

Andrew PS-INV-54DC-220AC



Andrew PS-INV-54DC-220AC

Safety Agency Statements and Safety Precautions



Safety Agency Statements:

- Only qualified personnel are to install and maintain the equipment.
- Install equipment within a restricted access location where access is by use of a tool, lock and key or other means of security; and controlled by the authority responsible for the location.
- The cabinet is only suitable for mounting on a concrete or other noncombustible surface.
- Maximum ambient temperature (Tmax) of 65° C (149° F) permitted by manufacturer specification.
- All cabinet equipment cabling is to meet applicable NEC1 and network communications standards.
- This product is certified with UL 62368-1 certification.



Safety Precautions:

Note: *In areas that utilize joint buried plant, and per company practice, test and verify that voltage is not present on the cable shield. If voltage is present on the shield, stop work and notify supervision.*

- Follow all product warnings and instructions as specified in this document, to reduce risk of fire, electric shock, and injury.
- Install all equipment and supplied hardware as specified in this document.
 - Install only approved devices in the cabinet and do not drill, saw, or cut inside the cabinet.
 - Never install cable, connectors, jacks in a wet location unless designed for wet locations.
 - Never install electrical equipment during a thunderstorm, there is risk of electric shock.
 - Never touch uninsulated live power wires or terminals, always disconnect from power first.
 - It is mandatory to use insulated tools using power and hand tools.
- All personnel must wear standard safety headgear, eye protection, and insulated gloves (if required).
- At all times, keep bystanders away from all work operations.



Warning:

¹ Registered trademark of the National Fire Protection Association.

Contents

Table of Contents

1	Overview and Specifications	3
2	Kit Contents - 760259736	3
3	Tools Required	3
4	48VDC to 220VDC Converter Installation	4
5	System Layout	8
6	Equipment Overview	9
7	Disclaimer	11
8	Contact Information	11
9	Appendix	13

1 Overview and Specifications

This guide provides instruction on how to install a Andrew PS-INV-54DC-220AC Inverter.

2 Kit Contents - 760259736

Item	Quantity	Description
1	1	PS-INV-54DC-220AC(48VDC to 220AC Inverter)
2	2	2" to 15.75" Worm Drive Pole Bands
3	1	Pole Mount Attachment
3	1	DPJ-210-54V-54V-20 (2x 20' cable with 4x Connectors)
4	3	10A FUSE (pre-installed, the fuse is rated at 10A)
5	3	C10-730513-Z3S (AC Output Connectors)

3 Tools Required

Tools may vary based on installation requirements.

Item	Description
1	Appropriate Gauge wire for Installation
2	Flat Head Screwdriver
3	Phillips Head Screwdriver
4	Mm Socket Set
5	Torx T30 Screwdriver/10mm Socket
5	Torx T15 Screwdriver
6	Multimeter (Verifying/Testing Voltage)
6	M25 and M30 Torque Wrench
7	Compression Lug Crimper

