Lighting and Heat Tracing EPL Series (Div. 1 & 2) **D2L Series (Div. 2)** 

PowerPlus<sup>™</sup> Series Panelboards provide both premium factory-sealed and value non-factory-sealed solutions for the protection and distribution of lighting, power, and heat tracing circuits. This panel solution is designed, engineered, and manufactured to be the industry's safest and most dependable panelboard for hazardous area locations.

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### **PowerPlus Premium and** Value Solutions

- Premium Solution: PowerPlus factorysealed panelboards are premium panelboards that provide maximum circuit flexibility with labor savings during installation, operation, and maintenance, and are accommodating for future changes in the field (order with either "S" or "A" in base part number). Panels are pre-wired to maximum circuit capacity, allowing for easy and safe replacement or installation of components in the field, while maintaining factory-sealed integrity.
- Value Solution: PowerPlus non-factorysealed panelboards are value panelboards that offer maximum circuit flexibility and many of the same features and benefits of the PowerPlus premium line. This value solution is provided without terminal housing and factory wiring of circuits (order with "N" in base part number). The non-factory-sealed solution reduces initial panelboard material costs and requires field wiring to circuit breakers and external seals to

### **Applications:**

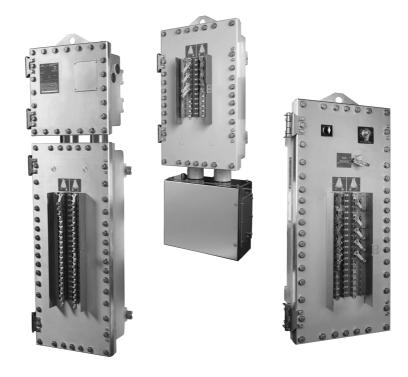
EPL and D2L PowerPlus<sup>™</sup> panelboards are used:

be field-installed during installation.

- · In areas made hazardous by the continuous or abnormal presence of flammable gases, vapors, and combustible dusts
- In areas subject to weather, dampness, and corrosion
- · For branch power distribution and circuit protection to motors, valves, pumps, lighting, heat tracing, receptacles, etc.
- For indoor and outdoor applications in petroleum refineries, chemical and petrochemical plants, and other process industry facilities where similar hazards exist
- To accommodate up to 100 amp branch loads (only 3 circuits), balance is up to 50 amps

**EPL Series:** Cl. I, Div. 1 & 2, Groups B†, C, D Cl. I, Zone 1 & 2, IIB + H<sub>2</sub>† Cl. II, Div. 1, Groups E, F, G Cl. II, Div. 2, Groups F, G CI. IIÍ NEMA/EEMAC 3, 4, 4X±, 7B+CD, 9EFG, 12

D2L Series: Cl. I, Div. 2, Groups B<sup>+</sup>, C, D Cl. I, Zone 2, IIB +  $H_2$ Cl. II, Div. 2, Groups F, G CI. III NEMA/EEMAC: 3, 4, 4X±, 7B+CD, 12



## **Certifications and Compliances:**

#### **EPL Series:** • NEC/CEC:

- Class I, Division 1 & 2, Groups B<sup>+</sup>, C, D Class I, Zone 1 & 2, IIB + H<sub>2</sub>† Class II, Division 1, Groups E, F, G Class II, Division 2, Groups F, G Class III
- NEMA/EEMAC: 3, 4, 4X‡, 7B†CD, 9EFG, 12
- CSA Enc. 3, 4, 5
- UL Standard: 67, 1203
- cUL (to CSA Standard C22.2 Nos. 29 & 30)
- IP65

#### **D2L Series (Division 2):**

- NEC/CEC: Class I, Division 2, Groups B<sup>+</sup>, C, D Class I, Zone 2, IIB + H<sub>2</sub>† Class II, Division 2, Groups F, G Class III
- NEMA/EEMAC: 3, 4, 4X‡, 7B†CD, 12
- CSA Enc. 3, 4, 5
- UL Standard: 67, 1203
- cUL (to CSA Standard C22.2) Nos. 29 & 30)
- IP65

