

PowerGuard®

universal receptacles
& back boxes

Now cULus listed for use in Canada



The background of the entire page is a low-angle, silhouette photograph of an oil rig. The rig's complex steel structure, including beams, ladders, and platforms, is dark against a clear, light blue sky. The perspective makes the rig appear to be reaching upwards, emphasizing its scale and industrial nature.

Designed for work

Receptacles engineered for real world applications and challenging environments

Whether you are powering lighting fixtures or portable equipment, you need a receptacle solution that stands up to the harsh environmental and physical demands of land-based drilling applications.

PowerGard® receptacles and back boxes meet and exceed your power needs with an easy-install, **universal footprint** suitable for rig maintenance, retrofits and new builds.

Introducing PowerGard®

Universal receptacles & back boxes for land-based drilling



Primary application

PowerGard® receptacles are used to supply power to lighting systems and lighting panels on land-based drilling rigs.

Industry-best ease of installation

- Classified for use with Appleton® U-Line Series
- Easy-to-wire saddle clamp terminals reduce installation time and effort
- Molded-in-place phase/ground markings reduce installation errors

Best-in-class reliability

- Can handle temperature extremes ranging from -50°C to +55°C where comparable products are not certified to operate
- Epoxy powder coat finish, integral gasket design and stainless steel hardware ensure suitability for NEMA 3RX applications
- Vibration tested at 1G to ensure continuity in high vibration areas
- Rugged Krydon® faceplate stands up to abuse in the field without cracking

Increased ease of operation

- Positive on-off position identifies when unit has been engaged and disengaged
- Clearly marked operating instructions to eliminate risk of improper operation

EXCLUSIVE FEATURES

- Extended temperature range: -50°C to +55°C
- Certified for use with Hard Service Cords SOOW, SEOOW and STOOW
- Saddle clamp wire terminals
- NEMA 3RX rating
- Krydon® fiberglass-reinforced polyester faceplate

Specifications & features

Electrical ratings

- 15 Amp, 125 VAC
- 20 Amp, 125 VAC
- 20 Amp, 250 VAC

Environmental ratings

- NEMA 3, 3R, 3RX

Ambient temperature ratings

- ULus, Group C, D
-50°C to +55°C
- cUL, Group C, D
-50°C to +40°C
- ULus, Group B, C, D
-25°C to +55°C
- cUL, Group B, C, D
-25°C to +40°C

Certifications and compliances

- NEC & CEC
 - Class I, Groups B*, C, D
 - Class II, Groups F, G
 - Class III

* Group B certification not applicable to double gang assemblies. Reference page 6 for full details.
- UL Standards
 - UL 1203 Explosionproof and Dust-Ignition-proof Electrical Equipment for Use in Hazardous (Classified) Locations
- CSA Standard
 - CSA 22.2 No. 30 Explosionproof Enclosures for Use in Class I Hazardous Locations
 - CSA 22.2 No. 159 Attachment plugs, Receptacles, and similar Wiring Devices for Use in Hazardous Locations: Class I, Groups A,B,C,D; Class II Group G, in Coal or Coke Dust, and in Gaseous Mines.
- cULus File #10289

Standard materials

- Housing, covers and back boxes: Copper-free aluminum with Corro-free™ epoxy powder coat
- Insulator and faceplate: Krydon® fiberglass-reinforced polyester material
- External hardware: Stainless steel

UNIVERSAL FOOTPRINT

- Provides field flexibility for retrofits or installation in tight places
- UL classified for use with Appleton® U-Line Series

SUPERIOR HARDWARE

- Stainless steel external hardware eliminates corrosion on critical components and extends product life
- Hex-head screws allow for easy achievement of specified torque values



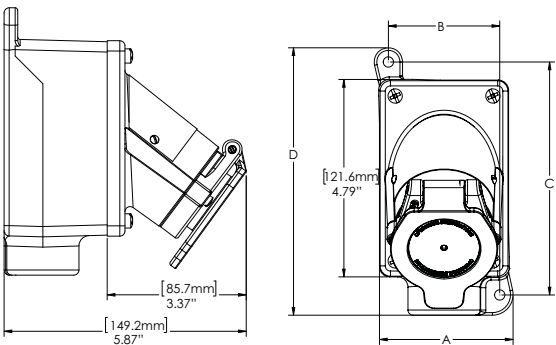
ENHANCED SAFETY

- Rejects standard NEMA/ EEMAC plug configurations that could potentially cause an arc in hazardous areas
- Plug cannot be disengaged under load

ROBUST CONSTRUCTION

- Can handle temperature extremes ranging from -50°C to +55°C where comparable products are not certified to operate
- Epoxy powder coat finish, integral gasket and stainless steel hardware ensure suitability for NEMA 3RX applications
- Vibration tested at 1G to ensure continuity in high vibration areas

Dimensions



Box Style	A	B	C	D
Single Gang	3.24" [82.3]	2.70" [68.6]	5.65" [143.5]	6.48" [164.7]
Double Gang	6.38" [162.2]	5.50" [139.7]	5.69" [144.4]	6.55" [166.5]



