

# Panelboard Protection on a Global Scale



**Appleton™ Panelboards Brochure**  
Selection guide.



## No matter what environment, location or power requirement, our panelboards have your facility covered.



From a petrochemical plant in Saudi Arabia to a grain processing facility in America's heartland, Appleton™ panelboards by Emerson are there, providing protection and control of electrical apparatus and circuits in hazardous, damp, wet or corrosive environments according to NEC, CEC, ATEX and IEC standards. Emerson's complete range of designs, materials and options - from factory sealed to non-factory sealed and increased safety to flameproof - help ensure you have the flexibility to make the perfect panelboard choice.

We know what you need from a panelboard: protection, durability, ease of installation and low maintenance costs. We build all of it in, so we can keep earning your trust year after year.



Our products provide protection and control of electrical apparatus and circuits in hazardous, damp, wet or corrosive environments according to NEC, CEC, ATEX and IEC standards.

## NEC/CEC

### Lighting Panelboards

Class I, Division 2; Class I, Zone 1, AEx de IIB+H<sub>2</sub>  
PlexPower™ RQ ▶ p5

Class I, Division 1 and Division 2  
ALPN and ALPF ▶ p6  
XP ▶ p7  
EWP and D2P ▶ p8

### Power Panelboards

Class I, Division 2; Class I, Zone 1  
PlexPower RF ▶ p9

Class I, Division 1 and Division 2  
APPN and APPF ▶ p10  
XP ▶ p11

## ATEX/IECEx

### Lighting and Power Panelboards

Zone 1 – 2; Zone 21 – 22, Ex db eb IIB+H<sub>2</sub>  
PlexPower IEC ▶ p12  
DPD ▶ p13

# Panelboard Selection Guide

## Lighting Panelboards

Rating/Certification	Enclosure Type	Enclosure Rating	Voltage	Number of Circuits	Maximum Amperage Rating
NEC/CEC: Class I, Division 2, Groups B, C, D Class I, Zone I AEx de IIB+H <sub>2</sub>	Stainless Steel	Type 4X	120/240, 240, 120/208	3-54	150
	Cast Aluminum	Type 4X	120/240, 240	12-36	100
NEC/CEC: Class I, Division 1 and 2, Groups B, C, D	Cast Aluminum	Type 4X	120/240, 240, 120/208, 24Vdc	12-42	225
	Cast Aluminum	Type 4X	120/240, 240, 120/208, 24Vdc	12-42	225
	Cast Aluminum	Type 4X	120/240, 120/208, 277/480, 480, 347/600, 600	1-48	225
	Cast Aluminum	Type 4X	120/240, 240	12-36	100
ATEX/IECEx: Zone 1-2 Zone 21-22 Ex db eb IIB+H <sub>2</sub>	Fiberglass Reinforced Polyester or Stainless Steel	IP66	220-240/ 380-415, 440	1-72	200
	Marine Grade Aluminum Alloy	IP66	415/ 500/ 690	3-24	160

## Power Panelboards

Rating/Certification	Enclosure Type	Enclosure Rating	Voltage	Number of Circuits	Maximum Amperage Rating
NEC/CEC: Class I, Division 2, Groups B, C, D Class I, Zone I AEx de IIB+H <sub>2</sub>	Stainless Steel	Type 4X	277/480, 480, 347/600, 600	3-42	150
	Cast Aluminum	Type 4X	277/480, 480, 600, 24Vdc, 25/250Vdc	12-42	225
NEC/CEC: Class I, Division 1 and 2, Groups B, C, D	Cast Aluminum	Type 4X	277/480, 480, 600, 24Vdc, 25/250Vdc	12-42	225
	Cast Aluminum	Type 4X	120/240, 120/208, 277/480, 480, 347/600, 600	1-48	225
	Cast Aluminum	Type 4X	120/240, 240	12-36	100
ATEX/IECEx: Zone 1-2 Zone 21-22 Ex db eb IIB+H <sub>2</sub>	Fiberglass Reinforced Polyester or Stainless Steel	IP66	220-240/380-415, 440	1-72	200
	Marine Grade Aluminum Alloy	IP66	415/ 500/ 690	3-24	160

① For PlexPower RQ, main lugs only.

