

# IEC Pin and Sleeve

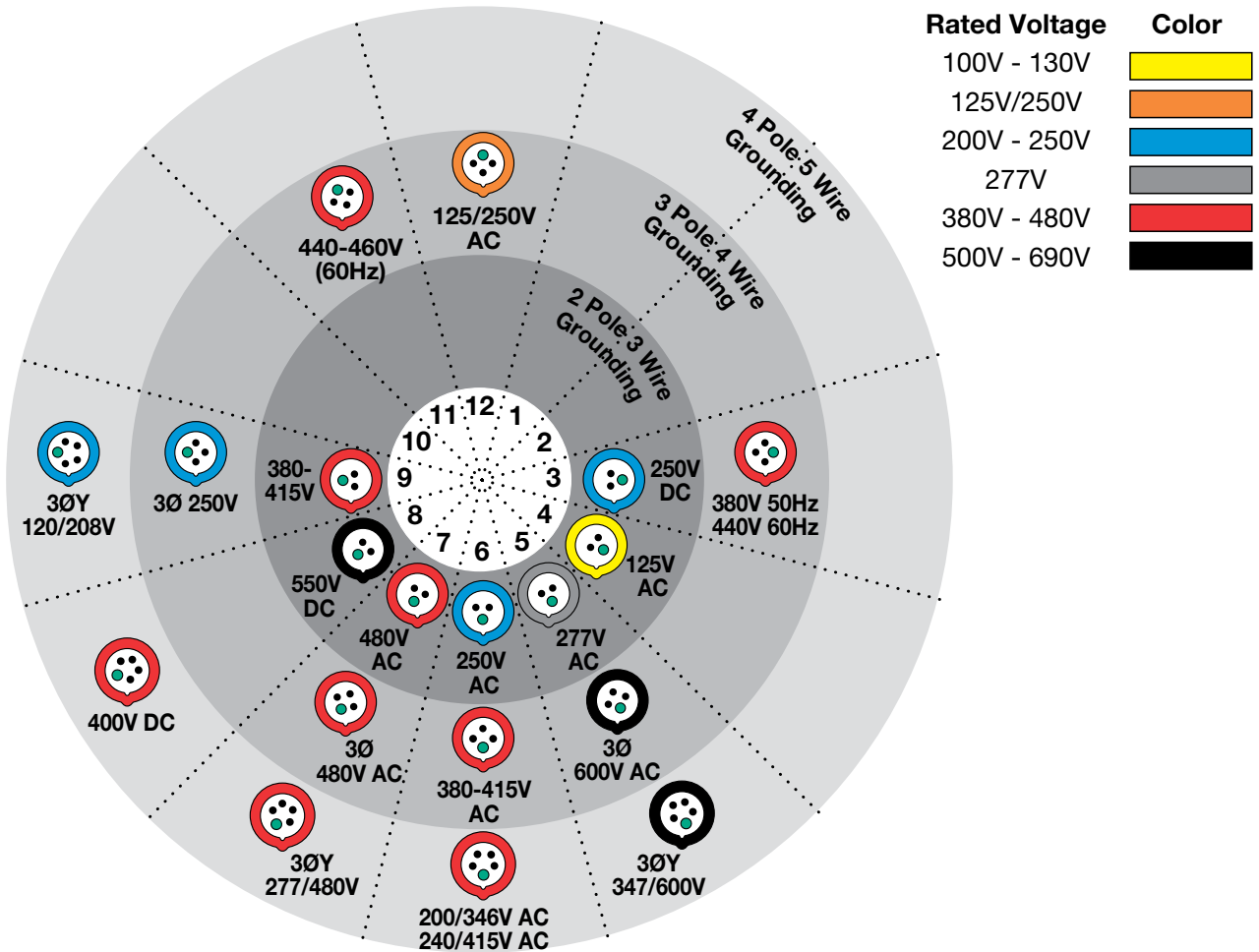
## IEC Configurations Chart

### Singly Rated Configurations

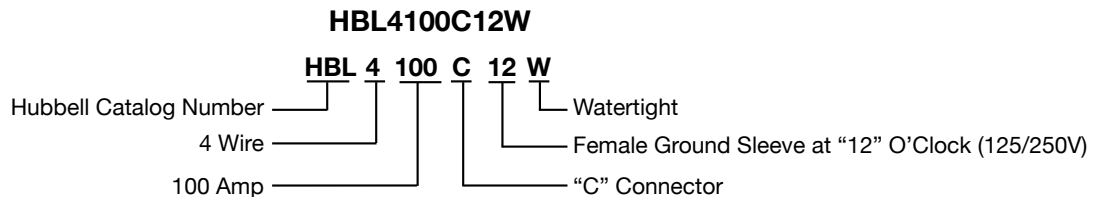
Hubbell Pin and Sleeve products are designed and manufactured to meet the International Standard IEC 60309-1 and IEC 60309-2. This device standard calls out a singly rated, non-interchangeable configuration for every voltage and type of service throughout the world. Pin and sleeve device housings are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

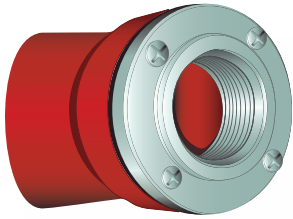
- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| <p><b>1 (HBL) Designates Hubbell Catalog Number</b></p> | <p><b>2 First Digit</b><br/>         3-3 wire<br/>         4-4 wire<br/>         5-5 wire</p> | <p><b>3 Next Series Of Digits</b><br/>         Preceding a letter<br/>         20-20 Amp<br/>         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> |
|---|---|---|---|---|---|