SAFESPRING FACEPLATE

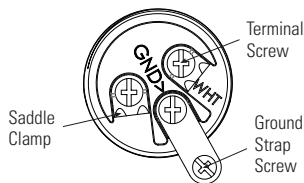
- Spring loaded faceplate design prevents receptacle from being energized without use of UL certified hazardous location plug
- Rugged Krydon® faceplate won't crack after continued use in the field

EASY-INSTALL TERMINALS

- Molded-in-place phase and ground markings reduce installation errors
- Easy-to-wire saddle clamp terminals reduce installation time and effort
- Receptacle suitable for tough feed/loop wiring; no additional wire nuts or terminators needed

Wire Sizes

Solid	16-10 AWG
Stranded	16-12 AWG



BEST-IN-CLASS COVER

- Combo head, stainless steel screws make replacement easy
- Clearly marked operating instructions ensure proper operation and safety when plugging and unplugging
- Threaded cover option available for exceptional watertight integrity



Ordering information

Receptacle & Mounting Box



Type	Config.	Wire Pole	Hub Size	20 AMP 125 VAC	20 AMP 250 VAC	15 AMP 125 VAC
Single Gang Assembly *	Dead-end	2W, 3P	1/2	CFS150-2023-M15	CFS150-20232-M15	CFS150-1523-M15
			3/4	CFS175-2023-M15	CFS175-20232-M15	CFS175-1523-M15
			1	CFS110-2023-M15	CFS110-20232-M15	CFS110-1523-M15
	Thru-feed	2W, 3P	1/2	CFSC150-2023-M15	CFSC150-20232-M15	CFSC150-1523-M15
			3/4	CFSC175-2023-M15	CFSC175-20232-M15	CFSC175-1523-M15
			1	CFSC110-2023-M15	CFSC110-20232-M15	CFSC110-1523-M15
Double Gang Assembly **	Dead-end	2W, 3P	1/2	CFS250-2023-M15	CFS250-20232-M15	CFS250-1523-M15
			3/4	CFS275-2023-M15	CFS275-20232-M15	CFS275-1523-M15
			1	CFS210-2023-M15	CFS210-20232-M15	CFS210-1523-M15
	Thru-feed	2W, 3P	1/2	CFSC250-2023-M15	CFSC250-20232-M15	CFSC250-1523-M15
			3/4	CFSC275-2023-M15	CFSC275-20232-M15	CFSC275-1523-M15
			1	CFSC210-2023-M15	CFSC210-20232-M15	CFSC210-1523-M15

* Single gang assembly listed for Class I, Division 1, Groups B, C, D for -25°C ambient and Class I, Division 1, Groups C, D for -50°C ambient.

** Double gang assembly Listed for Class I, Division 1, Groups C and D, Class I, Division 2, Groups B, C, and D. Manufacturer self certification of Class I, Division 1, Group B available.

Replacement Receptacle



Type	Wire Pole	20 AMP 125 VAC **	20 AMP 250 VAC **	15 AMP 125 VAC **
Replacement Receptacle *	2W, 3P	 *CFSR-2023-M15	 CFSR-20232-M15	 *CFSR-1523-M15

* In order to be certified for Class I, Division 1, Group B applications, receptacles must be used on a single gang back box (part # CFD1XX or CFDC1XX)

** Both 15A/125 VAC and 20A/125 VAC PowerGard receptacles can accept either a 15A/125 VAC or 20A/125 VAC ENP plug.

ENP Ark•Gard® Plug



Type	Wire Pole	20 AMP 125 VAC	20 AMP 250 VAC	15 AMP 125 VAC
ENP Standard Plug	2W, 3P	 ENP5201	 ENP6202	 ENP5151

Back Box



Type	Config.	Hub Size	Back Box
Single Gang *	Dead-end	1/2	CFD150
		3/4	CFD175
		1	CFD110
	Thru-feed	1/2	CFDC150
		3/4	CFDC175
		1	CFDC110



Type	Config.	Hub Size	Back Box
Double Gang	Dead-end	1/2	CFD250
		3/4	CFD275
		1	CFD210
	Thru-feed	1/2	CFDC250
		3/4	CFDC275
		1	CFDC210

