

BRYANT® IEC 60309 Pin and Sleeve Devices

Overview

Watertight Devices

Bryant IEC pin and sleeve devices are rugged nonconductive plugs, connectors, receptacles, and inlets designed to withstand heavy-duty industrial environments while maintaining a reliable electrical and watertight connection that resists accidental disconnection. Bryant's pin and sleeve line safeguards against connecting devices of different amperage and voltage ratings together. Conformance with IEC 60309-1 and IEC 60309-2 international standards results in standardized configurations that are easy to use.



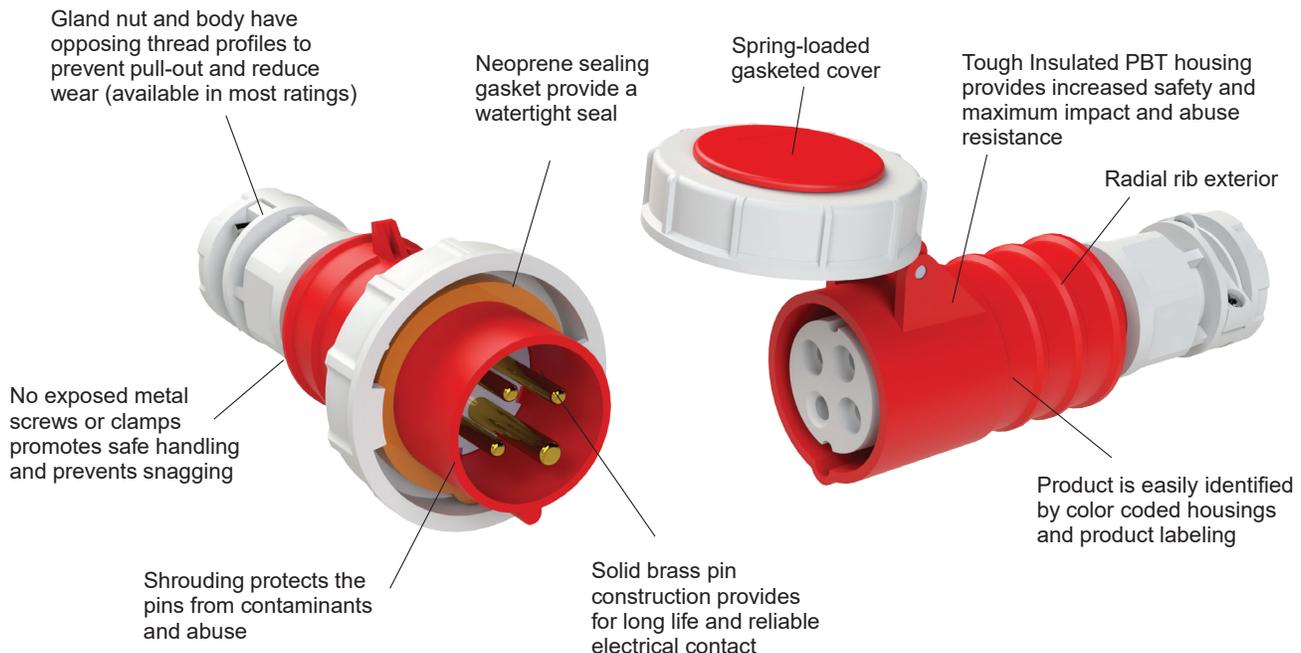
Features:

- IP67 environmental ratings
- Impact and corrosion resistant insulated non-metallic housing
- Sequential contact engagement to prevent a momentary over-voltage
- External strain relief
- Glandless water ingress protection
- Color-coded for each specific voltage
- Self-adjusting contacts provide accurate pin insertion, producing self-cleaning effect as pin is inserted and withdrawn from sleeve
- Phase contacts are recessed in deep insulated chambers to minimize arcing
- Ground contact in forward position ensures first make, last break, neutral contact connects next, then phase contacts
- Terminal screws are backed out for easy assembly

Agency Approvals:

- UL1686 Safety for Pin & Sleeve Configurations
- VDE, CE
- IEC 60309-1 and 60309-2
- *UL Listed & cUL Listed File E146033 or E146032