# IEC Pin and Sleeve Watertight Devices

Features and Benefits



**IP67**  
SUITABILITY



### Self-Closing Gasketed Cover

Detents into position to fully close automatically.  
Corrosion-resistant hardware

### Liquidtight Conduit Adapters

Machined aluminum adapters are available to provide a means for attaching flexible liquidtight metal conduit to rear of Hubbell Pin and Sleeve plug or connector

### Watertight Neoprene Sealing Glands

Provide a reliable seal at the cable entry point.  
Prevents infiltration of contaminants

### Color Coded Housings

IEC pin and sleeve devices are color coded by voltage for easy identification

### Insulated Non-Metallic Housing

Super tough, non-conductive and chemical resistant for heavy duty industrial environments



### Powerful Mechanical Cord Grip

Hubbell's design incorporates two molded-in teeth to securely grip the outer cable jacket, and internal conductors to prevent slippage and strain on terminations. Captive barrel nuts ease assembly and allow higher tightening torque for maximum cord retention.



### Watertight Cord Entrance

The tapered bore entrance creates high compression forces on sealing gland, providing a watertight seal around cord. Individual solid neoprene glands are supplied to match a full range of cord sizes and assure watertight performance.



### Multi-Contact Spring

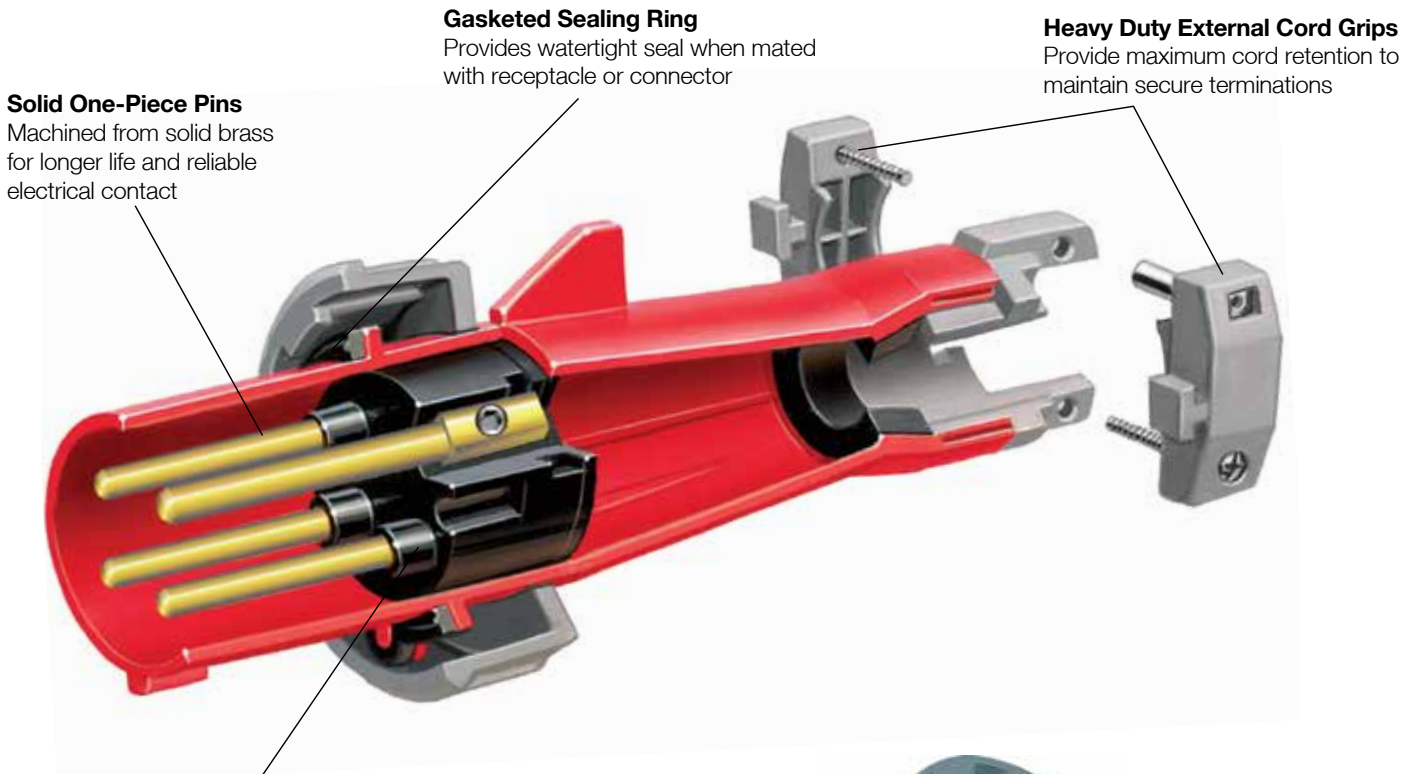
(60/63 and 100/125 Amp)  
Recessed within the female sleeve, provides and maintains high unit pressure on mating pins to minimize temperature rise. Broaches oxide film to achieve low resistance contact for cooler operation.



