

# IEC Pin and Sleeve

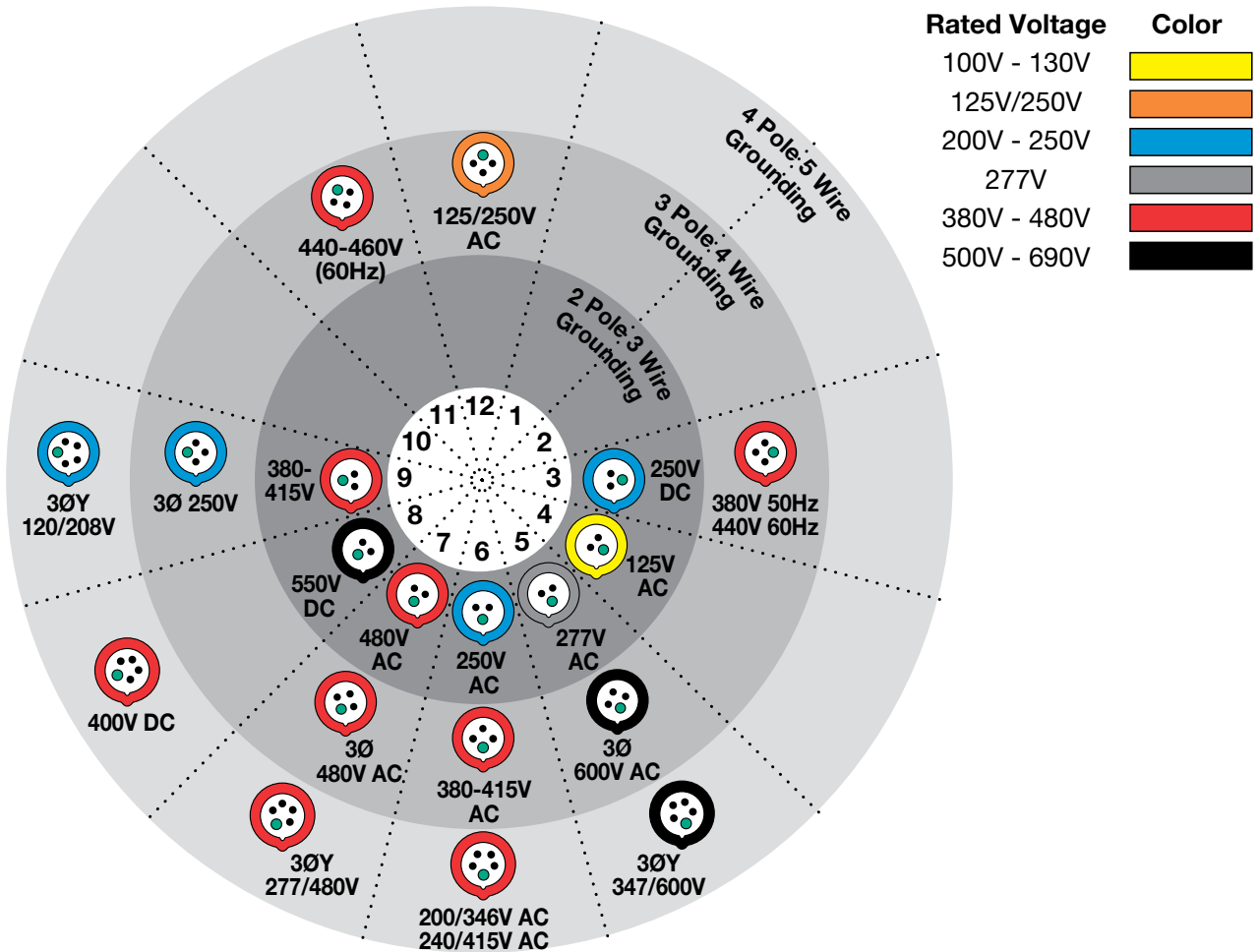
## IEC Configurations Chart

### Singly Rated Configurations

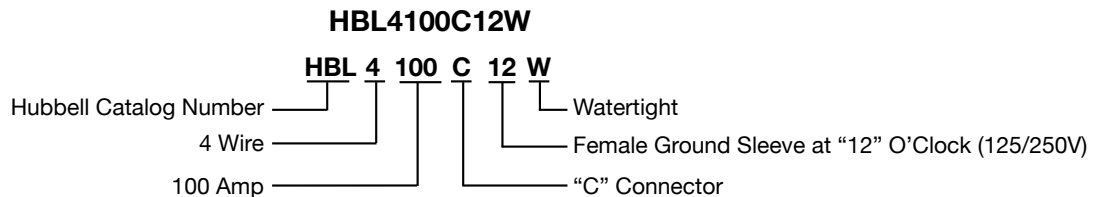
Hubbell Pin and Sleeve products are designed and manufactured to meet the International Standard IEC 60309-1 and IEC 60309-2. This device standard calls out a singly rated, non-interchangeable configuration for every voltage and type of service throughout the world. Pin and sleeve device housings are color coded by voltage rating.

### Voltage

The voltage is determined by the location of the female ground contact relative to the housing keyway. Simply by manufacturing the device with a ground contact in a certain "clock" position, the device will be rated for a particular voltage system. The diagram shows the keying position and the color coding that is associated with each voltage.