**To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.*



30 Amp Spring Clamp

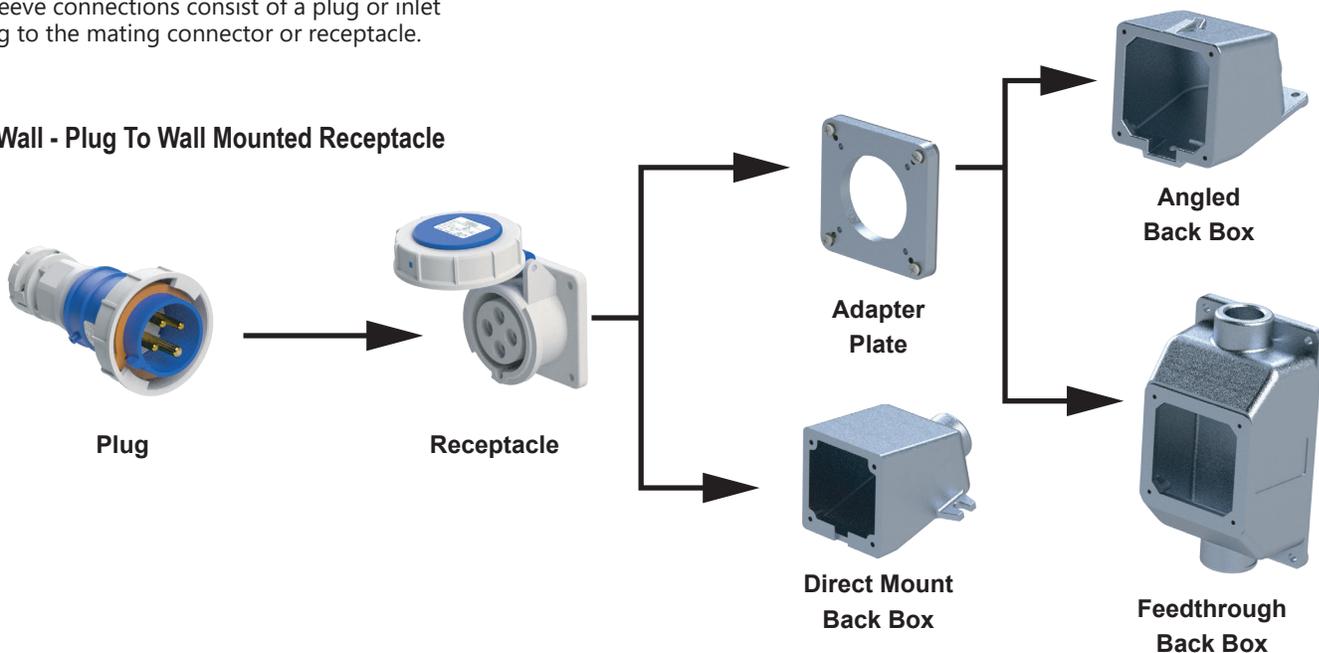
- Strong spring continuously applies pressures as strands relax
- Eliminates timely step of adding ferrules
- No torque screwdriver required
- UL approved screwless termination for 30 Amp Devices

BRYANT® IEC 60309 Pin and Sleeve Devices

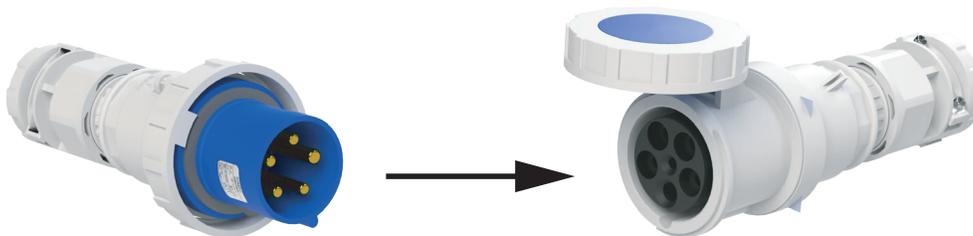
Device Selection

Pin and Sleeve connections consist of a plug or inlet connecting to the mating connector or receptacle.