Replacement Parts



Type	Cover
Spring Cover Replacement	PGSCA

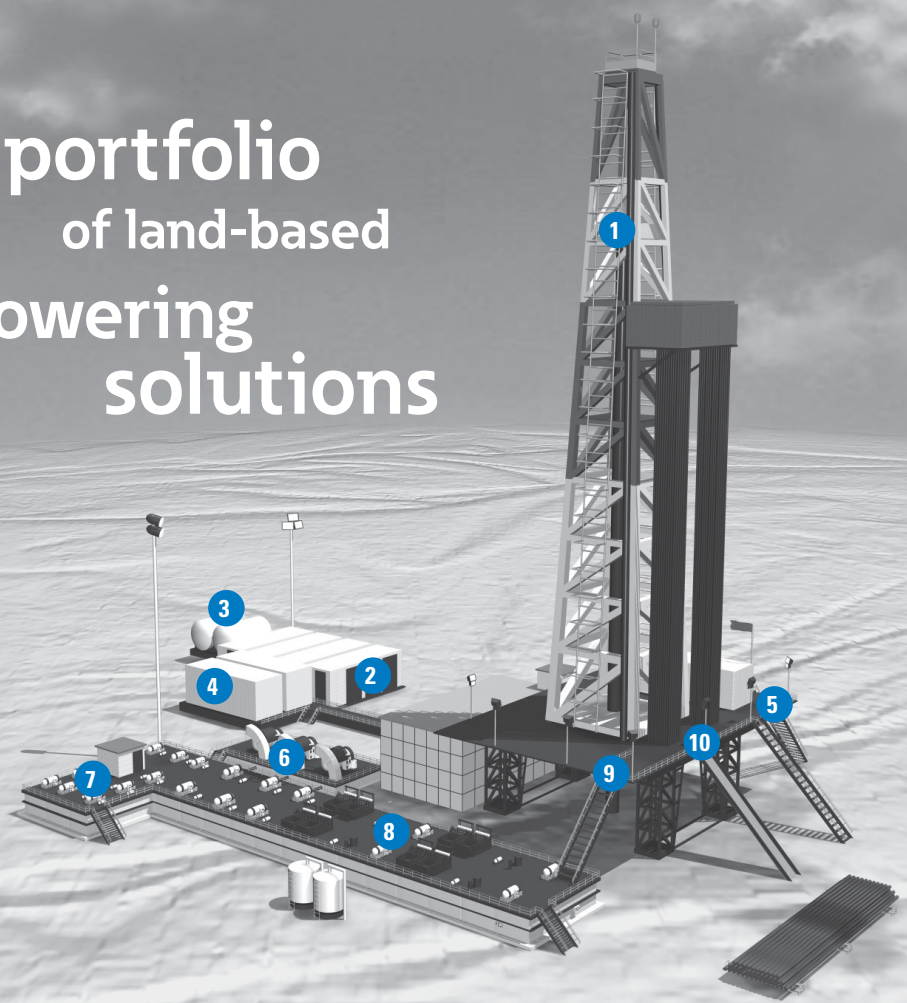


Type	Cover
Threaded Cover Replacement	PGTCA

Type	Config.
Back Box Hex Bolt Replacement	 PG SCREW PACK
	 PG SCREW PACK SLOT

- 1 Derrick/Mast
- 2 VFD/Generators
- 3 Fuel Tank
- 4 Motor Control/VFD/SCR House
- 5 Doghouse/Operator's House
- 6 Power/Pump Station
- 7 Shale Shaker
- 8 Mud Tanks/Pumps
- 9 Drawworks & Top Drive
- 10 Drilling Floor

Full portfolio of land-based powering solutions



Crouse-Hinds drilling solutions

Single pole power



Roughneck™ Single Pole Series



Secure, single pole power, rated to 1135A for use in hazardous and normal locations. Ideal for delivering power to the top drive.

Rig Location
1, 2, 4, 5, 6, 9, 10

Roughneck™ Quick Connect



Quick connect, high amperage, single conductor connectors built to take heavy abuse while providing a simple, secure and safe connection.

Rig Location
2, 4, 5, 6, 9, 10

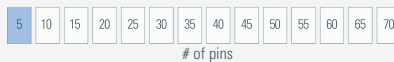
Cam-Lok™ Single Pole Series



Quickly connect and disconnect power systems safely. Used for motors, generators, indoor and outdoor lighting distribution panels and numerous other power applications.

Rig Location
1, 2, 4, 5, 6, 9, 10

Low to medium amp power



PowerGard® Series



Supplies power to lighting systems, lighting panels and portable hand tools on land-based rigs.

Rig Location
1, 2, 3, 4, 5, 6, 7, 8, 9, 10

PowerMate™ Series



Supplies power to portable devices such as motor generator sets, compressors, heating and cooling, welders and lighting from 30 to 200A.

Rig Location
2, 4, 5

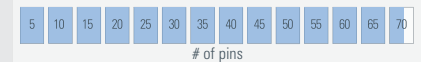
IEC 309 GHG 51 Series



Supplies power to portable devices with requirements of 16 to 125A and features an integrated AC3 rated disconnect switch. Reinforced polyester construction offers reliability from -20° to +55°C.

Rig Location
7, 8, 9

Multi-pin control



Roughneck™ Multi-pin Series



Heavy duty control and instrumentation multi-pin connectors for hazardous and harsh industrial use.

Rig Location
1, 2, 4, 5, 6, 9, 10



Connectors for harsh/heavy industrial areas



Connectors for hazardous areas

For more information:

If further assistance is required, please contact an authorized Eaton Distributor, Sales Office, or Customer Service Department.

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