

A309

3,4,5 contacts power connectors up to 100A

Amphenol

Oil & Gas Technologies



A309 (UL and CSA listed)

Datasheet <http://www.amphenol-industrial.com/c/images/datasheets/IDS-33%20Amphe-309.pdf>

3d Models <http://www.amphenol-industrial.com/literature/aogt-3d>

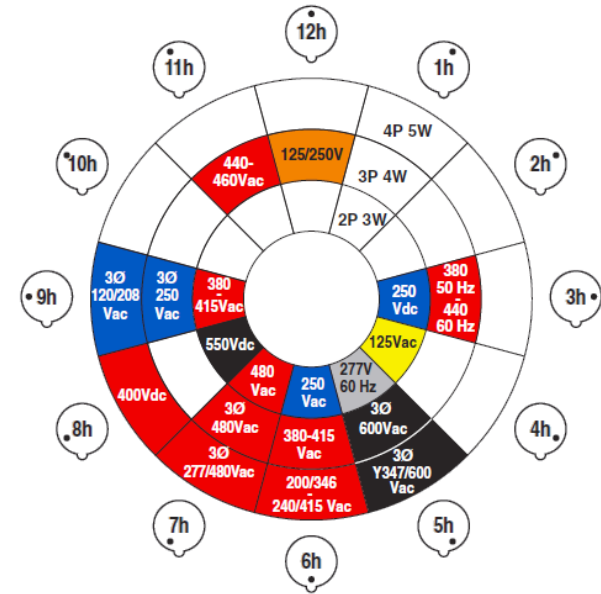
UL/CSA <http://www.amphenol-industrial.com/company/quality>

How To Order: A309

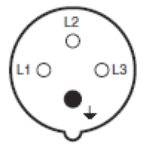


| | | |
|-----------------|---|-----|
| Number of Wires | 2P+E | 3 |
| | 3P+E | 4 |
| | 3P+N+E | 5 |
| Amperage | 16A | 16 |
| | 20A | 20 |
| | 30A | 30 |
| | 32A | 32 |
| | 60A | 60 |
| | 63A | 63 |
| | 100A | 100 |
| | 125A | 125 |
| Type | Plug, straight | P |
| | Connector Receptacle, straight | C |
| | Receptacle, surface | RS |
| | Receptacle for Panel Mounting, straight | R |
| | Inlet, surface | BS |
| | Inlet for Panel Mounting, straight | B |

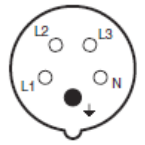
| | |
|---------|---|
| SC | Modification Screw Terminals Perforating Terminals Spring Terminals Mantle Terminals Extra Low Voltage Minimized Flange |
| PE | |
| SP | |
| MA | |
| LV | |
| MF | |
| S | Protection IP44 IP67 |
| W | |
| 1 to 12 | 1 to 12 |



(*) 2P+E
2P3W



(*) 3P+E
3P4W



(*) 3P+N+E
4P5W

| RATED VOLTAGE | COLOUR |
|---------------|--------|
| 110-130V | Yellow |
| 208-250V | Blue |
| 380-480V | Red |
| 500-690V | Black |
| 277V | Grey |
| 125/250V | Orange |

- UL listed range
 - 20A
 - 30A
 - 60A
 - 100A

Amphe-309 UL listed

NEW



- **No Tools, No Screws**
 - Snap-on locking handle saves 75% on assembly time



- **Easy Single-Wiring Access point**
 - All terminal screws face in same direction



- **Easy gland**
 - Watertight onion ring bushing fits a wide variety of outside diameters.



IP67



IP44



Plugs and Connectors



Inlets



Receptacles
Panel Mount



Accessories

A309-XXPXW -> PLUG STRAIGH WITH PINS IP67

PLUG

Safe Connections Standard

- Earth contacts make first, break last for safe connections even under load



The Easy Way

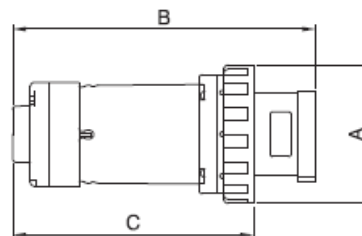
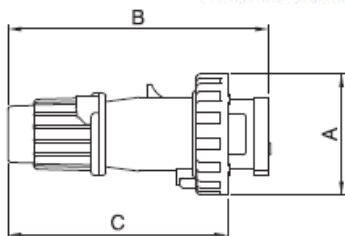
- Snap-on locking feature on all 16/32A and 20/30A plugs and connectors