4 48VDC to 220VDC Converter Installation

4.1 Mounting Options

4.1.1 Pole Mount via band provided in Kit- 2" to 15.75" (50mm-400mm) diameter pole

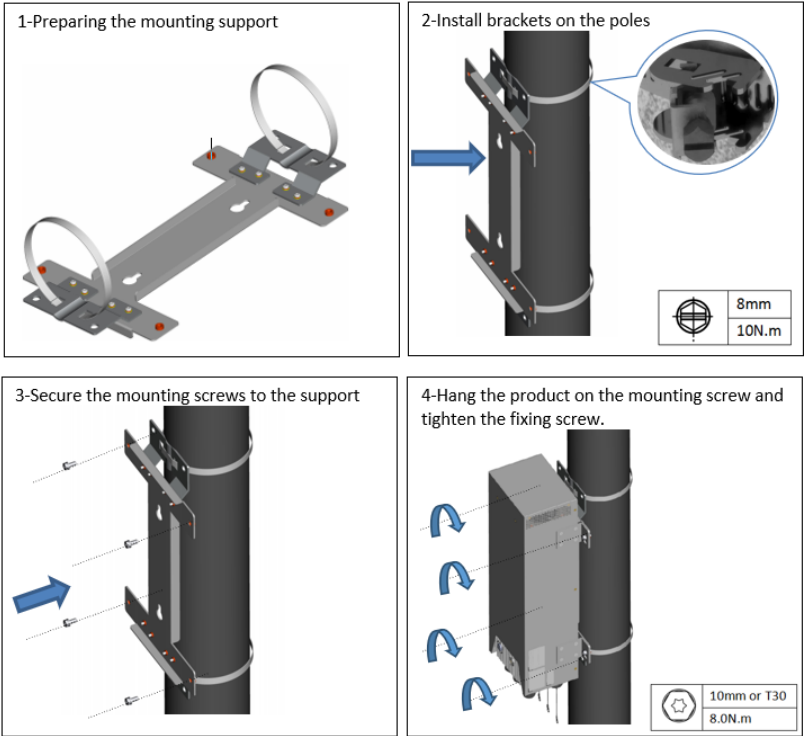


Figure 1 - Pole Mounting via Bands

4.1.2 Pole Mount via Lag Bolts (not provided)

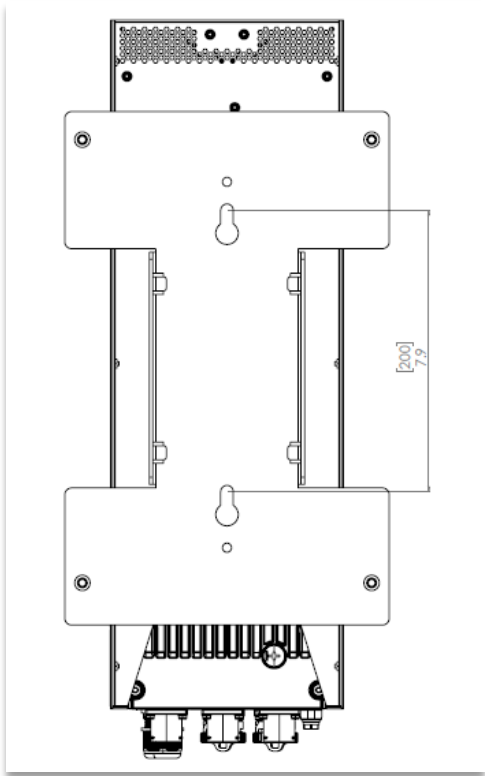


Figure 2 - Pole Mounting via Lag Bolts

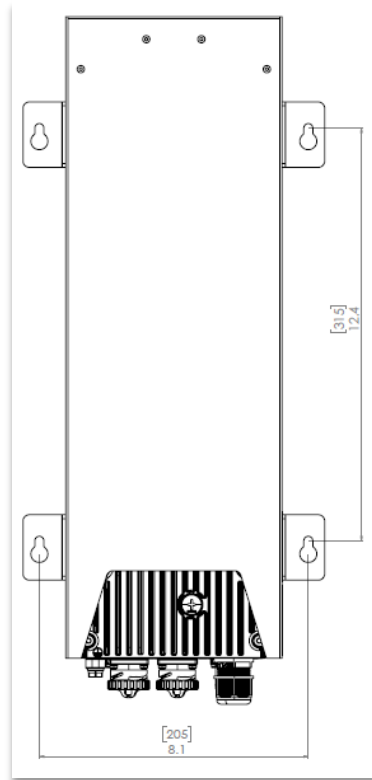


Figure 3 - Wall Mounting via Fasteners

4.2 Ground Wire Connection



CAUTION:

The first connection to be made is the grounding cable.

- 421 Locate grounding point as seen in Figure 4
- 422 Unscrew the two M6 Hex Bolts and connect the grounding cable
- 423 Attach ground cable using 2, M6 hex nuts and washers.
- 424 Apply 9N-m(80 in-lbs) of torque on each nut.
- 425 Route ground cable to grounding point
- 426 Strap grounding cable to pole or wall

