



Product Catalog

# Industrial Plugs and Sockets UL/CSA range

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<b>General Introduction</b>	
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# Industrial Plugs and Sockets

## ABB IEC 60-309

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ABB's industrial plugs and sockets are a part of the comprehensive ABB program of high quality low voltages products for industries, buildings and OEM's.

ABB has manufactured industrial plugs and sockets for over 60 years. Long experience of developing and manufacturing plugs and sockets within ABB has resulted in a wide product range of high quality and a robust ergonomic design. Covering products up to 100A and 600VAC, tested and approved according to IEC and UL/CSA standards.

The design and material used have continuously been improved to meet the customer's requirements, and to take the environmental aspects into consideration.

ABB's industrial plugs and sockets have the solution for products in industrial environments with high demands on safety, durability, reliability and cost saving for the end user.

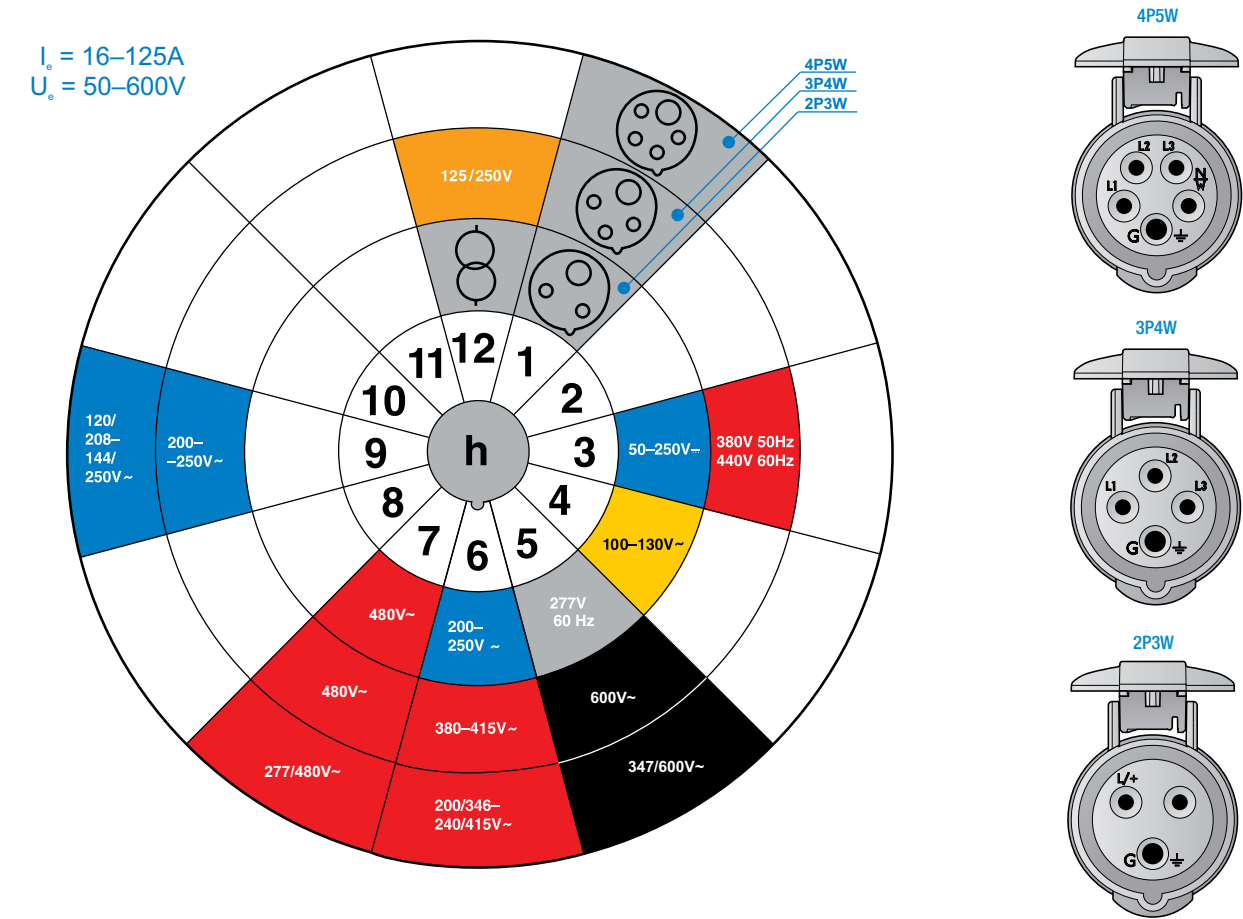
You will find all you need in ABB's industrial plugs and sockets product range. One supplier for all your needs and worldwide availability.



# Industrial Plugs and Sockets

## ABB IEC 60-309

IEC 60-309 International clock



### Standard voltages

Color codes according to IEC60309-1, -2

Position of earthing sleeve according to IEC 60309-2 (clock)	2P3W	3P4W	4P5W
1	Optional voltage (not stated below)	Optional voltage (not stated below)	Optional voltage (not stated below)
3	50...250Vdc	380V 50 Hz to 440V 60 Hz	
4	100...130V 50/60 Hz		
5	277V 60 Hz	600V 50/60 Hz	347/600V 50/60 Hz
6	200...250V 50/60 Hz	380...415V 50/60 Hz	200/436...240/415V 50/60 Hz
7	480V 50/60 Hz	480V 50/60 Hz	277/480V 50/60Hz
9		200...250V 50/60 Hz	120/208...144/250V 50/60Hz
12	Supply from isolating transformer	125/250V	

# Industrial Plugs and Sockets

## ABB IEC 60-309

1

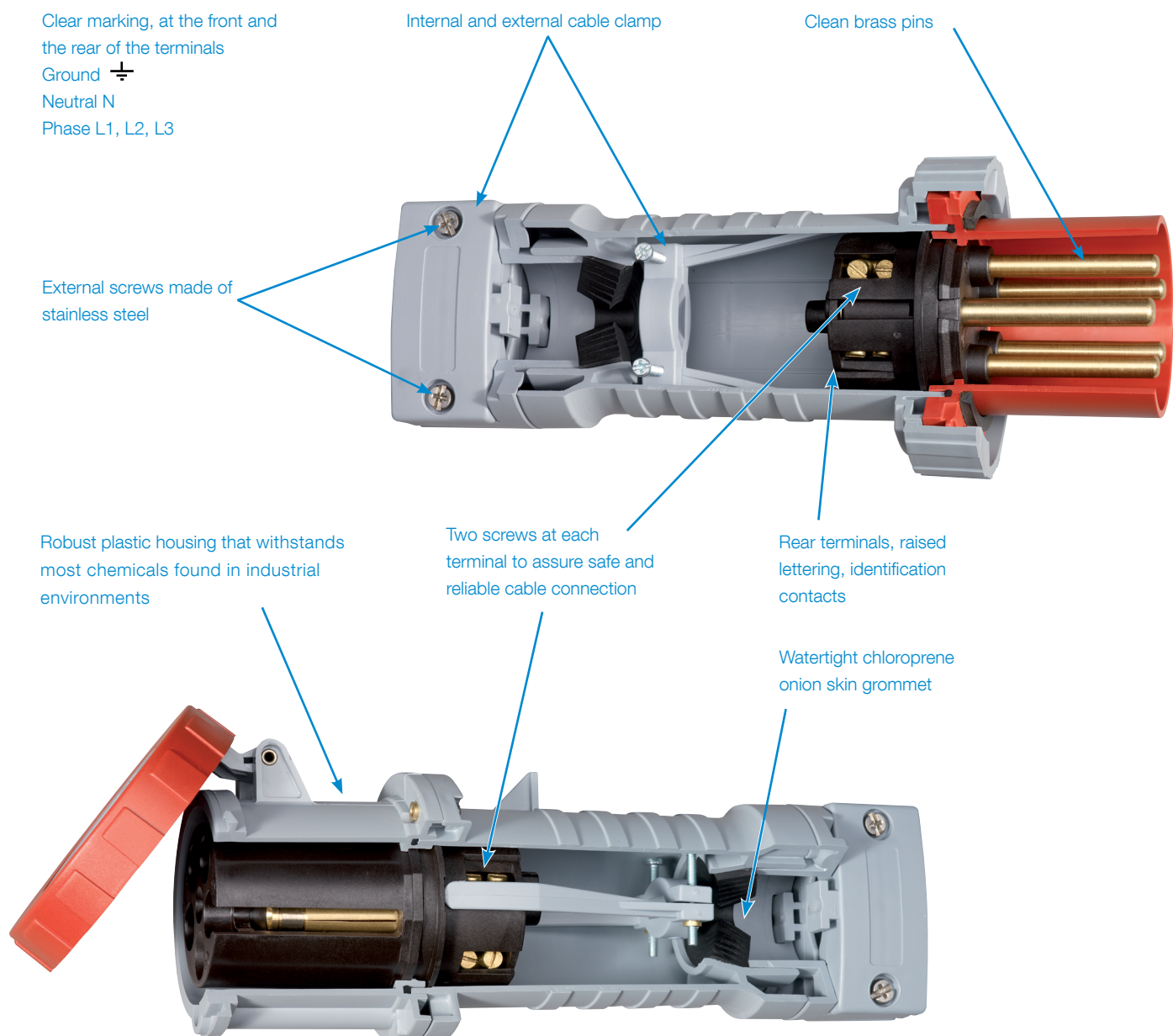
**Tough & Safe** is the range for applications in environments that have high demand of functionality and safety. The robust housing is made of PBT plastic. The range Tough & Safe is available as watertight IP67 and IP69K from 20 to 100 A). The devices are equipped with internal and external cable clamps. The 60 to 100 A devices are equipped with two screws on each terminal.