# Panelboard Selection Guide *(continued)*

Number of Poles	Maximum Branch Amperage Rating	GFI / EPD	Certification Agency	Factory Sealed	Product Series
1, 2, 3	60	Yes	cCSAus	Yes	PlexPower RQ
1, 2, 3	100	Yes	UL	Yes	D2P
1, 2, 3	100	Yes	UL	No	ALPN
1, 2, 3	100	Yes	UL	Yes	ALPF
1, 3	100	Yes	cCSAus	Yes	XP
1, 2, 3	100	Yes	UL	Yes	EWP
1, 2, 3, 4	63	Yes	LCIE	No	PlexPower IEC
1, 2, 3, 4	63	Yes	LCIE	No	DPD

Number of Poles	Maximum Branch Amperage Rating	GFI / EPD	Certification Agency	Factory Sealed	Product Series
1, 2, 3	150	No	cCSAus	Yes	PlexPower RF
2, 3	100	No	UL	No	APPN
2, 3	100	No	UL	Yes	APPF
1, 3	200	No	cCSAus	Yes	XP
1, 2, 3, 4	63	No	LCIE	No	PlexPower IEC
1, 2, 3, 4	63	Yes	LCIE	No	DPD

# NEC/CEC Lighting Panelboards

Class I, Division 2, Groups B, C, D; Class I, Zone 1, AEx de IIB+H<sub>2</sub>

## PlexPower RQ Series



The Appleton PlexPower panelboard delivers component-level protection that increases hazardous location safety and flexibility while greatly reducing and simplifying maintenance. It transfers the flamepath from the panelboard enclosure to individual circuit breaker housings. Its modular design offers the convenience of field-replaceable breakers. The PlexPower panelboard is most commonly used for lighting, heat tracing and other electrical equipment.

### Features

- No external conduit or cable seals required making installation and commissioning faster, easier, and less costly.
- Limitless flexibility through horizontal and vertical coupling options.
- Features a ground-breaking design that uses individual breaker housings to minimize the downtime and costs associated with servicing circuit breakers in hazardous locations.
- PlexPower breakers accommodate off-the-shelf breakers, making replacements readily available.
- The lighter weight panelboard enclosure can be quickly opened in the field for easier servicing.
- Supplied with standard hard drawn, tin plated, copper bus bar for superior corrosion resistance.
- Standard models offer 3 circuit to 54 circuit panelboard configurations.
- Supplied standard with dead front.
- Standard configuration includes internal actuators and a solid door; factory installed options include window door or external actuators.
- Branch circuit breakers available in 1-, 2- and 3-pole. Current ratings on branch breakers:
  - 1-pole: 120 Volts, 60 Amps maximum.
  - 2- and 3-pole: 240 Volts, 40 Amps maximum.
- Main circuit breakers up to 150 Amps, 3-pole.
- 120/240 Volt breaker module terminal wire range #14-1/0.
- Branch and main breakers can be padlocked in either the “On” or “Off” position.

Main Breaker Module



Branch Breaker Module



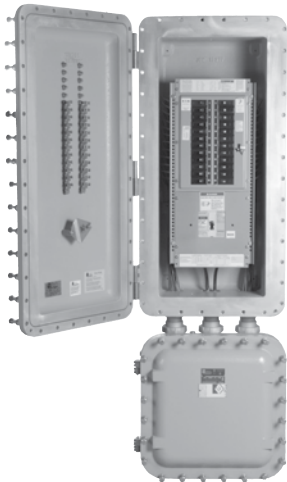
# NEC/CEC Lighting Panelboards

Class I, Division 1 and 2, Groups B, C, D

## ALPN Series and ALPF Series



ALPN



ALPF

The Appleton ALPN Series and ALPF Series panelboards are designed for short circuit and overload protection and control of lighting circuits. They are available in both low or high Amp versions. Both offer explosionproof, dust-ignitionproof and watertight (NEMA 4X) protection to meet both NEC and CEC Class I, Division 1 standards. The ALPN Series non-factory sealed panelboards provides a central location for a controlled switching system of large quantities of branch circuits for lighting systems. The ALPF Series panelboards feature a spacious compartment for easy wiring and installation. They are factory sealed and provide an extra measure of safety.

