

**NEMA 1 Cover Kit  
for FlexPak 3000 Digital DC Drives  
1.5 - 30 HP @ 230 VAC and 3 - 60 HP @ 460 VAC  
Model Number 904FK0101**

**Instruction Manual D2-3299-2**

**DANGER**

**ONLY QUALIFIED PERSONNEL FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THIS EQUIPMENT AND THE HAZARDS INVOLVED SHOULD INSTALL, ADJUST, OPERATE, AND/OR SERVICE THIS EQUIPMENT. READ AND UNDERSTAND THIS INSTRUCTION MANUAL IN ITS ENTIRETY BEFORE PROCEEDING. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.**

**CAUTION:** The user is responsible for conforming with all applicable local, national, and international codes. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

## Product Description

The products described in this instruction manual are manufactured or distributed by Reliance Electric Industrial Company.

This instruction manual describes how to install an optional NEMA 1 cover on FlexPak™ 3000 1.5 - 30 HP and 3 - 60 HP drives. When this kit is installed, the drive has a NEMA 1 enclosure rating. Each kit includes a NEMA 1 cover, drive chassis extensions, and the necessary mounting hardware.

## Verifying Cover Kit Contents

All FlexPak 1.5 - 30 HP @ 230 VAC and 3 - 60 HP @ 460 VAC drives use kit model number 904FK0101. Kit contents are listed in table 1 and illustrated in figure 1.

Table 1 - NEMA 1 Cover Kit Contents

Item	Description	Qty	Part Number
1	Short Back Panel	2	802273-61A
2	M5 x 8 Self-tapping Screws	18	419062-100PHF
3	Top End Cover	1	802273-42A
4	Bottom End Cover	1	802273-43A
5	Grille	6	707973-4A
6	M4 x 6 Self-tapping Screws	6	419062-100PGE
7	NEMA 1 Cover	1	802273-46S
8	Conduit Hole Cap	6	603100-3P
9	Nylon Anchor	4	602923-30K
10	M4 x 16 Machine Screws	4	419062-16PGK
11	Nylon Washers	4	419064-4G
12*	Cover Plate	1	610273-35R
13*	Cover Back Plate	1	410273-1A
14*	M5 Hex Nut with Compression Washer	1	419063-201SH

\*Factory Installed

## Installing the NEMA 1 Cover Kit

### DANGER

THE DRIVE IS AT LINE VOLTAGE WHEN CONNECTED TO INCOMING AC POWER. DISCONNECT, TAG, AND LOCKOUT ALL INCOMING POWER TO THE DRIVE BEFORE PERFORMING THE FOLLOWING PROCEDURES. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.

**CAUTION:** The user is responsible for conforming with all applicable local, national, and international codes. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

**Note:** *The following procedures assume that the drive has not been mounted.*

Installing the NEMA 1 Cover Kit involves the following procedures:

- Disconnecting power to the drive
- Assembling the top and bottom NEMA 1 covers
- Attaching the top and bottom NEMA 1 covers
- Mounting the drive
- Assembling and attaching the front NEMA 1 cover
- Turning on power to the drive

### Disconnect Power to the Drive

Step 1. Disconnect, lock out, and tag power to the drive.

### Assemble the Top and Bottom NEMA 1 Covers

Refer to figure 2 when performing the following steps.

Step 2. Insert the back panels [**Item 1**] into the top and bottom end covers [**Items 3 and 4**]. Note the orientations of the U-shaped mounting holes relative to the top and bottom end cover assemblies.

Step 3. Attach the back panels [**Item 1**] to the end covers using five (5) M5 x 8 self-tapping screws [**Item 2**] for each panel. Insert the screw that goes through the slotted edge of the panel from the inside of the cover. Insert the other screws from the outside.

Step 4. Insert the conduit hole caps [**Item 8**] into the two end covers as needed.

Step 5. Insert two (2) cover screw anchors [**Item 9**] into each end cover.

### Attach the Top and Bottom NEMA 1 Covers to the Drive

Step 6. Attach the top end cover assembly to the drive's chassis using four (4) M5 x 8 self-tapping screws [**Item 2**]. If the drive is equipped with a lift bar at the lower front of the chassis, continue with step 6. Otherwise, go to step 7.

Step 7. **For drives equipped with a lift bar only:** Remove the lift bar from the lower front of the chassis. The NEMA 1 enclosure will not fit on the drive with the lift bar attached.

Step 8. Attach the bottom end cover assembly to the drive's chassis using four (4) M5 x 8 self-tapping screws [**Item 2**].

