

# 20A & 30A IEC 309 Watertight pin & sleeve devices

Project Name:	Prepared By:
Project Number:	Date:
Catalog Number:	Type:

## Product Description - North American

20A & 30A;  
2-pole, 3-wire grounding;  
3-pole, 4-wire grounding;  
4-pole, 5-wire grounding



AH430R7W

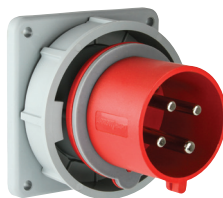
**IP69K  
certified**



AH430P7W



AH430C7W



AH430B7W

## Pin & sleeve plugs features & benefits

- Mechanical cord clamp with silicone rubber grommet seal and locking screw ensures a positive and watertight strain relief system
- Tri-combo cord grip screws for convenience
- Durable impact resistant thermoplastic body
- Color-coded front housing for easy and accurate identification of voltages
- Oversized grounding pin assures mating only with oversized female grounding sleeve; staggered contact to ensure ground makes first and breaks last
- Engineered thermoplastic material improves cold impact performance
- Spring-loaded self-closing cap with silicone rubber gasket protects contacts when not in use. Watertight cap meets IP67 and IP69K protection standards
- Rugged materials selected for use in wet locations; provides corrosion resistance
- Standard mounting footprints and blind holes provide interchangeability with major brands
- Nickel plated pins offer long life corrosion protection
- Pins fully shrouded for mechanical protection; lockout hole for plugs
- Threaded NPT cable entry provides efficient means of attaching flexible conduit or wire mesh grips
- Tapered wiring pockets to ease insertion of stranded wire; deep pockets with clear markings keep bare conductors isolated

**Compliances, specifications and availability are subject to change without notice.**

Project Name:	Prepared By:
Project Number:	Date:
Catalog Number:	Type:

**Table 1. 20A & 30A Pin & sleeve devices for receptacles, plugs, connectors & inlets**

Rating A	Poles/wires	V/AC, color coding & configurations	Receptacle catalog no.	Plug catalog no.	Connector catalog no.	Inlet catalog no.	
20	2-P, 3-W	125	□ AH320R4W	□ AH320P4W	□ AH320C4W	□ AH320B4W	
		250	□ AH320R6W	□ AH320P6W	□ AH320C6W	□ AH320B6W	
		480	□ AH320R7W	□ AH320P7W	□ AH320C7W	□ AH320B7W	
	3-P, 4-W	125/250	□ AH420R12W	□ AH420P12W	□ AH420C12W	□ AH420B12W	
		3Ø 250	□ AH420R9W	□ AH420P9W	□ AH420C9W	□ AH420B9W	
		3Ø 480	□ AH420R7W	□ AH420P7W	□ AH420C7W	□ AH420B7W	
		3Ø 600	□ AH420R5W	□ AH420P5W	□ AH420C5W	□ AH420B5W	
	4-P, 5-W	3ØY 120/208	□ AH520R9W	□ AH520P9W	□ AH520C9W	□ AH520B9W	
		3ØY 277/480	□ AH520R7W	□ AH520P7W	□ AH520C7W	□ AH520B7W	
		3ØY 347/600	□ AH520R5W	□ AH520P5W	□ AH520C5W	□ AH520B5W	
	30	2-P, 3-W	125	□ AH330R4W	□ AH330P4W	□ AH330C4W	□ AH330B4W
			250	□ AH330R6W	□ AH330P6W	□ AH330C6W	□ AH330B6W
480			□ AH330R7W	□ AH330P7W	□ AH330C7W	□ AH330B7W	
3-P, 4-W		125/250	□ AH430R12W	□ AH430P12W	□ AH430C12W	□ AH430B12W	
		3Ø 250	□ AH430R9W	□ AH430P9W	□ AH430C9W	□ AH430B9W	
		3Ø 480	□ AH430R7W	□ AH430P7W	□ AH430C7W	□ AH430B7W	
		3Ø 600	□ AH430R5W	□ AH430P5W	□ AH430C5W	□ AH430B5W	
4-P, 5-W		3ØY 120/208	□ AH530R9W	□ AH530P9W	□ AH530C9W	□ AH530B9W	
		3ØY 277/480	□ AH530R7W	□ AH530P7W	□ AH530C7W	□ AH530B7W	
		3ØY 347/600	□ AH530R5W	□ AH530P5W	□ AH530C5W	□ AH530B5W	

**Table 2. Ordering matrix**

**Pin & sleeve device sample number: AH420P7W**

**AH** **4** **20** **P** **7** **W**

<b># of wires</b> 3 = 3-wire 4 = 4-wire 5 = 5-wire	<b>Amperage</b> 20 = 20 amps 30 = 30 amps 60 = 60 amps 100 = 100 amps	<b>Pin &amp; sleeve devices product type</b> P = Plug C = Connector R = Receptacle B = Inlet	<b>Clock position of female grounding contact</b> 3 = 380V/AC, 50Hz - 440V/AC, 60Hz 4 = 125V/AC 5 = 277V/AC or 3Ø 600V/AC or 3Ø 347/600V/AC 6 = 250V/AC or 380-415V/AC or 220/380-240/415V/AC 7 = 480V/AC or 3Ø 480V/AC or 3ØY 277/480V/AC 9 = 380-415V/AC or 3Ø 250V/AC or 3ØY 120/208V/AC 11 = 440-460V/AC, 60Hz 12 = 125/250V/AC
-------------------------------------------------------------	-----------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Note:**  
Exceptions for pin & sleeve devices:  
Not every clock face position available for each pole/amp/device combo.  
Consult your Eaton wiring devices representative for details.