#### **Standard Materials** and Finishes: · Circuit breaker enclosure body and

- cover copper-free aluminum
- Terminal housing type 316L stainless steel ("S") or copper-free aluminum ("A")
- Gasket neoprene (cast aluminum enclosure); foam-in-place (stainless steel enclosure)
- Operating handles copper-free aluminum
- Operating shafts and bushings, cover bolts, washers, hinges, breather/drain, retractile springs - stainless steel
- Circuit breaker operators non-metallic
- Lifting bracket electrogalvanized cold • rolled steel
- Chassis silver-plated copper
- Breather cap Delrin® non-metallic material
- Neutral and ground bar tin-plated aluminum

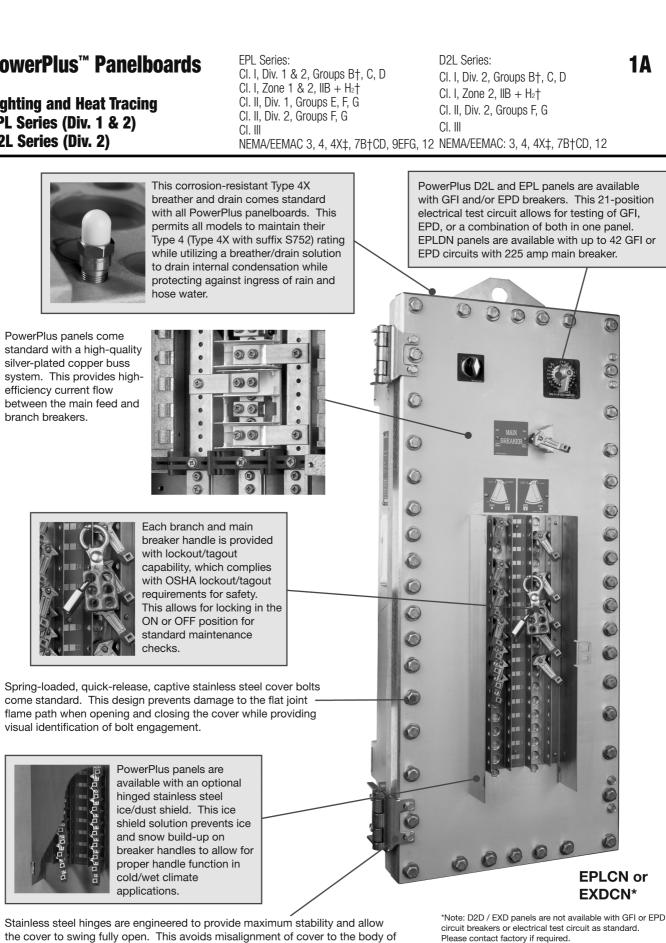
† Group B and IIB + H<sub>2</sub> is standard on all PowerPlus panels, but requires special brackets to be installed on breakers to ensure long-term operability of circuit breakers. To order with brackets installed at factory, add suffix -GB. For field installable kit, order EPL-GB-KIT separately. ‡ NEMA 4X rating is available when ordered with suffix S752 or S753.

Delrin® is a registered trademark of DuPont.

**Crouse-Hinds** by **F**'T•N

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**Lighting and Heat Tracing** EPL Series (Div. 1 & 2) **D2L Series (Div. 2)** 



the enclosure and prevents the cover from obstructing interior access.

† Group B and IIB + H2 is standard on all PowerPlus panels, but requires special brackets to be installed on breakers to ensure long-term operability of circuit breakers. To order with brackets installed at factory, add suffix -GB. For field installable kit, order EPL-GB-KIT separately ‡ NEMA 4X rating is available when ordered with suffix S752 or S753.

Crouse-Hinds by **F:T·N** 

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**Lighting and Heat Tracing** EPL Series (Div. 1 & 2) **D2L Series (Div. 2)** 

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Integrated steel lifting eye is mounted on

the top side of each PowerPlus panel.

ensure ease of mounting during the

installation process.