## Mount the Drive

Step 9. At the location you selected, mount the drive vertically, using the four (4) mounting slots on the drive. Refer to figure 3 as a guide for mounting the drive.

Step 10. Use the following as a reference to provide adequate clearances for air ventilation:

- At least 4 inches (102 mm) from the sides and 5 inches (127 mm) from the top and bottom of the drive adjacent to non-heat producing equipment, such as a cabinet wall.
- At least 4 inches (102 mm) from the sides and 5 inches (127 mm) from the top and bottom of adjacent drives. For best air flow in an installation with three or more drives, do not mount the drives in a vertical stack.

Step 11. Loosen the standard cover's retaining screws and remove it from the drive.

## Assemble the Front NEMA 1 Cover

Step 12. Insert the four (4) M4 x 16 pan head machine screws [Item 10] into the NEMA 1 cover [Item 7]. Use the four nylon washers [Item 11] provided in the kit to hold the screws in place. Refer to figure 4.

Step 13. **If a line disconnect kit is installed on the drive, do the following.** Otherwise, proceed to step 14.

Refer to figure 4. Remove the M5 hex nut [Item 14], the cover plate [Item 12], and the cover back plate [Item 13] from the NEMA 1 cover. Discard these items. The bracket for the disconnect mount is supplied with the disconnect kit and must be used. See the instruction manual for your disconnect kit for more information.

Step 14. Attach one of the grilles [Item 5] to each side of the top and bottom end covers, and one to each side of the drive chassis, as shown in figure 2. Use M4 x 6 self-tapping screws [Item 6] to fasten the grilles in place.

Step 15. Refer to the appropriate FlexPak 3000 drive instruction manual for procedures on properly wiring the drive.

Step 16. Position the cover over the drive so the four pan head machine screws line up with the mounting holes on the drive. Then, tighten the screws to secure the cover in place.

## Turning on Power to the Drive

Step 17. Remove the lockout and tag

Step 18. Reconnect power to the drive.

Step 19. Turn on power to the drive.

Step 20. Check for proper drive operation.

