Base**  
Durable, non-conductive cover



HBL1379D

**All Aluminum Cover and Base**  
Base is pre-drilled for rear surface mounting

## Shared Features

Wiring conduit knockouts

- 1/2" and 3/4" NPT
- Top, bottom or back wire entry points

Surface mount control

Switch can be locked in the off position as a method of compliance with OSHA lockout/tagout

## Circuit-Lock® NEMA 1 Enclosures with Switch

Ideal for use in industrial environments, i.e. conveyer systems, industrial fans, etc.

Amp	Poles	Enclosure Material	HP Rating				Catalog Number
			120V AC 1Ø	240V AC 3Ø	480V AC 3Ø	600V AC 3Ø	
30	2	Thermoplastic	2	5	10	15	<b>HBL1392D</b>
30	3	Thermoplastic	3	7.5	15	20	<b>HBL1389D</b>
30	2	Aluminum	2	5	10	15	<b>HBL1372D</b>
30	3	Aluminum	3	7.5	15	20	<b>HBL1379D</b>

Note: See page F-17 for technical information.



HBL1389D



HBL1379D

## Circuit-Lock® NEMA 1 Enclosures without Switch

For use with switches shown on page F-17.

Description	Cover Material	Base Material	No. Equipment		Catalog Number
			Grounds		
For use with 30A switch.	Thermoplastic	Steel	1		<b>HBL1390</b>
For use with 30A switch.	Aluminum	Aluminum	2		<b>HBL1370</b>



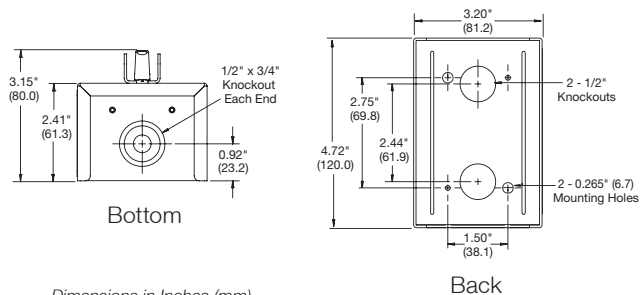
HBL1390



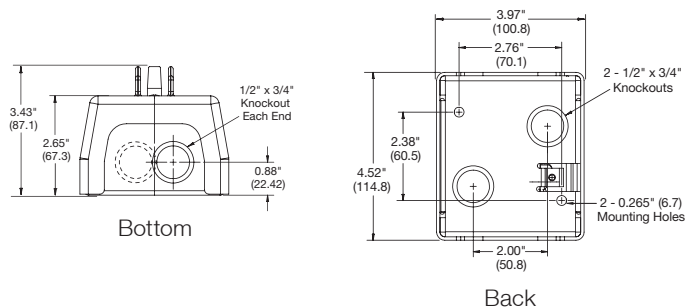
HBL1370

## Dimensions

HBL1370, HBL1372D and HBL1379D



HBL1390, HBL1389D and HBL1392D



Dimensions in Inches (mm)

# Switched Disconnects and Enclosures NEMA 3/3R and 3R Disconnect Switches

"Suitable as Motor Disconnects"



## Circuit-Lock® NEMA 3/3R Enclosures with Switch

Ideal for use on outdoor equipment.

Amp	Poles	Enclosure Material	HP Rating				Catalog Number
			120V AC 1Ø	240V AC 3Ø	480V AC 3Ø	600V AC 3Ø	
30	2	Thermoplastic	2	5	10	15	<b>HBL13R22D</b>
30	3	Thermoplastic	3	7.5	15	20	<b>HBL13R23D</b>
30	2	Aluminum	2	5	10	15	<b>HBL13R12D†</b>
30	3	Aluminum	3	7.5	15	20	<b>HBL13R13D†</b>

Note: See page F-17 for technical information.

\*Drill weephole to alter from NEMA 3 to NEMA 3R.

†Equipped with HBLFG30 sidewall insulation barriers.

