Power EXD Series (Div. 1 & 2) D2D Series (Div. 2)

CI. II, Div. 1, Groups E, F, G CI. II, Div. 2, Groups F, G CI. III NEMA/EEMAC 3, 4, 4X‡, 7B†CD, 9EFG, 12

Cl. I, Div. 1 & 2, Groups B†, C, D

Cl. I, Zone 1 & 2, IIB + H₂†

EXD Series:

D2D Series: Cl. I, Div. 2, Groups B \dagger , C, D Cl. I, Zone 2, IIB + H $_2$ \dagger Cl. II, Div. 2, Groups F, G Cl. III

NEMA/EEMAC: 3, 4, 4X‡, 7B†CD, 12

1A

PowerPlus™ 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.

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 be field-installed during installation.

Applications:

EXD and D2D PowerPlus[™] panelboards are used:

- 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

Certifications and Compliances:

EXD Series:

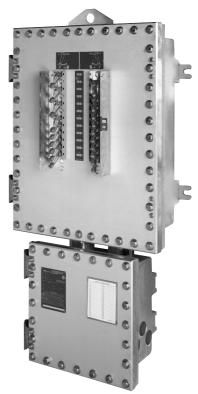
- NEC/CEC:
 - Class I, Division 1 & 2, Groups B†, C, D Class I, Zone 1 & 2, IIB + H_2 † Class II, Division 1, Groups E, F, G Class II, Division 2, Groups F, G Class III
- NEMA/EEMAC: 3, 4, 4X‡, 7B†CD, 9EFG, 12
- CSA Enc. 3, 4, 5
- UL Standard: 67, 1203
- cUL (to CSA Standard C22.2 Nos. 29 & 30)
- IP65

D2D Series (Division 2):

- NEC/CEC:
 - Class I, Division 2, Groups B \dagger , C, D Class I, Zone 2, IIB + H $_2\dagger$ 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 EXD/D2D Size F: copper-free aluminum; all other types: 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



1A

Power EXD Series (Div. 1 & 2) D2D Series (Div. 2) EXD Series:

Cl. I, Div. 1 & 2, Groups B+, C, D

Cl. I, Zone 1 & 2, IIB + H_2 † Cl. II, Div. 1, Groups E, F, G

Cl. II, Div. 2, Groups F, G

CI. III

NEMA/EEMAC 3, 4, 4X‡, 7B†CD, 9EFG, 12

D2D Series:

Cl. I, Div. 2, Groups B†, C, D

CI. I, Zone 2, IIB + H_2 †

Cl. II, Div. 2, Groups F, G

CI. III

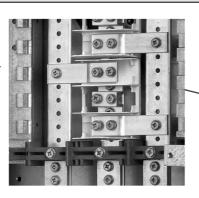
NEMA/EEMAC: 3, 4, 4X‡, 7B†CD, 12



This corrosion-resistant Type 4X breather and drain comes standard with all PowerPlus panelboards. This permits all models to maintain their Type 4 (Type 4X with suffix S752) rating while utilizing a breather/drain solution to drain internal condensation while protecting against ingress of rain and hose water.

PowerPlus D2L and EPL panels are available with GFI and/or EPD breakers. This 21-position electrical test circuit allows for testing of GFI, EPD, or a combination of both in one panel. EPLDN panels are available with up to 42 GFI or EPD circuits with 225 amp main breaker.

PowerPlus panels come standard with a high-quality silver-plated copper buss system. This provides highefficiency current flow between the main feed and branch breakers.





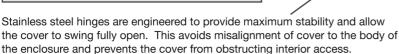
Each branch and main breaker handle is provided with lockout/tagout capability, which complies with OSHA lockout/tagout requirements for safety. This allows for locking in the ON or OFF position for standard maintenance checks.

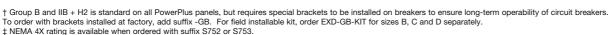
Spring-loaded, quick-release, captive stainless steel cover bolts come standard. This design prevents damage to the flat joint—flame path when opening and closing the cover while providing visual identification of bolt engagement.



PowerPlus panels are available with an optional hinged stainless steel ice/dust shield. This ice shield solution prevents ice and snow build-up on breaker handles to allow for proper handle function in cold/wet climate applications.

*Note: D2D / EXD panels are not available with GFI or EPD circuit breakers or electrical test circuit as standard. Please contact factory if required.