### Typical IEC Pin and Sleeve Catalog Number

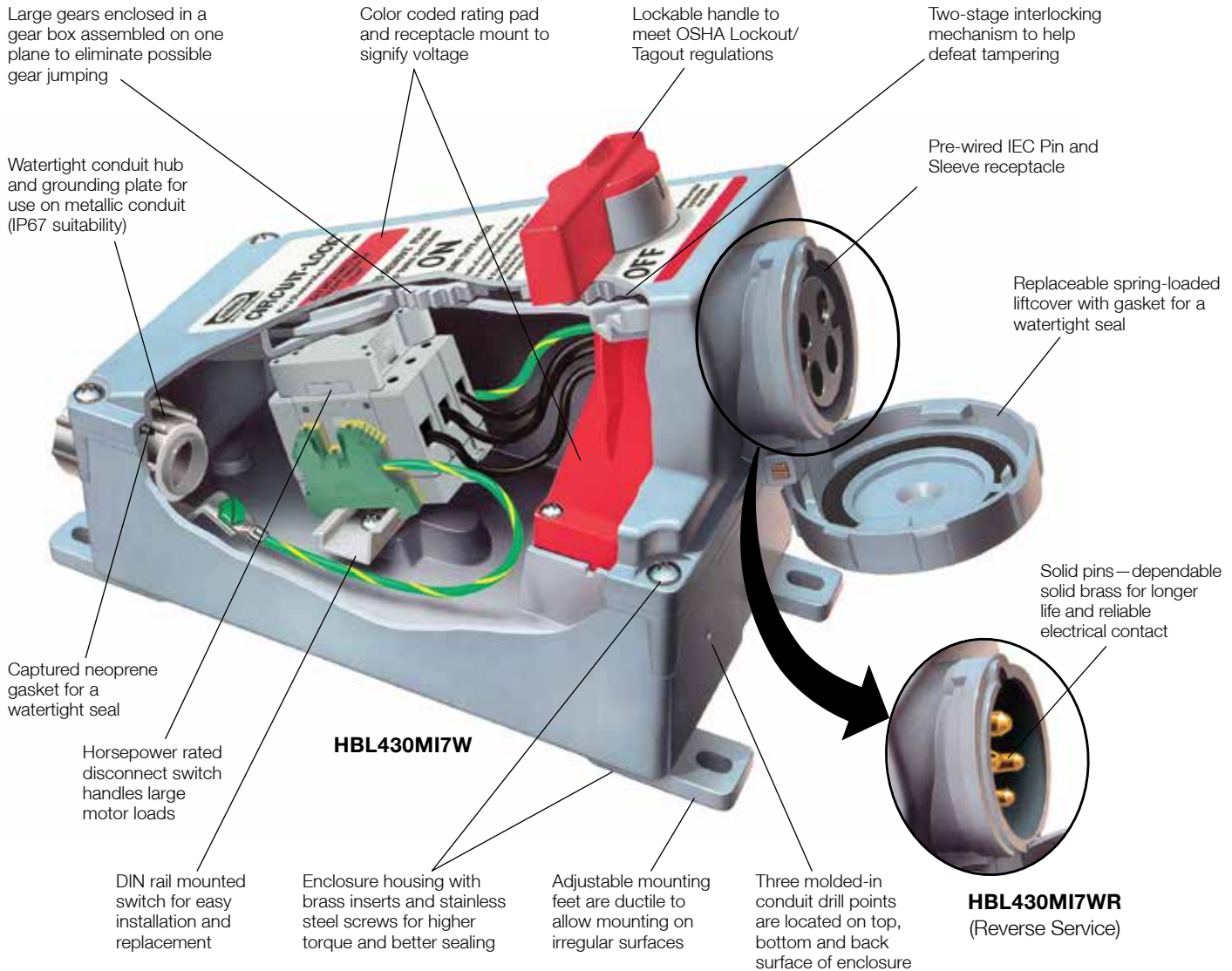


#### Explanation

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| <p><b>1 (HBL) Designates Hubbell Catalog Number</b></p> | <p><b>2 First Digit</b><br/>         3-3 wire<br/>         4-4 wire<br/>         5-5 wire</p> | <p><b>3 Next Series Of Digits</b><br/>         Preceding a letter<br/>         20-20 Amp<br/>         30-30 Amp<br/>         60-60 Amp<br/>         100-100 Amp</p> | <p><b>4 Letter</b><br/>         P-Plug<br/>         R-Receptacle<br/>         C-Connector<br/>         B-Inlet<br/>         MI-Mechanical Interlock<br/>         MIF-Mechanical Interlock Fused</p> | <p><b>5 Last Digit(s)</b><br/>         After the letter. This denotes the position of the ground sleeve and the assigned voltage in the receptacle as it relates to the hours of the clock. This is done to eliminate interchangeability between devices with different voltages.</p> | <p><b>6 Letter: W</b><br/>         Watertight</p> |
|---|---|---|---|---|---|

# Unfused Circuit-Lock® Pin and Sleeve Mechanical Interlocks

Features and Benefits



## Hubbell Circuit-Lock® Mechanical Interlocks

The National Electrical Code (NEC®) requires a separate disconnect means within sight of all motor loads. The NEC requires the disconnecting means in a motor-circuit be listed as “Suitable as Motor Disconnect” if the motor is rated greater than 2 HP.

Hubbell’s revolutionary Circuit-Lock interlock incorporates the disconnect switch and receptacle in one compact, non-metallic and economical unit. Removing the plug and locking it out provides a visual means of verifying equipment has been disconnected. All Circuit-Lock mechanical interlocks can be locked out as a method of compliance with the OSHA Lockout/Tagout regulation.

The switch cannot be turned ON until the plug is completely engaged, and the plug cannot be removed until the switch is turned OFF. At the same time, it eliminates the possibility of making or breaking the circuit under load or making a

casual or “lazy” connection. The non-metallic enclosure can be connected to the metallic conduit and not interfere with the ground continuity.

In addition, these horsepower rated units are durable, watertight and easy to install. And they are compatible with IEC 60309-2 plugs.

These Circuit-Lock units are available in 20, 30, 60 and 100A models, and in 3, 4 and 5 wire configurations that are designed to the IEC 60309-1 and 60309-2 standards.

Hubbell’s Circuit-Lock Mechanical Interlocks are also available in “Reverse Service” versions. These units incorporate the disconnect switch and reverse service receptacle (inlet) in one compact, non-metallic and economical unit. These units are available in 30, 60 and 100A models, 4 wire configurations.