Screw Collars Stay Put

- Turreted grip allows for easy handling

75% Faster Cable builds

- Nylon lock screw System
- One-piece cable gland
- Nylon locking screw prevents loosening
- Hand assembly of cable gland, cable grip
- 6 Finger clamp and onion-ring bushing



PLUG IP67 16/20A AND 30/32A

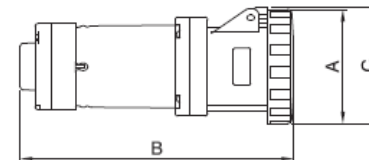
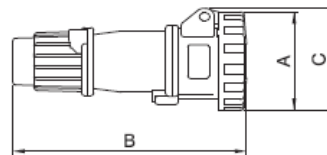
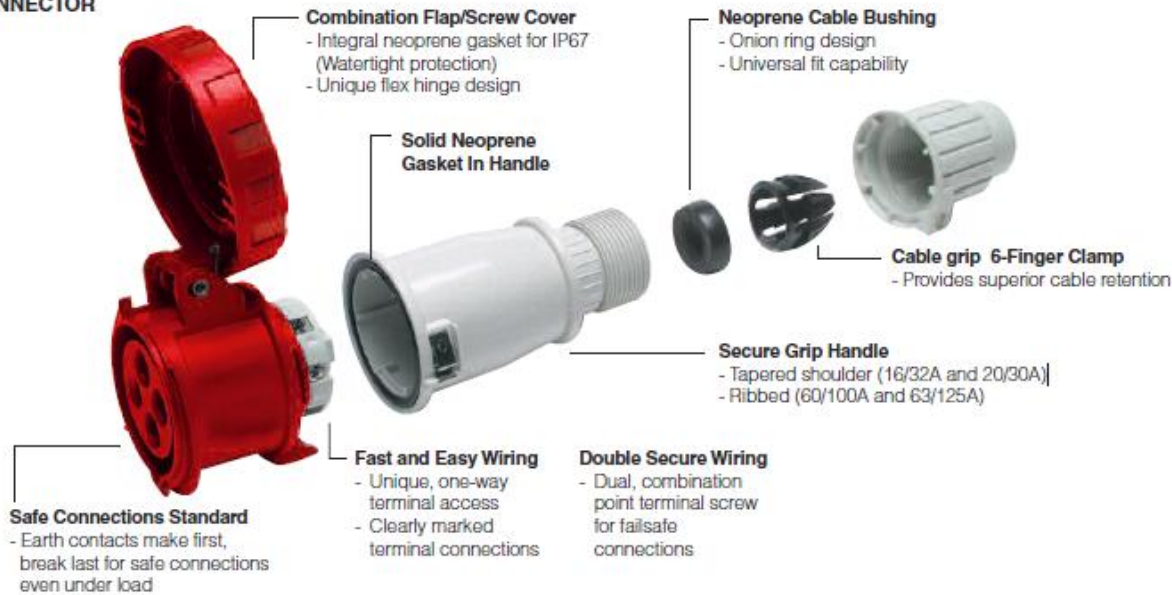
| | A | | B | | C | | Corp grip range | |
|-------------|--------|-----|--------|-----|--------|-----|-----------------|-------|
| | inches | mm | inches | mm | inches | mm | inches | mm |
| 16/20A 2P3W | 2.87 | 73 | 6.20 | 157 | 5.23 | 133 | .570-.710 | 14-18 |
| 16/20A 3P4W | 3.17 | 81 | 6.47 | 164 | 5.51 | 140 | .570-.710 | 14-18 |
| 16/20A 4P5W | 3.48 | 88 | 7.02 | 178 | 6.06 | 154 | .570-.710 | 14-18 |
| 30/32A 2P3W | 3.66 | 93 | 7.37 | 187 | 6.13 | 156 | .675-.910 | 17-23 |
| 30/32A 3P4W | 3.66 | 93 | 7.37 | 187 | 6.13 | 156 | .675-.910 | 17-23 |
| 30/32A 4P5W | 3.96 | 101 | 8.15 | 207 | 6.91 | 176 | .675-.910 | 17-23 |