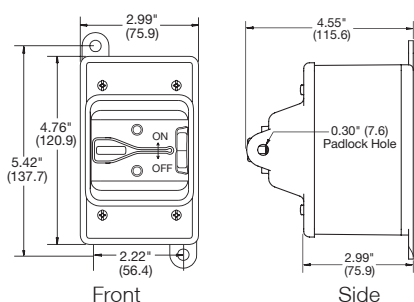


**HBL13R23D**

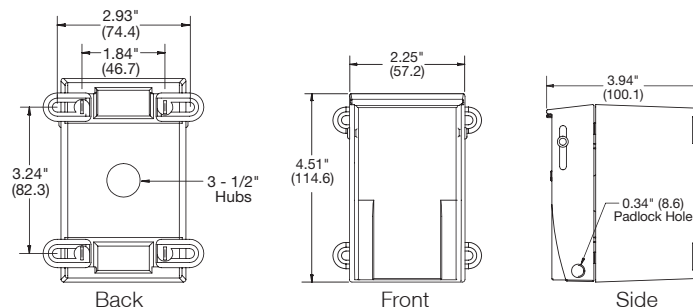
**HBL13R13D**

## Dimensions

### HBL13R22D and HBL13R23D



### HBL13R12D and HBL13R13D



## Circuit-Lock® NEMA 3R Enclosures with Switch

Ideal for use in outdoor environments.

Amp	Poles	Enclosure Material	HP Rating				Catalog Number
			120V AC 1Ø	240V AC 3Ø	480V AC 3Ø	600V AC 3Ø	
30	2	Aluminum	2	5	10	15	<b>HBL13R92D</b>
30	3	Aluminum	3	7.5	15	20	<b>HBL13R89D</b>
60	2	Aluminum	—	10	15	20	<b>HBL16R92D</b>
60	3	Aluminum	—	10	25	30	<b>HBL16R93D</b>

Note: For switch specifications refer to page F-17.



**HBL13R89D**

**HBL16R93D**

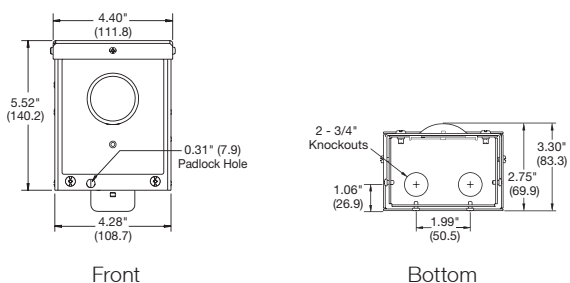
## Circuit-Lock® NEMA 3R Enclosures without Switch

For use with switches shown on page F-17.

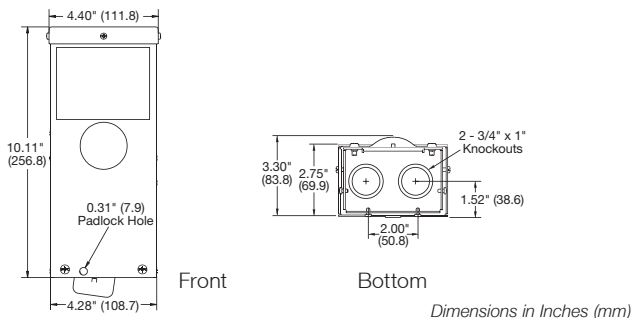
Description	Enclosure Material	Catalog Number
For use with 30A switch.	Aluminum	<b>HBL13R90</b>
For use with 60A switch.	Aluminum	<b>HBL16R90</b>

## Dimensions

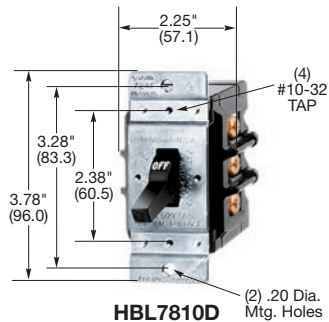
### HBL13R90, HBL13R89D and HBL13R92D



### HBL16R90, HBL16R92D and HBL16R93D



Dimensions in Inches (mm)