### Features

- Breaker operators included as standard.
- Breakers are housed in the panel section and are prewired to maximum circuit capacity, then wired to numbered terminals in the wiring compartment.
- ALPF terminal compartment is interconnected to panel section with sealing hubs and unions which are poured with sealing compound.
- O-ring gasket insures watertight integrity.
- Permits selection of 1-, 2- or 3-pole breakers.
- Precision machined flame path between body and cover.
- Bolt on stainless steel slotted mounting feet.
- Breaker operators can be padlocked in the “On” or “Off” position.
- Chassis assembles with main at top (bottom optional).
- Provisions for 12, 18, 24, 30, 36 and 42 circuit 1-pole chassis.
- 100 Amp or 225 Amp main lug.
- Up to 100 Amp backfed main breaker available with main lug chassis.
- Up to 225 Amp main breaker available with main breaker chassis.
- Factory installed ground and neutral bar are standard.

# NEC/CEC Lighting Panelboards

Class I, Division 1 and 2, Groups B, C, D

## XP Series



The Appleton XP Series of pre-wired circuit breaker panelboards protects and controls lighting. The XP is both explosionproof and watertight for indoor or outdoor use. The panelboard and top junction box are factory sealed, eliminating the need for labor intensive field wiring and sealing fittings. Exclusive rotary slide circuit breaker operators align with breakers in the “On” or “Off” position when cover is being closed.

### Features

- Wiring from branch circuit breakers in the panelboard to the terminal blocks in the terminal enclosure are factory sealed, eliminating the need of labor intensive field wiring and use of sealing fittings.
- Conduit entries in top or bottom positioned terminal enclosure can be either field installed or factory installed to customer requirements.
- Four sizes of panelboards available.
- Removable hinged cover gives unobstructed access to interior. Left hand hinges are standard. Right hand hinges are available.
- Detailed marking is plainly visible for easy circuit identification.
- Installation is easy with keyhole mounting lugs to simplify mounting.



# NEC/CEC Lighting Panelboards

EWP: Class I, Division 1 and 2, Groups B, C, D

D2P: Class I, Division 2, Groups B, C, D; Class I, Zone I

## EWP Series and D2P Series



EWP



D2P

The compact Appleton EWP Series panelboards offers superior protection against explosions. They are designed for use in Class I and Class II, Division 1 manufacturing and processing environments where ignitable vapors, gases or combustible dusts are present. The Appleton D2P Series is designed for use in Class I, Division 2 areas where ignitable vapors or gases may be present, or in Class II, Division 1 areas where combustible dusts are present. These panelboards come factory sealed, eliminating the need for external branch seal fittings (except for Division 1, Groups B and C). The EWP and D2P are ideal for damp, wet or corrosive conditions and are most commonly used for lighting applications.