PLUG IP67 60/63A AND 100/125A

| | A | | B | | C | | Corp grip range | |
|---------------|--------|-----|--------|-----|--------|-----|-----------------|-------|
| | inches | mm | inches | mm | inches | mm | inches | mm |
| 60/63A 2P3W | 4.41 | 112 | 9.68 | 246 | 7.67 | 195 | .937-1.375 | 24-35 |
| 60/63A 3P4W | 4.41 | 112 | 9.68 | 246 | 7.67 | 195 | .937-1.375 | 24-35 |
| 60/63A 4P5W | 4.41 | 112 | 9.68 | 246 | 7.67 | 195 | .937-1.375 | 24-35 |
| 100/125A 3P4W | 5.06 | 129 | 12.16 | 309 | 9.83 | 250 | 1.265-1.790 | 32-45 |
| 100/125A 4P5W | 5.06 | 129 | 12.16 | 309 | 9.83 | 250 | 1.265-1.790 | 32-45 |

A309-XXCXW -> RECEPTACLE CONNECTOR WITH SOCKETS IP67

CONNECTOR



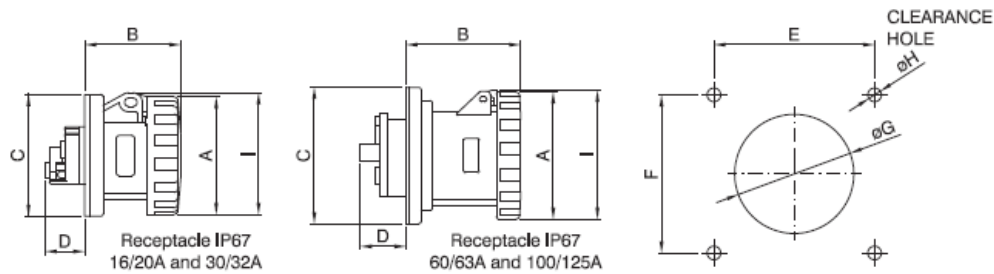
CONNECTOR IP67 16/20A AND 30/32A

| | A | | B | | C | | Corp grip range | |
|-------------|--------|-----|--------|-----|--------|-----|-----------------|-------|
| | inches | mm | inches | mm | inches | mm | inches | mm |
| 16/20A 2P3W | 2.87 | 73 | 6.75 | 171 | 2.97 | 75 | .570-.710 | 14-18 |
| 16/20A 3P4W | 3.17 | 81 | 7.04 | 179 | 3.28 | 83 | .570-.710 | 14-18 |
| 16/20A 4P5W | 3.48 | 88 | 7.62 | 194 | 3.75 | 95 | .570-.710 | 14-18 |
| 30/32A 2P3W | 3.66 | 93 | 8.04 | 204 | 4.04 | 103 | .675-.910 | 17-23 |
| 30/32A 3P4W | 3.66 | 93 | 8.04 | 204 | 4.04 | 103 | .675-.910 | 17-23 |
| 30/32A 4P5W | 3.96 | 101 | 8.83 | 224 | 4.03 | 102 | .675-.910 | 17-23 |

CONNECTOR IP67 60/63A AND 100/125A

| | A | | B | | C | | Corp grip range | |
|---------------|--------|-----|--------|-----|--------|-----|-----------------|-------|
| | inches | mm | inches | mm | inches | mm | inches | mm |
| 60/63A 2P3W | 4.41 | 112 | 10.52 | 267 | 4.47 | 114 | .937-1.375 | 24-35 |
| 60/63A 3P4W | 4.41 | 112 | 10.52 | 267 | 4.47 | 114 | .937-1.375 | 24-35 |
| 60/63A 4P5W | 4.41 | 112 | 10.52 | 267 | 4.47 | 114 | .937-1.375 | 24-35 |
| 100/125A 3P4W | 5.06 | 129 | 12.80 | 325 | 5.06 | 129 | 1.265-1.790 | 32-45 |
| 100/125A 4P5W | 5.06 | 129 | 12.80 | 325 | 5.06 | 129 | 1.265-1.790 | 32-45 |