### Features

- UL1682, 1686 / CSA C22.2 No. 182.1
- IEC 60 309-1, -2
- IP67 & IP69K Watertight
- 20-100 A, 50-600 VAC
- All external screws are made of stainless steel.

### Application examples

- Industry/workshops
- Harbours/shipyards, Trainyards
- Mines
- Food & beverage



# Industrial Plugs and Sockets

## ABB IEC 60-309

**Critical & Safe** is the range of mechanical interlocks for applications with high demands on safety, durability and performance. Perfect for applications with frequent connection/disconnection, and to use in public areas.

The housing is made of thermoplastic polyester (PBT) grade Valox® 357 material which is a tough plastic that withstand heavy-duty usage and most chemicals found in industrial environments.

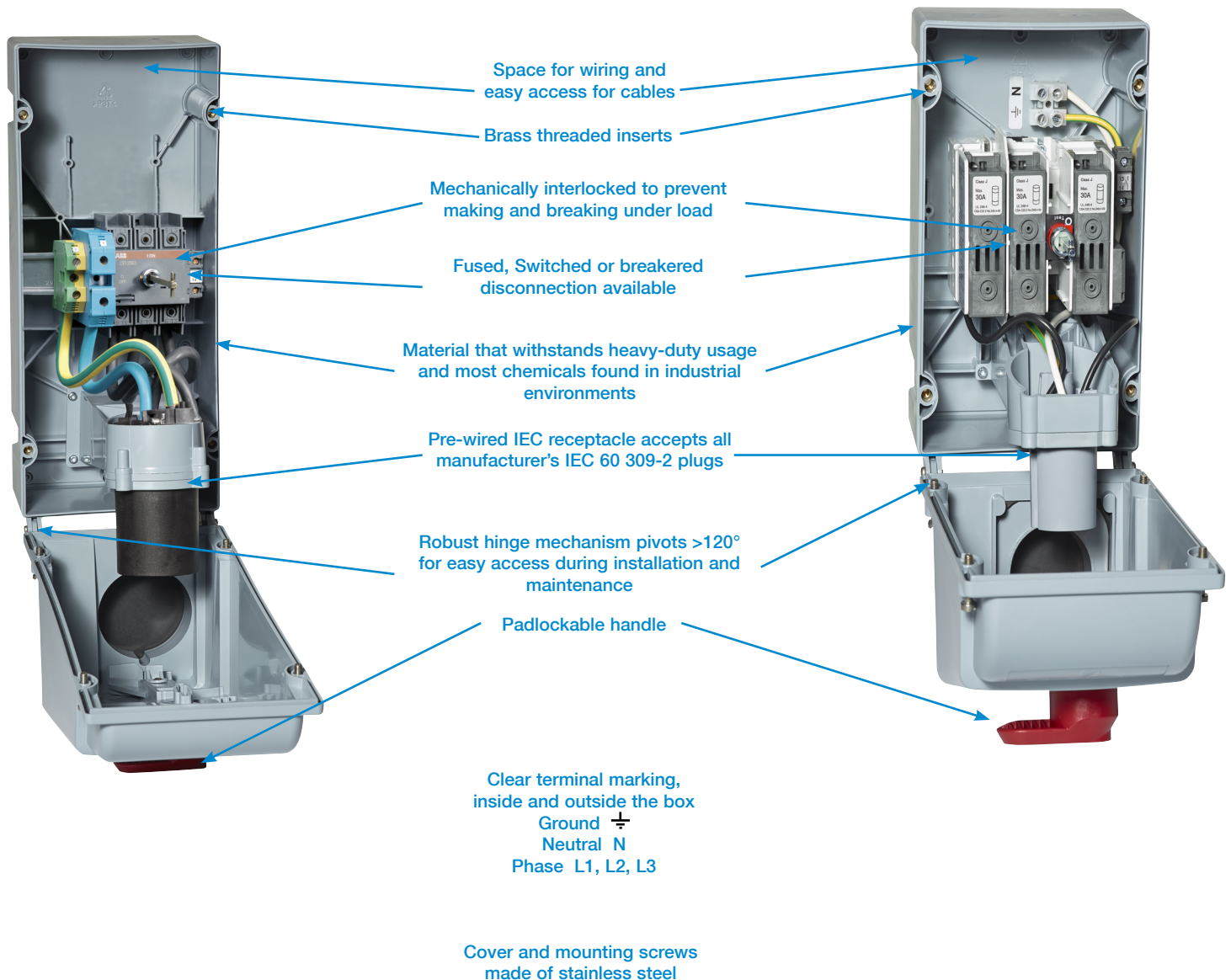
Valox is a registered trademark of SABIC.

### Features

- UL508, 98 (switched), UL231, 489 (breaker), UL1682, 1686
- CSA C22.2 No.14, 182.1
- IEC 60 309-2, -4
- IP67 & IP69K Watertight
- 20-100 A, 50-600 VAC
- All external screws are made of stainless steel

### Application examples

- Heavy/chemical industry
- Sawmills
- Airports
- Hospitals



# ABB IEC 60 309 International Plugs and Sockets

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# ABB IEC 60 309 International Plugs and Sockets

## Catalog number explanation

ABB	4	16	P	6	W
1	2	3	4	5	9

2

### 1 - ABB prefix

ABB	ABB IEC 60 309 International Plugs and Sockets
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### 2 - Number of Wires

3	2 poles, 3 wires
4	3 poles, 4 wires
5	4 poles, 5 wires

### 3 - Ampere Rating

16	16A
20	20A
30	30A
32	32A
60	60A
63	63A
100	100A
125	125A

### 4 - Type

P	Plugs
C	Connectors
R	Receptacles
B	Inlets
MI	Mechanical Interlock (Switched)
MF	Mechanical Interlock (Fused)
MB	Mechanical Interlock (Breakered)

### 5 - Standard voltage type

	2P3W	3P4W	4P5W
1	Optional voltage (not stated below)	Optional voltage (not stated below)	Optional voltage (not stated below)
3	50...250Vdc	380V 50 Hz to 440V 60 Hz	
4	100...130V 50/60 Hz		
5	277V 60 Hz	600V 50/60 Hz	347/600V 50/60 Hz
6	200...250V 50/60 Hz	380...415V 50/60 Hz	200/436...240/415V 50/60 Hz
7	480V 50/60 Hz	480V 50/60 Hz	277/480V 50/60Hz
9		200...250V 50/60 Hz	120/208...144/250V 50/60Hz
12	Supply from isolating transformer	125/250V	

### 6 - Degree of protection

W	IP67 & IP69K
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# ABB IEC 60 309 International Plugs and Sockets

