

**INSTRUCTION MANUAL D2-3331  
NEMA 1 Cover Kit for  
FlexPak 3000 Digital D-C Drives  
40-75 HP @ 230 VAC  
75-150 HP @ 460 VAC, S6 & S6R  
Model Number 904FK0201**

**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:** All interconnecting wiring must be sized and installed in conformance with applicable local, national, and international codes. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

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

## Description

These instructions describe how to install an optional NEMA 1 cover on FlexPak 3000® drives. Installation of this kit results in conformance to NEMA 1 enclosure specifications. Each kit is supplied with a NEMA 1 front cover, drive chassis extensions, and the necessary mounting hardware.

## Verifying the Kit Model Number Matches the Drive

NEMA 1 cover kits are rated for use with Reliance FlexPak 3000 drives as listed in table 1. To ensure that the cover kit is properly rated for your application, the kit should be used only with Reliance FlexPak 3000 drives and only as listed in table 1.

**Table 1 - NEMA 1 Kit Model Numbers.**

Drive Horsepower/ Voltage Rating	Kit Model Number
40-75 HP @ 230 VAC 75-150 HP @ 460 VAC	904FK0201

## Checking the Contents of the Kit

The contents of NEMA 1 cover kit model number 904FK0201 are listed in table 2 and illustrated in figure 1.

**Table 2 - NEMA 1 Kit Contents.**

Item	Description	Qty	Part Number
1	End Cover, Top	1	802274-45A
2	End Cover, Bottom	1	802274-47A
3	M6 x 12 Taptite Screw	14	419062-100PJH
4	Ground Bar	2	610274-31A
5	Grille	7	707973-4A
6	M4 x 8 Taptite Screw	7	419062-100PGF
7	3.50" (88.5 mm) Conduit Hole Cap	2	603100-3AD
8	1.12" (28.5 mm) Conduit Hole Cap	4	603100-3P
9*	M5 Nut with Compression Washer	1	419063-201SH
10*	Circuit Breaker Plate, Cover	1	610274-37R
11*	Circuit Breaker Plate, Back	1	610274-38A

**Table 2 - NEMA 1 Kit Contents (Continued).**

<b>Item</b>	<b>Description</b>	<b>Qty</b>	<b>Part Number</b>
12	Nylon Screw Anchor	6	602923-30K
13	M4 x 16 Machine Screw	6	419062-16PGK
14	Front Cover, NEMA 1	1	802274-49A
15	Washer, Nylon	6	419064-4G
16*	Label (Danger)	1	610293-200A
17*	Label (Bellyband)	1	802274-44
18	Plastic Bag	1	608893-2K

\*Factory installed

## Installation

### **DANGER**

**THE DRIVE IS AT LINE VOLTAGE WHEN CONNECTED TO INCOMING A-C 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.**

### **DANGER**

**THE USER IS RESPONSIBLE FOR CONFORMING WITH ALL APPLICABLE LOCAL, NATIONAL, AND INTERNATIONAL CODES. WIRING PRACTICES, GROUNDING, DISCONNECTS, AND OVERCURRENT PROTECTION ARE OF PARTICULAR IMPORTANCE. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.**

NOTE: *This procedure assumes that the drive is unmounted.*

Refer to figure 2 as a guide for kit assembly and drive mounting.

- Step 1. Disconnect, tag, and lockout all sources of power to the drive.
- Step 2. Remove the standard cover from the front of the drive.
- Step 3. Attach the top end cover [**Item 1**] and the bottom end cover [**Item 2**] to the drive's chassis. Use six (6) M6 x 12 taptite screws [**Item 3**] to mount each end cover.
- Step 4. Connect one ground bar [**Item 4**] to the M8 grounding stud in the top right rear of the drive chassis. Fasten the other end of the ground bar to the top end cover with an M6 x 12 taptite screw [**Item 3**]. Similarly, connect a ground bar from the grounding stud in the bottom right rear of the drive chassis to the bottom end cover.
- Step 5. Attach two of the grilles [**Item 5**] to each side of the top end cover and one grille to each side of the bottom end cover. Also attach a grille over the opening on the right side of the drive chassis. Fasten each grille with one M4 x 8 taptite screw [**Item 6**].
- Step 6. Mount and ground the chassis as described in your FlexPak 3000 drive instruction manual. For added stability with the NEMA 1 cover installed, use the mounting slots provided in the rear of the top and bottom end covers to mount the drive.