**HBL7810D**

## 30A 600V AC Manual Motor Controllers, Double Pole

Description	Catalog Number
30A, double pole, single throw, AC manual motor controller, black nylon handle, side and back wired.	<b>HBL7832D</b>
30A, double pole, single throw, AC manual motor controller, black nylon handle, short toggle.	<b>HBL7832DS</b>
30A, double pole, single throw, AC manual motor controller. 50 piece bulk pack.	<b>HBL7832DX</b>
HBL7832D in HBL1390 Type 1 enclosure with non-metallic cover, ½ in. and ¾ in. knockouts on top, bottom and back of steel frame.	<b>HBL1392D</b>
HBL7832D in HBL1370 metal Type 1 enclosure.	<b>HBL1372D</b>
HBL7832D in NEMA 3R non-metallic enclosure.	<b>HBL13R22D</b>
HBL7832D in HBL13R90 metal Type 3R enclosure.	<b>HBL13R92D</b>
HBL7832D in NEMA 3R flip-lid enclosure.	<b>HBL13R12D</b>

Note: See page F-17 for technical information.

## 30A 600V AC Manual Motor Controllers, Three Pole

Description	Catalog Number
30A, three pole, single throw, AC manual motor controller, black nylon handle, side and back wired.	<b>HBL7810D</b>
30A, three pole, single throw, AC manual motor controller, black nylon handle, short toggle.	<b>HBL7810DS</b>
HBL7810D in HBL1390 Type 1 enclosure with non-metallic cover, ½ in. and ¾ in. knockouts on top, bottom and back of steel frame.	<b>HBL1389D</b>
HBL7810D in HBL1370 metal Type 1 enclosure.	<b>HBL1379D</b>
HBL7810D in NEMA 3R non-metallic enclosure.	<b>HBL13R23D</b>
HBL7810D in HBL13R90 metal Type 3R enclosure.	<b>HBL13R89D</b>
HBL7810D in NEMA 3R flip-lid enclosure.	<b>HBL13R13D</b>
30A, 600V, three pole, rotary controller in NEMA 4X stainless steel enclosure.	<b>HBL13S33D</b>
30A, 600V, three pole, rotary controller in NEMA 4X non-metallic enclosure.	<b>HBL13X33D</b>

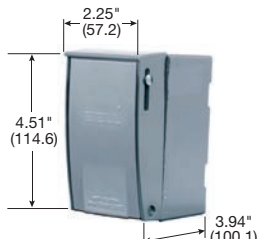
Note: See page F-17 for technical information.

## Motor Rating

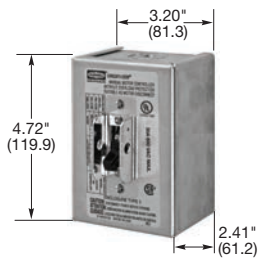
Product	120V AC	240V AC	480V AC	600V AC	Phase
30A Double Pole	2HP	5HP	10HP	15HP	1
30A Three Pole	3HP	7½HP	15HP	20HP	3
40A Double Pole	2HP	5HP	10HP	15HP	1
40A Three Pole	3HP	7½HP	15HP	20HP	3
50A Double Pole	2HP	5HP	10HP	15HP	1
50A Three Pole	3HP	7½HP	15HP	25HP	3
60A Double Pole	-	10HP	15HP	20HP	1
60A Three Pole	-	10HP	25HP	30HP	3
85A Double Pole	-	10HP	15HP	20HP	1
85A Three Pole	-	10HP	25HP	40HP	3



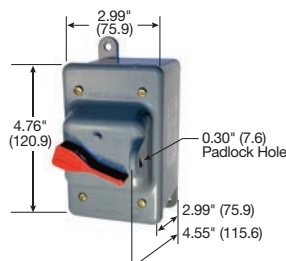
**HBL1389D**



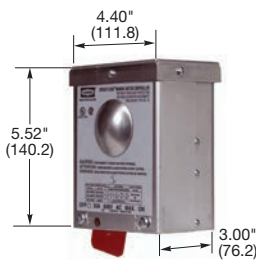
**HBL13R13D**



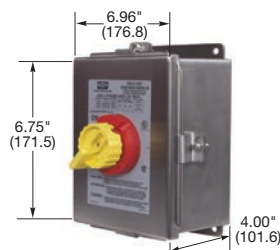
**HBL1379D**



**HBL13R23D**



**HBL13R89D**



**HBL13S33D**

Dimensions in Inches (mm)