## Ordering codes



2

Amp [A]	Poles & Wires	Voltage [Vac]	Clock hour	Plug	Connector	Receptacle	Inlet	Back box
16 <sup>(1)</sup>	2P3W	100-130	4h	ABB316P4W	ABB316C4W	ABB316R4W	ABB316B4W	BB30
		200-250	6h	ABB316P6W	ABB316C6W	ABB316R6W	ABB316B6W	
	3P4W	380-415	6h	ABB416P6W	ABB416C6W	ABB416R6W	ABB416B6W	
	4P5W	200/346-240/415	6h	ABB516P6W	ABB516C6W	ABB516R6W	ABB516B6W	
20	2P3W	100-130	4h	ABB320P4W	ABB320C4W	ABB320R4W	ABB320B4W	BB30
		277	5h	ABB320P5W	ABB320C5W	ABB320R5W	ABB320B5W	
		200-250	6h	ABB320P6W	ABB320C6W	ABB320R6W	ABB320B6W	
		480	7h	ABB320P7W	ABB320C7W	ABB320R7W	ABB320B7W	
	3P4W	125/250	12h	ABB420P12W	ABB420C12W	ABB420R12W	ABB420B12W	BB30
		3Ø 600	5h	ABB420P5W	ABB420C5W	ABB420R5W	ABB420B5W	
		3Ø 480	7h	ABB420P7W	ABB420C7W	ABB420R7W	ABB420B7W	
		3Ø 200-250	9h	ABB420P9W	ABB420C9W	ABB420R9W	ABB420B9W	
	4P5W	3ØY 347/600	5h	ABB520P5W	ABB520C5W	ABB520R5W	ABB520B5W	BB30
		3ØY 277/480	7h	ABB520P7W	ABB520C7W	ABB520R7W	ABB520B7W	
		3ØY 120/208-144/250	9h	ABB520P9W	ABB520C9W	ABB520R9W	ABB520B6W	
30	2P3W	100-130	4h	ABB330P4W	ABB330C4W	ABB330R4W	ABB330B4W	BB30
		277	5h	ABB330P5W	ABB330C5W	ABB330R5W	ABB330B5W	
		200-250	6h	ABB330P6W	ABB330C6W	ABB330R6W	ABB330B6W	
		480	7h	ABB330P7W	ABB330C7W	ABB330R7W	ABB330B7W	
	3P4W	125/250	12h	ABB430P12W	ABB430C12W	ABB430R12W	ABB430B12W	BB30
		3Ø 600	5h	ABB430P5W	ABB430C5W	ABB430R5W	ABB430B5W	
		3Ø 480	7h	ABB430P7W	ABB430C7W	ABB430R7W	ABB430B7W	
		3Ø 200-250	9h	ABB430P9W	ABB430C9W	ABB430R9W	ABB430B9W	
	4P5W	3ØY 347/600	5h	ABB530P5W	ABB530C5W	ABB530R5W	ABB530B5W	BB30
		3ØY 277/480	7h	ABB530P7W	ABB530C7W	ABB530R7W	ABB530B7W	
		3ØY 120/208-144/250	9h	ABB530P9W	ABB530C9W	ABB530R9W	ABB530B9W	
32 <sup>(2)</sup>	2P3W	100-130	4h	ABB332P4W	ABB332C4W	ABB332R4W	ABB332B4W	BB30
		200-250	6h	ABB332P6W	ABB332C6W	ABB332R6W	ABB332B6W	
	3P4W	380 50Hz/440 60Hz	3h	ABB432P3W	ABB432C3W	ABB432R3W	ABB432B3W	
		380-415	6h	ABB432P6W	ABB432C6W	ABB432R6W	ABB432B6W	
	4P5W	200/346-240/415	6h	ABB532P6W	ABB532C6W	ABB532R6W	ABB532B6W	

<sup>(1)</sup> 20A max according to UL/CSA






























<sup>(2)</sup> 30A max according to UL/CSA

# ABB IEC 60 309 International Plugs and Sockets

## Ordering codes

2



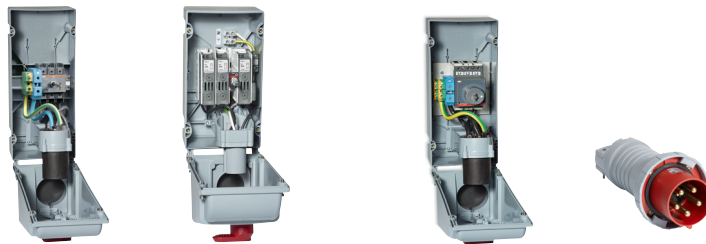
Amp [A]	Poles & Wires	Voltage [Vac]	Clock hour	Plug	Connector	Receptacle	Inlet	Back box
60	2P3W	50-250VDC	3h 	ABB360P3W	ABB360C3W	ABB360R3W	ABB360B3W	BB60
		100-130	4h 	ABB360P4W	ABB360C4W	ABB360R4W	ABB360B4W	
		277	5h 	ABB360P5W	ABB360C5W	ABB360R5W	ABB360B5W	
		200-250	6h 	ABB360P6W	ABB360C6W	ABB360R6W	ABB360B6W	
		480	7h 	ABB360P7W	ABB360C7W	ABB360R7W	ABB360B7W	
	3P4W	125/250	12h 	ABB460P12W	ABB460C12W	ABB460R12W	ABB460B12W	
		3Ø 600	5h 	ABB460P5W	ABB460C5W	ABB460R5W	ABB460B5W	
		3Ø 480	7h 	ABB460P7W	ABB460C7W	ABB460R7W	ABB460B7W	
		3Ø 200-250	9h 	ABB460P9W	ABB460C9W	ABB460R9W	ABB460B9W	
	4P5W	3ØY 347/600	5h 	ABB560P5W	ABB560C5W	ABB560R5W	ABB560B5W	
		3ØY 277/480	7h 	ABB560P7W	ABB560C7W	ABB560R7W	ABB560B7W	
		3ØY 120/208-144/250	9h 	ABB560P9W	ABB560C9W	ABB560R9W	ABB560B9W	
63 <sup>(1)</sup>	2P3W	200-250	6h 	ABB363P6W	ABB363C6W	ABB363R6W	ABB363B6W	BB60
	3P4W	380-415	6h 	ABB463P6W	ABB463C6W	ABB463R6W	ABB463B6W	
	4P5W	200/346-240/415	6h 	ABB563P6W	ABB563C6W	ABB563R6W	ABB563B6W	
100	2P3W	100-130	4h 	ABB3100P4W	ABB3100C4W	ABB3100R4W	ABB3100B4W	BB100
		277	5h 	ABB3100P5W	ABB3100C5W	ABB3100R5W	ABB3100B5W	
		200-250	6h 	ABB3100P6W	ABB3100C6W	ABB3100R6W	ABB3100B6W	
		480	7h 	ABB3100P7W	ABB3100C7W	ABB3100R7W	ABB3100B7W	
	3P4W	125/250	12h 	ABB4100P12W	ABB4100C12W	ABB4100R12W	ABB4100B12W	
		3Ø 600	5h 	ABB4100P5W	ABB4100C5W	ABB4100R5W	ABB4100B5W	
		3Ø 480	7h 	ABB4100P7W	ABB4100C7W	ABB4100R7W	ABB4100B7W	
		3Ø 200-250	9h 	ABB4100P9W	ABB4100C9W	ABB4100R9W	ABB4100B9W	
	4P5W	3ØY 347/600	5h 	ABB5100P5W	ABB5100C5W	ABB5100R5W	ABB5100B5W	
		3ØY 277/480	7h 	ABB5100P7W	ABB5100C7W	ABB5100R7W	ABB5100B7W	
		3ØY 120/208-144/250	9h 	ABB5100P9W	ABB5100C9W	ABB5100R9W	ABB5100B9W	
125 <sup>(2)</sup>	2P3W	200-250	6h 	ABB3125P6W	ABB3125C6W	ABB3125R6W	ABB3125B6W	BB100
	3P4W	380-415	6h 	ABB4125P6W	ABB4125C6W	ABB4125R6W	ABB4125B6W	
	4P5W	200/346-240/415	6h 	ABB5125P6W	ABB5125C6W	ABB5125R6W	ABB5125B6W	

<sup>(1)</sup> 60A max according to UL/CSA

<sup>(2)</sup> 100A max according to UL/CSA

# ABB IEC 60 309 International Plugs and Sockets

## Ordering codes



2

Amp [A]	Poles & Wires	Voltage [Vac]	Clock hour	Switched	Fused	Breakered	Mating plug
20	2P3W	200-250	6h	ABB320MI6W	—	—	ABB320P6W
		480	7h	ABB320MI7W	—	—	ABB320P7W
		125/250	12h	ABB420MI12W	ABB420MF12W	—	ABB420P12W
	3P4W	3Ø 600	5h	ABB420MI5W	ABB420MF5W	—	ABB420P5W
		3Ø 480	7h	ABB420MI7W	ABB420MF7W	—	ABB420P7W
		3Ø 200-250	9h	ABB420MI9W	ABB420MF9W	—	ABB420P9W
		3ØY 347/600	5h	ABB520MI5W	—	—	ABB520P5W
	4P5W	3ØY 277/480	7h	ABB520MI7W	—	—	ABB520P7W
		3ØY 120/208-144/250	9h	ABB520MI9W	—	—	ABB520P9W
30	2P3W	100-130	4h	ABB330MI4W	—	—	ABB330P4W
		200-250	6h	ABB330MI6W	—	—	ABB330P6W
		480	7h	ABB330MI7W	—	—	ABB330P7W
	3P4W	125/250	12h	ABB430MI12W	ABB430MF12W	—	ABB430P12W
		3Ø 600	5h	ABB430MI5W	ABB430MF5W	—	ABB430P5W
		3Ø 480	7h	ABB430MI7W	ABB430MF7W	—	ABB430P7W
		3Ø 200-250	9h	ABB430MI9W	ABB430MF9W	—	ABB430P9W
	4P5W	3ØY 347/600	5h	ABB530MI5W	ABB530MF5W	—	ABB530P5W
		3ØY 277/480	7h	ABB530MI7W	ABB530MF7W	—	ABB530P7W
		3ØY 120/208-144/250	9h	ABB530MI9W	—	—	ABB530P9W
32 <sup>(1)</sup>	3P4W	380 50 Hz/440 60 Hz	3h	ABB432MI3W	—	—	ABB432P3W
60	2P3W	100-130	4h	ABB360MI4W	—	—	ABB360P4W
		200-250	6h	ABB360MI6W	ABB360MF6W	—	ABB360P6W
		480	7h	ABB360MI7W	—	—	ABB360P7W
	3P4W	125/250	12h	ABB460MI12W	ABB460MF12W	—	ABB460P12W
		3Ø 600	5h	ABB460MI5W	ABB460MF5W	—	ABB460P5W
		3Ø 480	7h	ABB460MI7W	ABB460MF7W	—	ABB460P7W
		3Ø 200-250	9h	ABB460MI9W	ABB460MF9W	—	ABB460P9W
	4P5W	3ØY 347/600	5h	ABB560MI5W	—	—	ABB560P5W
		3ØY 277/480	7h	ABB560MI7W	—	—	ABB560P7W
		3ØY 120/208-144/250	9h	ABB560MI9W	ABB560MF9	—	ABB560P9W
100	2P3W	100-130	4h	ABB3100MI4W	—	—	ABB3100P4W
		200-250	6h	ABB3100MI6W	—	—	ABB3100P6W
		480	7h	ABB3100MI7W	—	—	ABB3100P7W
	3P4W	125/250	12h	ABB4100MI12W	—	ABB4100MB12W	ABB4100P12W
		3Ø 600	5h	ABB4100MI5W	—	—	ABB4100P5W
		3Ø 480	7h	ABB4100MI7W	—	ABB4100MB7W	ABB4100P7W
		3Ø 200-250	9h	ABB4100MI9W	—	ABB4100MB9W	ABB4100P9W
	4P5W	3ØY 277/480	7h	ABB5100MI7W	—	ABB5100MB7W	ABB5100P7W
		3ØY 120/208-144/250	9h	ABB5100MI9W	—	ABB5100MB9W	ABB5100P9W