A309-XXRXW -> REPECTALCE FOR PANEL MOUNT WITH SOCKETS IP67



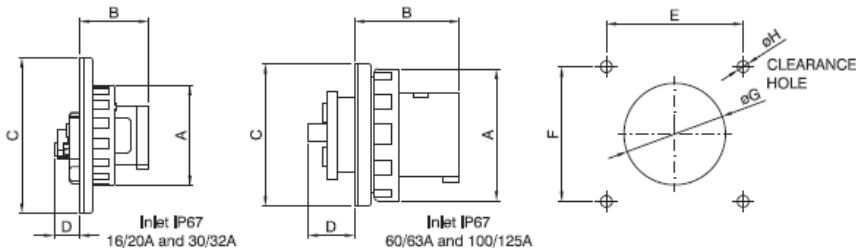
RECEPTACLE IP67 16/20A AND 30/32A

| | A | | B | | C | | D | | E | | F | | G | | H | | I | |
|--------------------|--------|-----|--------|----|--------|-----|--------|----|--------|----|--------|----|--------|----|--------|-----|--------|-----|
| | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm |
| 16/20A 2P3W | 2.87 | 73 | 2.32 | 59 | 2.97 | .76 | .94 | 24 | 2.36 | 60 | 2.36 | 60 | 2.38 | 60 | .219 | 5.5 | 2.97 | 75 |
| 16/20A 3P4W | 3.17 | 81 | 2.34 | 60 | 2.97 | .76 | .94 | 24 | 2.36 | 60 | 2.36 | 60 | 2.38 | 60 | .219 | 5.5 | 3.28 | 83 |
| 16/20A 4P5W | 3.48 | 88 | 2.37 | 60 | 2.97 | .76 | .94 | 24 | 2.36 | 60 | 2.36 | 60 | 2.38 | 60 | .219 | 5.5 | 3.75 | 95 |
| 30/32A 2P3W | 3.66 | 93 | 2.79 | 71 | 2.97 | .76 | 1.52 | 39 | 2.36 | 60 | 2.36 | 60 | 2.38 | 60 | .219 | 5.5 | 4.04 | 103 |
| 30/32A 3P4W | 3.66 | 93 | 2.79 | 71 | 2.97 | .76 | 1.52 | 39 | 2.36 | 60 | 2.36 | 60 | 2.38 | 60 | .219 | 5.5 | 4.04 | 103 |
| 30/32A 4P5W | 3.96 | 101 | 2.81 | 71 | 2.97 | .76 | 1.52 | 39 | 2.36 | 60 | 2.36 | 60 | 2.38 | 60 | .219 | 5.5 | 4.03 | 102 |

RECEPTACLE IP67 60/63A AND 100/125A

| | A | | B | | C | | D | | E | | F | | G | | H | | I | |
|----------------------|--------|-----|--------|-----|--------|-----|--------|----|--------|-----|--------|-----|--------|----|--------|-----|--------|-----|
| | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm |
| 60/63A 2P3W | 4.41 | 112 | 4.16 | 106 | 4.50 | 114 | 1.68 | 43 | 3.87 | 98 | 3.87 | 98 | 3.25 | 83 | .282 | 7.2 | 4.47 | 114 |
| 60/63A 3P4W | 4.41 | 112 | 4.16 | 106 | 4.50 | 114 | 1.68 | 43 | 3.87 | 98 | 3.87 | 98 | 3.25 | 83 | .282 | 7.2 | 4.47 | 114 |
| 60/63A 4P5W | 4.41 | 112 | 4.16 | 106 | 4.50 | 114 | 1.68 | 43 | 3.87 | 98 | 3.87 | 98 | 3.25 | 83 | .282 | 7.2 | 4.47 | 114 |
| 100/125A 3P4W | 5.06 | 129 | 4.52 | 115 | 5.50 | 140 | 1.94 | 49 | 4.87 | 124 | 4.87 | 124 | 3.75 | 95 | .282 | 7.2 | 5.06 | 129 |
| 100/125A 4P5W | 5.06 | 129 | 4.52 | 115 | 5.50 | 140 | 1.94 | 49 | 4.87 | 124 | 4.87 | 124 | 3.75 | 95 | .282 | 7.2 | 5.06 | 129 |