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

# IEC Pin and Sleeve Unfused Circuit-Lock® Devices

20, 30, 60 and 100 Ampere – North American Ratings, 32 Ampere – International Rating



**IP67**  
SUITABILITY

Enclosure Type 4X, 12

Rating				Unfused Circuit-Lock® Devices		Reverse Service		
Amps	Poles and Wires	Configuration		AC Voltage	Unfused Circuit-Lock® Devices		Reverse Service	
		Recep.	Plug		Mechanical Interlock	Mating Plug	Mechanical Interlock	Mating Plug
20	3P 4W			120/240V			—	—
	3P 4W			3Ø 240V			—	—
	3P 4W			3Ø 480V			—	—
	3P 4W			3Ø 600V			—	—
30	2P 3W			120V			—	—
	2P 3W			240V			—	—
	2P 3W			480V			—	—
	3P 4W			120/240V			—	—
	3P 4W			3Ø 240V				
	3P 4W			3Ø 480V				
	3P 4W			3Ø 600V				
	4P 5W			3ØY 120/208V			—	—
	4P 5W			3ØY 277/480V			—	—
	4P 5W			3ØY 347/600V			—	—
32	3P 4W			380V 50HZ- 440V 60Hz			—	—
60	2P 3W			120V			—	—
	2P 3W			240V			—	—
	2P 3W			480V			—	—
	3P 4W			120/240V				
	3P 4W			3Ø 240V				
	3P 4W			3Ø 480V				
	3P 4W			3Ø 600V				
	4P 5W			3ØY 120/208V			—	—
	4P 5W			3ØY 277/480V			—	—
	4P 5W			3ØY 347/600V			—	—
100	2P 3W			240V			—	—
	3P 4W			120/240V				
	3P 4W			3Ø 240V				
	3P 4W			3Ø 480V				
	3P 4W			3Ø 600V				
	4P 5W			3ØY 120/208V			—	—

Note: 20, 30 and 32A – 1 inch NPT hub supplied; 60 and 100A – 1¼ inch hub supplied.

## Typical Specifications

Manufacturer's Identification	Hubbell HBL430MI7W
Description	Circuit-Lock® Pin and Sleeve Mechanical Interlock
Electrical Type	3 Pole + Earth
Rating	30A, 480V AC, 3 Phase
Configuration	IEC 60309-2, UL1686 C2, Clock position 7
Enclosure Type	Outdoor - 4X (Watertight, Washdown); Indoor - 12 (Dust-tight, Falling Dirt and Noncorrosive Liquids)
Ingress Protection	IP67 Suitability
Enclosure Material	Non-metallic, enclosure suitable for metallic conduit
Certification	UL Listed, CSA Certified

Note: This device provides on/off switched control of a plug connected load and includes an interlocking feature to prevent the plug from being disconnected while the receptacle is energized. The switch cannot be turned "ON" until the plug is inserted properly, and the plug cannot be removed until the switch is turned "OFF."

## Materials

Part	Material	Part	Material
Base	Valox®	Top	Valox®
Handle	Valox®	Conduit Hub	Zinc
Enclosure Gasket	Neoprene	Shaft	Valox®
Shaft Seal	Neoprene	Ground Plate	Galvanized Steel
Enclosure Screws	Stainless Steel 300 Series	Enclosure Inserts	Brass
Hinge Pins	Nickel Plated Brass	Hinge Spring	Stainless Steel 300 Series

## Performance

Electrical	
Dielectric Voltage	Withstands 3,000V AC Min.
Max. Working Voltage	600V AC RMS.
Current Interrupting	Certified for current interrupting at full rated current and voltage.
Short Circuit Withstand Rating	Suitable for use on a circuit capable of delivering not more than 10,000 RMS symmetrical amperes at the voltage rating of the receptacle. 20A and 30A models: Suitable for use on a circuit capable of delivering not more than 65,000 RMS symmetrical amperes, 600V when protected by class "J" fuses rated 30A.
Operations	Mechanical 10,000 cycles, electrical 6,000 cycles.
Mechanical	
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 the external label and molded into the receptacle mount.
Mounting	External adjustable feet.
Environmental	
Moisture Resistance	Outdoor - 4X (Watertight, Washdown); Indoor - 12 (Dust-tight, Falling Dirt and Noncorrosive Liquids).
Ingress Protection	IP67 Suitability.
Flammability	UL94-5VA and V-0 Classification.
Operating Temperature	Max. Continuous +75°C; Min. Continuous -40°C.
UV Resistance	All materials are UV stabilized.