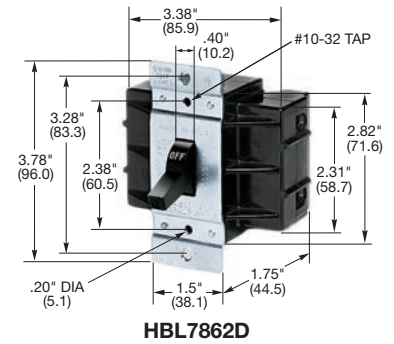


**IP44\***  
SUITABILITY

**40A 600V AC Manual Motor Controllers**

Description	Catalog Number
40A, double pole, single throw, AC manual motor controller, black nylon handle, side wired.	<b>HBL7842D</b>
40A, three pole, single throw, AC manual motor controller, black nylon handle, side wired.	<b>HBL7843D</b>

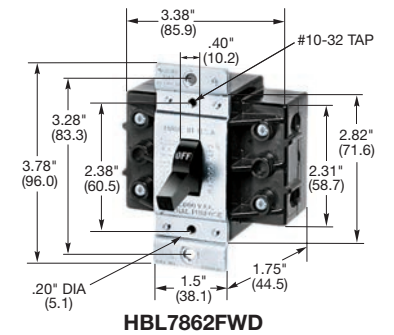
*Note: See page F-17 for technical information.*



**50A 600V AC Manual Motor Controllers**

Description	Catalog Number
50A, double pole, single throw, AC manual motor controller, black nylon handle, side wired.	<b>HBL7852D</b>
50A, three pole, single throw, AC manual motor controller, black nylon handle, side wired.	<b>HBL7853D</b>

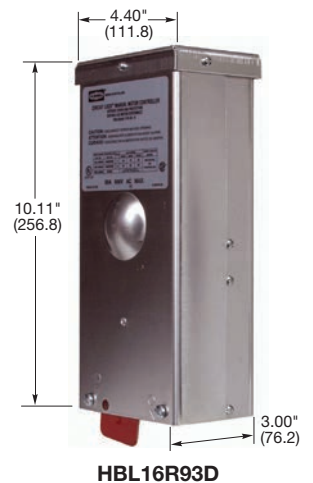
*Note: See page F-17 for technical information.*



**60A 600V AC Manual Motor Controllers**

Description	Catalog Number
60A, double pole, single throw, AC manual motor controller, black nylon handle, back wired.	<b>HBL7862D</b>
Same as HBL7862D except front wired.	<b>HBL7862FWD</b>
HBL7862FWD in Type 3R enclosure.	<b>HBL16R92D</b>
60A, three pole, single throw, AC manual motor controller, black nylon handle, back wired.	<b>HBL7863D</b>
Same as HBL7863D except front wired.	<b>HBL7863FWD</b>
HBL7863FWD in a Type 3R enclosure.	<b>HBL16R93D</b>
60A, 600V, three pole, rotary controller in NEMA 4X stainless steel enclosure.	<b>HBL16S63D</b>
60A, 600V, three pole, rotary controller in NEMA 4X non-metallic enclosure.	<b>HBL16X63D</b>

*Note: See page F-17 for technical information.*



**85A 600V AC Manual Motor Controllers**

Description	Catalog Number
85A, double pole, single throw, AC manual motor controller, black nylon handle, back wired.	<b>HBL7882D</b>
85A, three pole, single throw, AC manual motor controller, black nylon handle, back wired.	<b>HBL7883D</b>

*Note: See page F-17 for technical information.*

**Motor Controller Accessories**

Description	Catalog Number
Finger Guards, fit 30A, 40A and 50A controllers.	<b>HBLFG30</b>
Auxiliary Contacts, NO/Common/NC, for use in rotary switches only.	<b>HBLAUX</b>



Dimensions in Inches (mm)



## Shared Features

Un-drilled case allows custom placement of wire entry

Switch can be locked in the off position as a method of compliance with OSHA lockout/tagout

**Hinged Cover with Removable Continuous Pin**

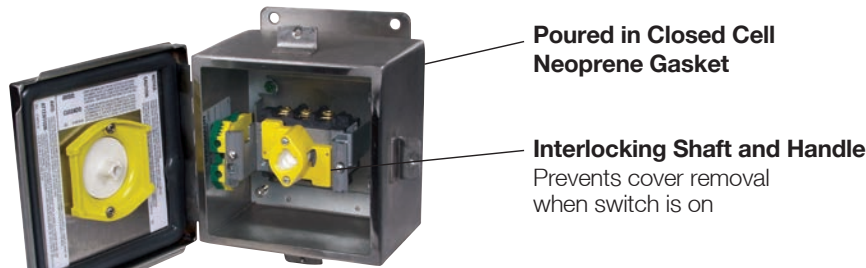
**304 Stainless Steel Enclosure**  
Chemical and corrosion resistant