Project Name:	Prepared By:
Project Number:	Date:
Catalog Number:	Type:

## Applications

The industry's first pin & sleeve devices that are designed to address high pressure, high temperature washdown applications. Arrow Hart's pin and sleeve devices are unlike other brands - our devices are the industry's first to offer IP69K rated protection. Each device has been carefully engineered to offer reliability, efficiency, and added safety protection in demanding wet locations, particularly where harsh washdowns are a must!

**Table 3. Specifications**

Device Type	20A & 30A pin & sleeve receptacles	20A & 30A pin & sleeve plugs	20A & 30A pin & sleeve connectors	20A & 30A pin & sleeve inlets
<b>Testing &amp; code compliance</b>	<b>Base device:</b> <ul style="list-style-type: none"> <li>Classified to IEC standards 60309-1 and 60309-2</li> <li>cULus listed to UL1682 &amp; UL1686 and CSA 22.2 no. 182.1</li> </ul>	<b>Base device:</b> <ul style="list-style-type: none"> <li>Classified to IEC standards 60309-1 and 60309-2</li> <li>cULus listed to UL1682 &amp; UL1686 and CSA 22.2 no. 182.1</li> </ul>	<b>Base device:</b> <ul style="list-style-type: none"> <li>Classified to IEC standards 60309-1 and 60309-2</li> <li>cULus listed to UL1682 &amp; UL1686 and CSA 22.2 no. 182.1</li> </ul>	<b>Base device:</b> <ul style="list-style-type: none"> <li>Classified to IEC standards 60309-1 and 60309-2</li> <li>cULus listed to UL1682 &amp; UL1686 and CSA 22.2 no. 182.1</li> </ul>
<b>Environmental specifications</b>	<b>Flammability:</b> Meets UL94 requirements; HB rated (housing), V0 rated (contact carriers) <b>Protection:</b> Watertight to IP67 per IEC 60529 & IP69K to DIN 40050 Part 9	<b>Flammability:</b> Meets UL94 requirements; HB rated (housing), V0 rated (contact carriers) <b>Protection:</b> Watertight to IP67 per IEC 60529 & IP69K to DIN 40050 Part 9	<b>Flammability:</b> Meets UL94 requirements; HB rated (housing), V0 rated (contact carriers) <b>Protection:</b> Watertight to IP67 per IEC 60529 & IP69K to DIN 40050 Part 9	<b>Flammability:</b> Meets UL94 requirements; V2 rated (housing), V2 rated (contact carriers) <b>Protection:</b> Watertight to IP67 per IEC 60529 & IP69K to DIN 40050 Part 9
<b>Electrical specifications</b>	<b>Dielectric voltage:</b> <300V:2000V - 1 minute. >300V:3000V - 1 minute <b>Maximum working voltage:</b> 600V (rms) <b>Current interrupting:</b> Yes, at full-rated current & voltage <b>Temperature rise:</b> Max. 30°C (86°F) after 50 cycles of overload @150% of rated current <b>Endurance:</b> <20A:5000 cycles >20A:1000 cycles	<b>Dielectric voltage:</b> 1000V plus 2x rated V - 1 minute <b>Maximum working voltage:</b> 600V (rms) <b>Current interrupting:</b> Yes, at full-rated current & voltage <b>Temperature rise:</b> Max. 30°C (86°F) after 50 cycles of overload @150% of rated current <b>Endurance:</b> <20A:5000 cycles >20A:1000 cycles	<b>Dielectric voltage:</b> 1000V plus 2x rated V - 1 minute <b>Maximum working voltage:</b> 600V (rms) <b>Current interrupting:</b> Yes, at full-rated current & voltage <b>Temperature rise:</b> Max. 30°C (86°F) after 50 cycles of overload @150% of rated current <b>Endurance:</b> <20A:5000 cycles >20A:1000 cycles	<b>Dielectric voltage:</b> <300V:2000V - 1 minute. >300V:3000V - 1 minute <b>Maximum working voltage:</b> 600V (rms) <b>Current interrupting:</b> Yes, at full-rated current & voltage <b>Temperature rise:</b> Max. 30°C (86°F) after 50 cycles of overload @150% of rated current <b>Endurance:</b> <20A:5000 cycles >20A:1000 cycles
<b>Mechanical Specifications</b>	<b>Voltage ratings:</b> Marked on device <b>Impact resistance:</b> UL1682 <b>Cable grip retention:</b> UL1682	<b>Voltage ratings:</b> Marked on device <b>Impact resistance:</b> UL1682 <b>Cable grip retention:</b> UL1682	<b>Voltage ratings:</b> Marked on device <b>Impact resistance:</b> UL1682 <b>Cable grip retention:</b> UL1682	<b>Voltage ratings:</b> Marked on device <b>Impact resistance:</b> UL1682 <b>Cable grip retention:</b> UL1682