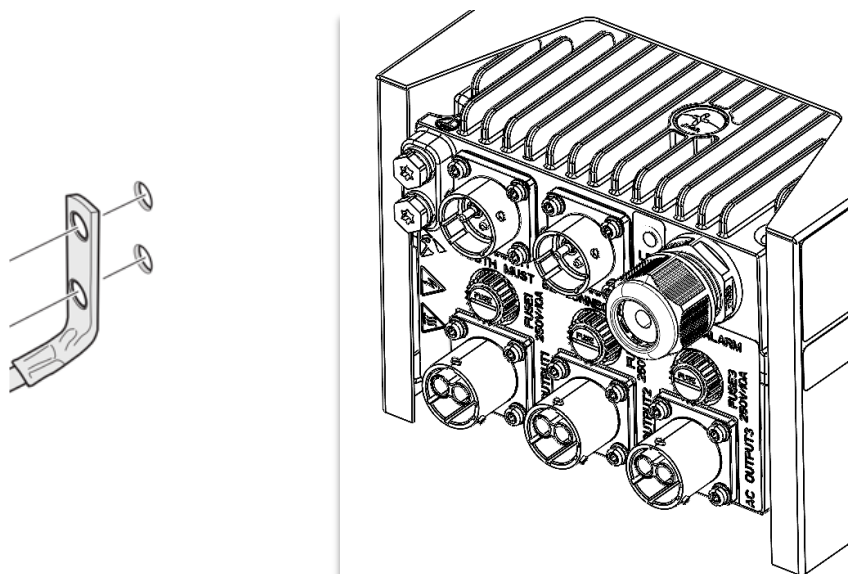


Figure 4 - Ground Wire Attachment

4.3 **Input DC Power Wire Connections**

- 43.1 Using item DPJ-210-54V-54V-20. Includes 20' of Cable and Field Installable connectors.
- 43.2 Install connectors per Bulleting 660106428. Reference Section 5 for more details.
- 43.3 Connectors will terminate as shown below when using a Andrew DPCPWR-NODE-1X00.
- 43.4 Cable Length can be adjust as needed.

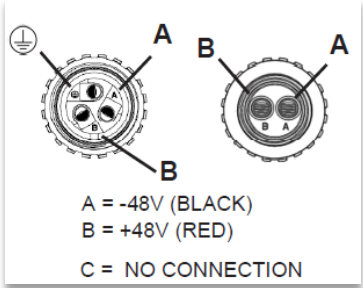


Figure 5 - DC Output/Input Terminations

4.4 **Output AC Wire Connections**

- 44.1 Using either DPJ-210-54V-200AC-40 or customer provided cabling.
- 44.2 Install connectors C10-730513-Z3S per Bulleting 660106427. Reference Section 5 for more details.
- 44.3 Connectors will terminate as shown below:

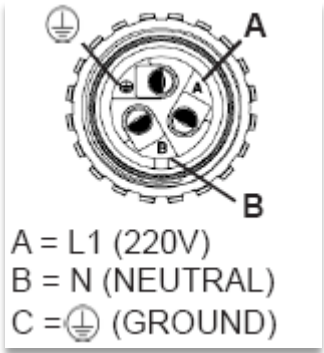
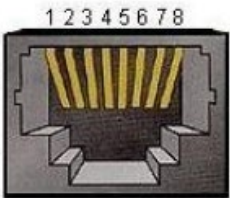


Figure 6 - AC Output Connections (Inverter Side ONLY)

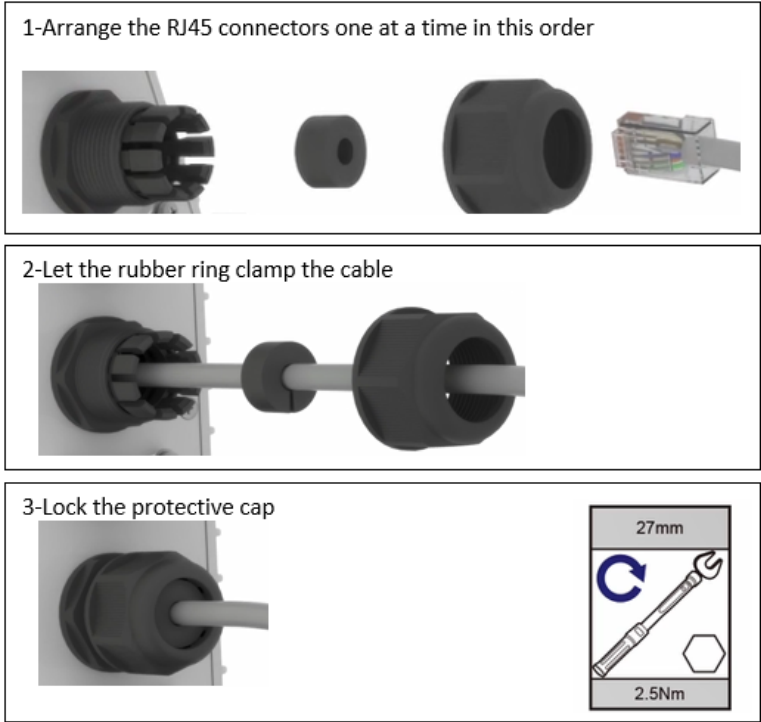
- 44.4 Reference equipment side for connection requirements.