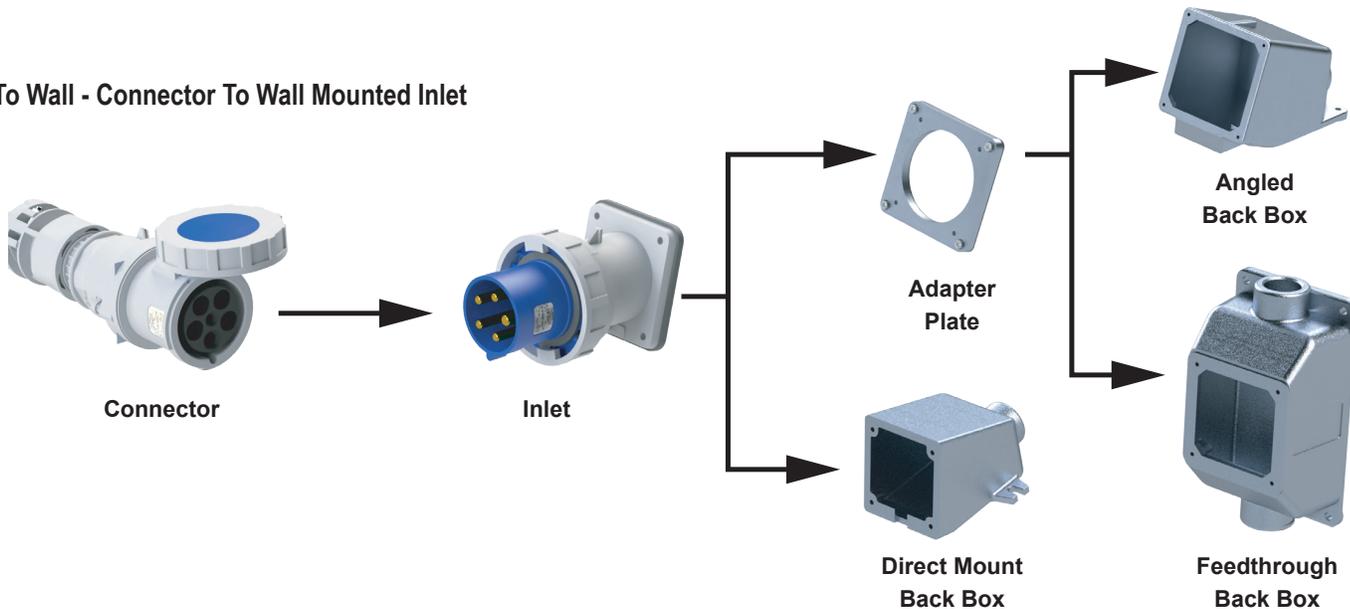
Cord To Wall - Plug To Wall Mounted Receptacle



Cord To Cord - Plug To Connector

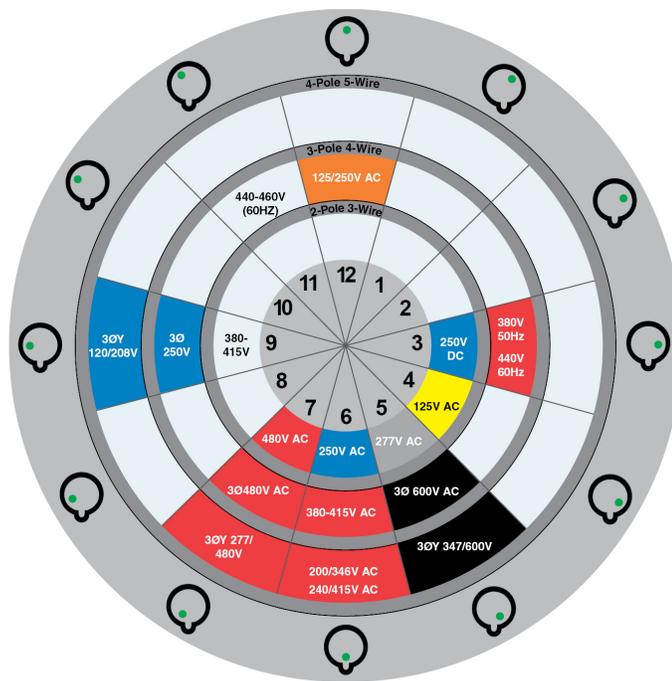


Cord To Wall - Connector To Wall Mounted Inlet

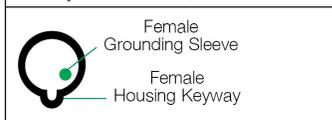


BRYANT® IEC 60309 Pin and Sleeve Devices

Specifications



The housing keyway is always located at the 6 o'clock position on all female devices and is clearly visible to the user.