## Horsepower Ratings

Amps	AC Voltage Rating	Horsepower	Mechanical Interlock	Mating Plug
20	120/240V AC	2	<b>HBL420MI12W</b>	<b>HBL420P12W</b>
20	3Ø 240V AC	5	<b>HBL420MI9W</b>	<b>HBL420P9W</b>
20	3Ø 480V AC	10	<b>HBL420MI7W</b>	<b>HBL420P7W</b>
20	3Ø 600V AC	10	<b>HBL420MI5W</b>	<b>HBL420P5W</b>
30	120V AC	2	<b>HBL330MI4W</b>	<b>HBL330P4W</b>
30	240V AC	3 (208-240V AC)	<b>HBL330MI6W</b>	<b>HBL330P6W</b>
30	480V AC	7.5	<b>HBL330MI7W</b>	<b>HBL330P7W</b>
30	120/240V AC	3 (208-240V AC)	<b>HBL430MI12W</b>	<b>HBL430P12W</b>
30	3Ø 600V AC	20	<b>HBL430MI5W</b>	<b>HBL430P5W</b>
30	3Ø 480V AC	15	<b>HBL430MI7W</b>	<b>HBL430P7W</b>
30	3Ø 250V AC	7.5	<b>HBL430MI9W</b>	<b>HBL430P9W</b>
30	3ØY 347/600V AC	20	<b>HBL530MI5W</b>	<b>HBL530P5W</b>
30	3ØY 277/480V AC	15	<b>HBL530MI7W</b>	<b>HBL530P7W</b>
30	3ØY 120/208V AC	5	<b>HBL530MI9W</b>	<b>HBL530P9W</b>
32	380V AC 50Hz – 440V AC 60Hz	15 (440V AC 3Ø 60Hz)	<b>HBL432MI3W</b>	<b>HBL432P3W</b>
60	120V AC	3	<b>HBL360MI4W</b>	<b>HBL360P4W</b>
60	240V AC	7.5 (208-240V AC)	<b>HBL360MI6W</b>	<b>HBL360P6W</b>
60	480V AC	20	<b>HBL360MI7W</b>	<b>HBL360P7W</b>
60	120/240V AC	7.5 (208-240V AC)	<b>HBL460MI12W</b>	<b>HBL460P12W</b>
60	3Ø 600V AC	40	<b>HBL460MI5W</b>	<b>HBL460P5W</b>
60	3Ø 480V AC	30	<b>HBL460MI7W</b>	<b>HBL460P7W</b>
60	3Ø 250V AC	15	<b>HBL460MI9W</b>	<b>HBL460P9W</b>
60	3ØY 347/600V AC	40	<b>HBL560MI5W</b>	<b>HBL560P5W</b>
60	3ØY 277/480V AC	30	<b>HBL560MI7W</b>	<b>HBL560P7W</b>
60	3ØY 120/208V AC	15	<b>HBL560MI9W</b>	<b>HBL560P9W</b>
100	240V AC	15 (10 @ 208V AC)	<b>HBL3100MI6W</b>	<b>HBL3100P6W</b>
100	120/240V AC	15	<b>HBL4100MI12W</b>	<b>HBL4100P12W</b>
100	3Ø 600V AC	50	<b>HBL4100MI5W</b>	<b>HBL4100P5W</b>
100	3Ø 480V AC	50	<b>HBL4100MI7W</b>	<b>HBL4100P7W</b>
100	3Ø 250V AC	25 (208-240V AC)	<b>HBL4100MI9W</b>	<b>HBL4100P9W</b>
100	3ØY 120/208V AC	20	<b>HBL5100MI9W</b>	<b>HBL5100P9W</b>

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