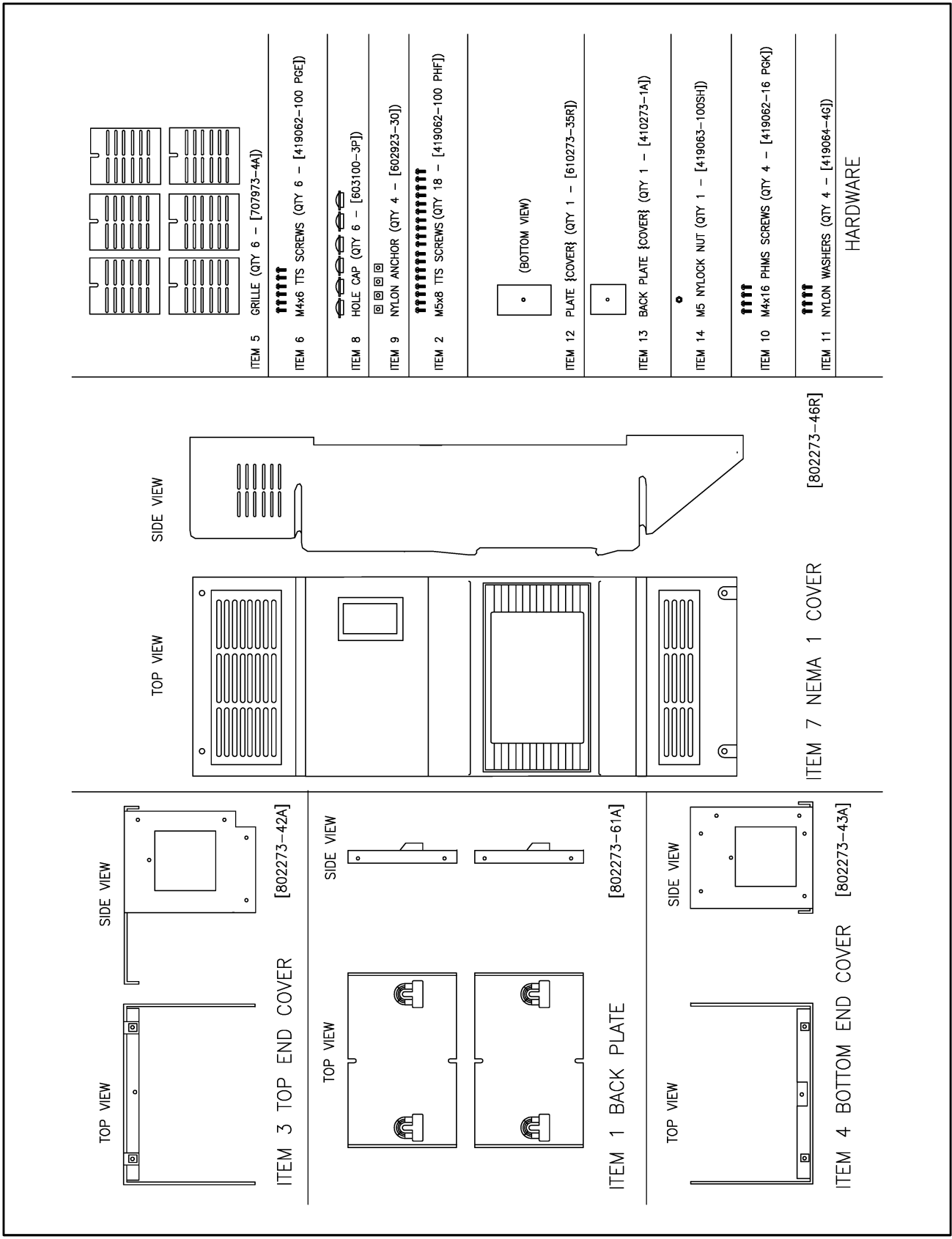


Figure 1 - NEMA 1 Cover Kit Contents

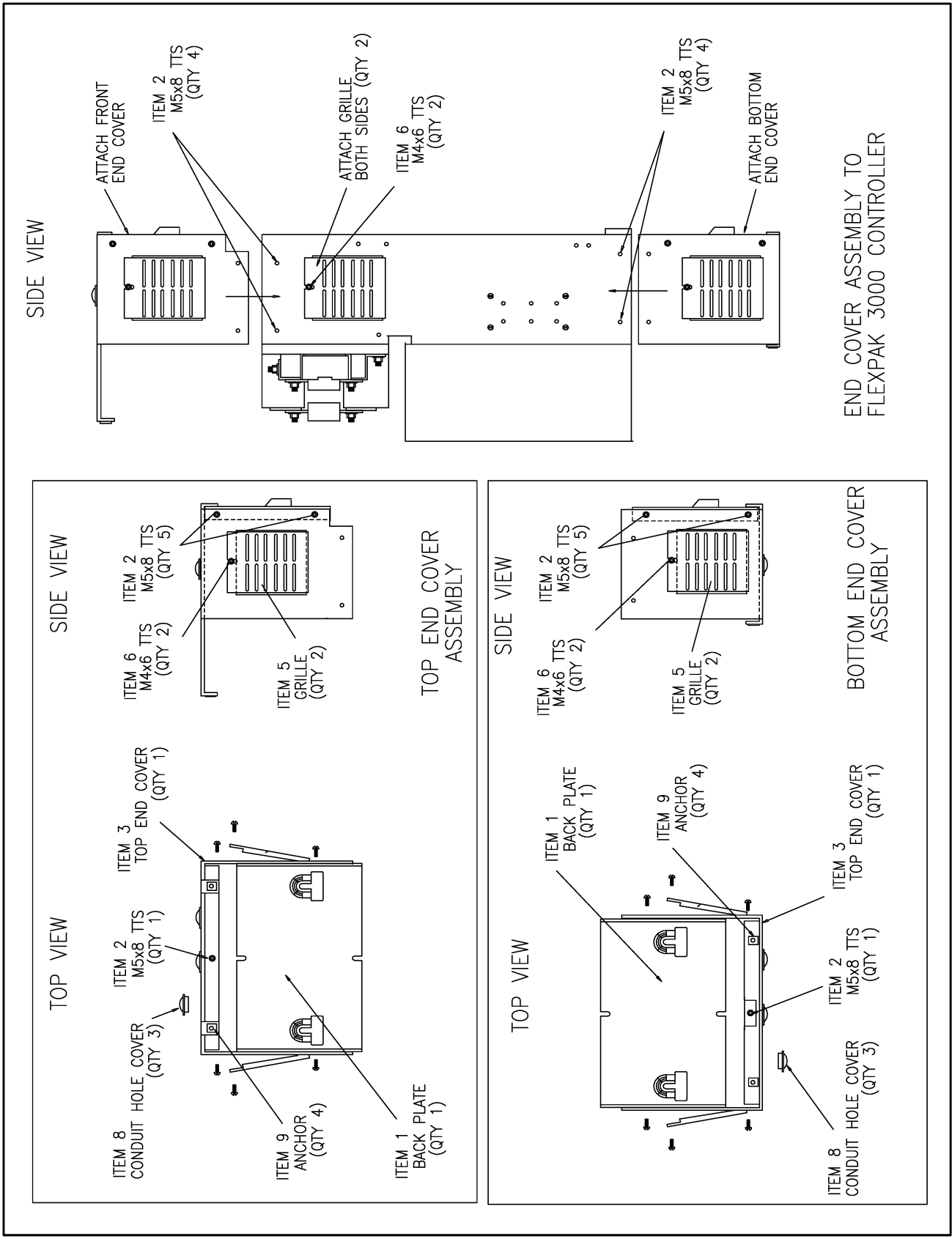