**Table 4. Materials**

Device Type	20A & 30A pin & sleeve receptacles	20A & 30A pin & sleeve plugs	20A & 30A pin & sleeve connectors	20A & 30A pin & sleeve inlets
<b>Housing &amp; flange</b>	Nylon PA6-GF30	Nylon PA6-GF30	Nylon PA6-GF30	Nylon PA6
<b>Back body</b>	N/A	Nylon PA6-GF30	Nylon PA6-GF30	N/A
<b>Contact carrier</b>	Nylon PA6	Nylon PA6	Nylon PA6	Nylon PA6
<b>Sleeves</b>	Nickel plated brass	N/A	Nickel plated brass	N/A
<b>Contact spring on sleeves</b>	Nickel plated spring steel	N/A	Nickel plated spring steel	N/A
<b>Pins</b>	N/A	Nickel plated brass	N/A	Nickel plated brass
<b>External strain relief clamp</b>	N/A	Nylon PA6-GF30	Nylon PA6-GF30	N/A
<b>Cable seal</b>	N/A	Silicon rubber	Silicon rubber	N/A
<b>Support washer for cord grip</b>	N/A	Plated steel	Plated steel	N/A
<b>Cover</b>	Nylon PA6-GF30	N/A	Nylon PA6-GF30	N/A
<b>Hinge pin</b>	Nylon PA6-GF30	N/A	Nylon PA6-GF30	N/A
<b>Cover spring</b>	Stainless steel	N/A	Stainless steel	N/A
<b>Cover gasket</b>	Silicon rubber	N/A	Silicon rubber	N/A
<b>Flange gasket</b>	Silicon rubber	N/A	N/A	Silicon rubber
<b>Terminal screws</b>	Nickel plated steel	Nickel plated steel	Nickel plated steel	Nickel plated steel
<b>Assembly screws</b>	Stainless steel	Stainless steel	Stainless steel	Stainless steel

Project Name:	Prepared By:
Project Number:	Date:
Catalog Number:	Type:

## Product Dimensions

### 20A Receptacles, Front, Side & Back Views

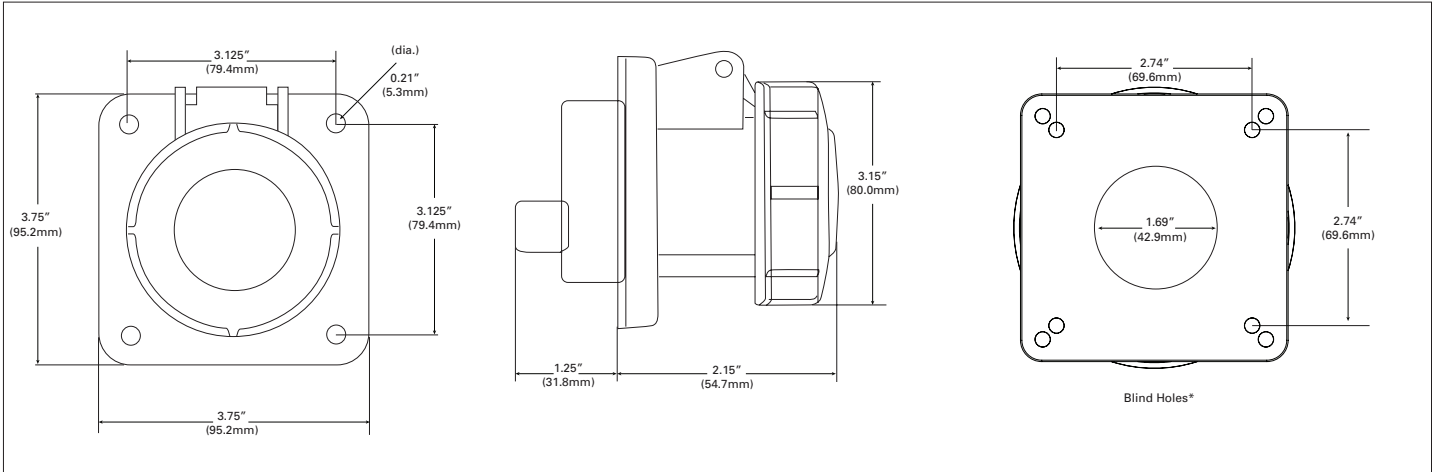


Figure 1. 20A 2-P, 3-W Receptacles, Front, Side & Back Views

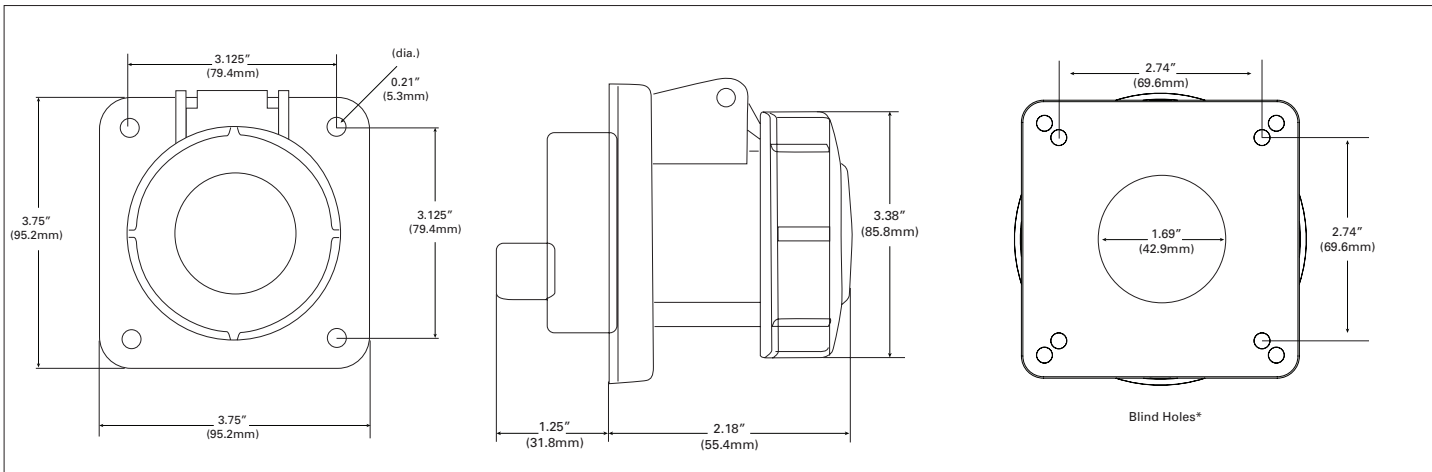


Figure 2. 20A 3-P, 4-W Receptacles, Front, Side & Back Views

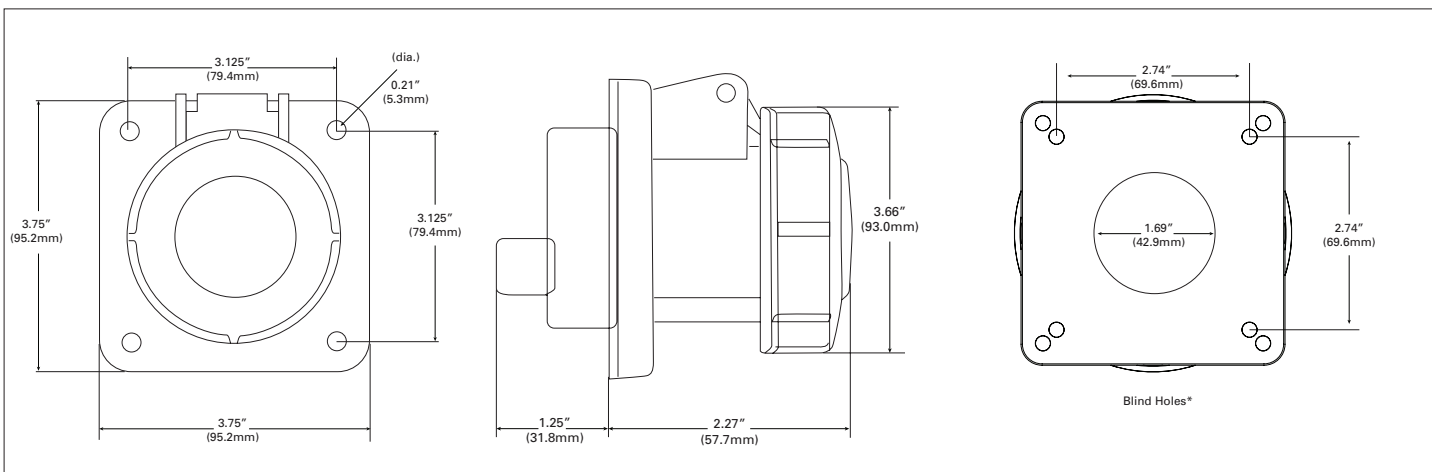


Figure 3. 20A 4-P, 5-W Receptacles, Front, Side & Back Views

Project Name:	Prepared By:
Project Number:	Date:
Catalog Number:	Type:

## Product Dimensions

### 20A Plugs

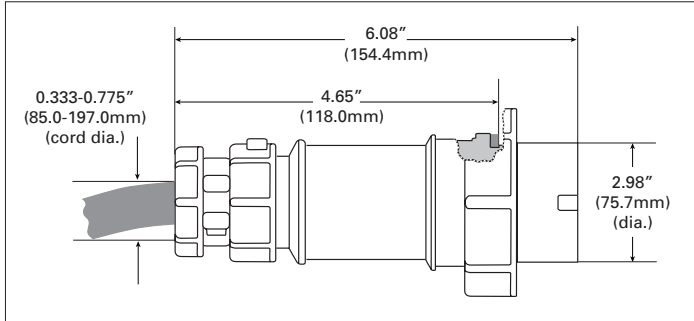


Figure 4. 20A 2-P, 3-W Plugs

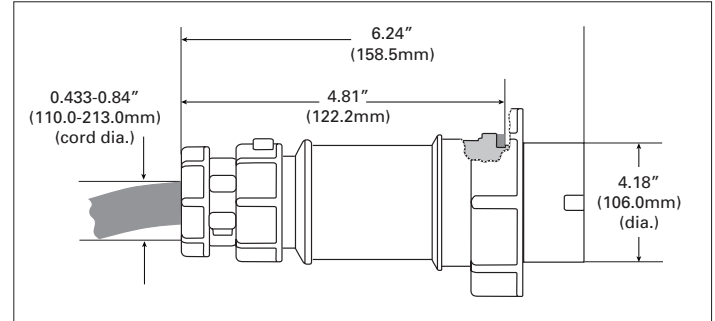


Figure 6. 20A 4-P, 5-W Plugs

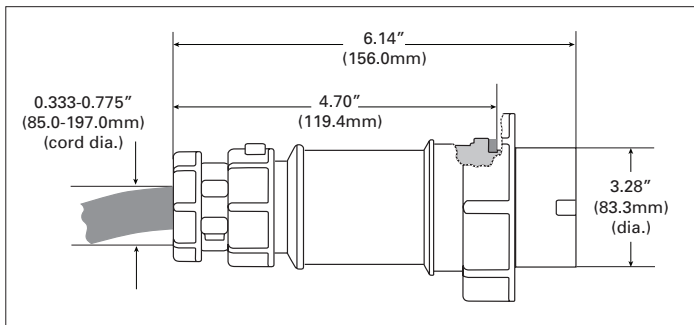


Figure 5. 20A 3-P, 4-W Plugs

### 20A Connectors

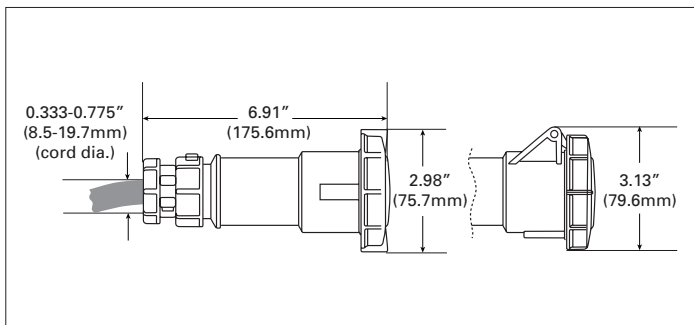


Figure 7. 20A 2-P, 3-W Underside & Side View Connectors

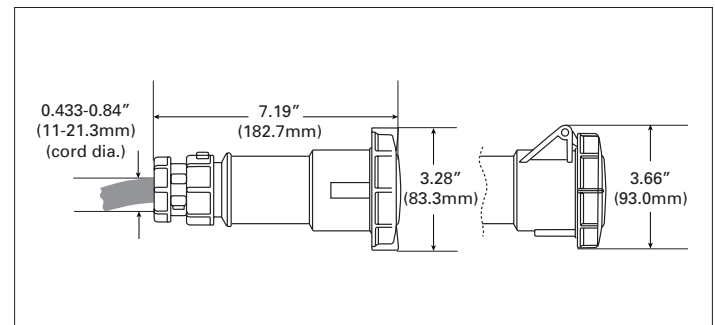


Figure 9. 20A 4-P, 5-W Underside & Side View Connectors

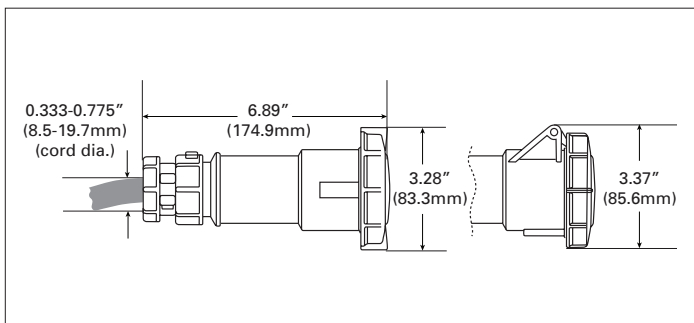


Figure 8. 20A 3-P, 4-W Underside & Side View Connectors

Project Name:	Prepared By:
Project Number:	Date:
Catalog Number:	Type:

## Product Dimensions

### 20A Inlets

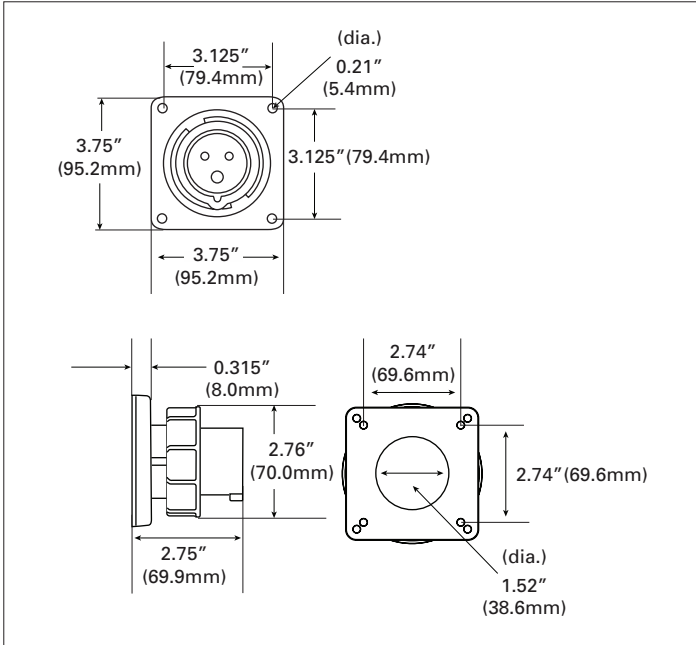


Figure 10. 20A 2-P, 3-W Front, Side & Back View Inlets

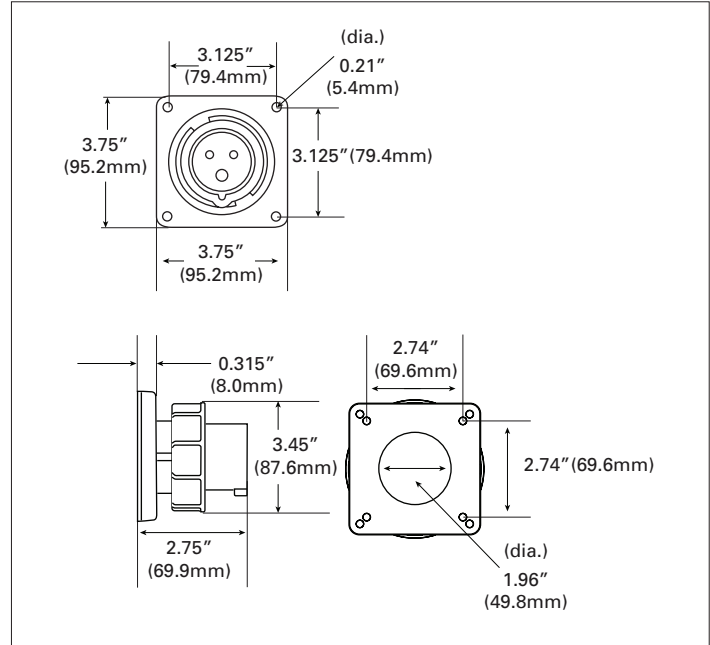


Figure 12. 20A 4-P, 5-W Front, Side & Back View Inlets

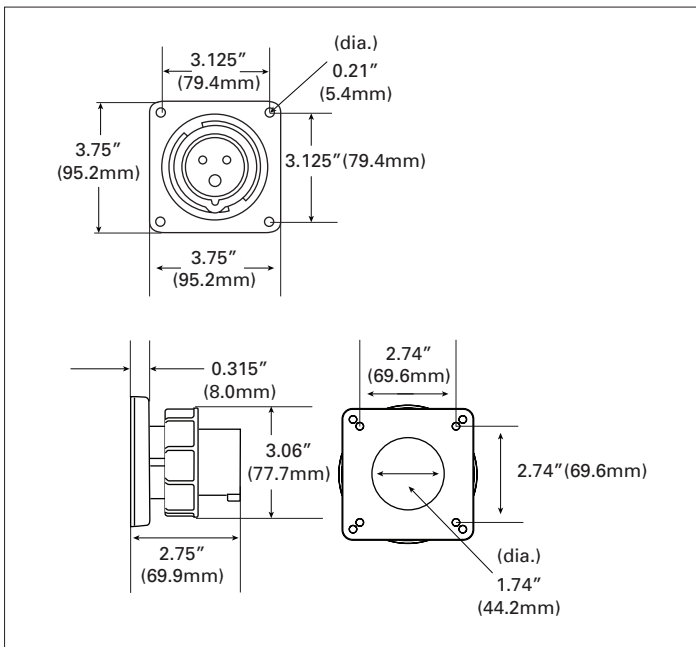


Figure 11. 20A 3-P, 4-W Front, Side & Back View Inlets

Project Name:	Prepared By:
Project Number:	Date:
Catalog Number:	Type:

## Product Dimensions

### 30A Receptacles

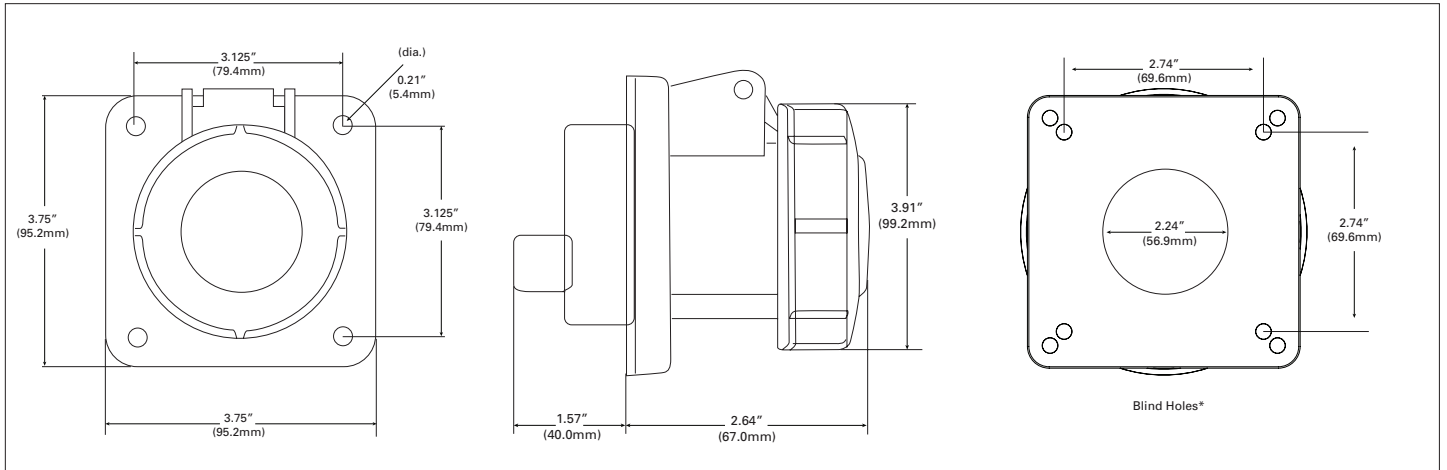


Figure 13. 30A 2-P, 3-W & 3-P, 4-W Receptacles, Front, Side & Back Views

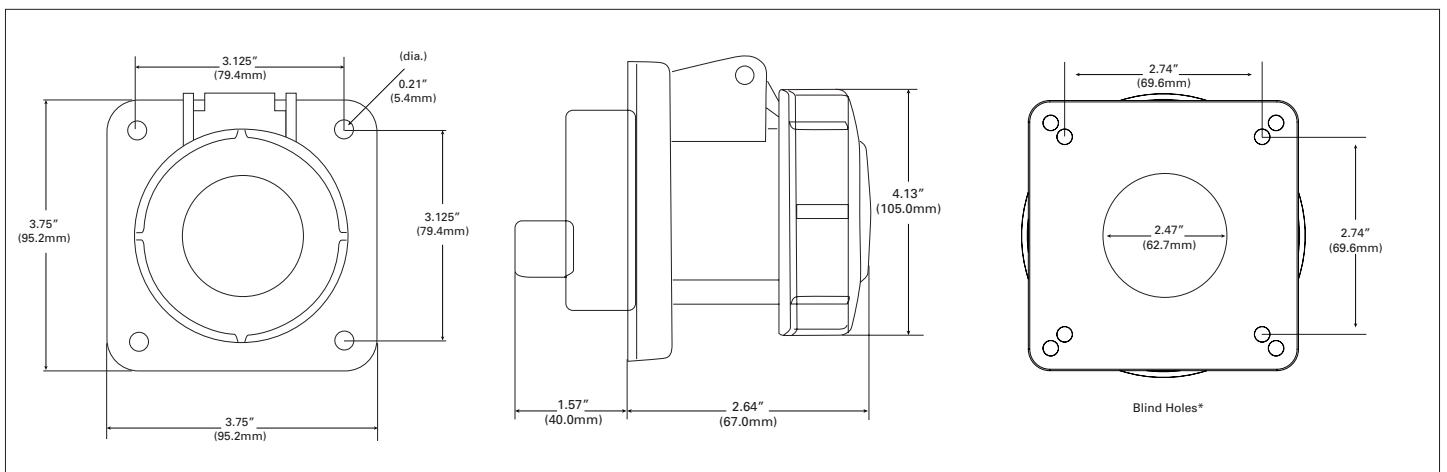


Figure 14. 30A 4-P, 5-W Receptacles, Front, Side & Back Views

Project Name:	Prepared By:
Project Number:	Date:
Catalog Number:	Type:

## Product Dimensions

### 30A Plugs

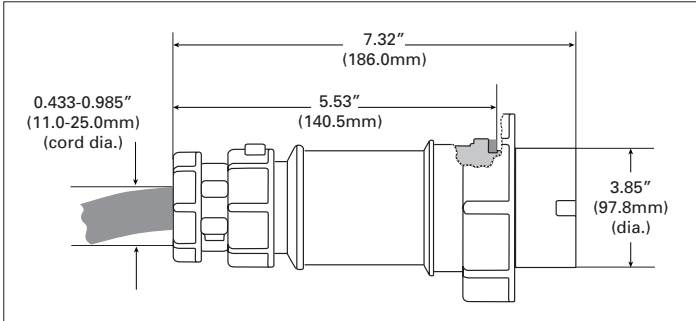


Figure 15. 30A 2-P, 3-W & 3-P, 4-W Plugs

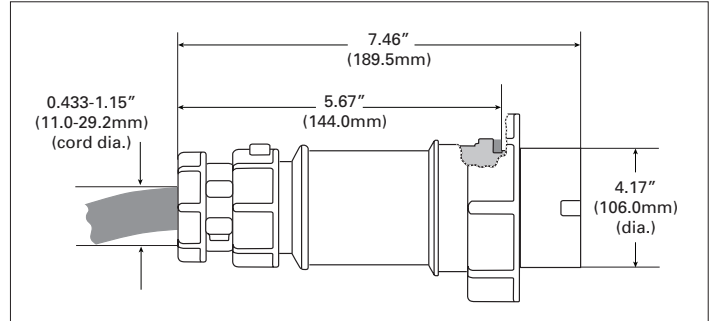


Figure 16. 30A 4-P, 5-W Plugs

### 30A Connectors

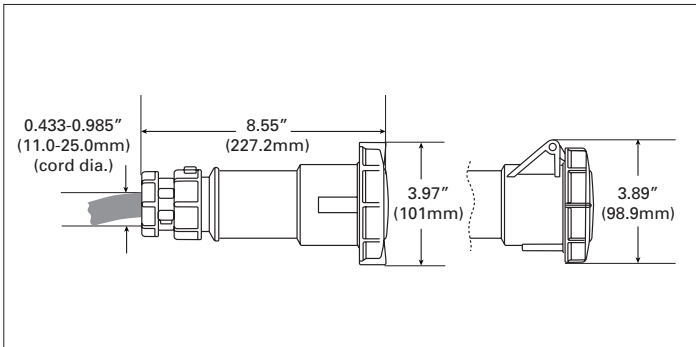


Figure 17. 30A 2-P, 3-W & 3-P, 4-W Underside & Side View Connectors

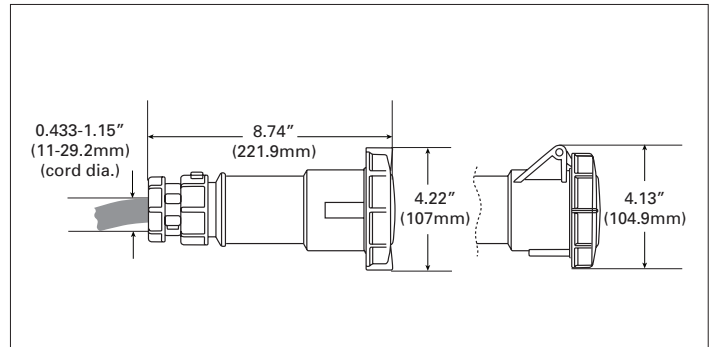


Figure 18. 30A 4-P, 5-W Underside & Side View Connectors

### 30A Inlets

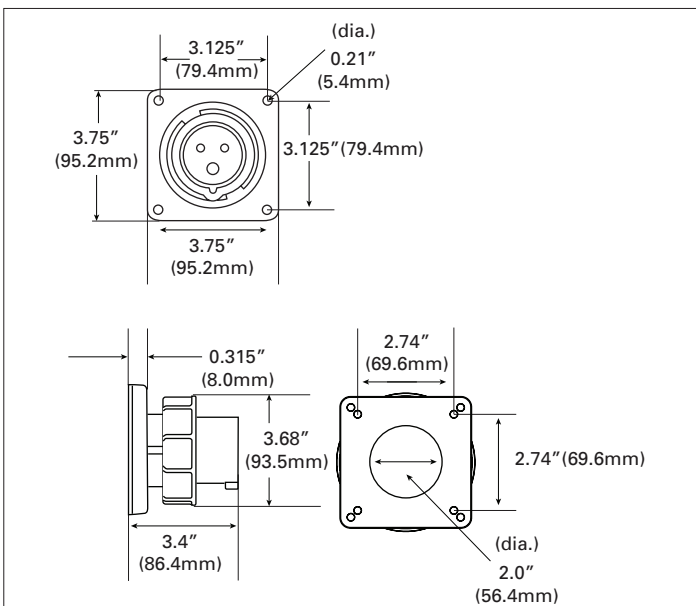


Figure 19. 30A 2-P, 3-W & 3-P, 4, Front, Side & Back View Inlets

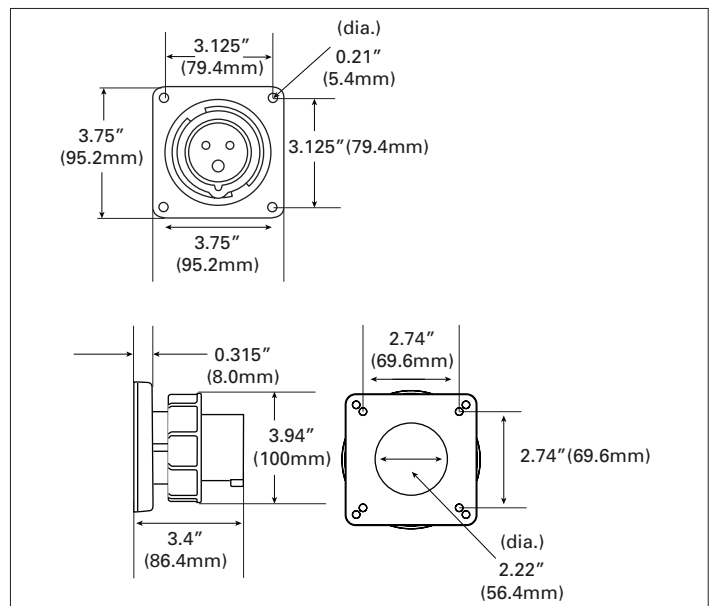


Figure 20. 30A 4-P, 5-W Front, Side & Back View Inlets



Project Name:	Prepared By:
Project Number:	Date:
Catalog Number:	Type:

## Certifications & Compliances

Catalog No.				IEC	cULus
AH320R4W	AH320P4W	AH320C4W	AH320B4W	•	
AH320R6W	AH320P6W	AH320C6W	AH320B6W	•	
AH320R7W	AH320P7W	AH320C7W	AH320B7W		•
AH420R12W	AH420P12W	AH420C12W	AH420B12W		•
AH420R9W	AH420P9W	AH420C9W	AH420B9W	•	
AH420R7W	AH420P7W	AH420C7W	AH420B7W		•
AH420R5W	AH420P5W	AH420C5W	AH420B5W		•
AH520R9W	AH520P9W	AH520C9W	AH520B9W		•
AH520R7W	AH520P7W	AH520C7W	AH520B7W		•
AH520R5W	AH520P5W	AH520C5W	AH520B5W		•
AH330R4W	AH330P4W	AH330C4W	AH330B4W	•	
AH330R6W	AH330P6W	AH330C6W	AH330B6W		•
AH330R7W	AH330P7W	AH330C7W	AH330B7W		•
AH430R12W	AH430P12W	AH430C12W	AH430B12W		•
AH430R9W	AH430P9W	AH430C9W	AH430B9W		•
AH430R7W	AH430P7W	AH430C7W	AH430B7W		•
AH430R5W	AH430P5W	AH430C5W	AH430B5W		•
AH530R9W	AH530P9W	AH530C9W	AH530B9W		•
AH530R7W	AH530P7W	AH530C7W	AH530B7W		•
AH530R5W	AH530P5W	AH530C5W	AH530B5W		•

**KEY:** IEC IEC cULus cULus

Electrical Sector  
203 Cooper Circle  
Peachtree City, GA 30269  
United States  
Eaton.com  
Cooperwiringdevices.com

Electrical Sector  
Canada Operations  
5925 McLaughlin Road  
Mississauga, Ontario, L5R 1B8  
Canada  
EatonCanada.ca  
Cooperwiringdevices.com

Electrical Sector  
Mexico Operations  
Carr. Tlalnepantla -  
Cuautitlan Km 17.8 s/n  
Col. Villa Jardin esq.  
Cerrada 8 de Mayo  
Cuautitlan, Mexico CP 54800  
Mexico  
Eaton.mx  
Cooperwiringdevices.com