<sup>(1)</sup> 30A max according to UL/CSA

# ABB IEC 60 309 International Plugs and Sockets

## Ordering codes

2



### Plug blocker

Lockout/tagout for plugs and inlets. Can be used for any IEC 60309-1 and 60309-2 plug or inlet

To fit	Cat. no
Plugs 16-125 A	CLV20-100
Panel mounted inlets 16-125 A	
Surface mounted inlets 16-125 A	



### Protective cover 16-125 A, IP67

Material in EPDM rubber

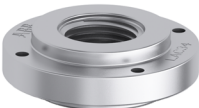
For inlet and plug	Cat. no
100 & 125 A, 2P3W, 3P4W and 4P5W	ABBGP100
16 & 20 A, 2P3W	ABBGP320
30 & 32 A, 2P3W and 3P4W	ABBGP330/430
16 & 20 A, 3P4W	ABBGP420
16 & 20 A, 4P5W	ABBGP520
30 & 32 A, 4P5W	ABBGP530
60 & 63 A, 2P3W, 3P4W and 4P5W	ABBGP60



### Liquid-tight conduit adaptors

Adaptor kit to connect plugs and sockets with flexible conduits

Type	Thread / Type	Cat. no
20A (3W-4W)	1/2" / NPT	LAA12
20A (5W), 30A (3W-4W)	1/2" / NPT	LAB12
20A (5W), 30A (3W-4W)	3/4" / NPT	LAB34
30A (5W)	3/4" / NPT	LAC34
30A (5W)	1" / NPT	LAC100
60A	1 1/4" / NPT	LAD125
60A	3/4" / NPT	LAD34
100A	1 1/4" / NPT	LAE125



<b>Performances and Approvals</b>	
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<b>Dimensional drawings</b>	
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Mechanical interlocks	3/7



# Technical details

## Performance and Approvals

### Plugs, Sockets, Receptacles and Inlets

#### Electrical Performance

Max. Voltage Rating	600VAC / 250VDC (min. creepage and clearance by UL840)
Dielectric Withstand Voltage	3kV for 1 min. (devices > 300V) 2kV for 1 min. (devices ≤ 300V)
Current Interrupting / Load Breaking	Tested for 150% of full rated current for circuit interrupting
Temperatur Rise	Max. 30°C rise at full rated current after 50 cycles overload at 150% rated load at 0.75 pF
Endurance with load (per IEC 60 309-1 clause 21)	100% rated Ekip

#### Mechanical Performance

Cold Impact Resistance (-25°C)	Per UL 1682, Section 34 and IEC 60 309-1 Clause 24
Cable O.D. Accomodation	Round portable service cord from 0.57in O.D. through 1.79in O.D.
Terminal Identification	In accordance with UL 1682 standards and IEC 60 309-1: as L1-L2-L3-N-G
Cable Pull-Out Force	Per UL 1682 Section 33 and IEC 60 309-1 Clause 23
Product Identification	Product trademark(s) and UL approved product label

#### Environmental Performance

Moisture resistance	Watertight IP67 & IP69K
Flammability	All components V2 for internal parts & V0 for external parts on 20A & 30A devices per UL94 or CSA 22.2 No. 0.6; V0 on 60A & 100A
Operating Temperatures	Min. -25°C / -13°F Max. Continuous 90°C / 194°F
Chemical Resistance	Resists standard industrial hydrocarbons, acids bases and solvents.
Corrosion Resistance	All metallic components stainless steel or brass sleeve pressure spring of stainless steel
UV Resistance	In accordance with UL 746C f1

#### Materials

Housing	Polyamide Nylon (Fiberglass reinforced for 60A to 125A)
Contacts Carriers	Valox®
Cable Gland Nut	Valox®
Cable Bushing	Chloroprene, onion-ring type
O-Ring, Seals & Gaskets	Solid Chloroprene
Pins & Sleeves	Brass
Sleeve Force Ring	Stainless Steel
Terminal Screws	Zinc-plated Steel
Flap/Screw Cover Springs	Stainless Steel
Mounting Flanges	Valox®

#### Approvals

UL	1682, 1686 (E109667, E109550, E163435)
CE	IEC 60 309-1, -2, -4 (LVD 2014/35/EC, EMC 2014/30/EC)
CSA	C22.2 No. 182.1 (LR 051334)

# Technical details

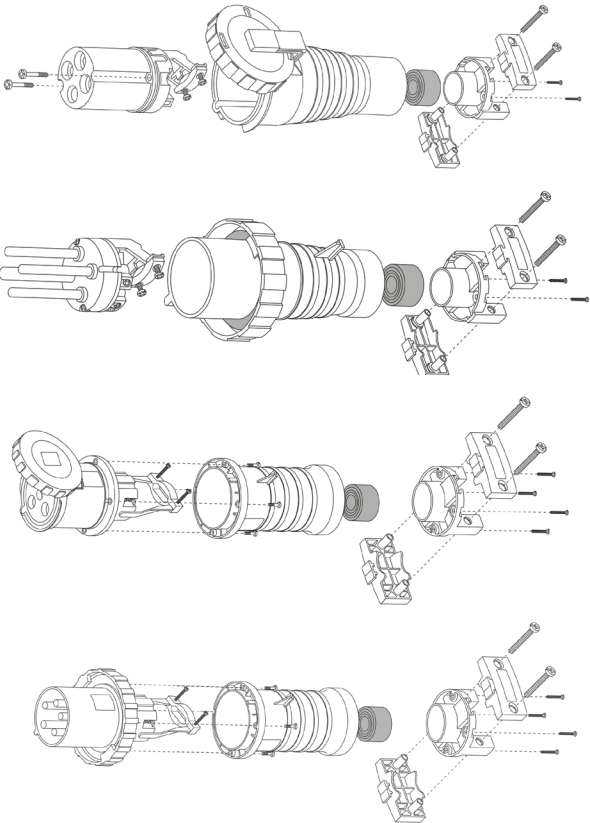
## Performance and Approvals

### Tightening Guide

Device	Terminal Screws	Internal Cable Clamp Screws	External Cable Clamp Screws	Assembly Screws
[A]	[in-lbs / Nm]	[in-lbs / Nm]	[in-lbs / Nm]	[in-lbs / Nm]
16-20	7.1 / 0.8	10.6 / 1.2	17.7 / 2.0	10.6 / 1.2
30-32	10.6 / 1.2	10.6 / 1.2	17.7 / 2.0	10.6 / 1.2
60-63	31 / 3.5	10.6 / 1.5	26.6 / 3.0	10.6 / 1.2
100-125	50 / 5.6	17.7 / 2.0	26.6 / 3.0	17.7 / 2.0