This provides a stable lifting position to

**EPL Series**: Cl. I, Div. 1 & 2, Groups B+, C, D Cl. I, Zone 1 & 2, IIB + H<sub>2</sub>† Cl. II, Div. 1, Groups E, F, G Cl. II, Div. 2, Groups F, G CI. III NEMA/EEMAC 3, 4, 4X<sup>±</sup>, 7B<sup>+</sup>CD, 9EFG, 12

D2L Series: Cl. I, Div. 2, Groups B<sup>+</sup>, C, D Cl. I, Zone 2, IIB +  $H_2$ <sup>+</sup> Cl. II, Div. 2, Groups F, G CI. III NEMA/EEMAC: 3, 4, 4X‡, 7B†CD, 12

PowerPlus cast enclosures are manufactured with an external flange design. This design allows for a wide unobstructed cover opening and provides a completely accessible interior for ease of maintenance and wiring.

> Superior self-aligning breaker operators are designed for both field and factory installation. This patent-pending design guarantees proper handle alignment when closing the cover. \*

All panels with terminal housings are factory-sealed<sup>††</sup> and fully wired for maximum available circuits. This allows PowerPlus models the ability to have additional breakers fieldinstalled while maintaining their factory seal.





All terminal blocks come fully wired with each contact numbered for easy connecting of branch entries.

Heavy gauge 316L stainless steel terminal housings are supplied with three removable gland plates to be used with Myers<sup>®</sup> Hubs. This design allows for the flexibility of factory- or field-drilled openings for hubs.

PowerPlus panelboards offer an industrial grade 316L stainless steel terminal housing as standard. This design offers an increased internal volume with a removable front cover for easy access during field installation and maintenance. A cast aluminum terminal housing is standard on EPL and EXD panels and available on D2L and D2D panels.



Stainless steel terminal housings offer a high-integrity gasket, providing a watertight seal to meet enclosure Type 4/CSA ENC. 4/IP65 requirements. This provides superior protection of enclosed wiring against water and corrosion. Cast aluminum enclosures are also gasketed, providing a NEMA 4 watertight seal.

† Group B and IIB + H<sub>2</sub> is standard on all PowerPlus panels, but requires special brackets to be installed on breakers to ensure long-term operability of circuit breakers. To order with brackets installed at factory, add suffix -GB. For field installable kit, order EPL-GB-KIT separately.

‡ NEMA 4X rating is available when ordered with suffix S752 or S753.

\* Not available in Size F offering. Spring aligning forks are standard on

housing (suffix A) must have an external seal within 18" of enclosure.

t+EPL'A and EXD\*A conduit entries 2" or larger in Class I, Division 1 must be sealed within 18" of enclosure. All alternate feed entries to breaker

**D2LBS (Inverted)** 

Size F panels

or D2DBS (Inverted)





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### **Lighting and Heat Tracing** EPL Series (Div. 1 & 2) **D2L Series (Div. 2)**

EPL Series: Cl. I, Div. 1 & 2, Groups B<sup>+</sup>, C, D Cl. I, Zone 1 & 2, IIB + H<sub>2</sub>+ Cl. II, Div. 1, Groups E, F, G Cl. II, Div. 2, Groups F, G CL III NEMA/EEMAC 3, 4, 4X±, 7B+CD, 9EFG, 12

## **Electrical Ratings:**

#### Branch Breakers (120/240VAC Quicklag® Bolt-On) **Trip Ratings:**

- 1-, 2-, and 3-pole
- 10, 15, 20, 25, 30, 35, 40, 45, 50 amp (available in all breaker spaces in panel), 55, 60, 70, 80, 90, 100 amp (only 3 breaker spaces available for 55 to 100 amp branch breakers)
- GFI type, 1- and 2-pole (5mA sensitivity) 15, 20, 25, 30, 40 (50 amp - available 2-pole only)
- EPD type, 1- and 2-pole (30mA sensitivity) 15, 20, 25, 30, 40 (50 amp - available 2-pole only)
- HID type, 1- and 2-pole, 15, 20, 25, 30, 35, 40, 50, 60
- Available with GFI, EPD, or a combination of both in one panel with a 21-position electrical test circuit
- Ambient compensated breakers available to +50°C
- Main Breaker Trip Ratings:
- 2- or 3-pole
- Size B: 10 to 100 amps
- Size C and D: 10 to 225 amps

#### Main Lugs:

- Size B, C, and F: 225 amps
- · Size D: not available; main breaker only

### **Options:**

To add the following features to the panelboard, add a dash and then the suffix to the Cat. No. When multiple suffixes are needed, add them to the Cat. No. in alpha-numeric order.