EPLCN or

EXDCN*

Power EXD Series (Div. 1 & 2) D2D Series (Div. 2) EXD Series: Cl. I, Div. 1 & 2, Groups B \dagger , C, D Cl. I, Zone 1 & 2, IIB + H $_2$ \dagger Cl. II, Div. 1, Groups E, F, G

Cl. II, Div. 2, Groups F, G Cl. III

3

NEMA/EEMAC 3, 4, 4X‡, 7B†CD, 9EFG, 12

D2D Series:
Cl. I, Div. 2, Groups B†, C, D
Cl. I, Zone 2, IIB + H₂†
Cl. II, Div. 2, Groups F, G
Cl. III

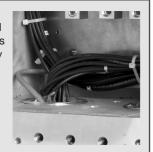
NEMA/EEMAC: 3, 4, 4X±, 7B+CD, 12

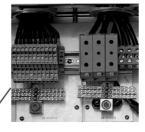
Integrated steel lifting eye is mounted on the top side of each PowerPlus panel. This provides a stable lifting position to ensure ease of mounting during the installation process.

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†† and fully wired for maximum available circuits. This allows PowerPlus models the ability to have additional breakers field-installed 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® 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.



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

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

† 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 EXD-GB-KIT for sizes B, C and D separately. ‡ NEMA 4X rating is available when ordered with suffix S752 or S753.

D2D Series (Div. 2)

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

D2D Series: Cl. I, Div. 2, Groups B†, C, D Cl. I, Zone 2, IIB + H_2 † Cl. II, Div. 2, Groups F, G

NEMA/EEMAC: 3, 4, 4X‡, 7B†CD, 12

Electrical Ratings:

Branch Breakers Trip Ratings:

Panel Size	Voltage	Phase / Wire	Main Breaker Amperage	Branch Breaker
В	480Y/277	3P 4W	Up to 100	G-frame
	480∆	3P 3W	Up to 100	G-frame
С	480Y/277	3P 4W	Up to 100	G-frame
	480∆	3P 3W	Up to 100	G-frame
D	480Y/277	3P 4W	Up to 225	G-frame
	480∆	3P 3W	Up to 225	G-frame
F	480Y/277,	3P 3W or	Up to 225	F-frame
	480∆, or	3P 4W		
	600∆††			

Panel Sizes B, C, and D (G-Frame Cutler-Hammer[™]):

- 1-, 2-, and 3-pole: GHB 480/277Y (standard offering)
- 2- and 3-pole: GDB 480∆ (requires suffix -GDB)
- 1-, 2-, and 3-pole GBH 600Y/347 (requires suffix -GBH; contact factory)
- 15, 20, 25, 30, 35, 40, 45, 50 amp (available in all breaker spaces in panel), 60, 70, 80, 90, 100 amp (only 3 breaker spaces available)##
- Ambient compensated breakers are optional to +50°C (suffix V)

Panel Size F (F-frame breaker: EHD Cutler-Hammer™ standard):

- 15, 20, 25, 30, 35, 40, 45, 50, 60, 70 amp (available in all breaker spaces in panel), 80, 90, 100 amp (only 3 breaker spaces available)
- Breaker types available † † †
- FDB: 2-, and 3-pole 600V
- FD: 1-, 2- (277V), and 3-pole (600V)
- HFD: 1-, 2- (277V), and 3-pole (600V)
- EHD: 1-, 2- (277V), and 3-pole (480V)

Main Breaker Trip Ratings:

- 2- and 3-pole (contact factory for single phase sizes B, C, D)
- Size B, C: 15 to 100 amps
- Size D, F: 15 to 225 amps

Main Lugs:

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

Ampere Interrupting Capacity:

- Breaker AIC Ratings:
- GHB Breaker: 14kAIC at 480Y/277
- EHD Breaker: 14kAIC at 480V

Breaker types optional with Sizes B, C, and D panel only:

- GDB Breaker: 14kAIC at 480V

Breaker types optional with Size F panel only:

- FDB Breaker: 14kAIC at 480V and 600V
- FD Breaker: 18kAIC at 600V and 35kAIC at 480V & 277V
- HFD Breaker: 25kAIC at 600V and 65kAIC at 480V & 277V

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	R44
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≎	E
HID breakers♥	н
Ambient compensated breakers (50°C)	V
GDB 480∆ 3P 3W system■	GDB
FDB 600V breakers*	FDB600
FD 600V breakers*	FD600
HFD 600V breakers*	HFD600
Lamacoid Nameplate	LID
	2.10

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)
To order an inverted panelboard with all conduit openings for power and branch circuits on the bottom (inverted)

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

†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 EXD-GB-KIT for Sizes B, C, and D separately. ‡NEMA 4X rating is available when ordered with suffix S752 or S753.