A309-XXBXW -> INLET RECEPTACLE WITH PINS IP67



INLET IP67 16/20A AND 30/32A

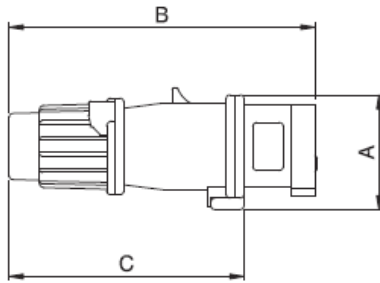
| | A | | B | | C | | D | | E | | F | | G | | H | |
|--------------------|--------|-----|--------|----|--------|-----|--------|----|--------|----|--------|----|--------|----|--------|-----|
| | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm |
| 16/20A 2P3W | 2.87 | 73 | 1.96 | 50 | 4.50 | 114 | .75 | 19 | 3.87 | 98 | 3.87 | 98 | 2.38 | 60 | .282 | 7.2 |
| 16/20A 3P4W | 3.17 | 81 | 1.96 | 50 | 4.50 | 114 | .75 | 19 | 3.87 | 98 | 3.87 | 98 | 2.38 | 60 | .282 | 7.2 |
| 16/20A 4P5W | 3.48 | 88 | 1.96 | 50 | 4.50 | 114 | .75 | 19 | 3.87 | 98 | 3.87 | 98 | 2.38 | 60 | .282 | 7.2 |
| 30/32A 2P3W | 3.66 | 93 | 2.32 | 59 | 4.50 | 114 | 1.32 | 34 | 3.87 | 98 | 3.87 | 98 | 2.38 | 60 | .282 | 7.2 |
| 30/32A 3P4W | 3.66 | 93 | 2.32 | 59 | 4.50 | 114 | 1.32 | 34 | 3.87 | 98 | 3.87 | 98 | 2.38 | 60 | .282 | 7.2 |
| 30/32A 4P5W | 3.96 | 101 | 2.32 | 59 | 4.50 | 114 | 1.32 | 34 | 3.87 | 98 | 3.87 | 98 | 2.38 | 60 | .282 | 7.2 |

INLET IP67 60/63A AND 100/125A

| | A | | B | | C | | D | | E | | F | | G | | H | |
|----------------------|--------|-----|--------|----|--------|-----|--------|----|--------|-----|--------|-----|--------|----|--------|-----|
| | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm |
| 60/63A 2P3W | 4.41 | 112 | 3.44 | 87 | 4.50 | 114 | 1.68 | 43 | 3.87 | 98 | 3.87 | 98 | 3.25 | 83 | .282 | 7.2 |
| 60/63A 3P4W | 4.41 | 112 | 3.44 | 87 | 4.50 | 114 | 1.68 | 43 | 3.87 | 98 | 3.87 | 98 | 3.25 | 83 | .282 | 7.2 |
| 60/63A 4P5W | 4.41 | 112 | 3.44 | 87 | 4.50 | 114 | 1.68 | 43 | 3.87 | 98 | 3.87 | 98 | 3.25 | 83 | .282 | 7.2 |
| 100/125A 3P4W | 5.06 | 129 | 3.88 | 99 | 5.50 | 140 | 1.94 | 49 | 4.87 | 124 | 4.87 | 124 | 3.75 | 95 | .282 | 7.2 |
| 100/125A 4P5W | 5.06 | 129 | 3.88 | 99 | 5.50 | 140 | 1.94 | 49 | 4.87 | 124 | 4.87 | 124 | 3.75 | 95 | .282 | 7.2 |

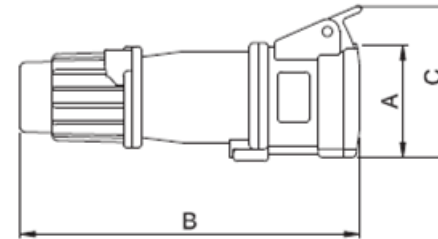
A309-XXPXS

-> PLUG STRAIGHT WITH PINS IP44



A309-XXCXS

-> RECEPTACLE CONNECTOR WITH SOCKETS IP44



PLUG IP44

| | A | | B | | C | | Corp Grip Range | |
|--------------------|--------|----|--------|-----|--------|-----|-----------------|-------|
| | Inches | mm | Inches | mm | Inches | mm | Inches | mm |
| 16/20A 2P3W | 2.26 | 58 | 6.20 | 157 | 4.76 | 121 | .570-710 | 14-18 |
| 16/20A 3P4W | 2.52 | 64 | 6.47 | 164 | 5.04 | 128 | .570-710 | 14-18 |
| 16/20A 4P5W | 2.85 | 73 | 7.02 | 178 | 5.58 | 142 | .570-710 | 14-18 |
| 30/32A 2P3W | 2.85 | 73 | 7.37 | 187 | 5.58 | 142 | .675-910 | 17-23 |
| 30/32A 3P4W | 2.85 | 73 | 7.37 | 187 | 5.58 | 142 | .675-910 | 17-23 |
| 30/32A 4P5W | 3.13 | 80 | 8.15 | 207 | 6.36 | 162 | .675-910 | 17-23 |