Figure 2 - Assembling the Top, Bottom and Sides of the NEMA 1 Cover

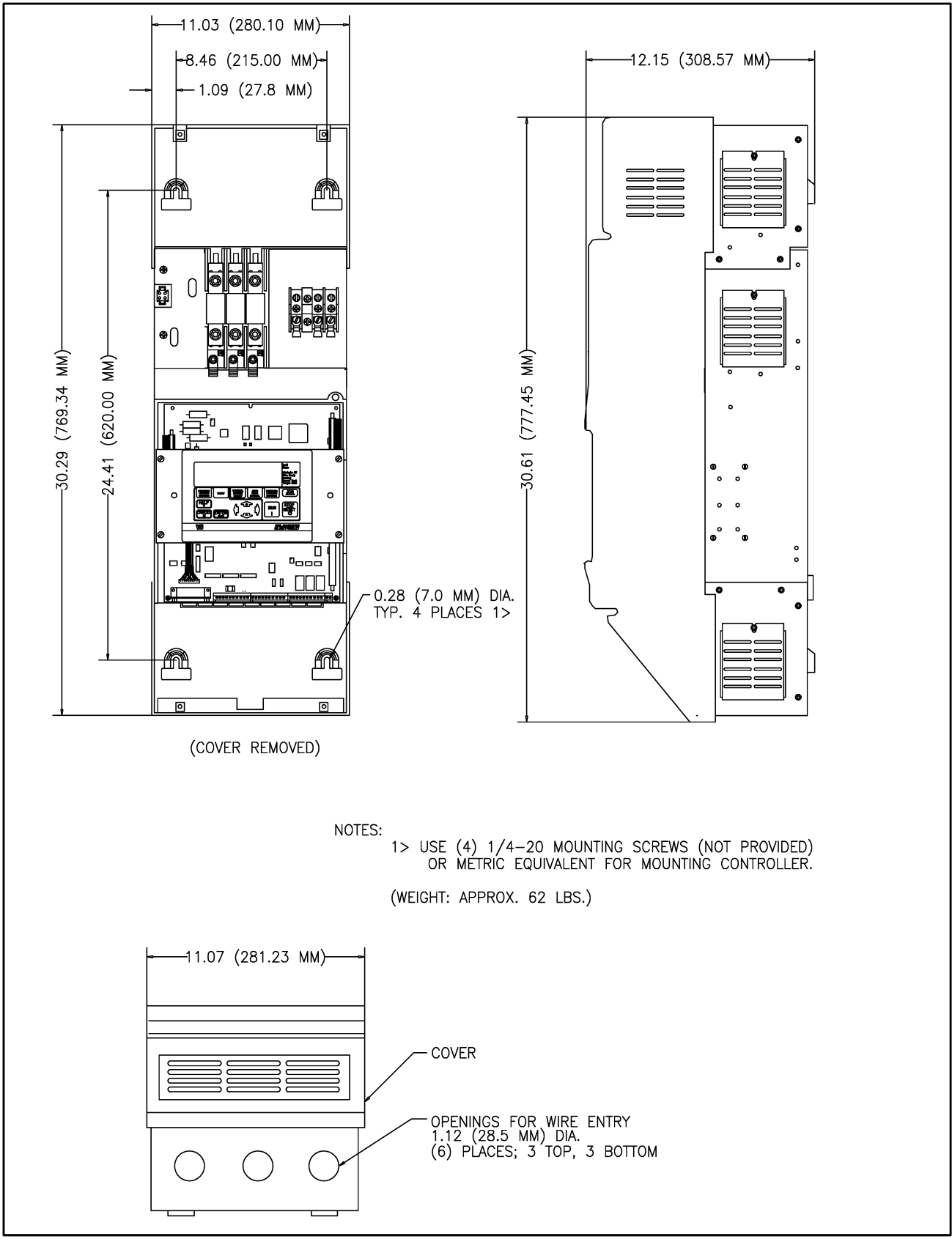


Figure 3 - Mounting the FlexPak 3000 Drive