### Features

- 3" Main conduit openings for both top and bottom feed of junction compartment.
- Permits selection of 1-, 2- or 3-pole breakers. 10,000 Amp Vac interrupting capacity is standard. (22,000 AIC also available; contact your local representative.)
- Spring loaded, corrosion resistant aluminum breaker actuators feature a self-locating design for actuating 1-, 2-, or 3-pole breakers in any sequence.
- Rotary actuating handles may be individually padlocked.
- Handles lock in either "On" or "Off" position without interfering with the tripping of breakers.
- Double door design — one for junction compartment and one for breaker compartment. Both doors are fully gasketed to provide raintight fit for both compartments.
- Two O-ring gaskets on each breaker handle shaft prevent the entrance of water.
- Hinge design allows the doors to be lifted off.
- Breakers are prewired to terminal block, minimizing installation time.
- Insulated neutral lug provided as standard.
- Provision for drains/breathers in both compartments.
- Voltage ratings: 120 Vac for 1-pole and up to 240 Vac for 2- or 3-pole.
- Type THHN minimum size #10 AWG copper wire — +90 °C (+194 °F) — used in panelboards.
- Main lug feeder wires are crimped and installed in single conductor.
- Stainless steel captive, spring-out Quad-Lead® bolts for ease of access.

# NEC/CEC Power Panelboards

Class I, Division 2, Groups B, C, D; Class I, Zone 1, AEx de IIB+H<sub>2</sub>

## PlexPower RF Series



Module



The Appleton PlexPower panelboard delivers component-level protection that increases hazardous location safety and flexibility while greatly reducing and simplifying maintenance. It transfers the flamepath from the panelboard enclosure to individual circuit breaker housings. Its modular design offers the convenience of field-replaceable breakers. The PlexPower panelboard is most commonly used for power panels and other electrical equipment.

### Features

- No external conduit or cable seals required making installation faster, easier, and less costly.
- Limitless flexibility through horizontal and vertical coupling options.
- Features a ground-breaking design that uses individual breaker housings to minimize the downtime and costs associated with servicing circuit breakers in hazardous locations.
- PlexPower breakers accommodate off-the-shelf breakers, making replacements readily available.
- The lighter weight panelboard enclosure can be quickly opened in the field for easier servicing.
- Supplied with standard hard drawn, tin plated, copper bus bar for superior corrosion resistance.
- Standard models offer 3 circuit to 42 circuit panelboard configurations.
- Supplied standard with dead front.
- Standard configuration includes internal actuators and a solid door; factory installed options include window door or external actuators.
- Branch circuit breakers available in 1-, 2- and 3-pole. Current ratings on branch breakers:
  - 1-pole: 277, 347 Volts, 60 Amps maximum.
  - 2- and 3-pole: 480, 600 Volts, 150 Amps maximum.
- Main circuit breakers up to 150 Amps, 3-pole.
- 277/480, 480, 347/600, 600 Volt breaker module terminal wire range #14-4/0.
- Branch and main breakers can be padlocked in either the “On” or “Off” position.

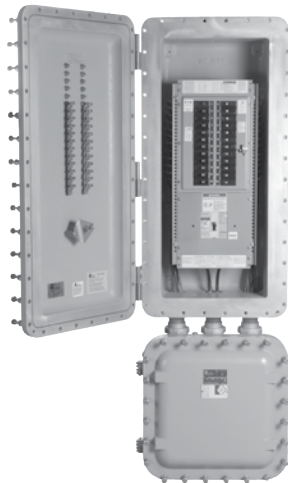
# NEC/CEC Power Panelboards

Class I, Division 1 and 2, Groups B, C, D

## APPN Series and APPF Series



APPN



APPF

The Appleton ALPF Series factory sealed and APPN Series non-factory sealed power distribution panelboards are designed to provide protection and control of electrical equipment in hazardous locations. Available in both low or high Amp versions, they are used to centrally control switching systems for multiple branch circuits that are used for heat trace, small motors and other electrical equipment. Both offer explosionproof, dust-ignitionproof and watertight (NEMA 4X) protection to meet both NEC and CEC Class I, Division 1 standards. The ALPF Series breakers are housed in a separate panel section and wired to terminals in a separate wiring compartment.