### Wire Size

Device	Cable Dimension Range
[A]	[in / mm]
16-20, 2P3W	0.350 - 0.860 / 9 - 22
16-20, 3P4W	0.350 - 0.860 / 9 - 22
16-20, 4P5W	0.437 - 1.187 / 11 - 30
30-32, 2P3W	0.437 - 1.187 / 11 - 30
30-32, 3P4W	0.437 - 1.187 / 11 - 30
30-32, 4P5W	0.437 - 1.450 / 11 - 37
60-63, 2P3W	0.670 - 1.625 / 17 - 41
60-63, 3P4W	0.670 - 1.625 / 17 - 41
60-63, 4P5W	0.670 - 1.625 / 17 - 41
100-125, 2P3W	0.950 - 1.875 / 24 - 48
100-125, 3P4W	0.950 - 1.875 / 24 - 48
100-125, 4P5W	0.950 - 1.875 / 24 - 48



# Technical details

## Performance and Approvals

### Mechanical Interlocks (Fused, Unfused/Switched and Breakered)

#### Electrical Performance

Max. Voltage Rating	480V RMS (Breaker version) 600V RMS (Switch version)
Dielectric Withstand Voltage	3kV
Current Interrupting	Certified for current interrupting at full rated current and voltage
Short-Circuit Current Rating Operations	10,000 RMS symmetrical amperes Mechanical: 10,000 cycles Electrical: 6000 cycles
HP Ratings (switch version)	Complies with NEC 430-151 ratings
Interrupting Rating	22kA

#### Mechanical Performance

Cold Impact Resistance (-35°C)	In accordance with UL 746C
Wiring Accommodations	Suitable for metallic conduit. Conduit entry locations on TOP and BOTTOM
Terminal Identification	In accordance with UL, CSA and IEC 60 309 conventions.
Product Identification	Identification, ratings and color code in accordance with UL, CSA and IEC 60 309 requirements
Lockout / Tagout	"ON" and "OFF" lockout / tagout capability at switch handle. Complies with OSHA Reg. 29CFR 1910.147
Mounting	External adjustable feet

#### Environmental Performance

Moisture resistance	Screw cap version: UL Type 4X & 12K, IP67 and IP69K
Flammability	UL94-5VA and V0 Classifications
Operating Temperatures	Min. Continuous -40°C / -40°F Max. Continuous 60°C / 140°F
Chemical Resistance	Resists standard industrial hydrocarbons, acids bases and solvents.
UV Resistance	UV stabilized material in accordance with UL 746C f1

#### Materials

Housing (all exterior components)	UL94-5VA / V0, Polyamide Nylon (Fiberglass reinforced for 60A and 125A devices)
Contacts Carriers	UV Stabilized impact-modified Valox®
Gasket	Chloroprene or EPDM
Contacts (Sleeves)	Brass
Hardware (screws and springs)	Steel with zinc-plated blue chromate or nickel plating

#### Approvals

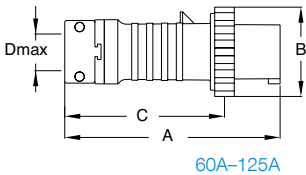
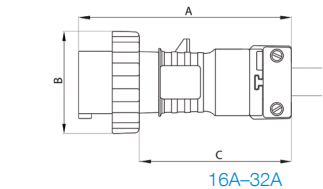
UL	508 and 98 (Switch version) 231 and 489 (Breaker version) 1682, 1686
CE	IEC 60 309-1, -2, -4
CSA	C22.2 No. 14, 182.1

# Technical details

## Dimensions

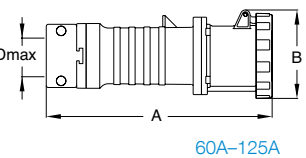
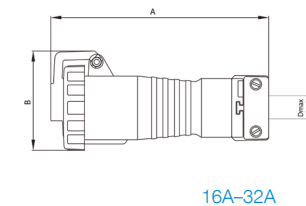
### Plugs

Device	Dim. A	Dim. B	Dim. D	Dim. D Max.
[A]	[in / mm]	[in / mm]	[in / mm]	[in / mm]
16-20, 2P3W	5.81 / 147.5	2.80 / 71	4.47 / 113.5	0.51 / 13
16-20, 3P4W	6.46 / 164	3.11 / 79	5.16 / 131	0.67 / 17
16-20, 4P5W	6.61 / 168	3.43 / 87	5.28 / 134	0.67 / 17
30-32, 2P3W	6.85 / 174	3.70 / 94	4.74 / 120.5	0.85 / 21.5
30-32, 3P4W	6.85 / 174	3.70 / 94	5.41 / 137.5	0.85 / 21.5
30-32, 4P5W	7.40 / 188	3.98 / 101	5.47 / 139	0.85 / 21.5
60-63, All	10.83 / 275	4.49 / 114	8.39 / 213	1.61 / 41
100-125, All	12.32 / 313	5.12 / 130	9.53 / 242	1.89 / 48



### Sockets

Device	Dim. A	Dim. B	Dim. D Max.
[A]	[in / mm]	[in / mm]	[in / mm]
16-20, 2P3W	6.73 / 171	3.15 / 80	0.51 / 13
16-20, 3P4W	7.40 / 188	3.46 / 88	0.67 / 17
16-20, 4P5W	7.68 / 195	3.82 / 97	0.67 / 17
30-32, 2P3W	7.76 / 197	3.94 / 100	0.85 / 21.5
30-32, 3P4W	7.76 / 197	3.94 / 100	0.85 / 21.5
30-32, 4P5W	8.27 / 210	4.29 / 109	0.85 / 21.5
60-63, All	11.26 / 286	4.37 / 111	1.61 / 41
100-125, All	12.80 / 325	4.80 / 122	1.89 / 48

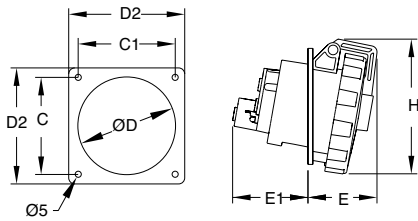


# Technical details

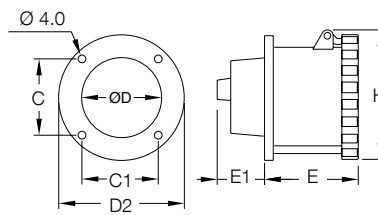
## Dimensions

### Receptacles

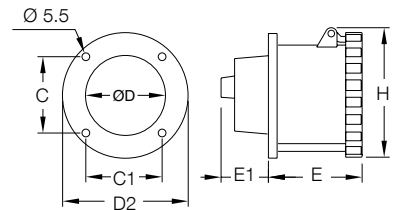
Device	Dim. C	Dim. C1	Dim. D	Dim. D2	Dim. E	Dim. E1	Dim. H
[A]	[in / mm]	[in / mm]	[in / mm]	[in / mm]	[in / mm]	[in / mm]	[in / mm]
16-20, 2P3W	3.13 / 79.5	3.13 / 79.5	3.27 / 83	3.74 / 95	1.77 / 45	2.24 / 57	3.74 / 95
16-20, 3P4W	3.13 / 79.5	3.13 / 79.5	3.27 / 83	3.74 / 95	1.77 / 45	2.24 / 57	3.74 / 95
16-20, 4P5W	3.13 / 79.5	3.13 / 79.5	3.27 / 83	3.74 / 95	1.85 / 47	2.24 / 57	3.90 / 99
30-32, 2P3W	3.13 / 79.5	3.13 / 79.5	3.27 / 83	3.74 / 95	2.20 / 56	2.40 / 61	4.09 / 104
30-32, 3P4W	3.13 / 79.5	3.13 / 79.5	3.27 / 83	3.74 / 95	2.20 / 56	2.40 / 61	4.09 / 104
30-32, 4P5W	3.13 / 79.5	3.13 / 79.5	3.27 / 83	3.74 / 95	2.20 / 56	2.44 / 62	4.37 / 111
60-63, All	2.40 / 61	2.40 / 61	2.76 / 70	4.09 / 104	3.50 / 89	1.89 / 48	4.37 / 111
100-125, All	2.80 / 71	2.80 / 71	3.46 / 88	4.53 / 115	3.94 / 100	2.28 / 58	4.80 / 122