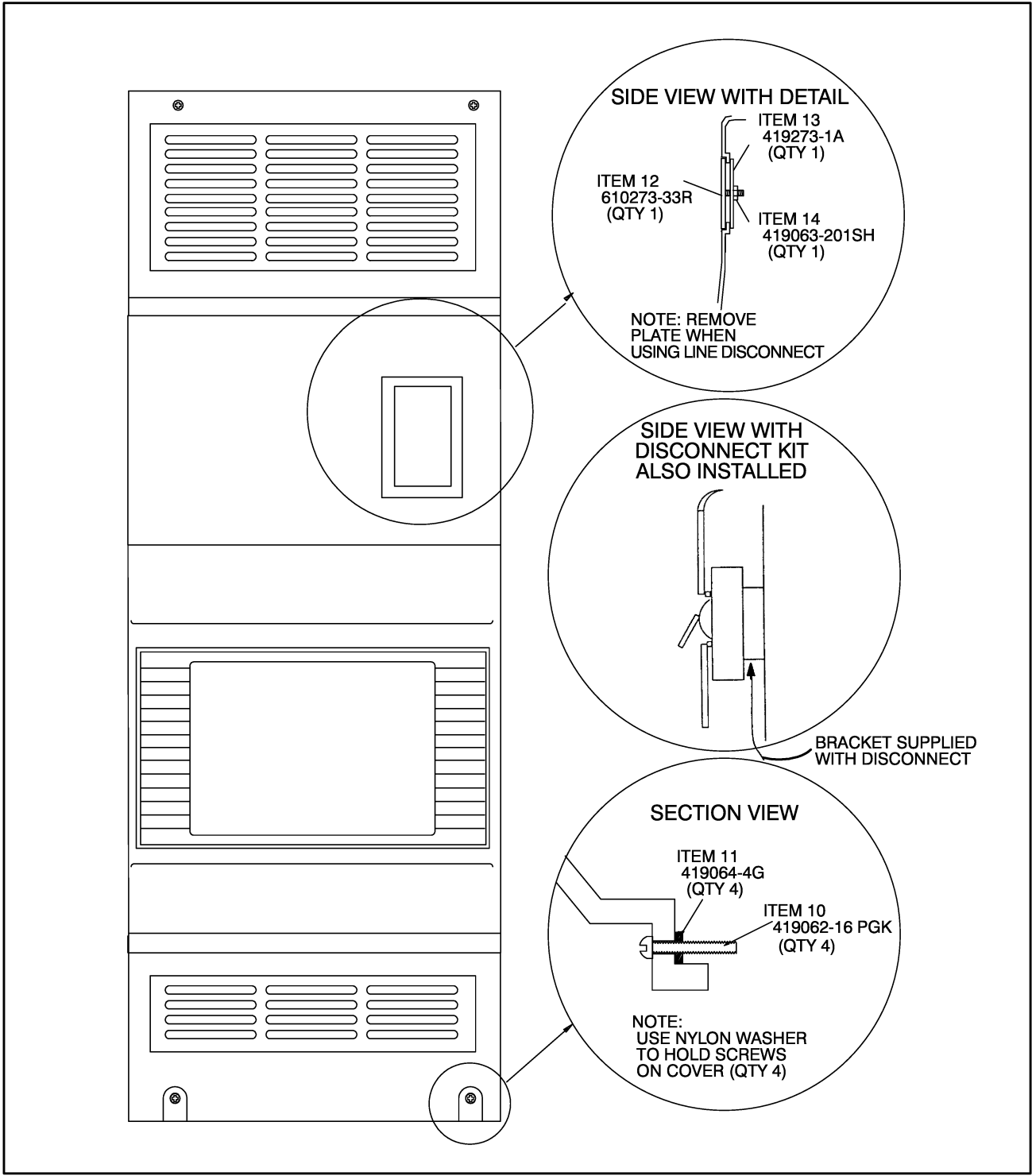


Figure 4 - Assembling the Front of the NEMA 1 Cover

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