**Valox® Handle and Collar**  
Chemical and impact resistant

**Thermoplastic 4X Non-Metallic Enclosures**



**HBL13S33D**



**Poured in Closed Cell Neoprene Gasket**

**Interlocking Shaft and Handle**  
Prevents cover removal when switch is on

**Up to 2 Optional Auxiliary Contacts**  
For PLCs and external indicators



**HBL13X33D**

## Circuit-Lock® NEMA 4X Enclosures with Switch and Accessories

Ideal for use in environments where wash-down is necessary, i.e. food processing, laboratories, etc.



**HBL16S63D**

**HBL13X33D**

Amp	Poles	Enclosure Material	HP Rating				Catalog Number
			120V AC 1Ø	240V AC 3Ø	480V AC 3Ø	600V AC 3Ø	
30	2	Stainless Steel	3	7.5	15	20	<b>HBL13S33D</b>
30	3	Valox	3	7.5	15	20	<b>HBL13X33D</b>
60	3	Stainless Steel	—	10	25	30	<b>HBL16S63D</b>
60	3	Valox	—	10	25	30	<b>HBL16X63D</b>

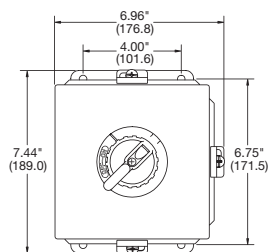
Finger Guard option for 30A switch. **HBLFG30**

NO/Common/NC auxiliary contact, 10A 120/250V AC for 30 and 60 Amp switches. **HBLAUX**

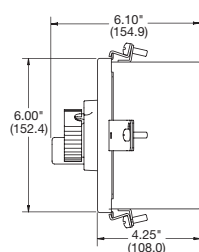
Note: See page F-17 for technical information.

## Dimensions

### HBL13S33D

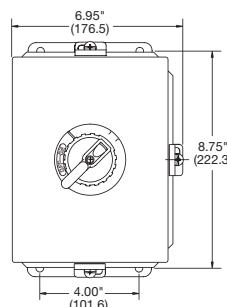


Front

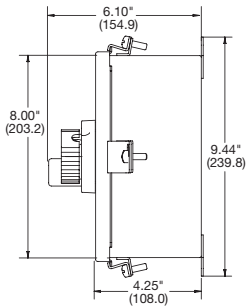


Side

### HBL16S63D



Front



Side

Dimensions in Inches (mm)

Valox® is a trademark of SABIC Innovative Plastics, acquired from General Electric Company.



**IP55**  
SUITABILITY

## CPB Series Compact Pendant Stations, Two Button, NEMA 4X

Description	Catalog Number
Single-speed normally open-normally closed without mechanical interlock.	<b>CPB20</b>
Single-speed with mechanical interlock between pushbuttons.	<b>CPB21</b>
Two-speed with mechanical interlock between pushbuttons.	<b>CPB22</b>

Note: Included with product: nylon cord grip and sealing washer (must be installed to achieve NEMA 4X rating).  
 Indication label pack. Cord dia. range .375-.625 in. (9.5-15.9)  
 Ambient temperatures: 25°F to 140°F (32°C to 60°C).  
 Typical applications: Package electric motor hoists. Remote control of machinery.

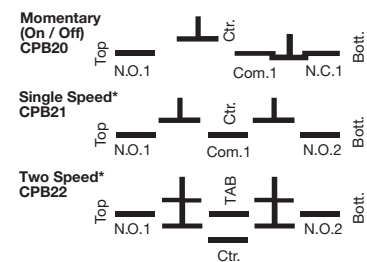
## Contact Ratings, CPB Series

Single-Speed	Voltage	Current
AC	120V	6A
35% PF	240V	3A
DC	125V	1.1A
IND	250V	.55A
Two-Speed	Voltage	Current
AC	120V	3A
35% PF	240V	1.5A



**CPB21**

## Wiring Diagram CPB2 Series



\*Mechanical "floating ball" interlock prevents activating both Pushbuttons simultaneously.