16A-32A



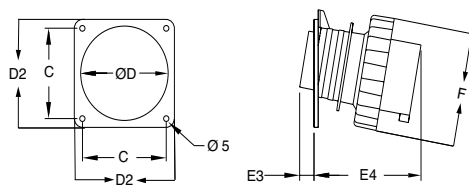
60A-63A



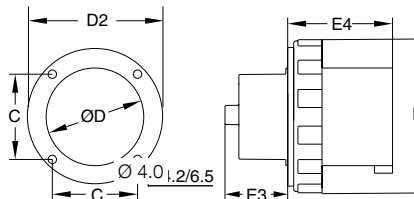
100A-125A

### Inlets

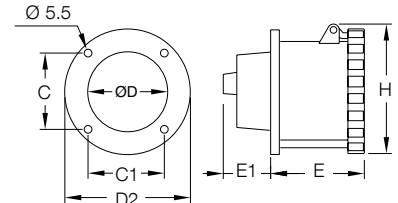
Device	Dim. C	Dim. D	Dim. D2	Dim. E3	Dim. E4	Dim. F
[A]	[in / mm]	[in / mm]	[in / mm]	[in / mm]	[in / mm]	[in / mm]
16-20, 2P3W	3.13 / 79.5	3.27 / 83	3.74 / 95	0.40 / 10	1.85 / 47	2.80 / 71
16-20, 3P4W	3.13 / 79.5	3.27 / 83	3.74 / 95	0.40 / 10	2.09 / 53	3.11 / 79
16-20, 4P5W	3.13 / 79.5	3.27 / 83	3.74 / 95	0.40 / 10	3.43 / 87	3.43 / 87
30-32, 2P3W	3.13 / 79.5	3.27 / 83	3.74 / 95	0.47 / 12	2.36 / 60	3.70 / 94
30-32, 3P4W	3.13 / 79.5	3.27 / 83	3.74 / 95	0.47 / 12	2.36 / 60	3.70 / 94
30-32, 4P5W	3.13 / 79.5	3.27 / 83	3.74 / 95	0.47 / 12	2.64 / 67	3.98 / 101
60-63, All	4.41 / 112	2.40 / 61	2.76 / 70	3.86 / 98	1.97 / 50	3.15 / 80
100-125, All	4.80 / 122	2.80 / 71	3.19 / 81	4.65 / 118	2.20 / 56	3.50 / 89



16A-32A



60A-63A



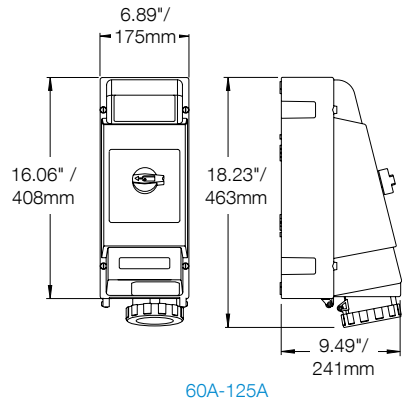
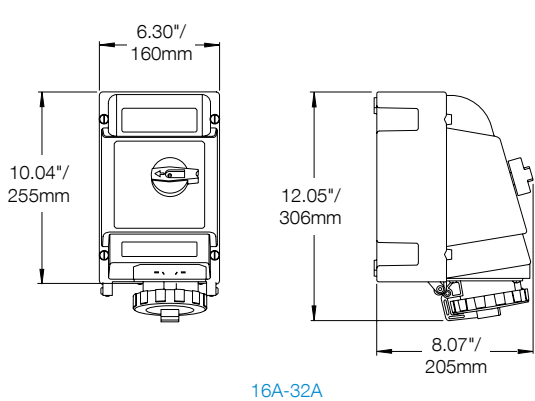
100A-125A



# Technical details

## Dimensions

### Mechanical Interlock: Switch (MI), Fused (MF) and/or Breaker (MB)



<b><i>Russellstoll</i></b> Range Overview	
Introduction	4/2
DuraGard®	4/3
MaxGard®	4/6

# Complementary Products

## Introduction

4



## The Russellstoll Advantage

Russellstoll<sup>®</sup> interconnection systems combined with ABB IEC 60 309 International Plugs and Sockets creates one of the market's most comprehensive offering of explosion-proof, heavy and light industrial plugs, sockets, connectors and receptacles with ranges from 20A to 600A.

DuraGard<sup>®</sup> products for light industrial applications with real waterproof certifications where size, chemicals, high water pressure and moisture is a concern.

MaxGard<sup>®</sup> products for heavy industrial applications where extreme conditions such as explosion-proof area, high corrosion atmosphere and rugged terrain is an issue.

# Complementary Products

DuraGard®



## Safety

- **Truly waterproof:** Not just watertight, but waterproof (tested under 1000 PSI)
- **Exclusive waterproof features:** The only thermoplastic connector designed to prevent short circuits due to water ingress under high water pressure
- **Different power supply ratings can't mix:** Six single-rate device polarizations ensure exact voltage, frequency and phase differentiation
- **Added safety measures:** Safety ground makes first, breaks last
- **Ultimate waterproof connection:** Watertight mated or unmated, while many watertight specifications cover mated connections only

## Durability

- **Designed for durability:** DuraV® housing material specially selected for hot or cold and chemical washdown duty (flame-safe UL® 94-V0 rated housings)
- **Versatile functionality:** Pin and sleeve design enables higher current flow at cooler temperatures due to large contact circular areas
- **Built to last:** A longer system life under corrosive environments

## Performance

- **Long life:** Round, self-cleaning, constant-pressure pin and sleeve contacts of solid CDA 360 brass for long, reliable electrical life
- **Easy installation:** Drop-in assemble interior and easy pressure screw wire termination
- **Reliability:** DurOring™ sealing system for each pin and sleeve and interior assembly
- **Application flexibility:** Bushing size available for every cable diameter
- **Continuous operation:** Superior performance in corrosive environments



# Complementary Products

DuraGard®

4

## The Ultimate in Waterproof Connections

20, 30, 50 and 60 Amp, 600VAC  
20 Amp, 250VDC

### Lockout Capable (30/50/60A Plugs):

- Access hole (not seen) for padlock hasp
- Interlock engagement CDA 360 solid brass pin and sleeve contacts

### High Reliability, High-Performance Connections:

- CDA 360 solid brass pin and sleeve contacts

### Long-Lasting Self-Cleaning Connections:

- Full round pin and sleeve contacts

### Fast, Easy, Rear-Load Wiring and Assembly:

- Drop-in assembly interior
- Sleeve and cable bushing
- Easy-in pressure screw wiring terminations

### Waterproof Cable Sealing:

- Neoprene compression bushing cable locking system
- Locking bushing nut with external cable clamps
- Bushing sizes available for any cable size

### Waterproof Locking Connections:

- Locking screw collars with O-ring gaskets
- Housing mechanical support and pin and sleeve connection

### Safety Specified Voltage Connections:

- Safety ground makes first breaks last
- Voltage polarized to meet NEC® 210-7 and OSHA standards

### Durable and UL® 94-V0 Flame Rated Housings:

- DuraV® high-impact body and collars
- Thermoset interiors
- Deadfront construction

### Dry Wiring Compartments:

- DurOring™ Sealing System for each pin and sleeve and interior assembly

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

(50-Amp Plug and Connector Shown)



# Complementary Products

DuraGard®



## Typical application groups

### Marine

- Lighting Connectors
- Shore-to-Ship Power
- Low-Power Welding
- Power Distribution Panels
- Shipboard Power Outlets
- Barge Power Connection

### Construction and Agricultural

- Generator Set Panels
- Portable Tools and Equipment
- Irrigation Systems Panels
- Portable Lighting and Equipment

### Food Processing, Brewery/Beverage, Pulp and Paper, Pharmaceuticals, Portable Building Power

- Welding Outlets
- Motor Power Connections
- Lighting Systems
- Machinery Interconnections
- Process Control Power Systems

### OEMs

- Export Machinery
- Critical Power Connections and Welding Systems
- Transportable Equipment

## Usage

- Any application where electrical connections need protection from water and/or dust entrance to the contacts or the wiring compartment
- Cable-to-connector sealing and device locking designs are critical

# Complementary Products

MaxGard®



## Safety

- **Different power supply ratings can't mix:** 24 single-rate device polarizations ensure exact voltage, frequency and phase differentiation
- **Safe connections:** Safely connect and disconnect, even in the most extreme conditions such as heavy industrial and explosion-proof environments
- **Added safety measures:** Explosion-proof rating on all plugs
- **Plugs stay in:** Standard delayed-action pull-and-turn withdrawal offers all plugs an explosion-proof rating
- **Waterproof construction:** Standard O-ringed interior components provide environmental separation; watertight mated or unmated

## Durability

- **Built for durability:** Rugged cast aluminum housings with an electrostatic epoxy coating are standard, along with stainless steel hardware
- **The best connections for life:** Pins and sleeves are made from Marine-grade CDA 485 brass; 200- and 400-amp pins and sleeves are silver plated

## Performance

- **Foreign objects stay out:** All receptacles and connectors have a gated rotating disk (gated deadfront) on the face of the interior, which engages upon insertion
- **Any configuration you need:** Through 4-pole 5-wire configurations, all have a safety center earth ground pin design that makes first and breaks last
- **Ease of assembly:** Solderless pressure-type screw terminals with hex socket heads and rear-access, take-apart housings provide quick wiring access — no interior removal required for wiring receptacles and connectors
- **More control available:** Two optional pilot/control pins for contactors, load monitoring circuit, shunt trip or any other communication function you need
- **More power:** 150% non UL® rating enables MaxGard® installations to be extended up to 600-amp custom loads with separate disconnect service