Description	Suffix
Space heater	R22
Square head plugs on all conduit openings	SP
Epoxy powder coat finish, external	S752
Epoxy powder coat finish, internal and external	S753
Recess head plugs on all conduit openings	RP
Stainless steel breaker operator cover (ice shield)	HG
Group B kit factory installed	GB
GFI breakers	G
EPD breakers	Е
HID breakers	н
Ambient compensated breakers (50°C)	v
Lamacoid Nameplate	LID

A standard panelboard has conduit openings for power and branch circuits on top.

To order a panelboard with main power feed from the bottom of breaker housing, and branch entries on top (alternate)	-A**
To order an inverted panelboard with all conduit openings for power and branch circuits on the bottom (inverted)	-I

To order an inverted panelboard with main power feed on	
top and bottom (alternate inverted)	-A-I**

### Accessories:

#### **Gland Plates**

#### Field installable gland plates with factory-provided aluminum Myers™ Hubs for the D2L stainless steel terminal housing (one 3-inch hub and 12 branch entry hubs - size dependent upon suffix,

each kit includes 3 gland plates, 1 for the top or bottom and 1 for each side): Part Number

¾" branch entry hub	D2L HUB2 KIT
1" branch entry hub	D2L HUB3 KIT
1 ½" branch entry hub Replacement gland plate (no hubs)	D2L HUB5 KIT D2L HUB5 KIT D2L HUB0 KIT

#### **Circuit Breaker Operator Assemblies:**

**Operator Assemblies** D2L/EPL 1-pole or 3-pole breakers D2L/EPL 2-pole breakers

#### **Replacement Cover Plugs:**

For unused circuit breaker positions (qty. 5): **Plug Kits** D2L/EPL Sizes B, C, D

#### Kit for Group B

To order b

For field in

Standard panels less -GB suffix are applicable for Group B, but it is required to install brackets on breakers.

	Part Number
rackets factory installed	add suffix -GB
stallable kit	EPL GB KIT

#### **D2L/EPL Stainless Steel Breaker Operator Cover**

To protect operators from ice build-up for all	Part Number
D2L/EPL PowerPlus panels:	
Kit for Size B panel	EPL-HG24-KIT
Kit for Size C and D panel	EPL HG42-KIT

#### Space Heater Kit

D2L/EPL PowerPlus Panels

#### **Terminal Housing Mounting Plate Kit:**

To adapt depth of terminal housing to same depth as breaker enclosure \*\*\*

Panel Types / Sizes	Part Number	<b>Terminal Housing</b>
D2L/EPL Sizes B, C, D	EPLA-MTG-KIT	Aluminum
D2L Sizes B, C, D	D2LS-MTG-KIT	Stainless

† Group B and IIB + H<sub>2</sub> is standard on all PowerPlus panels, but requires special brackets to be installed on breakers to ensure long-term operability of circuit breakers. To order with brackets installed at factory, add suffix -GB. For field installable kit, order EPL-GB-KIT separately.

\* NEMA 4X rating is available when ordered with suffix S752 or S753.
 \*\* Not available in D2L/EPL Size D panels.
 \*\*\* The weight of the panel is sufficiently supported by mounting of breaker enclosure.