IEC Pin & Sleeve device housings are color coded by voltage rating for easy identification.

Rated Voltage	Color
100V-130V	Yellow
125V/250V	Orange
200V-250V	Blue
277V	Grey
380V-480V	Red
500V and above	Black

The voltage rating can be identified by the clock position of the female grounding sleeve relative to the housing keyway. With the keyway always positioned at 6 o'clock, the female grounding sleeve is located at a specific clock position for each voltage rating.

Allowable Conductors							
Device	From			To			Grip
	AWG	Cond	Type	AWG	Cond	Type	Min/Max Diameter
20A	#14	3	SJOOW	#12	3	S	0.370 / 0.595
		4			4		0.410 / 0.650
		5			5		0.650 / 0.710
30A	#10	3	TC-ER	#8	3	S	0.565 / 0.930
		4			4		0.625 / 1.05
		5	TC-ER	#10	5	TC-ER	0.61 min
60A	#6	3	S	#4	3	SO	0.760 / 1.15
		4			4		0.970 / 1.450
		5			5		1.050 / 1.450
100A	#4	3	W	#1	3	W	1.180 / 1.450
		4			4		1.050 / 1.510
		5			5		0.905 / 1.680
							1.063 / 1.880

Device Rating					
	Domestic	20A	30A	60A	100A
Strip Cable Jacket	inch	2	2 1/2	3 1/2	4 1/2
	mm	51	70	89	114
Conductor Strip Length	inch	1	1/2	1	1 1/2
	mm	25	12	25	40
Torque Terminal Screws	lb•in	8	—	23	50
	N•m	0.9	—	2.5	5.7
Torque Clamp Screws	lb•in	10	17	15	15
	N•m	1.25	2.00	1.75	1.75
Torque External Cord Clamp	lb•in	61	84	177	194
	N•m	7	9.5	20	22

BRYANT® IEC 60309 Pin and Sleeve Devices

Materials and Specifications

Bryant IEC 60309 Pin and Sleeve Materials	
Plug/Connectors	
Housing, gland nut and cord clamp accessory	Toughened nylon
Cord gland	Neoprene
Seals/gaskets	Neoprene, EPDM, TPE
Phase/ground pins	Brass
Terminal screws	Plated steel
Terminal cover	Toughened nylon Glass-reinforced Nylon (100A)
Contact carrier	Glass-reinforced nylon Nylon (60A)
Gland friction washer	Plated carbon steel (30/60/100A) Nylon (20A)
Assembly screws	Stainless steel (60/100A) Plated steel (20/30A)
Plug	
Locking ring	Polycarbonate
Connector	
Cover ring	Polycarbonate
Cover spring	Stainless steel
Hinge pins	Brass
Sleeve spring	Nickel-plated spring steel
Receptacle/Inlet	
Housing/mounting flange	Toughened Nylon
Mounting screws	Stainless steel
Seals/gaskets	Neoprene, EPDM, TPE
Phase/ground pins	Brass
Terminal screws	Plated steel
Terminal cover	Toughened Nylon Glass-reinforced Nylon (100A)
Contact carrier	Glass-reinforced nylon Nylon (60A)
Receptacle	
Cover arm	Toughened nylon
Cover ring	Polycarbonate
Sleeve spring	Nickel-plated spring steel
Hinge pins	Brass
Inlet	
Mounting flange	Toughened nylon
Locking ring	Polycarbonate
Assembly screws	Stainless steel (60/100A) Plated steel (20/30A)