### Sequential Contact Engagement

Ground makes first and breaks last. Neutral makes second and breaks second (to prevent a momentary over-voltage on components connected phase to neutral). Phase contacts make last and break first.

**IP67**  
 SUITABILITY



**Solid One-Piece Pins**  
 Machined from solid brass for longer life and reliable electrical contact

**Gasketed Sealing Ring**  
 Provides watertight seal when mated with receptacle or connector

**Heavy Duty External Cord Grips**  
 Provide maximum cord retention to maintain secure terminations

**Contact Collar**  
 Raised collar surrounds each phase pin increasing the tracking resistance between contacts across the contact carrier face



**Lockout/Tagout**  
 Tapered opening on plug shroud accommodates up to 3/8 inch (9.7mm) lock shackle diameter



**Rugged One-Piece Housing**  
 Thick wall construction protects internal components, eliminates joints preventing infiltration of contaminants. Amperage/voltage rating and catalog number molded in housing for easy identification.



**Shrouded Pins**  
 Super tough plug shroud protects pins from deforming from physical abuse. Protects the user from the possibility of touching live contacts during insertion and withdrawal of mating parts.



**Swivel Pressure Pads**  
 16/20 and 30/32 Amp devices feature patented swiveling pressure pad terminal screws and prevent damage to conductor strands. 60/63 and 100/125 Amp devices feature large hex-head stainless steel screws which provide higher torque levels for secure terminations. The large box terminals are designed for North American conductors.



**Thermoset Polyester Contact Carrier**  
 Molded thermoset polyester provides high resistance to electrical tracking. Withstands higher temperatures which may result from overload or arcing. Thermoset properties provide dimensional stability for this critical assembly.

# IEC Pin and Sleeve Watertight Devices

20 and 30 Ampere – North American Ratings, 16 and 32 Ampere – International Ratings



Rating		Watertight Devices				Accessories			Replacement Interiors				
Amps	Poles and Wires	Configuration Recept./ Conn.	Plug/ Inlet	AC Voltage	Receptacle	Plug	Connector	Inlet	Back Boxes		Closure Caps	Recept./ Conn.	Plug/ Inlet
									Non-Metallic	Metallic*			
16	2P 3W			100–130V	HBL316R4W	HBL316P4W	HBL316C4W	HBL316B4W†	BB2030N	BB201W BB301W	PC320	IN320BF	IN320BM
	2P 3W			220–240V	HBL316R6W	HBL316P6W	HBL316C6W	HBL316B6W	BB2030N	BB201W BB301W	PC320	IN320BF	IN320BM
	3P 4W			380–415V	HBL416R6W	HBL416P6W	HBL416C6W	HBL416B6W†	BB2030N	BB201W BB301W	PC420	IN420DF	IN420DM
	4P 5W			220/380V 240/415V	HBL516R6W	HBL516P6W	HBL516C6W	HBL516B6W	BB2030N	BB201W BB301W	PC520	IN520EF†	IN520EM
20	2P 3W			125V	HBL320R4W	HBL320P4W	HBL320C4W	HBL320B4W	BB2030N	BB201W BB301W	PC320	IN320AF	IN320AM
	2P 3W			250V	HBL320R6W	HBL320P6W	HBL320C6W	HBL320B6W	BB2030N	BB201W BB301W	PC320	IN320BF	IN320BM
	2P 3W			480V	HBL320R7W	HBL320P7W	HBL320C7W	HBL320B7W	BB2030N	BB201W BB301W	PC320	IN320BF	IN320BM
	3P 4W			125/250V	HBL420R12W	HBL420P12W	HBL420C12W	HBL420B12W	BB2030N	BB201W BB301W	PC420	IN420CF	IN420CM
	3P 4W			3Ø 250V	HBL420R9W	HBL420P9W	HBL420C9W	HBL420B9W	BB2030N	BB201W BB301W	PC420	IN420DF	IN420DM
	3P 4W			3Ø 480V	HBL420R7W	HBL420P7W	HBL420C7W	HBL420B7W	BB2030N	BB201W BB301W	PC420	IN420DF	IN420DM
	3P 4W			3Ø 600V	HBL420R5W	HBL420P5W	HBL420C5W	HBL420B5W	BB2030N	BB201W BB301W	PC420	IN420DF	IN420DM
	4P 5W			3Ø 120/208V	HBL520R9W	HBL520P9W	HBL520C9W	HBL520B9W	BB2030N	BB201W BB301W	PC520	IN520EF†	IN520EM
	4P 5W			3Ø 277/480V	HBL520R7W	HBL520P7W	HBL520C7W	HBL520B7W	BB2030N	BB201W BB301W	PC520	IN520EF†	IN520EM
	4P 5W			3Ø 347/600V	HBL520R5W	HBL520P5W	HBL520C5W	HBL520B5W	BB2030N	BB201W BB301W	PC520	IN520EF†	IN520EM
30	2P 3W			125V	HBL330R4W	HBL330P4W	HBL330C4W	HBL330B4W	BB2030N	BB201W BB301W	PC3430	IN330AF	IN330AM†
	2P 3W			250V	HBL330R6W	HBL330P6W	HBL330C6W	HBL330B6W	BB2030N	BB201W BB301W	PC3430	IN330BF	IN330BM
	2P 3W			480V	HBL330R7W	HBL330P7W	HBL330C7W	HBL330B7W	BB2030N	BB201W BB301W	PC3430	IN330BF	IN330BM
	3P 4W			125/250V	HBL430R12W	HBL430P12W	HBL430C12W	HBL430B12W	BB2030N	BB201W BB301W	PC3430	IN430CF	IN430CM
	3P 4W			3Ø 250V	HBL430R9W	HBL430P9W	HBL430C9W	HBL430B9W	BB2030N	BB201W BB301W	PC3430	IN430DF	IN430DM
	3P 4W			3Ø 480V	HBL430R7W	HBL430P7W	HBL430C7W	HBL430B7W	BB2030N	BB201W BB301W	PC3430	IN430DF	IN430DM
	3P 4W			3Ø 600V	HBL430R5W	HBL430P5W	HBL430C5W	HBL430B5W	BB2030N	BB201W BB301W	PC3430	IN430DF	IN430DM
	4P 5W			3Ø 120/208V	HBL530R9W	HBL530P9W	HBL530C9W	HBL530B9W	BB2030N	BB201W BB301W	PC530	IN530EF	IN530EM
	4P 5W			3Ø 277/480V	HBL530R7W	HBL530P7W	HBL530C7W	HBL530B7W	BB2030N	BB201W BB301W	PC530	IN530EF	IN530EM
	4P 5W			3Ø 347/600V	HBL530R5W	HBL530P5W	HBL530C5W	HBL530B5W	BB2030N	BB201W BB301W	PC530	IN530EF	IN530EM
32	2P 3W			100–130V	HBL332R4W†	HBL332P4W†	HBL332C4W†	HBL332B4W†	BB2030N	BB201W BB301W	PC3430	IN330BF	IN330BM
	2P 3W			220–240V	HBL332R6W	HBL332P6W	HBL332C6W	HBL332B6W	BB2030N	BB201W BB301W	PC3430	IN330BF	IN330BM
	3P 4W			380–415V	HBL432R6W	HBL432P6W	HBL432C6W	HBL432B6W	BB2030N	BB201W BB301W	PC3430	IN430DF	IN430DM
	3P 4W			380V 50Hz 440V 60Hz	HBL432R3W	HBL432P3W	HBL432C3W	HBL432B3W†	BB2030N	BB201W BB301W	PC3430	IN430DF	IN430DM
	4P 5W			220/380V 240/415V	HBL532R6W	HBL532P6W	HBL532C6W	HBL532B6W	BB2030N	BB201W BB301W	PC530	IN530EF	IN530EM