PLUG IP44

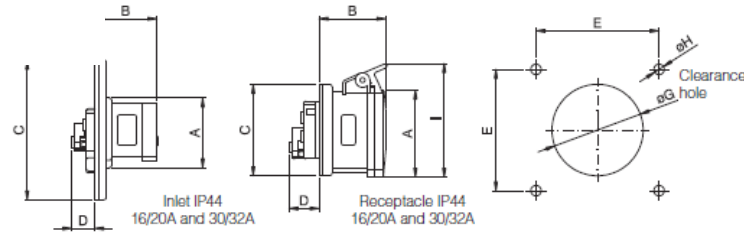
| | A | | B | | C | | Corp Grip Range | |
|--------------------|--------|----|--------|-----|--------|-----|-----------------|-------|
| | Inches | mm | Inches | mm | Inches | mm | Inches | mm |
| 16/20A 2P3W | 2.18 | 55 | 6.53 | 166 | 3.07 | 73 | .570-710 | 14-18 |
| 16/20A 3P4W | 2.43 | 62 | 6.83 | 173 | 3.33 | 80 | .570-710 | 14-18 |
| 16/20A 4P5W | 2.81 | 71 | 7.41 | 188 | 3.79 | 91 | .570-710 | 14-18 |
| 30/32A 2P3W | 2.81 | 71 | 7.81 | 198 | 3.79 | 91 | .675-910 | 17-23 |
| 30/32A 3P4W | 2.81 | 71 | 7.81 | 188 | 3.79 | 91 | .675-910 | 17-23 |
| 30/32A 4P5W | 3.09 | 79 | 8.62 | 219 | 4.17 | 101 | .675-910 | 17-23 |