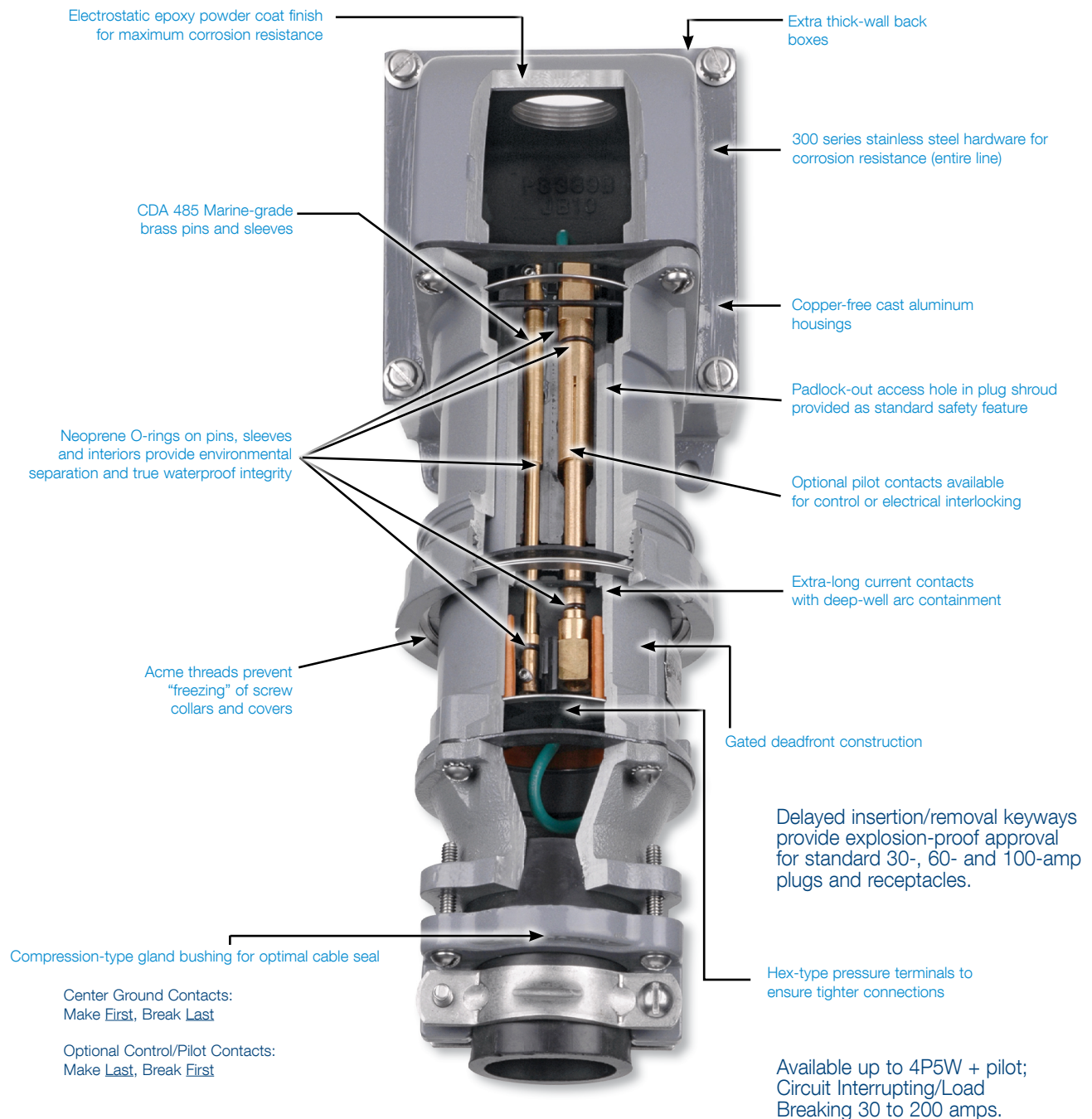


# Complementary Products

MaxGard®

## Plugs and Receptacles with angle adapter and junction box

30A - 400A (30A - 200A Load breaking) -  
Max. 600VAC / 250VDC

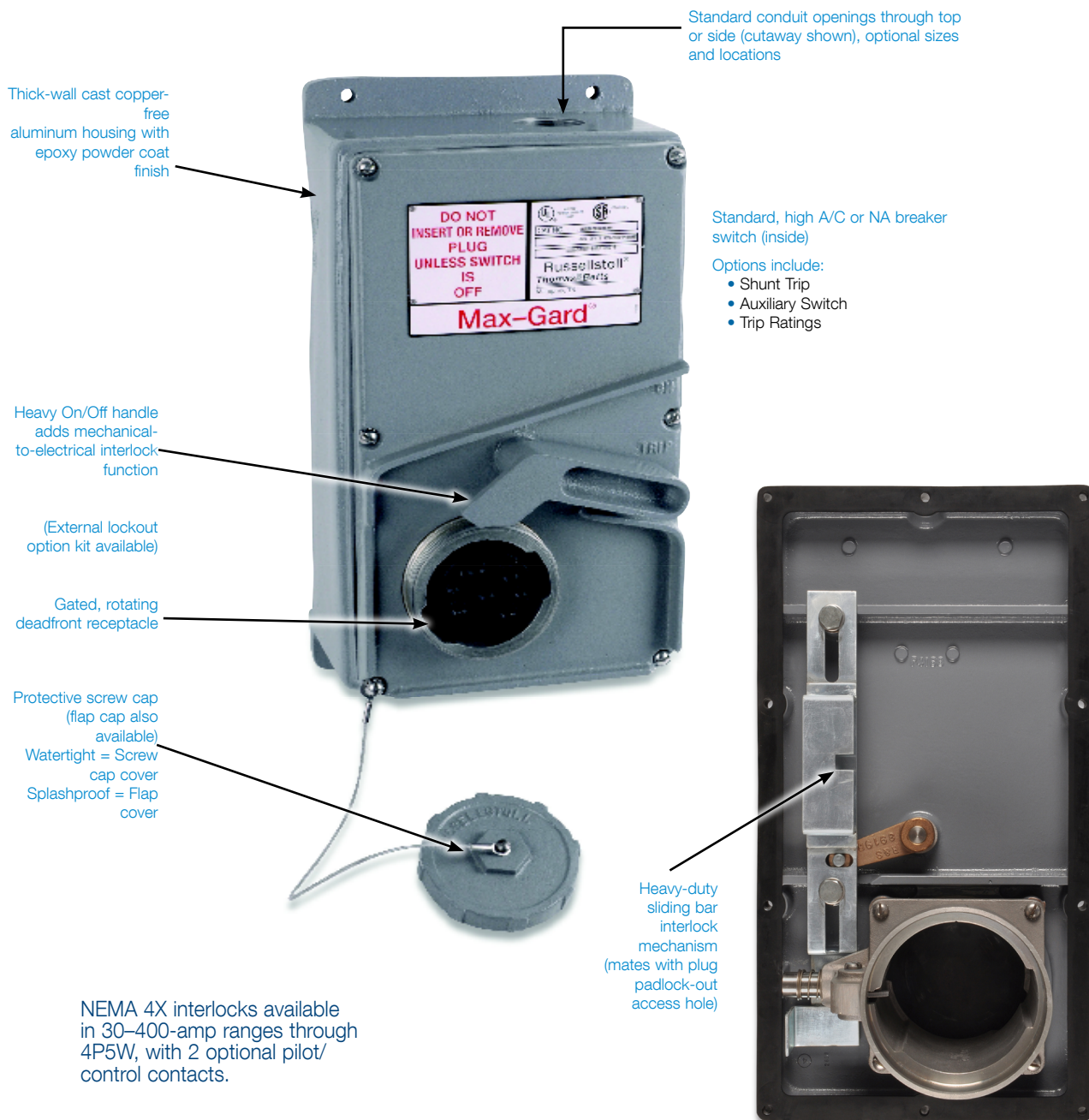


# Complementary Products

MaxGard®

## Cast aluminium circuit breaker interlocked receptacle

30A - 400A (30A - 200A Load breaking) -  
Max. 600VAC / 250VDC

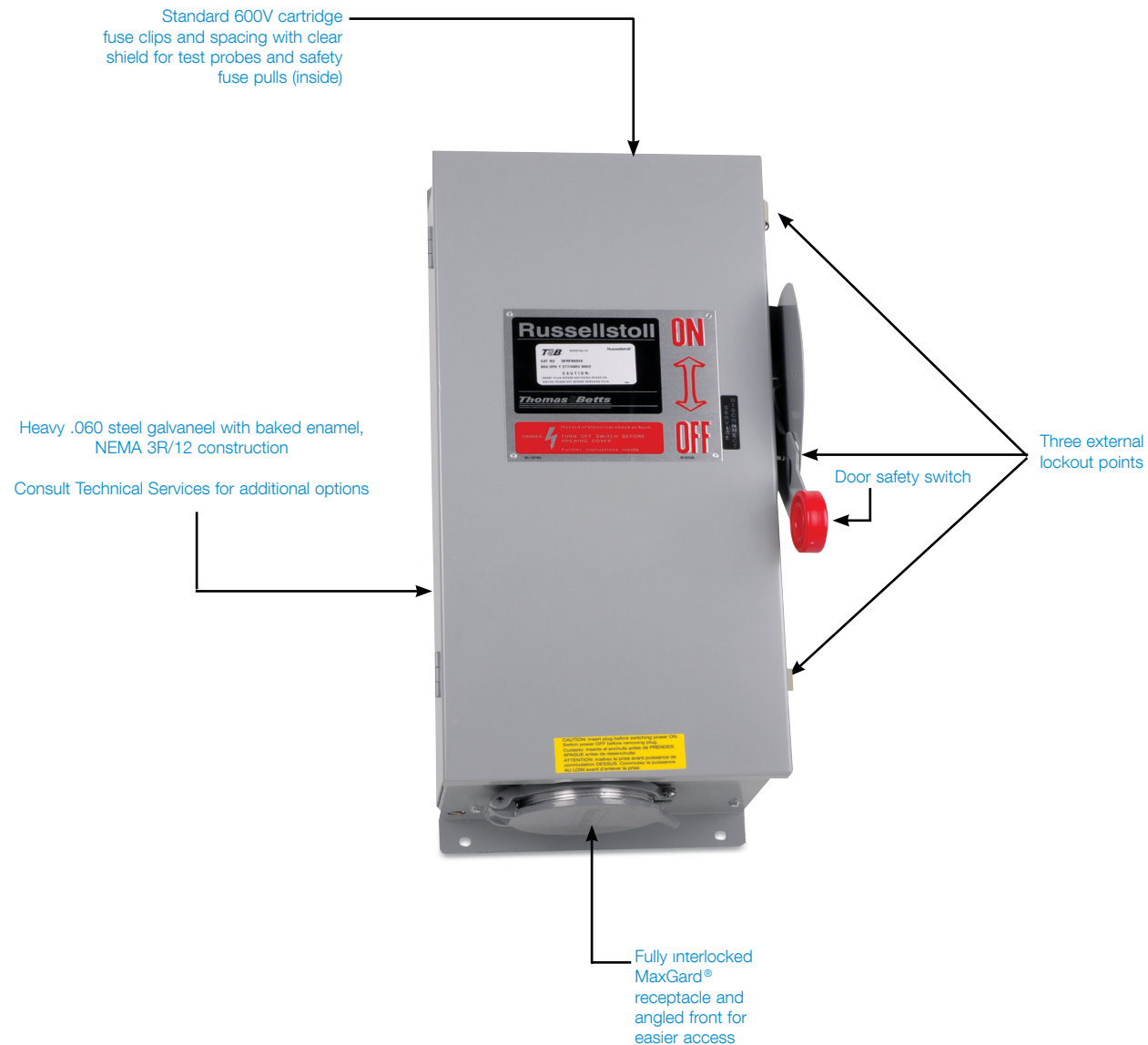


# Complementary Products

MaxGard®

## Fused disconnect switch\* interlocked receptacle

30A, 60A and 100A sizes, all polarizations  
through 600VAC



Meets Federal specification  
WS865C, UL File #E5239  