Note: See page G-12 and G-13 for back boxes and accessories, G-14 and G-15 for product dimensions, G-16 and G-17 for product specifications and HP ratings.

See page G-13 for closure caps, purchased separately. PC320, PC420, PC520, PC3430, PC530 are not UL or CSA.

\*These boxes are cast aluminum, suitable for IP54 requirements and are finished with enamel paint.

†Consult factory.

IEC Pin and Sleeve  
**Watertight Devices**

60 and 100 Ampere – North American Ratings, 63 and 125 Ampere – International Ratings



Rating		Watertight Devices				Accessories			Replacement Interiors				
Amps	Poles and Wires	Configuration Recep./ Conn.	Plug/ Inlet	AC Voltage	Receptacle	Plug	Connector	Inlet	Back Boxes		Closure Caps	Recep./ Conn.	Plug/ Inlet
									Non-Metallic	Metallic†			
60	2P 3W			125V	HBL360R4W	HBL360P4W	HBL360C4W	HBL360B4W	BB60N	BB601W BB602W	PC60	IN360AF	IN360AM
	2P 3W			250V	HBL360R6W	HBL360P6W	HBL360C6W	HBL360B6W	BB60N	BB601W BB602W	PC60	IN360BF	IN360BM†
	2P 3W			480V	HBL360R7W	HBL360P7W	HBL360C7W	HBL360B7W	BB60N	BB601W BB602W	PC60	IN360BF	IN360BM†
	3P 4W			125/250V	HBL460R12W	HBL460P12W	HBL460C12W	HBL460B12W	BB60N	BB601W BB602W	PC60	IN460CF	IN460CM
	3P 4W			30 250V	HBL460R9W	HBL460P9W	HBL460C9W	HBL460B9W	BB60N	BB601W BB602W	PC60	IN460DF	IN460DM
	3P 4W			30 480V	HBL460R7W	HBL460P7W	HBL460C7W	HBL460B7W	BB60N	BB601W BB602W	PC60	IN460DF	IN460DM
	3P 4W			30 600V	HBL460R5W	HBL460P5W	HBL460C5W	HBL460B5W	BB60N	BB601W BB602W	PC60	IN460DF	IN460DM
	4P 5W			30Y 120/208V	HBL560R9W	HBL560P9W	HBL560C9W	HBL560B9W	BB60N	BB601W BB602W	PC60	IN560EF	IN560EM†
	4P 5W			30Y 277/480V	HBL560R7W	HBL560P7W	HBL560C7W	HBL560B7W	BB60N	BB601W BB602W	PC60	IN560EF	IN560EM†
	4P 5W			30Y 347/600V	HBL560R5W	HBL560P5W	HBL560C5W	HBL560B5W	BB60N	BB601W BB602W	PC60	IN560EF	IN560EM†
63	2P 3W			220–240V	HBL363R6W	HBL363P6W	HBL363C6W	HBL363B6W	BB60N	BB601W BB602W	PC60	IN360BFS	IN360BMS†
	3P 4W			380–415V	HBL463R6W	HBL463P6W	HBL463C6W	HBL463B6W	BB60N	BB601W BB602W	PC60	IN460DFS	IN460DMS
	4P 5W			220/380V 240/415V	HBL563R6W	HBL563P6W	HBL563C6W	HBL563B6W	BB60N	BB601W BB602W	PC60	IN560EFS†	IN560EMS
100	2P 3W			125V	HBL3100R4W	HBL3100P4W	HBL3100C4W	HBL3100B4W	BB100N	BB1001W BB1002W	PC100	IN3100AF	IN3100AM
	2P 3W			250V	HBL3100R6W	HBL3100P6W	HBL3100C6W	HBL3100B6W	BB100N	BB1001W BB1002W	PC100	IN3100BF	IN3100BM†
	2P 3W			480V	HBL3100R7W	HBL3100P7W	HBL3100C7W	HBL3100B7W	BB100N	BB1001W BB1002W	PC100	IN3100BF	IN3100BM†