Part Number

Part Number

EPL OP PLG

FPI R22 KIT

EPL HDL13

EPL HDL2

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EPL Series (Div. 1 & 2)

**D2L Series (Div. 2)** 

**Lighting and Heat Tracing** 

EPL Series: Cl. I, Div. 1 & 2, Groups B<sup>+</sup>, C, D Cl. I, Zone 1 & 2, IIB + H<sub>2</sub>† Cl. II, Div. 1, Groups E, F, G Cl. II, Div. 2, Groups F, G CI. III CI. III NEMA/EEMAC 3, 4, 4X<sup>+</sup>, 7B<sup>+</sup>CD, 9EFG, 12 12

D2L Series: Cl. I, Div. 2, Groups B<sup>+</sup>, C, D CI. I, Zone 2, IIB +  $H_2$ <sup>+</sup> Cl. II, Div. 2, Groups F, G NEMA/EEMAC: 3, 4, 4X<sup>±</sup>, 7B<sup>+</sup>CD,

### Table A – Panel Capacity

#### Maximum Number of Breaker Spaces:

	Max. No. of Branch Circuit Breaker Spaces			Available Main	Available	
Panel	With Main	With N	lain Breaker	Breaker	With GFI, EPD	
Size	Lug Only	2-pole	3-pole	Ampacity	Branch Protection	
В	24	22	21	Up to 100∎	Yes	
C§	42	40 36	39 36	Up to 100∎ 110 to 225≎	Yes Yes	
D	N/A	42	42	Up to 2250	Yes	

### Table B – To Size Panels with GFI or EPD **Branch Breakers**

#### Maximum Number of GFI or EPD Breakers

Panel Size with Main Lug or Main Breaker	Single- Pole	Two- Pole	
		12	
В	21	(10 with 3-pole MCB,	
		11 with 2-pole MCB)	
С	21	14	
	EPLDN only - can go up to 42 GFI or EPD circuits.		
D	EPLDN will accommoda breaker.	te up to 225 amp main	

Each factory-sealed panel is equipped with 42 load wires for GFI/EPD breakers and any combination with standard branch breakers. Determine the total number of load wires required to complete your panel. You may not exceed 42 load wires.

> 2 23

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Single-pole breaker Single-pole GFI (or EPD) breaker Two-pole breaker Two-pole GFI (or EPD) breaker Three-pole breaker

**EPLDN** Panels

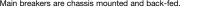
Maximum Total: 42 load wires (factory sealed) Maximum Total: 84 load wires (non-factory sealed)

Load Wires Required

† Group B and IIB + H<sub>2</sub> is standard on all PowerPlus panels, but requires special brackets to be installed on breakers to ensure long-term operability of circuit breakers. To order with brackets installed at factory, add suffix -GB. For field installable kit, order EPL-GB-KIT separately. ‡ NEMA 4X rating is available when ordered with suffix S752 or S753.

All size B and size C panels with main breaker rated up to 100 amps use a back-fed branch breaker. All size D and size C panels with main breaker rated from 110 amps to 225 amps have a dedicated location for main breaker. Size C ordered with suffix 2M00 or 3M00 are provided with 36 branch circuits for maximum breaker ampacity.

O Main breakers are mounted external to chassis Main breakers are chassis mounted and back-fed





Lighting and Heat Tracing EPL Series (Div. 1 & 2) D2L Series (Div. 2)  $\begin{array}{l} \mbox{EPL Series:} \\ \mbox{Cl. I, Div. 1 & 2, Groups B^+, C, D} \\ \mbox{Cl. I, Zone 1 & 2, IIB + H_2^+} \\ \mbox{Cl. II, Div. 1, Groups E, F, G} \\ \mbox{Cl. II, Div. 2, Groups F, G} \\ \mbox{Cl. III} \\ \mbox{NEMA/EEMAC 3, 4, 4X^+, 7B^+CD, 9EFG, 12} \\ \end{array}$ 

D2L Series: Cl. I, Div. 2, Groups B†, C, D Cl. I, Zone 2, IIB + H<sub>2</sub>† Cl. II, Div. 2, Groups F, G Cl. III NEMA/EEMAC: 3, 4, 4X‡, 7B†CD, 12

### Lighting Panelboard Catalog Number Example

Example:

Class I, Division 2 / Zone 2, Group B panel with:

- 240VAC lighting panelboard
- (28) single-pole 20 amp branch breakers
- (1) single-pole 15 amp branch GFI breaker
- 225 amp 3-pole main circuit breaker