Meets UL 98, 50, 1682, 508, 231  
Meets NEC® Table 373-6(b)  
Meets major automotive specs

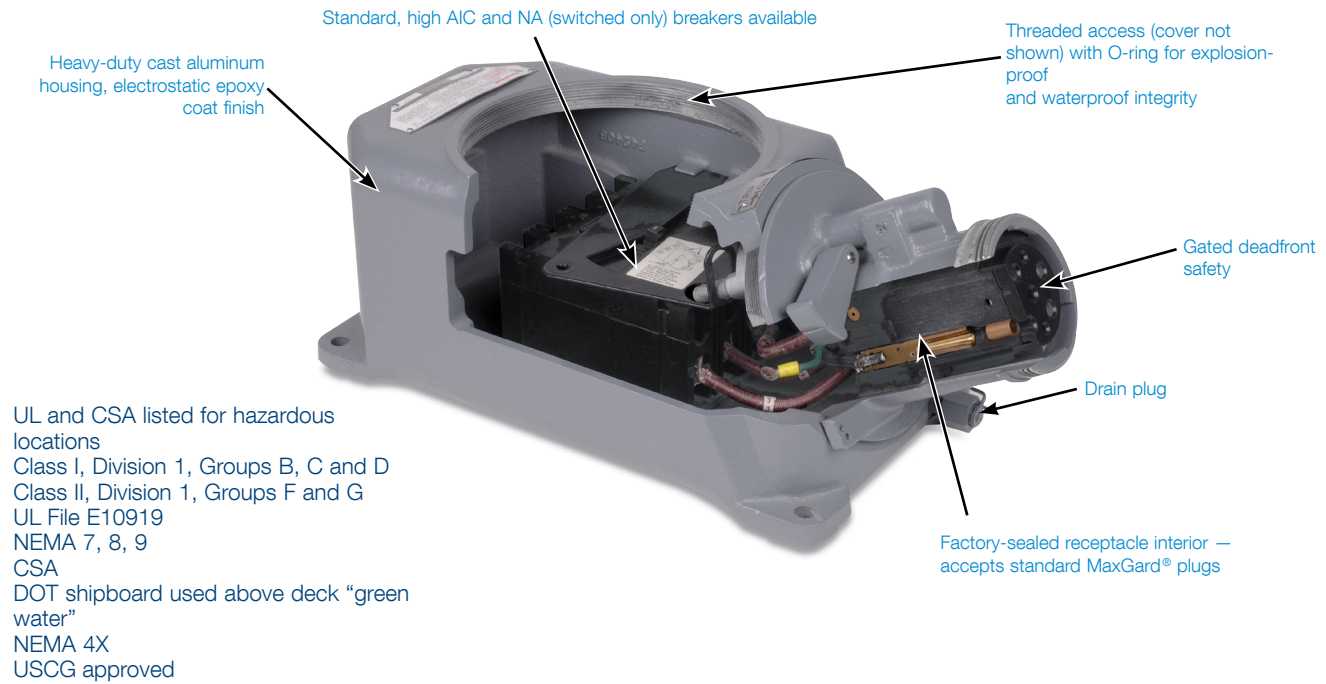
\* Also available as switch only

# Complementary Products

MaxGard®

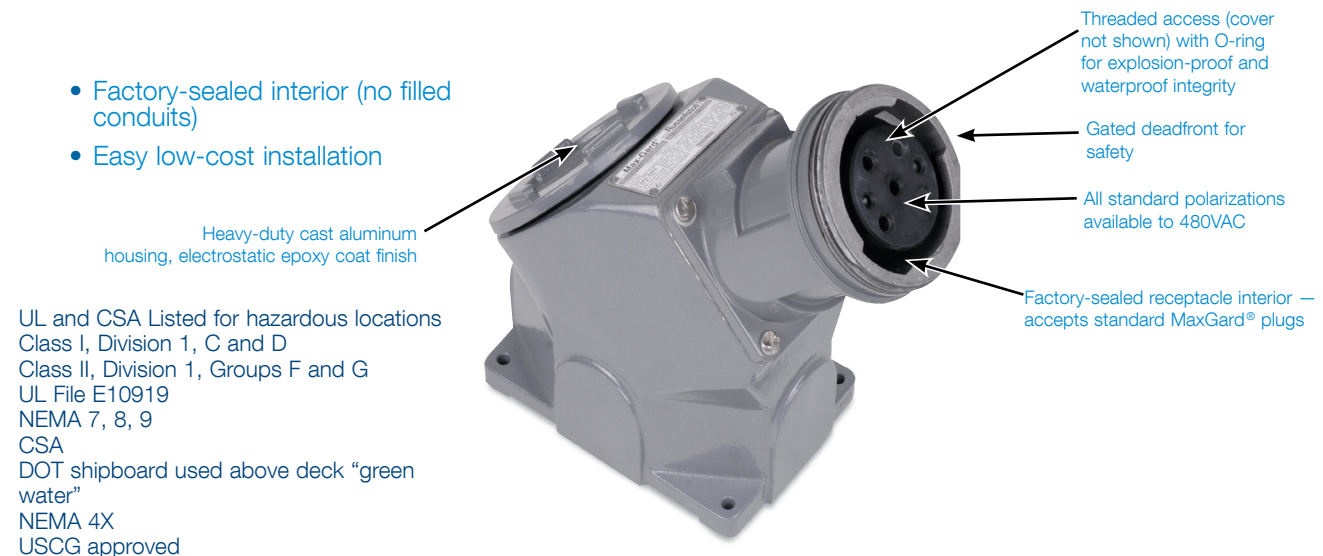
## Explosion-proof Waterproof circuit breaker interlocked receptacle

30A, 60A and 100A sizes, all polarizations



## Explosion-proof Waterproof Non-interlocked receptacle

30A size, 480VAC Max.



# Contact us

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Toll free: 1-800-567-0283

Website: [www.abb.ca](http://www.abb.ca)

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for a better world™