	3P 4W			125/250V	HBL4100R12W	HBL4100P12W	HBL4100C12W	HBL4100B12W	BB100N	BB1001W BB1002W	PC100	IN4100CF†	IN4100CM
	3P 4W			30 250V	HBL4100R9W	HBL4100P9W	HBL4100C9W	HBL4100B9W	BB100N	BB1001W BB1002W	PC100	IN4100DF	IN4100DM
	3P 4W			30 480V	HBL4100R7W	HBL4100P7W	HBL4100C7W	HBL4100B7W	BB100N	BB1001W BB1002W	PC100	IN4100DF	IN4100DM
	3P 4W			30 600V	HBL4100R5W	HBL4100P5W	HBL4100C5W	HBL4100B5W	BB100N	BB1001W BB1002W	PC100	IN4100DF	IN4100DM
	4P 5W			30Y 120/208V	HBL5100R9W	HBL5100P9W*	HBL5100C9W	HBL5100B9W	BB100N	BB1001W BB1002W	PC100	IN5100EF	IN5100EM
	4P 5W			30Y 277/480V	HBL5100R7W	HBL5100P7W	HBL5100C7W	HBL5100B7W	BB100N	BB1001W BB1002W	PC100	IN5100EF	IN5100EM
	4P 5W			30Y 347/600V	HBL5100R5W	HBL5100P5W	HBL5100C5W	HBL5100B5W	BB100N	BB1001W BB1002W	PC100	IN5100EF	IN5100EM
125	2P 3W			220–240V	HBL3125R6W	HBL3125P6W	HBL3125C6W	HBL3125B6W	BB100N	BB1001W BB1002W	PC100	IN3100BFS†	IN3100BMS†
	3P 4W			380–415V	HBL4125R6W	HBL4125P6W	HBL4125C6W	HBL4125B6W	BB100N	BB1001W BB1002W	PC100	IN4100DFS	IN4100DMS
	4P 5W			220/380V 240/415V	HBL5125R6W	HBL5125P6W	HBL5125C6W	HBL5125B6W	BB100N	BB1001W BB1002W	PC100	IN5100EFS	IN5100EMS

Note: See page G-12 and G-13 for back boxes and accessories, G-14 and G-15 for product dimensions, G-16 and G-17 for product specifications and HP ratings.

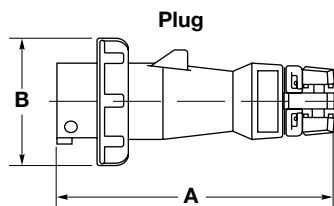
All 63A and all 125A devices have pilot pins or contacts.

See page G-13 for closure caps, purchased separately. PC60 and PC100 are not UL or CSA.

See page G-14 for additional information on short housing plug. IP22 suitability - length 8.30" (210.8).

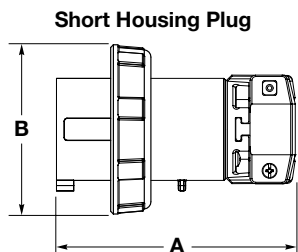
\*These boxes are cast aluminum, suitable for IP54 requirements and are finished with enamel paint.

†Consult factory.



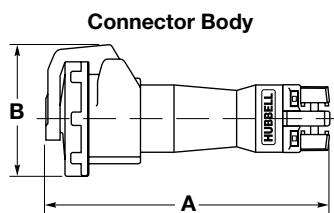
## Plug Dimensions

Type	A	B	Cord Grip Range
<b>HBL320P</b>	6.61" (167.8)	2.87" (73.0)	.330"-.830" (8.4-21.1)
<b>HBL420P</b>	7.00" (177.8)	3.19" (81.0)	.330"-.830" (8.4-21.1)
<b>HBL520P</b>	7.65" (194.3)	3.50" (89.0)	.330"-.830" (8.4-21.1)
<b>HBL330P</b>	8.05" (204.5)	3.74" (95.0)	.375"-1.250" (9.5-31.8)
<b>HBL430P</b>	8.05" (204.5)	3.74" (95.0)	.375"-1.250" (9.5-31.8)
<b>HBL530P</b>	8.54" (216.9)	4.02" (102.0)	.500"-1.450" (12.7-36.8)
<b>HBL360P, HBL460P, HBL560P</b>	10.15" (257.8)	4.49" (114.0)	.500"-1.450" (12.7-36.8)
<b>HBL3100P, HBL4100P, M4100P, HBL5100P, M5100P</b>	12.63" (320.8)	4.92" (125.0)	1.065"-1.940" (27.1-49.3)