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 7. Route the incoming A-C and outgoing D-C power lines through the 3 1/2 inch (88.5 mm) wire entries in the top end cover and fasten them to the appropriate drive terminals. Unused power line

entries must be capped with **Item 7**. Refer to the your FlexPak 3000 drive instruction manual for procedures on properly wiring the drive.

**Step 8.** Route the control cables through the 1.12 inch (28.5 mm) wire entries in the bottom end cover and connect them to the drive. An additional 1.12 inch wire entry in the top end cover is available if needed. Ensure that control cables are routed away from power leads. All unused control cable entries must be capped with **Item 8**. Refer to the appropriate device instruction manuals for the procedures on properly wiring your control devices.

If a line disconnect kit is installed on the drive, continue to step 9. Otherwise, proceed to step 10.

**Step 9.** If a line disconnect kit is installed on the drive, remove the M5 hex nut [**Item 9**], the circuit breaker cover plate [**Item 10**], and the back plate [**Item 11**] from the NEMA 1 front cover. [Refer to figure 3.] Discard these items. The mounting bracket for the NEMA 1 disconnect is supplied with the disconnect kit and must be used for a proper installation. See instruction manual D2-3315 for more information.

**Step 10.** Insert the screw anchors [**Item 12**] into the three (3) front cover mounting holes in the top and the bottom end covers [**Items 2 & 3**].

**Step 11.** Insert the six (6) M4 x 16 pan head machine screws [**Item 13**] into the NEMA 1 front cover [**Item 14**]. Use the nylon washers [**Item 15**] to hold the screws in place. Refer to figure 3.

**Step 12.** Attach the NEMA 1 front cover to the drive.

**Step 13.** Remove the lockout and tag and reconnect power to the drive.

**Step 14.** Turn on power to the drive and check for proper drive operation.

This completes the installation of the NEMA 1 cover kit.

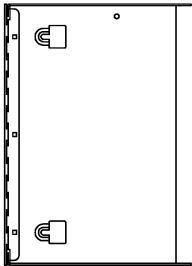
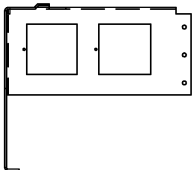
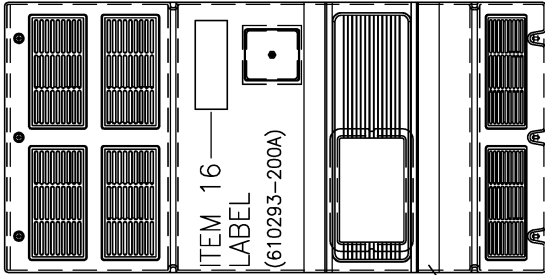

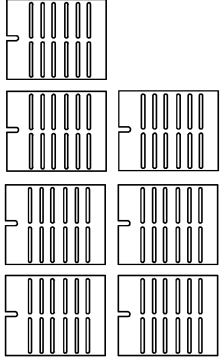
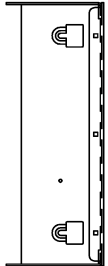
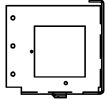