4.5 **Alarm Output/LED Display**

- 45.1 Connect dry contact alarm wires using either NC/C.



COM	PSU Terminal Signal	RJ45 Connector Pin
ALARM	COM	Pin 7
	NC	Pin 8



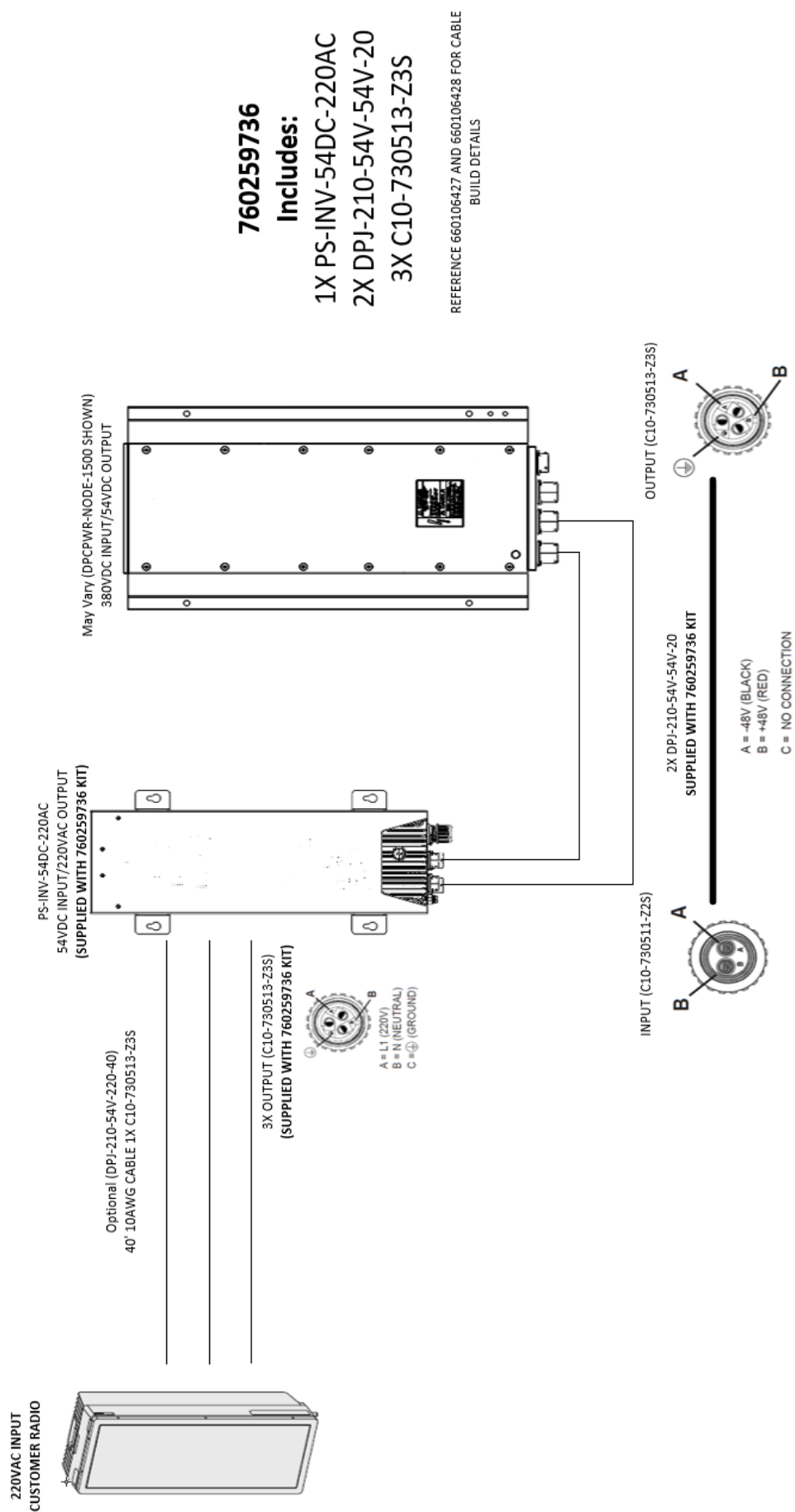
453 Route to monitoring equipment as required.