Bryant IEC 60309 Pin and Sleeve Specifications	
Electrical	
Dielectric voltage withstand	3,000 Volts - receptacle 2,200 Volts - plug and connector
Max. working voltage	600 VAC
Spacings	1/4in minimum creepage and clearance per UL 1682
Current interrupting	Certified for current interrupting at full rated current where applicable per UL 1682
Temperature rise	Less than 30°C temperature rise at full rated current after 50 cycles of overload tested at 150% of rated current at 0.75 pf.
Endurance	Up to 5,000 connect and disconnect cycles at full rated current and voltage per UL1682
Mechanical	
Impact resistance	After 6 hours at -25°C, 8 drops from 2 1/2" with 7 1/2" length cord
Mechanical crush test	250 lbs force for 1 minute after 6 hours at -25°C
Terminal identification	Terminals identified in accordance with North American Codes
Product identification	Catalog number and rating indicated on device
Environmental	
Moisture resistance	Submerged 30 minutes in water 1 meter in depth
Flammability (enclosure)	V2 minimum per UL94
Operating temperatures	Maximum continuous 95°C with impact Minimum continuous at -40°C without impact
Ingress protection	IP67 suitability
Polarization integrity	Mating devices will not energize ground if polarization feature is removed from housing and 40 lbs force is applied

BRYANT® IEC 60309 Pin and Sleeve Devices

2-Pole, 3-Wire Devices 20, 30 and 60 Amp



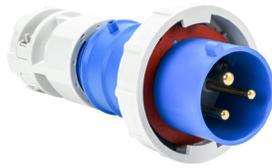
BRY320P4W



BRY320R6W



BRY330C4W



BRY330P6W



BRY360C6W

2-Pole, 3-Wire 20, 30 and 60 Amp													
Amps		Voltage		Color	Clock Position	Wire Size	Terminal Type	Cord Diameter (Inch)	Device	Reference Number	Part Number	Price	Drawing Link
UL	VDE	UL	VDE										
20	-	125 VAC	—	Yellow	4 hour	14-12 AWG	Screw	0.37 - 0.595	Plug	C320P4WA	<u>BRY320P4W</u>		<u>PDF</u>
									Connector	C320C4WA	<u>BRY320C4W</u>		<u>PDF</u>
									Receptacle	C320R4WA	<u>BRY320R4W</u>		<u>PDF</u>
	16	250 VAC	200-250 VAC	Blue	6 hour	14-12 AWG	Screw	0.37 - 0.595	Plug	C320P6WA	<u>BRY320P6W</u>		<u>PDF</u>
									Connector	C320C6WA	<u>BRY320C6W</u>		<u>PDF</u>
									Receptacle	C320R6WA	<u>BRY320R6W</u>		<u>PDF</u>
30	-	125 VAC	—	Yellow	4 hour	10-8 AWG	Spring	0.565 - 0.93	Plug	C330P4WA	<u>BRY330P4W</u>		<u>PDF</u>
									Connector	C330C4WA	<u>BRY330C4W</u>		<u>PDF</u>
									Receptacle	C330R4WA	<u>BRY330R4W</u>		<u>PDF</u>
	32	250 VAC	200-250 VAC	Blue	6 hour	10-8 AWG	Spring	0.565 - 0.93	Plug	C330P6WA	<u>BRY330P6W</u>		<u>PDF</u>
									Connector	C330C6WA	<u>BRY330C6W</u>		<u>PDF</u>
									Receptacle	C330R6WA	<u>BRY330R6W</u>		<u>PDF</u>
60	63	250 VAC	200-250 VAC	Blue	6 hour	6-4 AWG	Screw	0.97 - 1.45	Plug	C360P6WA	<u>BRY360P6W</u>		<u>PDF</u>
									Connector	C360C6WA	<u>BRY360C6W</u>		<u>PDF</u>
									Receptacle	C360R6WA	<u>BRY360R6W</u>		<u>PDF</u>