**IP44**  
SUITABILITY

## PBS Series Heavy Duty Pendant Pushbutton Stations, NEMA 3R

Description	Catalog Number
2 button, single speed.	<b>PBS2</b>
2 button, two speed.	<b>PBS22</b>
4 button, single speed.	<b>PBS4</b>
4 button, two speed.	<b>PBS42</b>
6 button, single speed.	<b>PBS6</b>
6 button, two speed.	<b>PBS62</b>
8 button, single speed.	<b>PBS8</b>
8 button, two speed.	<b>PBS82</b>

## Product Dimensions, PBS Series

Style	A	Approx. Wt. Assembled	Catalog Number
2 button	7.88" (200.0)	2.5 lbs	<b>PBS2</b>
4 button	13.69" (347.6)	4.5 lbs	<b>PBS4</b>
6 button	18.0" (457.2)	5.5 lbs	<b>PBS6</b>
8 button	22.31" (566.7)	7.5 lbs	<b>PBS8</b>

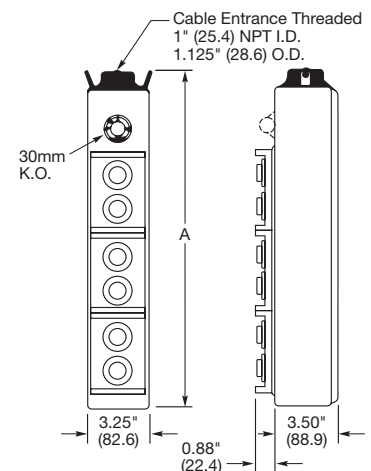
Note: Housing: Yellow vinyl rubber.

## Contact Interrupting Ratings, PBS Series

Two-Speed Single Break	Voltage	Current
AC	120V	6A
35% PF	240V	3A
DC	125V	.4A
IND	250V	.2A
Single-Speed Double Break	Voltage	Current
AC	120V	6A
35% PF	240V	3A
DC	125V	1.1A
IND	250V	.55A



**PBS6**



Dimensions in Inches (mm)

**PG2****PG6****MS2****MS5****TB2****TB5****PBSLP****PBSBC****PBSPL1****07401023**

### Replacement Inserts

When the insert switches are in need of replacement, simply unplug the old insert and plug in a new one.

Description	Catalog Number
Single speed insert momentary N.O. and N.C.	<b>PG2</b>
On-Off insert (no mechanical interlock). Momentary, start-stop, reset-stop.	<b>PG6</b>
2 or 3 speed insert, momentary. Used to a maximum of 3 speed points.	<b>MS2</b>
5 speed insert, momentary. Used to a maximum of 5 speed points. For five speed applications replace an existing terminal board with the TB5 terminal board and replace an existing insert with the five speed (MS5) insert.	<b>MS5</b>

### Conversion Inserts

In addition to single speed and two speed applications, pre-assembled units can be adapted to handle other applications.

Description	Catalog Number
Terminal board, required for each insert switch PG2, PG6 and MS2.	<b>TB2</b>
Terminal board, required for insert switch MS5.	<b>TB5</b>

### Accessories

Description	Catalog Number
Indicator labels for replacement package contains 1 each: hoist, trolley, bridge, forward-reverse, raise-lower, in-out, right left, east-west, north-south, reset-stop, start-stop, power, main hoist, auxiliary hoist, on-off, up-down.	<b>PBSLP</b>
Rubber button cover for replacement purposes.	<b>PBSBC</b>
120V red pilot light for 4, 6, and 8 button units only.	<b>PBSPL1*</b>

Note: \*Each pendant station can accommodate one of the pilot light in the 1.20 in. (30.6) diameter mounting hole.

### Kellems® Deluxe Aluminum Cord Fitting

Outdoor or indoors where subject to moisture, splash or submersion. Kellems grips provide strain relief for multi-conductor cable.

Description	Cord Range	Catalog Number
Kellems grip.	.750"-.875" (19-22.2)	<b>07401023</b>
Kellems grip.	.875"-1.00" (22.2-25.4)	<b>07401025</b>