4.6 Inverter/Status Guide

Inverter status	LED status	Dry contact status
Normal Operation	Green	No Alarm (close)
Output UV/OV; Output OCP;	Stable Yellow	Alarm (open)
Input UV/OV	fast yellow blinking (1s on /1s off)	Alarm (open)
Fan alarm, OTP	Slow yellow blinking(1s on/3s off)	Alarm (open)
HW Error (no output without knowing the reason)	Red	Alarm(open)
No Input	NO display	Alarm(open)

Figure 7 - Alarm/LED Display Status

5 **System Layout**



REFERENCE 660106427 AND 660106428 FOR CABLE
BUILD DETAILS

6 Equipment Overview

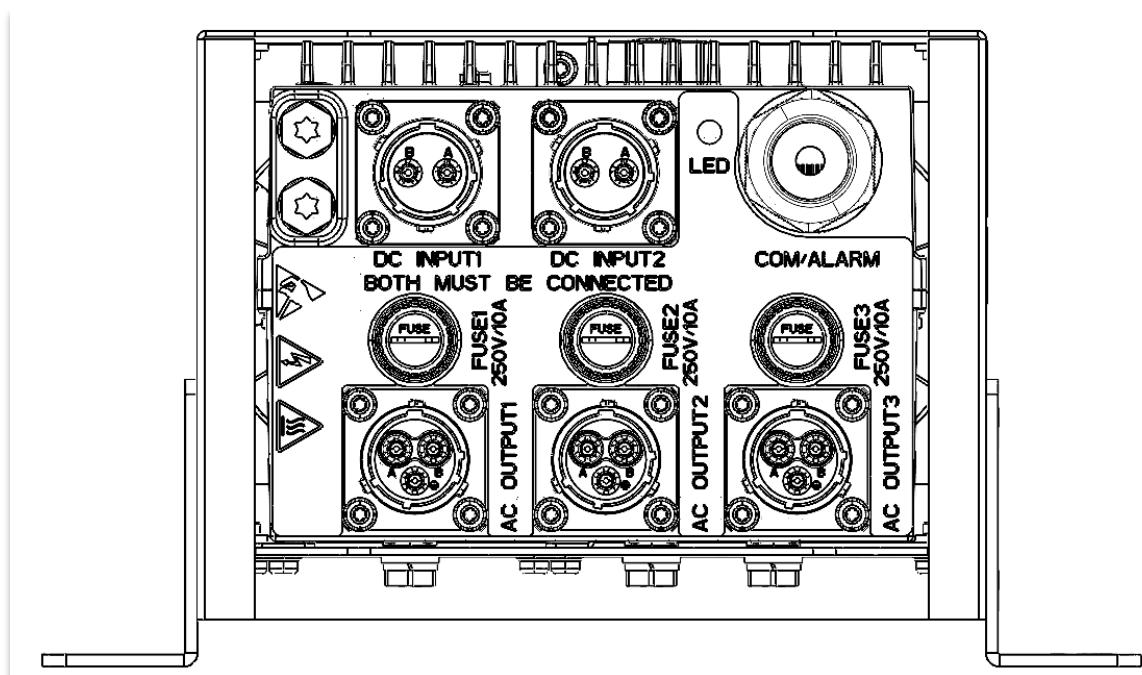


Figure 8 - Input/Output Overview