#### Example would be ordered as:

<u>D2L Ç Ş 3 30G * 28 1 20 * 01 1 15G -</u>	<u>3 M 225 -GB</u>
1. Select panel type	18. Group B Option
2. Select size of enclosure B = 24 circuit panel C = 42 circuit panel (36 circuit panel with main breaker greater than 100 amps) D = 42 circuit panel	17. Indicates main breaker amperage
3. Select terminal enclosure material type Premium Solution S = stainless steel terminal housing (Div. 2 / Zone 2 panels only) A = cast aluminum terminal housing Value Solution N = no terminal housing (non-factory-sealed - Div. 1 & 2 / Zone 1 & 2)	rating 16. M indicates main breaker
4. Select panel phase 1 = single-phase electrical system 3 = three-phase electrical system	
5. Select breaker spaces 1-pole breaker = 1 breaker space 2-pole breaker = 2 breaker spaces 3-pole breaker = 3 breaker spaces	
Example:      (28) 1-pole 20 amp breakers    = 28 spaces      + (1) 1-pole 15 amp GFI breaker    = <u>1 spaces</u> Total breaker spaces    = 29      If odd, round up to even    = <b>30</b>	
Note:    GFI and EPD each require 1 additional load wire per breaker.      Factory sealed PowerPlus panels offer a maximum of 42 load wires.      For requirements greater than 42, consider non-factory sealed PowerPlus panels.	
6. Insert asterisk (*) before each branch breaker series	
7. Quantity of alike branch breakers	
8. Branch breaker pole rating   1 = single-pole breaker   2 = 2-pole breaker   3 = 3-pole breaker	
9. Branch breaker ampere rating (numerical value represents ampere rating) 20 = 20 amps	
10. Insert asterisk (*) before each branch breaker series	
11. Quantity of alike branch breakers	
12. Branch breaker pole rating (see #8 above)	
13. Branch breaker ampere rating	
14. Dash indicates that main breaker follows	
15. Main breaker number of poles	

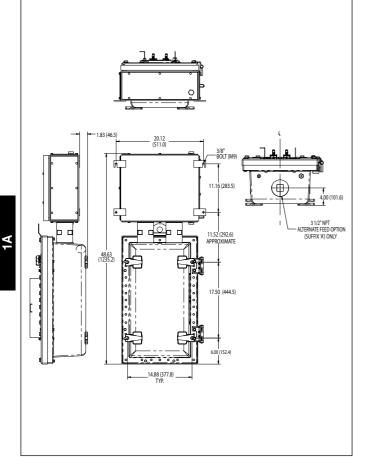
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**Lighting and Heat Tracing** EPL Series (Div. 1 & 2) **D2L Series (Div. 2)** 

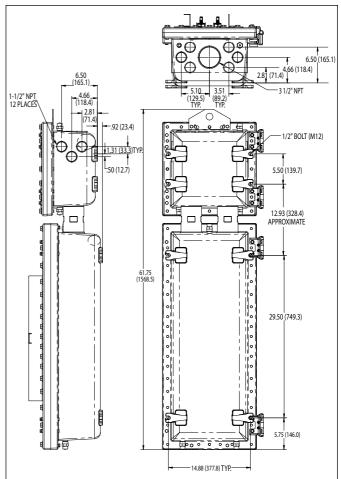
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### **Dimensions** Size B Panel\*

(With Stainless Steel Terminal Housing)



### Size C and D Panel\* (With Cast Terminal Housing)



† Group B and IIB + H<sub>2</sub> is standard on all PowerPlus panels, but requires special brackets to be installed on breakers to ensure long-term operability of circuit breakers. To order with brackets installed at factory, add suffix -GB. For field installable kit, order EPL-GB-KIT separately.

\* NEMA 4X rating is available when ordered with suffix S752 or S753. \*Stainless steel and cast aluminum terminal housing for Sizes B, C, and D are the same. Note: Value series non-factory-sealed EPL\*N panel dimensions are the breaker housing only and use standard entries shown on cast terminal housing.

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