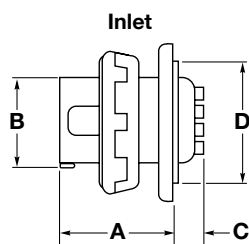
## Short Housing Plug Dimensions

Type	A	B	Cord Grip Range
<b>HBL5100P9WSH</b>	8.30" (210.82)	4.92" (125.0)	1.065"-1.940" (27.1-49.3)



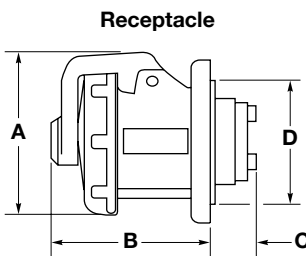
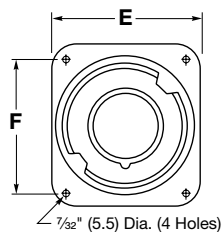
## Connector Body Dimensions

Type	A	B	Cord Grip Range
<b>HBL320C</b>	7.49" (190.3)	3.33" (84.6)	.330"-.830" (8.4-21.1)
<b>HBL420C</b>	7.90" (200.6)	3.66" (93.0)	.330"-.830" (8.4-21.1)
<b>HBL520C</b>	8.54" (216.9)	3.94" (100.0)	.330"-.830" (8.4-21.1)
<b>HBL330C</b>	9.05" (229.9)	4.27" (108.5)	.375"-1.250" (9.5-31.8)
<b>HBL430C</b>	9.05" (229.9)	4.27" (108.5)	.375"-1.250" (9.5-31.8)
<b>HBL530C</b>	9.68" (245.8)	4.70" (119.5)	.500"-1.450" (12.7-36.8)
<b>HBL360C, HBL460C, HBL560C</b>	11.15" (283.2)	5.10" (129.5)	.500"-1.450" (12.7-36.8)
<b>HBL3100C, HBL4100C, M4100C, HBL5100C, M5100C</b>	13.57" (344.7)	5.71" (145)	1.065"-1.940" (27.1-49.3)



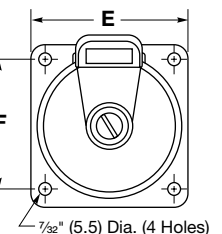
## Inlet Dimensions

Type	A	B	C	D	E	F
<b>HBL320B</b>	2.54" (64.5)	1.85" (47.0)	1.14" (29.0)	2.72" (69.0)	3.75" (95.3)	3.13" (79.5)
<b>HBL420B</b>	2.54" (64.5)	2.11" (53.6)	1.14" (29.0)	2.72" (69.0)	3.75" (95.3)	3.13" (79.5)
<b>HBL520B</b>	2.54" (64.5)	2.41" (61.2)	1.14" (29.0)	2.72" (69.0)	3.75" (95.3)	3.13" (79.5)
<b>HBL330B</b>	2.99" (76.0)	2.49" (63.2)	1.04" (26.5)	2.72" (69.0)	3.75" (95.3)	3.13" (79.5)
<b>HBL430B</b>	2.99" (76.0)	2.49" (63.2)	1.04" (26.5)	2.72" (69.0)	3.75" (95.3)	3.13" (79.5)
<b>HBL530B</b>	2.99" (76.0)	2.75" (69.9)	1.04" (26.5)	2.80" (71.0)	3.75" (95.3)	3.13" (79.5)
<b>HBL360B, HBL460B, HBL560B</b>	4.04" (102.6)	2.97" (75.5)	1.18" (30.0)	3.46" (88.0)	4.50" (114.3)	3.88" (98.5)
<b>HBL3100B, HBL4100B, M4100B, HBL5100B, M5100B</b>	4.53" (115)	3.44" (87.5)	1.95" (49.5)	3.94" (100.0)	5.50" (139.7)	4.88" (124.0)



## Receptacle Dimensions

Type	A	B	C	D	E	F
<b>HBL320R</b>	3.33" (84.5)	2.78" (70.6)	1.02" (26.0)	2.72" (69.0)	3.75" (95.3)	3.13" (79.5)
<b>HBL420R</b>	3.66" (93.0)	2.78" (70.6)	1.02" (26.0)	2.72" (69.0)	3.75" (95.3)	3.13" (79.5)
<b>HBL520R</b>	3.94" (100.0)	2.78" (70.6)	1.02" (26.0)	2.72" (69.0)	3.75" (95.3)	3.13" (79.5)
<b>HBL330R</b>	4.27" (108.5)	3.09" (78.5)	1.16" (29.5)	2.72" (69.0)	3.75" (95.3)	3.13" (79.5)
<b>HBL430R</b>	4.27" (108.5)	3.09" (78.5)	1.16" (29.5)	2.72" (69.0)	3.75" (95.3)	3.13" (79.5)
<b>HBL530R</b>	4.70" (119.4)	3.09" (78.5)	1.16" (29.5)	2.83" (71.9)	3.75" (95.3)	3.13" (79.5)
<b>HBL360R, HBL460R, HBL560R</b>	5.10" (129.5)	4.07" (103.4)	1.69" (43.0)	3.46" (88.0)	4.50" (114.3)	3.88" (98.6)
<b>HBL3100R, HBL4100R, M4100R, HBL5100R, M5100R</b>	5.71" (145)	4.23" (107.4)	2.46" (62.5)	3.95" (100.3)	5.50" (139.7)	4.88" (123.9)



Note: 20, 30, 60 and 100A devices are dimensionally equivalent to 16, 32, 63 and 125A devices, respectively.