††For 480Δ 3P 🦭 system or for 600VAC, a suffix is required. Note: for single-pole 480Δ, GHB breakers will be furnished for Sizes B, C, and D.

‡‡Two-pole GDB breakers are only available up to 50 amps.
†††F-frame breakers are only available in Size F panel with up to a maximum of 30 circuit spaces.

Please contact factory. Single pole 480V EPD available. For all others, please contact factory. Two breaker positions for single pole EPD: odds start at position 1; evens start at position 4.

Available in D2D and EXD Sizes B, C, and D only.

*Available with D2D and EXD Size F panels only.

**D2D/EXD Sizes C and D are only available with up to 36 circuits.

Not available on stainless terminal housings.



-A**

1A

PowerPlus™ Panelboards

Power EXD Series (Div. 1 & 2) D2D Series (Div. 2)

EXD Series: Cl. I, Div. 1 & 2, Groups B \dagger , C, D Cl. I, Zone 1 & 2, IIB + $H_2\dagger$ 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

D2D Series: Cl. I, Div. 2, Groups B+, 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

Accessories:

Gland Plates

Field installable gland plates with factory-provided aluminum Myers™ Hubs for the D2D stainless steel terminal housing (one 3inch 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
3/4" branch entry hub	D2D HUB2 KIT
1" branch entry hub	D2D HUB3 KIT
1 ½" branch entry hub	D2D HUB5 KIT
Replacement gland plate (no hubs)	D2D HUB0 KIT

Circuit Breaker Operator Assemblies:

Operator Assemblies Part Number D2D/EXD All breakers panel Sizes B, C, D **EXD HDL123** D2D/EXD All breakers panel Sizes F EXD K1

Replacement Cover Plugs:

For unused circuit breaker positions (qty. 5):

Part Number Plug Kits D2D/EXD Sizes B, C, D **EXD OP PLG** D2D/EXD Size F EXD K2

Kit for Group B

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

Part Number To order brackets factory installed add suffix -GB For field installable kit (Sizes B, C, D) **EXD GB KIT**

D2D/EXD Stainless Steel Breaker Operator Cover

To protect operators from ice build-up for all D2D/EXD

PowerPlus panels:

Part Number D2D/EXD PowerPlus panels **Contact Factory**

Space Heater Kit

D2D/EXD PowerPlus panels **EXD R44 KIT**

Terminal Housing Mounting Plate Kit:

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

Panel Types / Sizes **Part Number Terminal Housing** D2D/EXD Sizes B, C, D **FYDA-MTG-KIT** Aluminum D2D Sizes B, C, D D2DS-MTG-KIT Stainless

†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 EXD-GB-KIT for Sizes B, C, and D separately *** The weight of the panel is sufficiently supported by mounting of breaker enclosure. ‡NEMA 4X rating is available when ordered with suffix S752 or S753.

D

Power EXD Series (Div. 1 & 2) D2D Series (Div. 2)

EXD Series:
CI. I, Div. 1 & 2, Groups B†, C, D
CI. I, Zone 1 & 2, IIB + H₂†
CI. II, Div. 1, Groups E, F, G
CI. II, Div. 2, Groups F, G CI. IIÍ

D2D Series: Cl. I, Div. 2, Groups B†, 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, 9EFG, 12 NEMA/EEMAC: 3, 4, 4X‡, 7B†CD, 12

Table A - Panel Capacity

Maximum Number of Breaker Spaces:

	Max. No. of Branch Circuit Breaker Spaces			Available Main	Available	
Panel	With Main	With Main Breaker		Breaker	With GFI, EPD	
Size	Lug Only	2-pole*	3-pole	Ampacity	Branch Protection***	
В	24	22	21	Up to 100 ■	No	
С	42	40	39	Up to 100 ■	No	
D	N/A	42	42	Up to 225 ≎	No	
F	30	30	30	Up to 225 ≎	No	

