APPLICATION

EXD and D2D size F panelboards provide a centrally controlled switching system and short circuit protection for feeder or branch circuits to control lighting, heating, appliance, heat tracing, motor and similar circuits.

EXD panelboards are designed for use in Class I, Division 1 and 2, Groups B (with GB suffix), C, D hazardous (classified) areas as defined by the National Electrical Code® (NEC) as well as in damp, wet locations – indoors or outdoors.

Installation & maintenance information

D2D/EXD size F power panelboards

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

INSTALLATION

WARNING

To avoid personnel injury or damage to equipment, disconnect all power upstream from panel prior to opening enclosure. Failure to do so could result in personnel injury or damage to equipment.

Figure 1 – D2DFA panel, mounting dimensions

1. Select a mounting location that will provide suitable strength and rigidity for supporting the panelboard and all contained wiring. Figure 1 shows the mounting dimensions. Approximate shipping weight of panelboard fully loaded with breakers is 580 lbs.

2. Install detachable mounting feet while enclosure is on the floor or work bench (see Figure 2).
   - Insert four (4) wedge shaped mounting feet into dovetail slots in enclosure body.
   - Tap each foot to securely tighten into slot.

3. Position enclosure on surface with mounting feet on the lower mounting bolts. While continuing to support the enclosure in position, install the top two (2) bolts. Tighten all four (4) mounting bolts securely in place.

4. Remove the cover bolts of the small (junction) box and swing open on its hinges. NOTE: Do not damage or scratch the flange surface.

5. With panelboard securely fastened to the mounting surface, attach into conduit system. Tapped conduit openings are provided for main circuit and branch circuits as shown in Figure 1. To reduce the risk of hazardous atmospheres, conduit runs 2" size and larger must have a sealing fitting connected within 18" of the enclosure. Use explosionproof RE reducers for conduit smaller than tapped opening.

6. After enclosure is positioned and secured in its permanent location, pull wires into panelboard junction box, making sure that they are long enough to make the required connections. Make connections to make the required connections. Make connections properly with an approved plug, drain or breather such as Crouse-Hinds series PLG plugs or ECD breather/drains.

7. Test wiring for correctness with continuity checks and per Figure 3 of either one- or three-phase circuits. For other sealing requirements, consult the National Electrical Code.

8. Securely tighten all cover bolts supplied with the panelboard. Torque all cover bolts to 40-45 ft-lbs.

EXD and D2D panelboards must be protected during hose down operations. These panelboards are watertight, but the breathers and drains are not.

CAUTION

To prevent external fire or explosion of Group B atmospheres, do not connect to a supply circuit having a capability of delivering more than 10,000 RMS symmetrical amperes.

For Group C and D atmospheres, do not connect to a supply circuit having a capability of delivering more than 65,000 RMS symmetrical amperes at 240/480 VAC.

To avoid the risk of explosion, external seals are required when used in Group B hazardous areas. Install seals immediately adjacent to conduit opening.

To avoid the risk of explosion, conduit sealing fittings are required on all conduit entrances (within 18” of the enclosure) for enclosures when used in Class I, Group B hazardous areas. Use Crouse-Hinds EYS seals. For other sealing requirements, consult the National Electrical Code.

Sealing fittings must be installed in accordance with the NEC and properly secured. See instructions supplied with sealing fittings. NOTE: Select nipple lengths sufficient to permit sealing fittings and unions to clear the flange.

Group B atmospheres; Class II, Groups E, F, G.

65,000 RMS symmetrical amperes at 240/480 VAC.

Groups B, C, D 10kAIC

-25°C to 60°C Groups B, C, D

cUL max. ambient +40°C

10kAIC

D2D/EXD size F panelboards

WARNING

To avoid personal injury or damage to the panelboard assembly, the steel plate provided for lifting the enclosure during installation is designed to accept a maximum 2 ton hook.

Panelboards should be installed, inspected, maintained and operated by qualified and competent personnel. Read entire instructions before starting installation of this product. Contact your Crouse-Hinds Sales Representative, Crouse-Hinds Customer Service or your Crouse-Hinds Distributor if you have any questions.

Hazardous location information specifying class and group listing is marked on the nameplate of the panelboard.

To avoid personnel injury or damage to equipment, do not open cover of the circuit breaker enclosure. It is designed for explosionproof and is not necessary or recommended to remove the cover during panelboard installation. If it becomes necessary, see ‘Removing and Reinstalling Cover.’ Standard units are factory sealed and do not require any disassembly for installation of panelboard.

For main feed conduit entries in circuit breaker panelboard compartment (alternate option), install approved sealing fittings as required by Section 501-5 and/or 502-5 of the National Electrical Code plus any other applicable codes. Hazardous location information specifying class and group listing is marked on the nameplate of the panelboard.

Top Here

To Attach

Figure 2 – Mounting feet

Figure 3 – Panelboard seal locations

Sealing fittings must be installed in accordance with the NEC and properly secured. See instructions supplied with sealing fittings. NOTE: Select nipple lengths sufficient to permit sealing fittings and unions to clear the flange.

WARNING

To avoid the risk of explosion, all unused conduit openings must be closed properly with an approved plug, drain or breather such as Crouse-Hinds series PLG plugs or ECD breather/drains.