Dimensions in Inches (mm)

**Watertight Materials**

Part	Material
<b>Inlet</b>	
Housing	Zytel® 101 Nylon*
Locking Ring	Reinforced Thermoplastic Polyester
Mounting Flange	Zytel® 101 Nylon
Mounting Screws	Stainless Steel (300 Series)
Contact Carrier	High-Impact Thermoset
Retainer	High-Impact Thermoset
Ground, Phase Pins	Brass (M-Series - Nickel-plated brass)
Terminal Screws	Stainless Steel (300 Series)
Assembly Screws (2)	Stainless Steel (300 Series)
Gaskets	Solid Neoprene

<b>Connector Body</b>	
Housing	Zytel® ST801 Nylon
Cord Clamps	Reinforced Thermoplastic Polyester
Glands	Solid Neoprene
Cover Arms	Reinforced Thermoplastic Polyester
Arm Springs	Stainless Steel (17-7 type)
Covers	Reinforced Thermoplastic Polyester
Cover Screw	Nickel-plated brass
Rotating Sealing Disc	Polycarbonate
Gaskets	Solid Neoprene
Contact Carrier	High-Impact Thermoset
Retainer	High-Impact Thermoset
Phase, Ground Sleeves	Brass
Sleeve Spring	20A and 30A Stainless Steel (300 Series); others are Beryllium Copper multi-contact inserts with silver plating
Terminal Screws	Stainless Steel (300 Series)
Assembly Screws	Stainless Steel (300 Series)

<b>Plug</b>	
Housing	Zytel® ST801 Nylon
Locking Ring	Reinforced Thermoplastic Polyester
Sealing Gasket	Solid Neoprene
Cord Clamp	Reinforced Thermoplastic Polyester
Gland Cap	Reinforced Thermoplastic Polyester
Gland	Solid Neoprene
Cord Clamp Screws	Stainless Steel (300 Series)
Clamp Nut	Nickel-Plated Brass
Gland Clamp Screws	Stainless Steel (300 Series)
Contact Carrier	High-Impact Thermoset
Retainer	High-Impact Thermoset
Ground, Phase Pins	Brass (M-Series - Nickel-plated brass)
Terminal Screws	Stainless Steel (300 Series)
Assembly Screws	Stainless Steel (300 Series)

<b>Receptacle</b>	
Housing	Zytel® 101 Nylon
Mounting Flange	Zytel® 101 Nylon
Arm Spring	Stainless Steel (17-7 type)
Cover Arm	Reinforced Thermoplastic Polyester
Cover	Reinforced Thermoplastic Polyester
Cover Screw	Nickel-plated brass
Rotating Sealing Disc	Polycarbonate
Gaskets	Solid Neoprene
Mounting Screws	Stainless Steel (300 Series)
Terminal Screws	Stainless Steel (300 Series)
Phase, Ground Sleeves	Brass
Sleeve Spring	20A and 30A Stainless Steel (300 Series); others are Beryllium Copper multi-contact inserts with silver plating

**Specifications**

Typical Specification	
Manufacturer's Identification	Hubbell HBL520P9W
Description	Plug, Power Supply
Type	3 Pole + Neutral + Earth
Rating	20A, 120/208V AC, 3 Phase WYE
Configuration	UL 1686 C2, IEC 60309-2, Clock Position 9, Watertight
Certification	UL Listed, File E146032 Receptacles and Inlets, E146033 Plugs and Connectors, UL Standard UL1682 and UL 1686C2, CSA Certified File LR280C for Plugs, Connectors Inlets and LR285C for Receptacle CSA Standard C22.2 No. 182.1, UL Classified to IEC 60309-1 IEC 60309-2

Note: \*All devices on page G-11 have Valox® housings.

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

Listed to standard UL1682/CSA C22.2 No. 182.1-02, Plugs, Receptacles and cable connectors of the Pin and Sleeve Type.

UL Classified to IEC Standards 60309-1 (Plugs, Socket Outlets, and Couplers for Industrial Purposes) for Series I (European) rated voltages and services.

When used with cord, these devices require no further investigation by UL for equipment Classification to IEC 435 or IEC 380.

# IEC Pin and Sleeve Specifications and Horsepower Ratings

## Performance

### Electrical

Dielectric Withstand Voltage	3000V AC.
Max. Working Voltage	600V RMS (i.e., minimum creepage distance 10 millimeters, minimum clearance 8 millimeters, per IEC 60309-1 for devices rated over 500V).
Current Interrupting	Certified for current interrupting at full rated current (Except DC rated devices).
Temperature Rise	Max. 30°C temperature rise at full rated current after 50 cycles of overload at 150% of rated current at a power factor of 75%.
Endurance	5,000 connect and disconnect cycles with load for 16A and 20A, 1,000 cycles with load and 1,000 cycles without load for 30A, 32A, 60A and 63A, and 250 cycles with load and 250 cycles without load for 100A and 125A.