BRYANT® IEC 60309 Pin and Sleeve Devices

3-Pole, 4-Wire Devices 20 and 30 Amp



BRY420P9W



BRY430P9W



BRY420C7W



BRY430C7W



BRY430R5W

3-Pole, 4-Wire 20 and 30 Amp													
Amps		Voltage		Color	Clock Position	Wire Size	Terminal Type	Cord Diameter (Inch)	Device	Reference Number	Part Number	Price	Drawing Link
UL	VDE	UL	VDE										
20	16	3Ø 250 VAC	200-250 VAC	Blue	9 hour	14-12 AWG	Screw	0.41 - 0.65	Plug	C420P9WA	BRY420P9W		PDF
									Connector	C420C9WA	BRY420C9W		PDF
									Receptacle	C420R9WA	BRY420R9W		PDF
	—	3Ø 480 VAC	—	Red	7 hour	14-12 AWG	Screw	0.41 - 0.65	Plug	C420P7WA	BRY420P7W		PDF
									Connector	C420C7WA	BRY420C7W		PDF
									Receptacle	C420R7WA	BRY420R7W		PDF
30	32	3Ø 250 VAC	200-250 VAC	Blue	9 hour	10-8 AWG	Spring	0.625 - 1.05	Plug	C430P9WA	BRY430P9W		PDF
									Connector	C430C9WA	BRY430C9W		PDF
									Receptacle	C430R9WA	BRY430R9W		PDF
	—	3Ø 480 VAC	—	Red	7 hour	10-8 AWG	Spring	0.625 - 1.05	Plug	C430P7WA	BRY430P7W		PDF
									Connector	C430C7WA	BRY430C7W		PDF
									Receptacle	C430R7WA	BRY430R7W		PDF
	—	3Ø 600 VAC	—	Black	5 hour	10-8 AWG	Spring	0.625 - 1.05	Plug	C430P5WA	BRY430P5W		PDF
									Connector	C430C5WA	BRY430C5W		PDF
									Receptacle	C430R5WA	BRY430R5W		PDF

BRYANT® IEC 60309 Pin and Sleeve Devices

3-Pole, 4-Wire Devices 60 and 100 Amp



BRY460P9W



BRY460C7W



BRY460R5W



BRY4100P9W



BRY4100C7W



BRY4100R5W

3-Pole, 4-Wire 60 and 100 Amp													
Amps		Voltage		Color	Clock Position	Wire Size	Terminal Type	Cord Diameter (Inch)	Device	Reference Number	Part Number	Price	Drawing Link
UL	VDE	UL	VDE										
60	63	3Ø 250 VAC	200-250 VAC	Blue	9 hour	6-4 AWG	Screw	1.05 - 1.45	Plug	C460P9WA	<u>BRY460P9W</u>		<u>PDF</u>
									Connector	C460C9WA	<u>BRY460C9W</u>		<u>PDF</u>
									Receptacle	C460R9WA	<u>BRY460R9W</u>		<u>PDF</u>
	—	3Ø 480 VAC	—	Red	7 hour	6-4 AWG	Screw	1.05 - 1.45	Plug	C460P7WA	<u>BRY460P7W</u>		<u>PDF</u>
									Connector	C460C7WA	<u>BRY460C7W</u>		<u>PDF</u>
									Receptacle	C460R7WA	<u>BRY460R7W</u>		<u>PDF</u>
—	3Ø 600 VAC	—	Black	5 hour	6-4 AWG	Screw	1.05 - 1.45	Plug	C460P5WA	<u>BRY460P5W</u>		<u>PDF</u>	
								Connector	C460C5WA	<u>BRY460C5W</u>		<u>PDF</u>	
								Receptacle	C460R5WA	<u>BRY460R5W</u>		<u>PDF</u>	
100	125	3Ø 250 VAC	200-250 VAC	Blue	9 hour	4-1 AWG	Screw	0.905 - 1.68	Plug	C4100P9WA	<u>BRY4100P9W</u>		<u>PDF</u>
									Connector	C4100C9WA	<u>BRY4100C9W</u>		<u>PDF</u>
									Receptacle	C4100R9WA	<u>BRY4100R9W</u>		<u>PDF</u>
	—	3Ø 480 VAC	—	Red	7 hour	4-1 AWG	Screw	0.905 - 1.68	Plug	C4100P7WA	<u>BRY4100P7W</u>		<u>PDF</u>
									Connector	C4100C7WA	<u>BRY4100C7W</u>		<u>PDF</u>
									Receptacle	C4100R7WA	<u>BRY4100R7W</u>		<u>PDF</u>
—	3Ø 600 VAC	—	Black	5 hour	4-1 AWG	Screw	0.905 - 1.68	Plug	C4100P5WA	<u>BRY4100P5W</u>		<u>PDF</u>	
								Connector	C4100C5WA	<u>BRY4100C5W</u>		<u>PDF</u>	
								Receptacle	C4100R5WA	<u>BRY4100R5W</u>		<u>PDF</u>	