A309-XXBXS

-> INLET RECEPTACLE WITH PINS IP44

A309-XXRXS

-> RECEPTACLE FOR PANEL W/ SOCKETS IP44



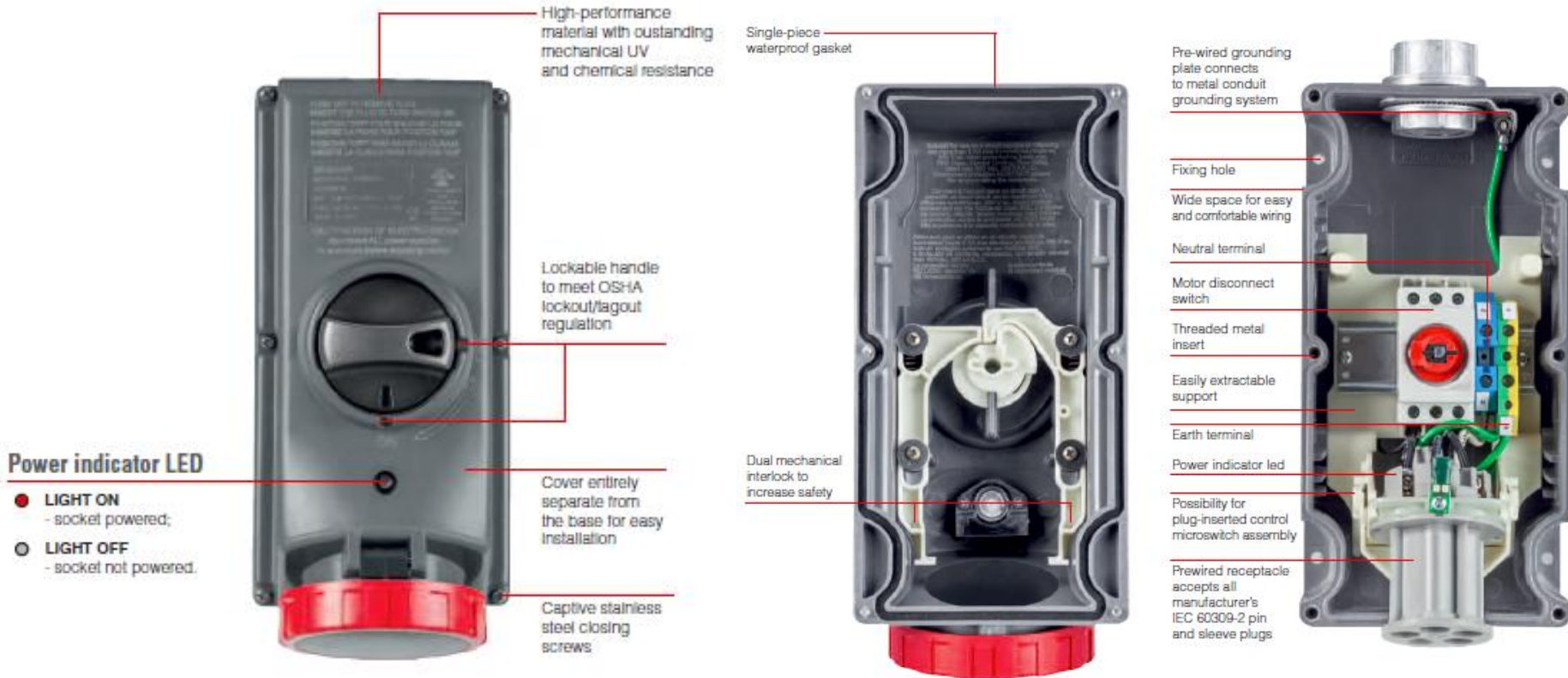
INLET IP44

| | A | | B | | C | | D | | E | | F | | G | | H | |
|--------------------|--------|----|--------|----|--------|-----|--------|----|--------|----|--------|----|--------|----|--------|-----|
| | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm |
| 16/20A 2P3W | 2.26 | 58 | 1.96 | 50 | 4.50 | 114 | .75 | 19 | 3.87 | 98 | 3.87 | 98 | 2.38 | 60 | .282 | 7.2 |
| 16/20A 3P4W | 2.52 | 64 | 1.96 | 50 | 4.50 | 114 | .75 | 19 | 3.87 | 98 | 3.87 | 98 | 2.38 | 60 | .282 | 7.2 |
| 16/20A 4P5W | 2.85 | 73 | 1.96 | 50 | 4.50 | 114 | .75 | 19 | 3.87 | 98 | 3.87 | 98 | 2.38 | 60 | .282 | 7.2 |
| 30/32A 2P3W | 2.85 | 73 | 2.32 | 59 | 4.50 | 114 | 1.32 | 34 | 3.87 | 98 | 3.87 | 98 | 2.38 | 60 | .282 | 7.2 |
| 30/32A 3P4W | 2.85 | 73 | 2.32 | 59 | 4.50 | 114 | 1.32 | 34 | 3.87 | 98 | 3.87 | 98 | 2.38 | 60 | .282 | 7.2 |
| 30/32A 4P5W | 3.13 | 80 | 2.32 | 59 | 4.50 | 114 | 1.32 | 34 | 3.87 | 98 | 3.87 | 98 | 2.38 | 60 | .282 | 7.2 |