### Mechanical

Impact Resistance	Per CSA C22.2 No. 182.1 / UL1682.
Cord Grip Cable Retention	Per CSA C22.2 No. 182.1 / UL1682.
Cord Accommodation	Round portable service cords of diameters commensurate with the device rating as defined in UL Standard 62, CSA C22.2 No. 49 and the harmonized <HAR> European Standards.
Terminal Identification	Terminals identified in accordance with North American and IEC conventions.
Product Identification	Identification and ratings are a permanent part of the device housing.

### Environmental

Moisture Resistance	Watertight per IEC 60309-1.
Ingress Protection	IP67 Suitability.
Flammability	HB or better per UL 94 or CSA C22.2 No. 0.17.
Operating Temperatures	Maximum Continuous 75°C; Minimum - 40°C without impact.

### Materials

Housings	Nylon.
All Other Materials	Resistant to corrosion and chemical attack.

Note: Specification sheets for all other Pin and Sleeve catalog numbers are available upon request.

## Horsepower Ratings for IEC Pin and Sleeve

AC Voltage Rating	Horsepower	Catalog Number			
3Ø 250	2	<b>HBL420R9W</b>	<b>HBL420P9W</b>	<b>HBL420C9W</b>	<b>HBL420B9W</b>
3Ø 480	5	<b>HBL420R7W</b>	<b>HBL420P7W</b>	<b>HBL420C7W</b>	<b>HBL420B7W</b>
3Ø 600	7.5	<b>HBL420R5W</b>	<b>HBL420P5W</b>	<b>HBL420C5W</b>	<b>HBL420B5W</b>
3ØY 120/208	.5	<b>HBL520R9W</b>	<b>HBL520P9W</b>	<b>HBL520C9W</b>	<b>HBL520B9W</b>
3ØY 277/480	5	<b>HBL520R7W</b>	<b>HBL520P7W</b>	<b>HBL520C7W</b>	<b>HBL520B7W</b>
3ØY 347/600	7.5	<b>HBL520R5W</b>	<b>HBL520P5W</b>	<b>HBL520C5W</b>	<b>HBL520B5W</b>
3Ø 250	3	<b>HBL430R9W</b>	<b>HBL430P9W</b>	<b>HBL430C9W</b>	<b>HBL430B9W</b>
3Ø 480	7.5	<b>HBL430R7W</b>	<b>HBL430P7W</b>	<b>HBL430C7W</b>	<b>HBL430B7W</b>
3Ø 600	10	<b>HBL430R5W</b>	<b>HBL430P5W</b>	<b>HBL430C5W</b>	<b>HBL430B5W</b>
3ØY 120/208	2	<b>HBL530R9W</b>	<b>HBL530P9W</b>	<b>HBL530C9W</b>	<b>HBL530B9W</b>
3ØY 277/480	7.5	<b>HBL530R7W</b>	<b>HBL530P7W</b>	<b>HBL530C7W</b>	<b>HBL530B7W</b>
3ØY 347/600	10	<b>HBL530R5W</b>	<b>HBL530P5W</b>	<b>HBL530C5W</b>	<b>HBL530B5W</b>
3Ø 250	5	<b>HBL460R9W</b>	<b>HBL460P9W</b>	<b>HBL460C9W</b>	<b>HBL460B9W</b>
3Ø 480	10	<b>HBL460R7W</b>	<b>HBL460P7W</b>	<b>HBL460C7W</b>	<b>HBL460B7W</b>
3Ø 600	15	<b>HBL460R5W</b>	<b>HBL460P5W</b>	<b>HBL460C5W</b>	<b>HBL460B5W</b>
3ØY 120/208	3	<b>HBL560R9W</b>	<b>HBL560P9W</b>	<b>HBL560C9W</b>	<b>HBL560B9W</b>
3ØY 277/480	10	<b>HBL560R7W</b>	<b>HBL560P7W</b>	<b>HBL560C7W</b>	<b>HBL560B7W</b>
3ØY 347/600	15	<b>HBL560R5W</b>	<b>HBL560P5W</b>	<b>HBL560C5W</b>	<b>HBL560B5W</b>
3Ø 250	10	<b>HBL4100R9W</b>	<b>HBL4100P9W</b>	<b>HBL4100C9W</b>	<b>HBL4100B9W</b>
3Ø 480	30	<b>HBL4100R7W</b>	<b>HBL4100P7W</b>	<b>HBL4100C7W</b>	<b>HBL4100B7W</b>
3Ø 600	30	<b>HBL4100R5W</b>	<b>HBL4100P5W</b>	<b>HBL4100C5W</b>	<b>HBL4100B5W</b>
3ØY 120/208	10	<b>HBL5100R9W</b>	<b>HBL5100P9W</b>	<b>HBL5100C9W</b>	<b>HBL5100B9W</b>
3ØY 277/480	30	<b>HBL5100R7W</b>	<b>HBL5100P7W</b>	<b>HBL5100C7W</b>	<b>HBL5100B7W</b>
3ØY 347/600	30	<b>HBL5100R5W</b>	<b>HBL5100P5W</b>	<b>HBL5100C5W</b>	<b>HBL5100B5W</b>