### Features

- Breaker operators included as standard.
- Breakers are housed in the panel section and are prewired to maximum circuit capacity, then wired to numbered terminals in the wiring compartment.
- Terminal compartment is interconnected to panel section with sealing hubs, and unions which are poured with sealing compound.
- O-ring gasket insures watertight integrity.
- Permits selection of 1-, 2- or 3-pole breakers.
- Precision machined flame path between body and cover.
- Bolt on stainless steel slotted mounting feet.
- Breaker operators can be padlocked in the “On” or “Off” position.
- Chassis assembles with main at top (bottom optional).
- Provisions for 12, 18, 24, 30, 36 and 42 circuit 1-pole chassis.
- 100 Amp or 225 Amp main lug.
- Up to 100 Amp backfed main breaker available with main lug chassis.
- Up to 225 Amp main breaker available with main breaker chassis.
- Factory installed ground and neutral bar are standard.

# NEC/CEC Power Panelboards

Class I, Division 1 and 2, Groups B, C, D

## XP Series



The Appleton XP Series pre-wired circuit breaker panelboard protects and controls heat trace circuits. The XP Series is explosionproof and watertight making it the ideal choice for indoor or outdoor use. The panelboard and top junction box are factory sealed, eliminating the need for labor intensive field wiring and sealing fittings. Exclusive rotary slide circuit breaker operators align with breakers in the “On” or “Off” position when cover is being closed.

### Features

- Wiring from branch circuit breakers in the panelboard to the terminal blocks in the terminal enclosure are factory sealed, eliminating the need of labor intensive field wiring and use of sealing fittings.
- Conduit entries in top or bottom positioned terminal enclosure can be either field installed or factory installed to customer requirements.
- Four sizes of panelboards available.
- Removable hinged cover gives unobstructed access to interior. Left hand hinges are standard. Right hand hinges are available.
- Detailed marking is plainly visible for easy circuit identification.
- Installation is easy with keyhole mounting lugs to simplify mounting.

# ATEX/IECEX Lighting and Power Panelboards

Zone 1-2; Zone 21-22, Ex db eb IIB+H<sub>2</sub>

## PlexPower IEC Series



PlexPower™ IEC with fiberglass reinforced polyester enclosure



PlexPower™ IEC with stainless steel enclosure on switchrack

Main Breaker Module



Branch Breaker Module



Simplify flameproof protection for lighting, heat trace and power circuit distribution in Zone 1 and 2–21 and 22 environments. The Appleton PlexPower IEC panelboard minimizes downtime with a true MCCB main breaker and standard, off-the-shelf main and branch breakers that can be stocked and quickly replaced in the field. There is no longer a need to replace a main fuse or to order and wait for delivery of expensive epoxy encapsulated branch breakers. These panelboards deliver unprecedented design flexibility. PlexPower features a modular enclosure, bus bar system, optional removable gland plate and the capacity to handle main breakers up to 200 Amps and branch breakers up to 63 Amps.

### Features

- 1 circuit to 72 circuit panelboard configurations are standard, with or without main breaker.
- Branch circuit breakers available in 1-, 2- 3- and 4-pole. Current ratings on branch breakers:
  - 1-pole: 120, 240 Volts, 63 Amps maximum.
  - 2-, 3- and 4-pole: 240 and 415 Volts, 63 Amps maximum.
- Main circuit breaker:
  - 40 to 200 Amps, 2-, 3- or 4-pole.
- No external conduit or cable seals required thus making installations faster, easier, and less costly.
- Limitless flexibility through horizontal and vertical coupling options.
- Features a ground-breaking design that uses individual breaker housings to minimize the downtime and costs associated with servicing circuit breakers in hazardous locations.
- The lighter weight panelboard enclosure can be quickly opened in the field for easier servicing.
- Breaker modules supplied with captive bolts.
- 240/415 Volt breaker module 8-pole terminal wire range 2.5 mm<sup>2</sup> through 10 mm<sup>2</sup> (standard), 16 mm<sup>2</sup> with special lug.
- 600 Volt main breaker module 4-pole terminal wire range 16 mm<sup>2</sup> through 150 mm<sup>2</sup>.
- Fiberglass reinforced polyester enclosure or stainless steel enclosure available.