RECEPTACLE IP44

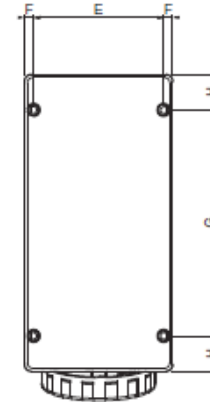
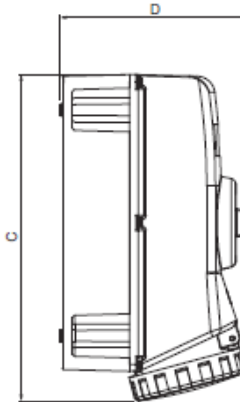
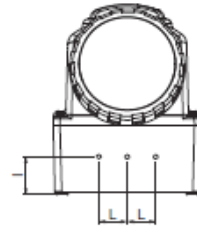
| | A | | B | | C | | D | | E | | F | | G | | H | | I | |
|--------------------|--------|----|--------|----|--------|----|--------|----|--------|----|--------|----|--------|----|--------|-----|--------|-----|
| | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm | Inches | mm |
| 16/20A 2P3W | 2.18 | 55 | 2.11 | 54 | 2.97 | 76 | 0.94 | 24 | 2.36 | 60 | 2.36 | 60 | 2.38 | 60 | .219 | 5.5 | 3.07 | 73 |
| 16/20A 3P4W | 2.43 | 62 | 2.13 | 54 | 2.97 | 76 | 0.94 | 24 | 2.36 | 60 | 2.36 | 60 | 2.38 | 60 | .219 | 5.5 | 3.33 | 80 |
| 16/20A 4P5W | 2.81 | 71 | 2.17 | 55 | 2.97 | 76 | 0.94 | 24 | 2.36 | 60 | 2.36 | 60 | 2.38 | 60 | .219 | 5.5 | 3.79 | 91 |
| 30/32A 2P3W | 2.81 | 71 | 2.56 | 65 | 2.97 | 76 | 1.52 | 39 | 2.36 | 60 | 2.36 | 60 | 2.38 | 60 | .219 | 5.5 | 3.79 | 91 |
| 30/32A 3P4W | 2.81 | 71 | 2.56 | 65 | 2.97 | 76 | 1.52 | 39 | 2.36 | 60 | 2.36 | 60 | 2.38 | 60 | .219 | 5.5 | 3.79 | 91 |
| 30/32A 4P5W | 3.09 | 79 | 2.60 | 66 | 2.97 | 76 | 1.52 | 39 | 2.36 | 60 | 2.36 | 60 | 2.38 | 60 | .219 | 5.5 | 4.17 | 101 |

A309-XXMXW Mechanical Interlocks IP67



A309-XXMXW

Mecanical Interlocks IP67



| VERSION | | A | B | C | D | E | F | G | H | I | L |
|---------|-----|-----|-----|-----|-----|-----|----|-----|----|------|------|
| 2P+E | 20A | 260 | 130 | 280 | 167 | 114 | 8 | 198 | 31 | 33.5 | 25 |
| 3P+E | 20A | 260 | 130 | 282 | 167 | 114 | 8 | 198 | 31 | 33.5 | 25 |
| 3P+N+E | 20A | 260 | 130 | 282 | 167 | 114 | 8 | 198 | 31 | 33.5 | 25 |
| 2/3P+E | 30A | 260 | 130 | 285 | 167 | 114 | 8 | 198 | 31 | 33.5 | 25 |
| 3P+N+E | 30A | 260 | 130 | 286 | 167 | 114 | 8 | 198 | 31 | 33.5 | 25 |
| 2P+E | 60A | 380 | 170 | 420 | 206 | 150 | 10 | 310 | 35 | 40 | 32.5 |
| 3P+E | 60A | 380 | 170 | 420 | 206 | 150 | 10 | 310 | 35 | 40 | 32.5 |
| 3P+N+E | 60A | 380 | 170 | 420 | 206 | 150 | 10 | 310 | 35 | 40 | 32.5 |

■ TECHNICAL CHARACTERISTICS

| | |
|--|---|
| Rated current: | 20A-30A-60A |
| Rated voltage: | 100÷600V- |
| Frequency: | 50÷60Hz |
| Insulating voltage: | 500/690V- |
| Protection degree: | IP66/IP67/IP69 (UL 94 type 3R, 4/4X, 12) |
| Operating ambient temperature according to the reference standard: | -25°C +40°C |
| Minimum operating ambient temperature: | -40°C |
| Max. operating ambient temperature: | +70°C |
| Self-extinguishing GW test: | 960°C |
| Self-extinguishing UL94: | V0 |
| Material: | Thermosetting |
| IK degree at 20°C: | IK10 (20J) |
| Colour: | Grey RAL7037 |

EX309 Zone 1



NEW

- **Specs**

- 16A, 32A, 63A, 125A
- 3,4 & 5 Pins
- -50c up to 60c *
- 690 V
- Ex II 2GD (Atex/ IECEx - Zone 1)
 - Ex d e IIC
 - Ex tb IIIC
- IP66



- **Extra Features**

- Plug Mates to Standard IEC60309 socket
- IEC60309 Plug doesn't mate EX309 Receptacle
- EX309 Switched interlock doesn't go ON without full mated EX309 plug
- EX309 Plug doesn't unmate while Switch its ON