



- Isolated -54.0 VDC Output Nominal
- 700W High Power Output
- High Reliability
- 88% typical efficiency (at 70% rated load)
- Convection cooled
- No internal or external fans required
- Weatherproof Construction
- Low Profile
- Integrated Heat Sink

### Overview

Communication Components, Inc. 700W AC/DC Small Cell Power Supply provides a Universal AC Power alternative to power most -48 VDC Remote Radio Heads and other auxiliary outdoor equipment operating on -48VDC. The Small Cell Power Supply is a highly efficient convection cooled power source and as such does not require any internal or external fans for normal operation. The heatsink is integrated into the Power Supply housing and provides adequate convection cooling in outdoor ambient environments. The Power Supply enclosure and input and output connectors are completely weather sealed making it suitable for outdoor deployment in all environmental conditions. High reliability and high efficiency make the 700W AC/DC Small Cell Power Supply an ideal solution for both indoor and outdoor AC powered applications.

### Technical Description:

The 700W Universal AC to -48 VDC Small Cell Power Supply provides a -54.5 VDC Nominal output at a load of up to 14 ADC continuously. The input voltage can vary from 85 to 240VAC (47-63 Hz) while maintaining continuous operation under all rated load conditions.

The Small Cell Power Supply is power factor corrected with a minimum power factor rating of 0.95. The power supply utilizes a highly efficient power converter circuit achieving typical efficiency in excess of 88% at 70% rated load. Noise and ripple are kept below 4 V peak-to-peak under all load conditions.

Overcurrent and overvoltage protection is built into the Small Cell Power Supply to prevent damage to the power supply with an automatic recovery feature. The overcurrent circuit will trigger between 105% and 140% of rated load and the overvoltage will trigger between 60-69 VDC. Both will automatically recover when the OC and OV conditions return to normal. The Power Supply is fully weather sealed and the housing is IP67 rated, making it suitable for all outdoor environmental conditions. The output connection IP55 rated 12 AWG, 2 wire outdoor connection with an exposed, open end cable for custom termination.



SPECIFICATIONS

Small Cell Power Supply

PSU-700W-48-OD

Electrical Specification

General Characteristics	
AC Input	85 - 240 VAC (47 - 63 Hz)
Input Current	8.0A (120 VAC)
Inrush Current	40A peak typical (100 VAC), 20A peak typical (200 VAC)
Output Voltage	-56.0 VDC minimum, -48.0 maximum
Output Current	14.0 ADC maximum
Power Factor	0.95 minimum
Ripple and Noise	4 V p-p (@700W Output)
Overcurrent Protection	105 - 140% (Auto Recovery)
Efficiency	88% typical (at 70% rated load)
Overvoltage Protection	60 - 69.6 VDC typical (Auto Recovery)
Power on signal	Relay contact closure
Withstanding Voltage	Input to Output 3 KVAC, Input to Baseplate 2.5 KVAC, Output to Baseplate 1.5 KVAC
Baseplate Temperature Rise <sup>1</sup>	30°C

<sup>1</sup>Temp. rise from case ambient measured after 1 hour continuous operation at max. specified output power. Measure base plate between 2 middle heat sink fins.

Environmental Specification

Ambient Temperature Operating Range	-40 °C to +55 °C
Operating Humidity Range	20 - 95 %
Surge Protection	6 kV, 1.2/50 μS
Lightning Protection	50 kA, 10/350 μS