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

Maximum Number of GFI or EPD Breakers Panel Size with Main Lug Singleor Main Breaker Pole Pole 12 В 21 (10 with 3-pole MCB, 11 with 2-pole MCB) С 14 EPLDN only - can go up to 42 GFI or EPD

amp main breaker.

circuits. EPLDN will accommodate up to 225

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. **Load Wires Required**

Single-pole breaker Single-pole GFI (or EPD) breaker 2 2 Two-pole breaker 3 Two-pole GFI (or EPD) breaker Three-pole breaker

Maximum Total: 42 load wires

(factory sealed)

Maximum Total: 82 load wires **EPLDN Panels**

(non-factory sealed)

† 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 panels, put requires special brackets to be installed on breakers to brackets installed at factory, add suffix -GB. For field installable kit, order EXD-GB-KIT for Sizes B, C and D separately \$\frac{1}{2}\$ NEMA 4X rating is available when ordered with suffix S752 or S753.

^{*} Contact factory for single phase size B, C, or D.

Main breakers are mounted external to chassis.

[■] Main breakers are chassis mounted and back-fed.

^{***}GFI, EPD for D2D/EXD are not standard options. If required, please contact factory. Single pole 480V EPD available. For all others, please contact factory. Two breaker positions for single pole EPD: odds start at position 1; evens start at position 4.

Power EXD Series (Div. 1 & 2) D2D Series (Div. 2)

EXD Series:		
Cl. I, Div. 1 & 2, Groups B†,	С,	D
Cl. I, Zone 1 & 2, IIB + H ₂ †		
Cl. II, Div. 1, Groups E, F, G		
Cl. II, Div. 2, Groups F, G		
CL III ' ' '		

D2D Series: Cl. I, Div. 2, Groups B⁺, C, D Cl. I, Zone 2, IIB + H_2 † Cl. II, Div. 2, Groups F, G

1A

NEMA/EEMAC 3, 4, 4X‡, 7B†CD, 9EFG, 12 NEMA/EEMAC: 3, 4, 4X‡, 7B†CD, 12

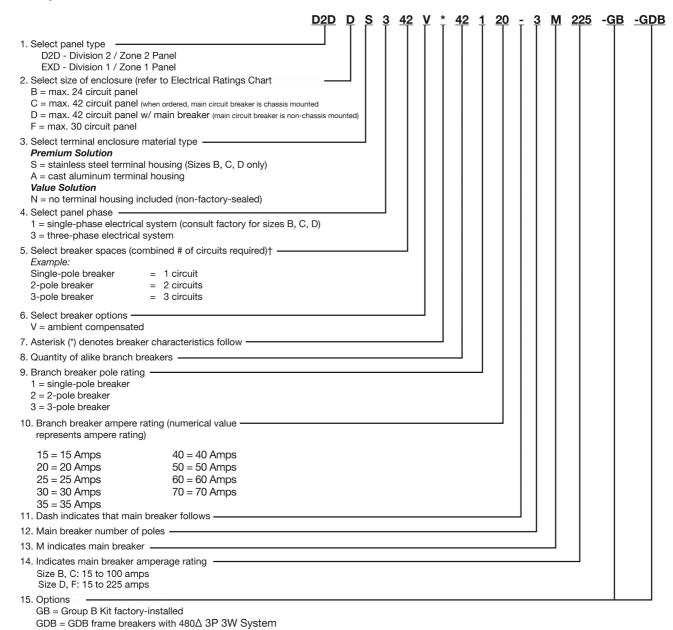
Power Panelboard Catalog Number Example

Example:

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

- 480∆VAC power panelboard with 3-phase, 3-wire
- (42) single-pole 20 amp branch breakers
- 225 amp 3-pole main circuit breaker

Example would be ordered as:



† 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 EXD-GB-KIT for sizes B, C and D separately, ‡ NEMA 4X rating is available when ordered with suffix S752 or S753.

†Even number of breaker spaces is required. For odd number of spaces, round up to next even number.