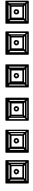


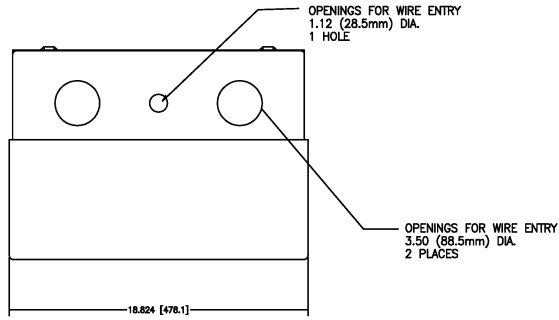
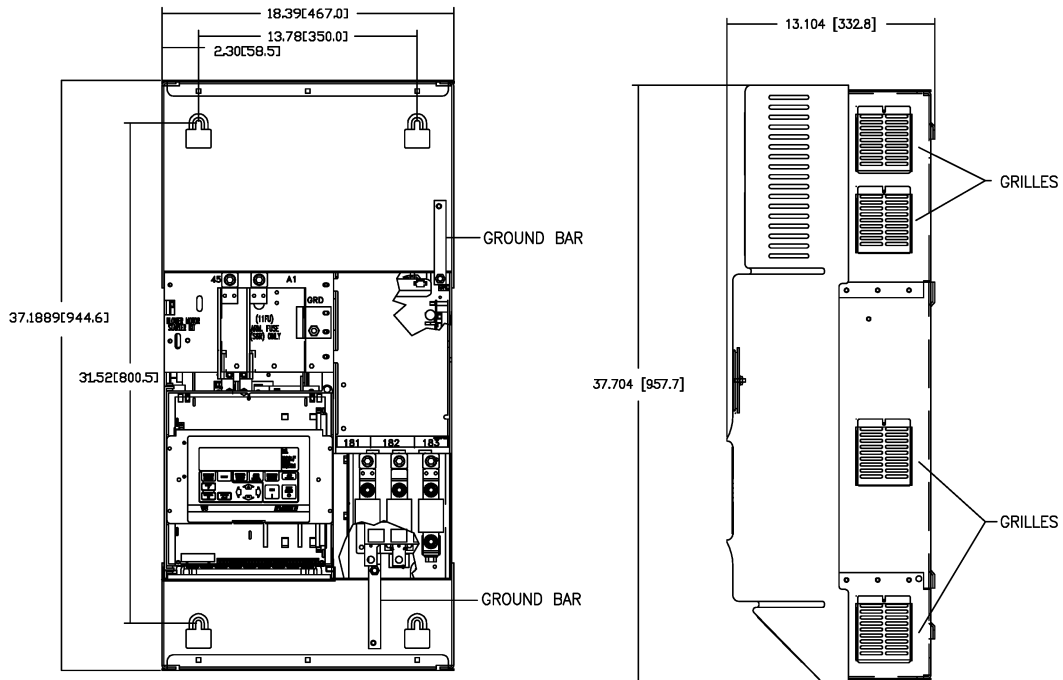
<p>FRONT VIEW</p>  <p>SIDE VIEW</p>  <p>ITEM 1 TOP END COVER [802274-45A]</p>	<p>FRONT VIEW</p>  <p>SIDE VIEW</p>  <p>ITEM 16 LABEL (610293-200A)</p> <p>ITEM 17 BELLYBAND LABEL (802274-44)</p> <p>ITEM 14 NEMA 1 COVER [802274-49A]</p>	 <p>ITEM 5 GRILLE (QTY 7 - [707973-4A])</p> <p>ITEM 6 M4x8 TTS SCREWS (QTY 7 - [419062-100 PGF])</p>
<p>FRONT VIEW</p>  <p>SIDE VIEW</p>  <p>ITEM 2 BOTTOM END COVER [802274-47A]</p>	<p>ITEM 9 HEX NUT WITH COMPRESSION WASHER (QTY 1 - [419063-201SH])</p> <p>(BOTTOM VIEW)</p> 	<p>ITEM 7 3.5" HOLE CAP (QTY 2 - [603100-3AD])</p> <p>ITEM 8 1.12" HOLE CAP (QTY 4 - [603100-3PT])</p>
<p>ITEM 3 M6x12 TTS SCREWS [QTY 14] [419062-100PJH]</p> 	<p>ITEM 10 PLATE {COVER} (QTY 1 - [610274-37R])</p>  <p>ITEM 11 BACK PLATE {COVER} (QTY 1 - [610274-38A])</p>  <p>ITEM 12 NYLON ANCHOR (QTY 6 - [602923-30K])</p> 	<p>ITEM 13 M4x16 PHMS SCREWS (QTY 6 - [419062-16 PGK])</p> <p>ITEM 15 NYLON WASHERS (QTY 6 - [419064-4G])</p> 
<p>ITEM 4 GROUND BAR [QTY 2] [610274-31A]</p> 		

Figure 1 - FlexPak 3000 Drive NEMA 1 Enclosure Kit.