BRYANT® IEC 60309 Pin and Sleeve Devices

4-Pole, 5-Wire Devices 30, 60 and 100 Amp



BRY530P7W



BRY560C9W



BRY560R7W



BRY5100P9W

4-Pole, 5-Wire 30, 60 and 100 Amp														
Amps		Voltage		Color	Clock Position	Wire Size	Terminal Type	Cord Diameter (Inch)	Device	Reference Number	Part Number	Price	Drawing Link	
UL	VDE	UL	VDE											
30	—	3ØY 277/480VAC	—	Red	7 hour	10-8 AWG	Spring	0.76 - 1.15	Plug	C530P7WA	<u>BRY530P7W</u>		PDF	
									Connector	C530C7WA	<u>BRY530C7W</u>		PDF	
									Receptacle	C530R7WA	<u>BRY530R7W</u>		PDF	
60	63	3ØY 120/208 VAC	120/208- 144/250 VAC	Blue	9 hour	6-4 AWG	Screw	1.18 - 1.45	Plug	C560P9WA	<u>BRY560P9W</u>		PDF	
									Connector	C560C9WA	<u>BRY560C9W</u>		PDF	
									Receptacle	C560R9WA	<u>BRY560R9W</u>		PDF	
	—	—	3ØY 277/480 VAC	—	Red	7 hour	6-4 AWG	Screw	1.18 - 1.45	Inlet	C560B9WA	<u>BRY560B9W</u>		PDF
										Plug	C560P7WA	<u>BRY560P7W</u>		PDF
										Connector	C560C7WA	<u>BRY560C7W</u>		PDF
100	125	3ØY 120/208 VAC	120/208- 144/250 VAC	Blue	9 hour	4-1 AWG	Screw	1.063 - 1.88	Receptacle	C560R7WA	<u>BRY560R7W</u>		PDF	
									Plug	C5100P9WA	<u>BRY5100P9W</u>		PDF	
									Connector	C5100C9WA	<u>BRY5100C9W</u>		PDF	
									Receptacle	C5100R9WA	<u>BRY5100R9W</u>		PDF	

BRYANT® IEC 60309 Pin and Sleeve Accessories

Features

- Back box features heavy duty cast aluminum construction with a durable enamel finish
- Adapter plates allow receptacles and inlets to be mounted to back boxes
- Cast aluminum direct mount back boxes permit receptacles to be mounted directly to box without adapter plate
- Closure caps provide a watertight seal for male plugs and flanged inlets when not mated

Nema Type 1 Portable Outlet Box Cover Plates Selection Chart						
For Use With	Hub Size (in)	Back Boxes			Adapter Plates	Direct Mount Back Boxes
		For Mounting Receptacles and Inlets			Required to mount receptacles and inlets to back boxes	15° Angle
		15° Angle	Feed-through	Four-Way		
20 and 30A	3/4	BB201WA*	FT202WA*	—	AP2030	DM20301
	1	BB301WA**	FT302WA*	—		—
60A	1-1/4	BB601WA*	—	—	AP60	DM602
	1-1/2	BB602WA*	—	FW60100A**		—
100A	1-1/2	BB1001WA*	—	FW60100A**	AP100	—
	2	BB1002WA*	—	—		—

NOTE: *Adapter plates: 20/30A devices require [AP2030](#), 60A devices require [AP60](#) and 100A devices require [AP100](#) adapter plates, purchase separately.

**Requires [AP60](#) adapter plate to mount 60A receptacle or inlet. Requires [AP100](#) adapter plate to mount 100A receptacle or inlet.