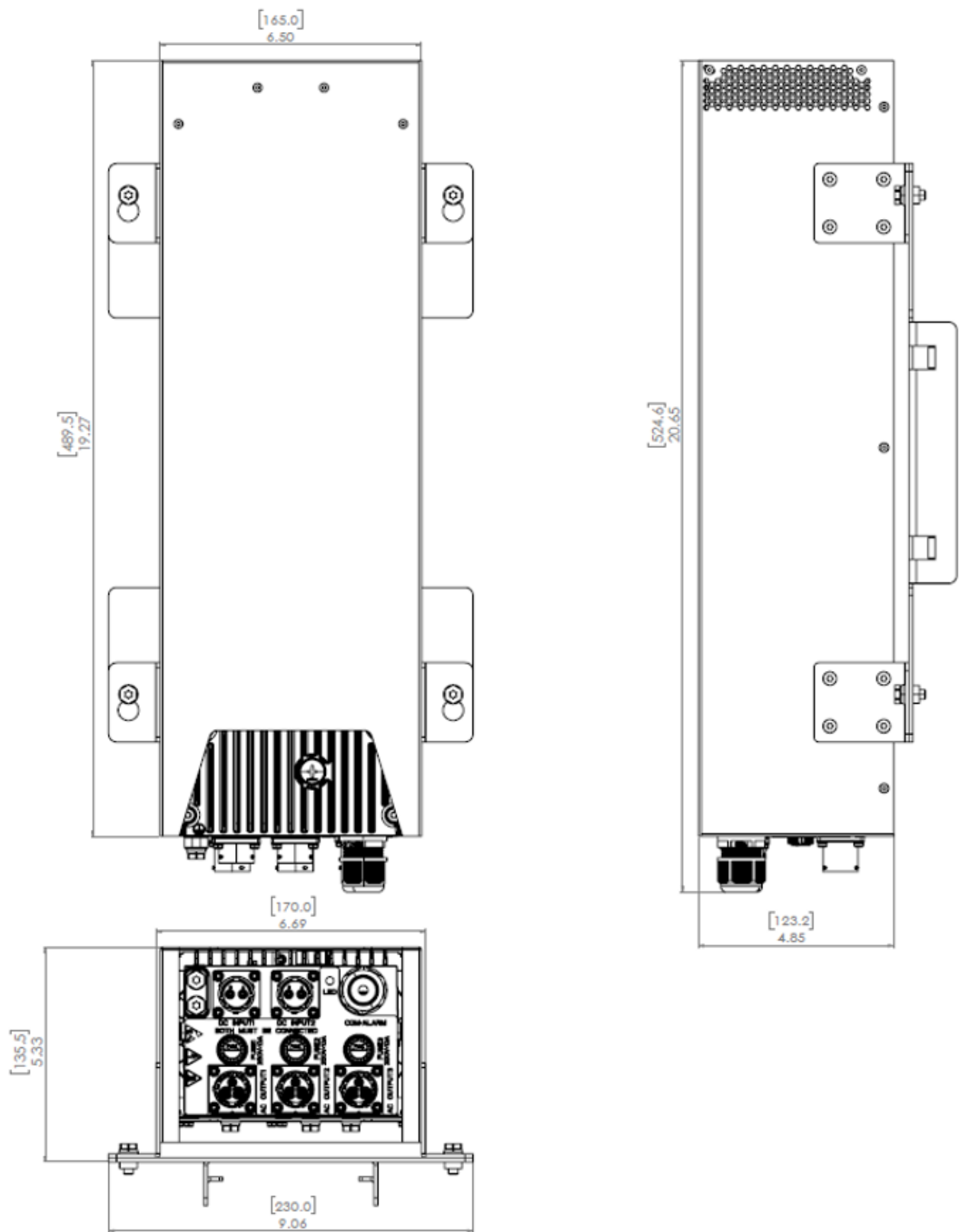


Figure 9 - Dimensional Overview

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Installation Instructions

Power Connector Installation for DPJ-210-54V-220-40

Bulletin 660106427 Revision A Page 1 of 1

Andrew Infrastructure Academy offers installation training.



- 1 - 3 way AC connector C10-730513-Z3S
- 2 - Grommet for cable OD 6-9mm
- 3 - Grommet for cable OD 14-18mm
- 4 - Conic washer for cable OD under 10mm
- 5 - Dust cap / assembly fixture used during assembly

Note:

Connector is for wire size 1.5-6mm or 16-10AWG / Default grommet in connector is for a cable with 9-14mm OD