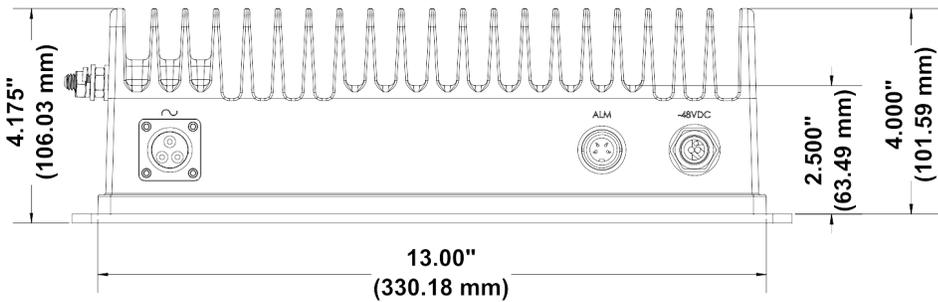
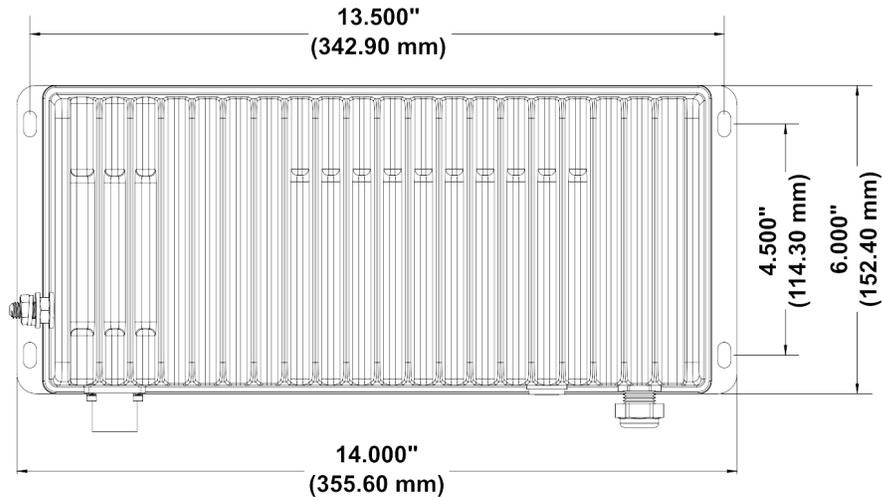
Mechanical Specification

Input Connection	Amphenol 3 pin C10 Series (IP67 rated)
Output Connection	IP55 rated 12 AWG, 2 wire outdoor connection with exposed open end cable
Alarm Connection	Amphenol 4 pin C09131G100 Series (IP67 rated)
Cooling Required	Convection via extrusion
Dimensions w/o Connectors or mtg. Tab (L x W x H)	13.00 × 6.000 × 4.000 in. (330.18 × 152.4 × 101.59 mm)
Dimensions w/o Connectors (L x W x H)	14.000 × 6.000 × 4.175 in. (355.6 × 152.4 × 106.05 mm)
Weight	11.5 lbs. (5.3 kg)

Pin Number	Description
1	N/C (Normally Closed)
2	Common

\*Contact closure - Normal Operation; Contact break - Module Failure (No DC Output, Overcurrent, Over/Under Voltage, Overtemp, AC Failure)

PS-700W-48-OD Small Cell Power Supply Alarm connector pinout



PS-700W-48-OD Small Cell Power Supply Outline Drawing



STANDARDS &  
CERTIFICATIONS

Small Cell Power Supply

PSU-700W-48-OD

Parts & Accessories

<b>PSU-700W-48-OD</b>	AC/DC Small Cell Power Supply (700W, -48 VDC)
<b>PSU-700W-48-OD-K1</b>	AC/DC Small Cell Power Supply (700W, -48 VDC) kit, with 9 foot Alarm Cable and 35 foot AC Cable
<b>PSU-700W-ALC-6FT</b>	Alarm Cable, 6 Foot
<b>PSU-700W-ACC-6FT</b>	AC Input Cable, 6 Foot
<b>PSU-700W-ALC-9FT</b>	Alarm Cable, 9 Foot
<b>PSU-700W-ACC-35FT</b>	AC Input Cable, 35 Foot
<b>PSU-700W-48-OD-PMK</b>	Pole Mounting Kit

Certifications

ISO 9001