To avoid the risk of explosion, conduit sealing fittings are required on all conduit entrances (within 18” of the enclosure) for enclosures when used in Class I, Group B hazardous areas. Use Crouse-Hinds EYS seals.

Sealing fittings must be installed in accordance with the NEC and properly secured. See instructions supplied with sealing fittings. NOTE: Select nipple lengths sufficient to permit sealing fittings and unions to clear the flange.

7. Test wiring for correctness with continuity checks and per Figure 3 of either one- or three-phase circuits.

6. After enclosure is positioned and secured in its permanent location, pull wires into panelboard junction box, making sure that they are long enough to make the required connections. Make connections properly with an approved plug, drain or breather such as Crouse-Hinds series PLG plugs or ECD breather/drains.

8. Securely tighten all cover bolts supplied with the panelboard. Torque all cover bolts to 40-45 ft-lbs.

EXD and D2D panelboards must be protected during hose down operations. These panelboards are watertight, but the breathers and drains are not.
9. It is not necessary or recommended to remove the panelboard cover during enclosure installation. If it becomes necessary, see “Removing and Reinstalling Panelboard Cover.”

10. Mark circuit card directory located on main enclosure cover with appropriate descriptions for proper branch circuit numbers. Place circuit card directory inside clear plastic jacket before placing back in its holder.

REMOVING AND REINSTALLING PANELBOARD COVER

To avoid personal injury or damage to the panelboard assembly, panelboard cover weighs approximately 75 lbs., handle appropriately for this weight.

To avoid personal injury or damage to the panelboard assembly, DO NOT use cover bolts or circuit breaker operators as a means to lift the enclosure. Excessive force on the fully retracted bolts or operators may damage the bolt/spring assembly.

- Loosen all cover bolts until each bolt is fully retracted into the cover by the stainless steel spring under the bolt head. Next, support the cover and remove the two (2) 5/16-18 hinge bolts that attach each hinge to the body. DO NOT remove the two (2) 5/16-18 bolts that attach hinge to cover. Using the hinge sections still attached to the cover, grasp the cover under opposite edges and lift from body.

- To replace cover, make sure cover and body ground joint surfaces are clean and not scratched. Orient cover so hinge side of cover will align with hinge on body. Lift cover to approximate position, and line up bolt holes of cover with body. Avoid sliding cover ground joint surface over ground joint surface of body. Cover body bolt holes must match up. Slide the cover over the guide pin protruding from the back flange. Hand start the corner bolts. Fully tighten all cover bolts (torque to 40-45 ft.-lbs.) and then reinstall the two (2) 5/16-18 hinge bolts (torque to 8 ft.-lbs.) for each hinge in the cover. Follow procedures in “Opening Cover” section once hinges are reinstalled.

OPENING COVER

EXD and D2D panelboards are furnished with captive triple lead bolts that utilize a spring to aid and indicate full retraction of the bolts into the cover when opening and closing. Make sure all cover bolts are fully retracted into the cover before attempting to open or close the cover.

When bolts are disengaged from the body flange threads, the bolts will withdraw and be held in this position by the spring and washer under the bolt heads (see Figure 4). After all bolts are fully disengaged, firmly grasp the bottom and right side of the cover and carefully swing cover aside. To prevent damage to the ground joint surface, avoid strikng cover, or devices in cover, on neighboring enclosures or structures.

To avoid the risk of explosion or damage to equipment, hammer or prying tools must not be allowed to damage the flat joint surfaces. Do not handle cover roughly, or, if removed, do not place it on surfaces that might damage or scratch the flat ground joint surfaces.

MAINTENANCE

To avoid personnel injury or damage to equipment, disconnect all power upstream from panel prior to opening enclosure. Failure to do so could result in personnel injury or damage to equipment.

To avoid disconnection of wires or other components, damaged by the environment and frequency of use. It is recommended that it should be at least once a year.

1. Frequent inspection should be made. A schedule for maintenance check should be determined by the environment and frequency of use. It is recommended that it should be at least once a year.

2. Perform visual, electrical and mechanical checks on all components on a regular basis.

3. A Waterguard desiccant packet has been installed in this enclosure at the factory. The purpose of the desiccant is to absorb and remove water on contact or from the atmosphere, and protect the enclosed equipment from damage. The desiccant packet will expand 3 to 4 times its original size. Desiccant should be checked and replaced at regular equipment service intervals or every 3 to 6 months.

All statements, technical information and recommendations contained herein are based on information and tests we believe to be reliable. The accuracy or completeness thereof are not guaranteed. In accordance with Eaton’s Crouse-Hinds Division’s “Terms and Conditions of Sale”, and since conditions of use are outside our control, the purchaser should determine the suitability of the product for his intended use and assumes all risk and liability whatsoever in connection therewith.

For replacement desiccant packets, order Cat. # WG22 (protects 2 to 3 cubic feet of air space); or Cat. # WG33 (protects 4 to 5 cubic feet of air space).

Waterguard is non-toxic, emits no fumes and generates no heat during use. No gloves, masks or special clothing is required to handle this product.

4. Make sure all cover bolts are fully retracted into cover before closing cover on body. Close cover and start cover bolts threads by hand. Torque all cover bolts securely to 40-45 ft.-lbs.