<p>1 Remove 32mm (1.25in) of cable outer jacket.</p>	<p>2 Fold braid over outer jacket.</p>	<p>3 Remove insulation foil.</p>
<p>4 Remove 10mm (0.40in) of inner jacket.</p>	<p>5 Unassemble connector and slide over cable in order shown. Conic washer is only for cables under 10mm.</p>	
<p>6 Terminate the conductors in the corresponding contacts A and B. Torx Screw Drive T15 required.</p> <p> A = L1 (220V) B = N (NEUTRAL) C = (GROUND) </p>		<p>7 Align keyed insulator cover (item 2) and slide over the contacts.</p>
<p>8 Place dust cap onto the front plug and assemble the cable gland adapter (item 3) using M25 wrench.</p>		<p>9 Spread open the shielding braid and slide the shield ring (item 4) into position so that the shielding braid is equally pressed around and between the shield ring and the ID surface of the adapter, extra length of shielding braid should be folded around and into the ID of the shielding ring.</p>
<p>10 Press the cable gland (item 5) into a tightly seated position in the rear of the cable gland adapter.</p>		<p>11 Thread hex nut (item 7) onto the adapter and tighten with M25 and M30 wrench. Torque to 5-6N.m if conic washer (item 6) is used. With out conic washer torque until cable gland (item 5) protrudes from rear of hex nut 2-3mm (0.08-0.12in).</p>

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Power Connector Installation for DPJ-210-54V-54V-20

Bulletin 660106428 Revision B Page 1 of 1


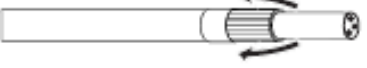
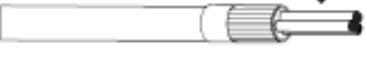
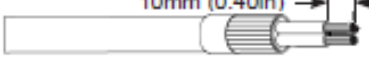

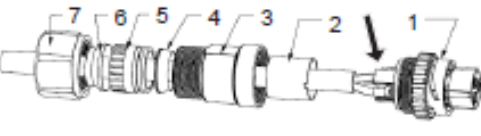


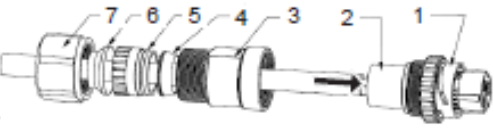
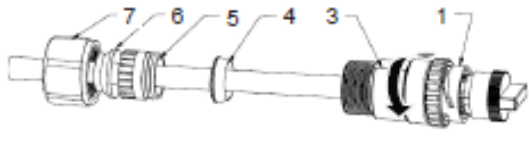
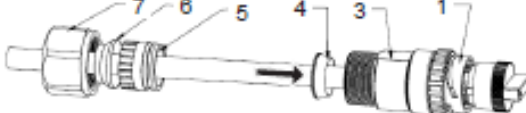
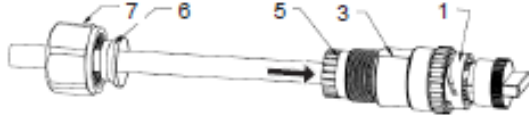

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- 1 - 3 way AC connector C10-730513-Z3S and/or 2 way DC connector C10-730511-Z2S
- 2 - Grommet for cable OD 6-9mm
- 3 - Grommet for cable OD 14-18mm
- 4 - Conic washer for cable OD under 10mm
- 5 - Dust cap / assembly fixture used during assembly

Note: 3 Way Connector wire size 1.5-6mm or 16-10AWG

2 Way Connector wire size 2.5-10mm or 8-14AWG / Default grommet in connector is for a cable with 9-14mm OD

<p>1 Remove 32mm (1.25in) of cable outer jacket.</p> 	<p>2 Fold braid over outer jacket.</p> 	<p>3 Remove insulation foil.</p> 
<p>4 Remove 10mm (0.40in) of inner jacket.</p> 	<p>5 Unassemble connector and slide over cable in order shown. Conic washer is only for cables under 10mm.</p> 	
<p>6 Terminate the conductors in the corresponding contacts A and B. Torx screw driver T15 required. Additional contact not used on 3 way connector.</p>  <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>A - -48V (BLACK)</p> </div> <div style="text-align: center;">  <p>B - +48V (RED)</p> </div> </div> <p style="text-align: center;">C - NO CONNECTION</p>		<p>7 Align <u>keyed</u> insulator cover (item 2) and slide over the contacts.</p> 
<p>8 Place dust cap onto the front plug and assemble the cable gland adapter (item 3) using M25 wrench.</p> 		<p>9 Spread open the shielding braid and slide the shield ring (item 4) into position so that the shielding braid is equally pressed around and between the shield ring and the ID surface of the adapter, extra length of shielding braid should be folded around and into the ID of the shielding ring.</p> 
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