# ATEX/IECEX Lighting and Power Panelboards

Zone 1-2; Zone 21-22, Ex db eb IIB+H<sub>2</sub>

## DPD Series



Appleton™ flameproof DPD Series distribution panelboards are used to provide protection and control of electrical equipment in hazardous areas where ignitable vapors, gases or highly combustible dusts are present. These compact units provide a centrally controlled switching system. They feature non-sealed breakers housed in a gray marine grade aluminum alloy enclosure.

### Features

- Lighting panelboards are available in 6, 12, 18 and 24 circuits.
- Heat tracing panelboards are available in 6, 12, 18 and 20 circuits.
- 3- or 4-Pole isolator switch or main breaker.
  - Branch circuit breaker available with B, C or D tripping curve.
  - GFI branch circuit breaker available with B, C or D tripping curves except for 1+N poles.
- 1, 2, 3, 4 and 1+N poles branch circuit breakers.
- Isolator and breaker handles included as standard, can be padlocked in “Off” position.
- Copper bus bar as standard.
- Fully prewired on outgoing terminal block.
- M8 earth-crossing terminal.
- Hinged door.
- 4 fixing lugs.



With over 70 years in the industry, Appleton™ is one of the first and most respected names in custom switchracks for hazardous and adverse locations.

## Designed and engineered to meet the most challenging demands year after year.

Emerson's switchracks offer an innovative, unique solution for the complete protection and control of electrical circuit equipment in one integrated package. Choose the necessary Appleton™ electrical products that fit the rating, electrical switching and controlling requirements. Every switchrack is engineered, fabricated and assembled in-house by qualified technicians. Our switchracks are built to comply with NEC/CEC or ATEX/IEC Standards. ATEX/IEC versions comply with Directive 2014/34/EU and Directive 1999/92/EC for CENELEC and IEC governed locations.

Our switchracks are designed for safety and performance and built to customer specifications. We have developed our capabilities with attention to our customer's key concerns of custom design, quality components, turnkey fabrication and guaranteed satisfaction.

# The world's leading manufacturing and process facilities turn to Emerson as the trusted source of electrical products.



Appleton is the cornerstone brand of Emerson's Electrical Components and Lighting business; trusted worldwide to make electrical installations safer, more productive and more reliable.

**United States (Headquarters)**  
Appleton Grp LLC  
9377 W. Higgins Road  
Rosemont, IL 60018  
United States  
T +1 800 621 1506

**Europe**  
ATX™ SAS  
Espace Industriel Nord  
35, rue André Durochez,  
CS 98017  
80084 Amiens Cedex 2, France  
T +33 3 2254 1390

**Canada**  
EGS Electrical Group Canada Ltd.  
99 Union Street  
Elmira ON, N3B 3L7  
Canada  
T +1 888 765 2226

**Asia Pacific**  
EGS Private Ltd.  
Block 4008, Ang Mo Kio Ave 10,  
#04-16 TechPlace 1,  
Singapore 569625  
T +65 6556 1100

**Latin America**  
EGS Comercializadora Mexico S  
de RL de CV  
Calle 10 N°145 Piso 3  
Col. San Pedro de los Pinos  
Del. Álvaro Obregon  
Ciudad de México. 01180  
T +52 55 5809 5049

**Australia Sales Office**  
Bayswater, Victoria  
T +61 3 9721 0348

**China Sales Office**  
Shanghai  
T +86 21 3338 7000

**Middle East Sales Office**  
Dammam, Saudi Arabia  
T +966 13 510 3702

**Chile Sales Office**  
Las Condes  
T +56 2928 4819

**India Sales Office**  
Chennai  
T +91 44 3919 7300

**Korea Sales Office**  
Seoul  
T +82 2 3483 1555

**Jebel Ali- Dubai Office**  
Emerson, Building A  
Appleton Group  
Jebel Ali Free Zone- South  
T +971 4 811 81 00

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