[BB201WA](#)



[BB601WA](#)



[BB1002WA](#)

Dead End Back Boxes			
Part Number	Price	Description	Drawing Link
BB201WA		Bryant dead end back box, (1) 3/4in female NPT conduit entries, cast aluminum housing, gray. For use with Bryant 20A and 30A devices. Requires AP2030 adapter plate.	PDF
BB301WA		Bryant dead end back box, (1) 1in female NPT conduit entries, cast aluminum housing, gray. For use with Bryant 20A and 30A devices. Requires AP2030 adapter plate.	PDF
BB601WA		Bryant dead end back box, (1) 1-1/4in female NPT conduit entries, cast aluminum housing, gray. For use with Bryant 60A devices. Requires AP60 adapter plate.	PDF
BB602WA		Bryant dead end back box, (1) 1-1/2in female NPT conduit entries, cast aluminum housing, gray. For use with Bryant 60A devices. Requires AP60 adapter plate.	PDF
BB1001WA		Bryant dead end back box, (1) 1-1/2in female NPT conduit entries, cast aluminum housing, gray. For use with Bryant 100A devices. Requires AP100 adapter plate.	PDF
BB1002WA		Bryant dead end back box, (1) 2in female NPT conduit entries, cast aluminum housing, gray. For use with Bryant 100A devices. Requires AP100 adapter plate.	PDF

BRYANT® IEC 60309 Pin and Sleeve Accessories



FT202WA



FT302WA



FW60100A

Back Boxes			
Part Number	Price	Description	Drawing Link
<u>FT202WA</u>		Bryant feed through back box, (2) 1in female NPT conduit entries, cast aluminum housing, gray. For use with Bryant 20A and 30A devices. Requires AP2030 adapter plate.	<u>PDF</u>
<u>FT302WA</u>		Bryant feed through back box, (2) 3/4in female NPT conduit entries, cast aluminum housing, gray. For use with Bryant 20A and 30A devices. Requires AP2030 adapter plate.	<u>PDF</u>
<u>FW60100A</u>		Bryant four-way back box, (1) 1-1/2in female NPT conduit entries, cast aluminum housing, gray. For use with Bryant 60A and 100A devices. Requires AP60 adapter plate for 60A devices or AP100 adapter plate for 100A devices.	<u>PDF</u>



AP2030



AP60



AP100

Adapter Plates			
Part Number	Price	Description	Drawing Link
<u>AP2030</u>		Bryant adapter plate, nylon, gray. For use with Bryant back boxes using 20A and 30A devices.	<u>PDF</u>
<u>AP60</u>		Bryant adapter plate, nylon, gray. For use with Bryant back boxes using 60A devices.	<u>PDF</u>
<u>AP100</u>		Bryant adapter plate, nylon, gray. For use with Bryant back boxes using 100A devices.	<u>PDF</u>

BRYANT® IEC 60309 Pin and Sleeve Accessories



DM20301



DM602

Dead End Direct Mount Back Boxes			
Part Number	Price	Description	Drawing Link
DM20301		Bryant dead end direct mount back box, (1) 3/4in female NPT conduit entries, cast aluminum housing, gray. For use with Bryant 20A and 30A devices. Mounting hardware included.	PDF
DM602		Bryant dead end direct mount back box, (1) 1-1/4in female NPT conduit entries, cast aluminum housing, gray. For use with Bryant 60A devices. AP60 adapter plate and mounting hardware included.	PDF

Closure Cap used with Inlets



Closure Cap used with Plugs



Closure Cap Assembly



Closure Caps					
	For Use With	Part Number	Price	Description	Drawing Link
20A	3-Wire	CC320A		Bryant closure cap, nylon, white. For use with Bryant 20A 3-wire devices.	PDF
	4-Wire	CC420A		Bryant closure cap, nylon, white. For use with Bryant 20A 4-wire devices.	PDF
	5-Wire	CC520		Bryant closure cap, nylon, white. For use with Bryant 20A 5-wire devices.	PDF
30A	3-Wire/4-Wire	CC330		Bryant closure cap, nylon, white. For use with Bryant 30A 3- and 4-wire devices.	PDF
	5-Wire	CC530		Bryant closure cap, nylon, white. For use with Bryant 30A 5-wire devices.	PDF
60A	3-Wire/4-Wire/5-Wire	CC560		Bryant closure cap, nylon, white. For use with Bryant 60A 3-, 4- and 5-wire devices.	PDF
100A	3-Wire/4-Wire/5-Wire	CC510		Bryant closure cap, nylon, white. For use with Bryant 100A 3-, 4-, and 5-wire devices.	PDF