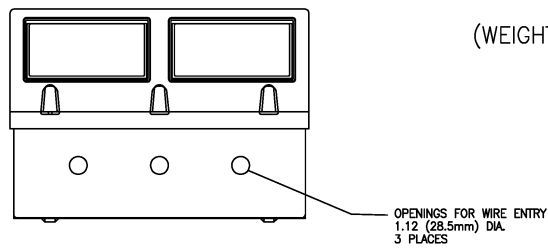
TOP END COVER



DRIVE MOUNTING

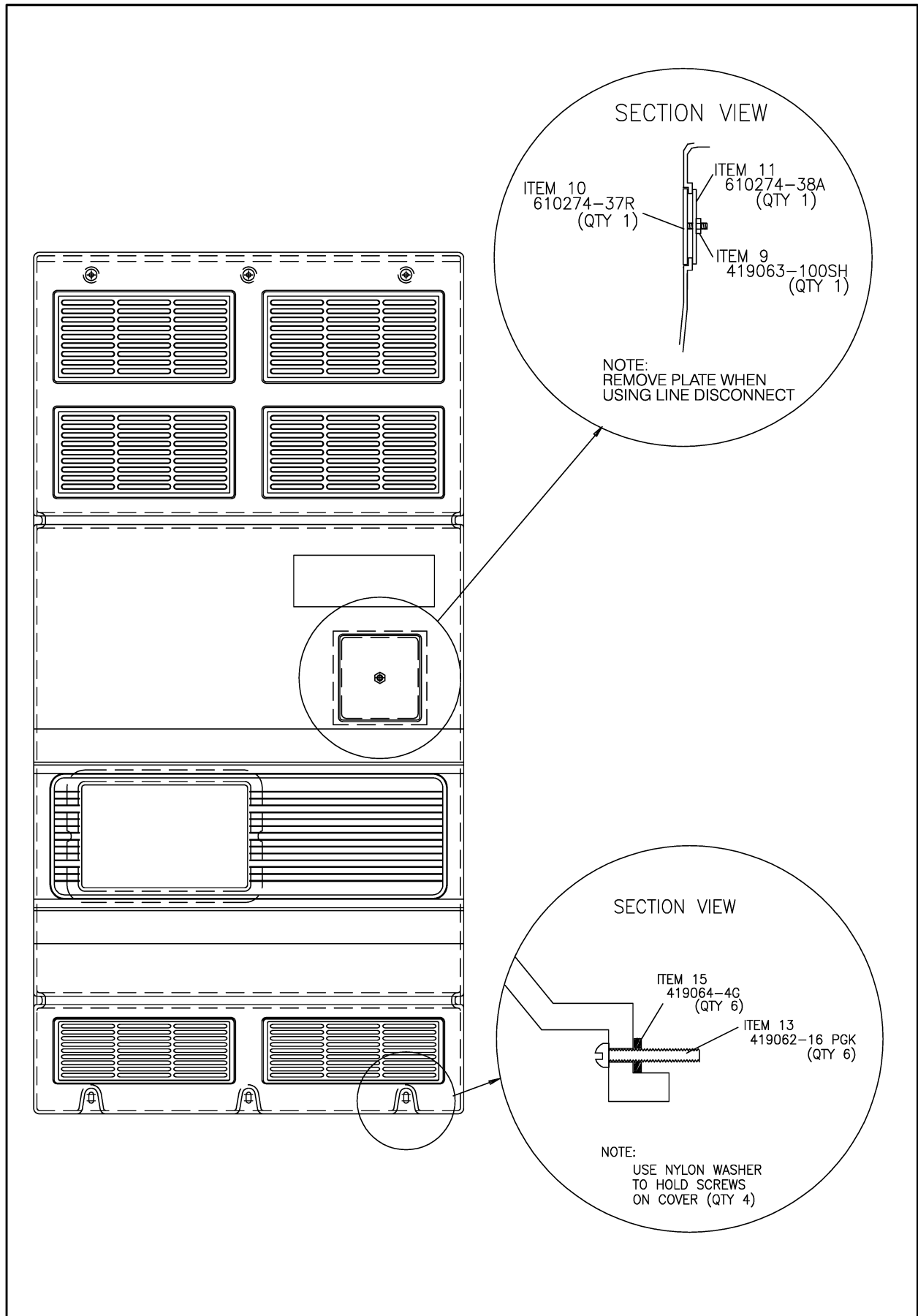


BOTTOM END COVER



(WEIGHT: APPROX. 55.4 KG/122 LB)

Figure 2 - NEMA 1 Kit Assembly and Drive Mounting.



**Figure 3 - NEMA 1 Cover Assembly.**

Reliance Electric / 24701 Euclid Avenue / Cleveland, Ohio 44117 / (216) 266-7000

---