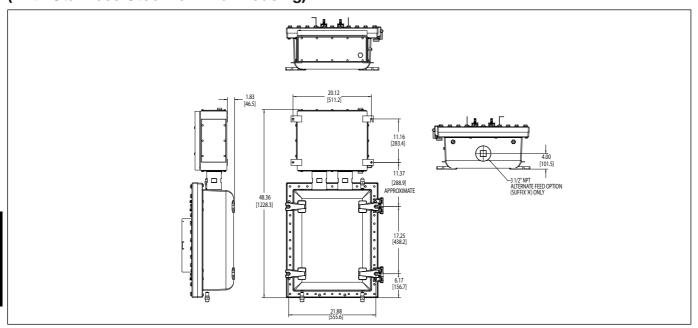
Power EXD Series (Div. 1 & 2) D2D Series (Div. 2)

EXD Series: Cl. I, Div. 1 & 2, Groups B \dagger , C, D Cl. I, Zone 1 & 2, IIB + H $_2\dagger$ Cl. II, Div. 1, Groups E, F, G Cl. II, Div. 2, Groups F, G CI. IIÍ

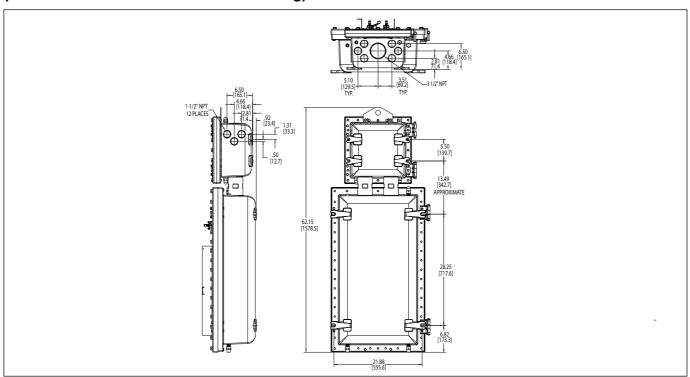
NEMA/EEMAC 3, 4, 4X‡, 7B†CD, 9EFG, 12 7B†CD, 12

D2D Series: Cl. I, Div. 2, Groups B \dagger , C, D Cl. I, Zone 2, IIB + H $_2\dagger$ Cl. II, Div. 2, Groups F, G CI. III NEMA/EEMAC: 3, 4, 4X‡,

Dimensions Size B Panel* (With Stainless Steel Terminal Housing)



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



[†] 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 EXD-GB-KIT for sizes B, C and D 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 panels have same dimensions.

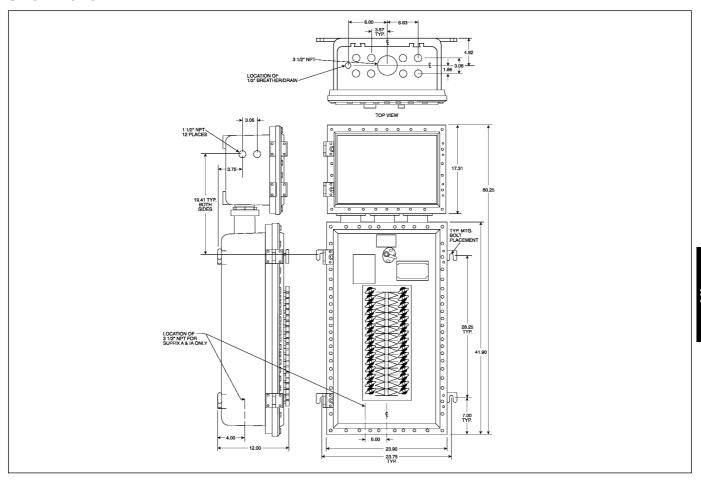
Note: Value series non-factory-sealed EXD*N panel dimensions are the breaker housing only and use standard entries shown on cast terminal housing.

Power EXD Series (Div. 1 & 2) D2D Series (Div. 2)

EXD Series: Cl. I, Div. 1 & 2, Groups B \dagger , C, D Cl. I, Zone 1 & 2, IIB + H $_2\dagger$ Cl. II, Div. 1, Groups E, F, G Cl. II, Div. 2, Groups F, G ČI. IIÍ NEMA/EEMAC 3, 4, 4X‡, 7B†CD, 9EFG, 12 NEMA/EEMAC: 3, 4, 4X‡, 7B†CD, 12

D2D Series: 1A Cl. I, Div. 2, Groups B†, C, D Cl. I, Zone 2, IIB + H_2 † Cl. II, Div. 2, Groups F, G CI. III

Size F Panel



[†] 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 EXD-GB-KIT for sizes B, C and D 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 panels have same dimensions.

Note: Value series non-factory-sealed EXD*N panel dimensions are the breaker housing only and use standard entries shown on cast terminal housing.