

- 85 to 265 VAC Input
- Isolated -54.0 VDC Output Nominal
- 1200W average/1600W peak Single Output or 1400W average/ 1600W peak Dual Output (2 x 700W average/2 x 800W peak)
- High Reliability
- 88% typical efficiency (at 70% rated load)
- Convection cooled
- No internal or external fans required
- Weatherproof Construction
- Low Profile

Overview

Communication Components, Inc. Twin AC/DC RRU 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 RRU 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 Twin AC/DC RRU Power Supply an ideal solution for both indoor and outdoor AC powered applications.

Technical Description:

The Twin Universal AC to -48 VDC RRU Power Supply provides a single -54.5 VDC Nominal output at a load of up to 24 ADC average, 32 ADC peak or Dual -54.5 VDC nominal outputs at loads of up to 14 ADC average, 16 ADC peak per output continuously. The input voltage can vary from 85 to 265VAC (47-63 Hz) while maintaining continuous operation under all rated load conditions.

The RRU 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 4V peak-to-peak under all load conditions.

Both overcurrent (OC) and overvoltage (OV) protection are built into the RRU 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 conditions will automatically recover, upon an AC power cycle, provided the OC and OV conditions have been cleared.

The Power Supply is fully weather sealed and the housing is IP67 rated, making it suitable for all outdoor environmental conditions. The provided output connections are IP55 rated, 12 AWG cables (dual DC output) or 8 AWG cable (single DC output), 2 wire with exposed pigtails for custom termination.



SPECIFICATIONS

Twin RRU Power Supply

PSU-1200W-48-x

Electrical Specification

| General Characteristics | PSU-1200W-48-N | PSU-1200W-48-E |
|---------------------------|---|------------------------------------|
| AC Input (47 - 63 Hz) | 85 - 265 VAC x 2 | |
| Input Current per PSU | 17.6A (100 VAC), 8.8A (200VAC) | |
| Inrush Current per PSU | 40A peak typical (100 VAC), 20A peak typical (200 VAC) | |
| Recommended Breaker Size* | Dual pole 20A @ 110VAC / 10A @ 220VAC (not ganged) | |
| Output Voltage | -48.0 VDC nominal, -54.5 maximum (absolute) | |
| Output Current | 24.0 ADC avg/32.0 ADC peak | 14.0 ADC x 2 avg/16.0 ADC x 2 peak |
| Power Factor | 0.95 minimum | |
| Ripple and Noise | 4 V p-p | |
| Overcurrent Protection | 105 - 140% (Auto Recovery) | |
| Efficiency | 88% typical (at 70% rated load) / >90% (at 100% 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 | |

*Refer to local code in order to confirm the required breaker based upon our maximum peak current requirement

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

| | |
|-------------------------------------|--|
| AC Input Connection* | 2 x IP67 rated Amphenol 3 pin C10 Series (not included). |
| PSU-1200W-48-N DC Output Connection | 1 x IP55 rated, 8 AWG, 2 Wire Outdoor Cable w/ exposed pigtails. Compatible w/ Nokia connector 474283A (Amphenol C10-748591-Z2S) or similar. |
| PSU-1200W-48-E DC Output Connection | 2 x IP55 rated 12AWG 2 Wire Outdoor Cable with exposed pigtails. |
| Alarm Connection* | 2 x IP67 rated Amphenol 4 pin C09131G100 Series (not included) Pin 1 - Normally Closed Pin 2 - Common *Contact closure - Normal Operation; Contact break - Module Failure (No DC Output, Overcurrent, Over/Under Voltage, Overtemp, AC Failure) |
| Cooling Required | Convection via integral heatsink |
| Dimensions (L x W x H) | 14.000 x 6.000 x 8.400 in. (355.6 x 152.4 x 213.4 mm) |
| Weight | 23.3 lbs. (10.6 kg) |

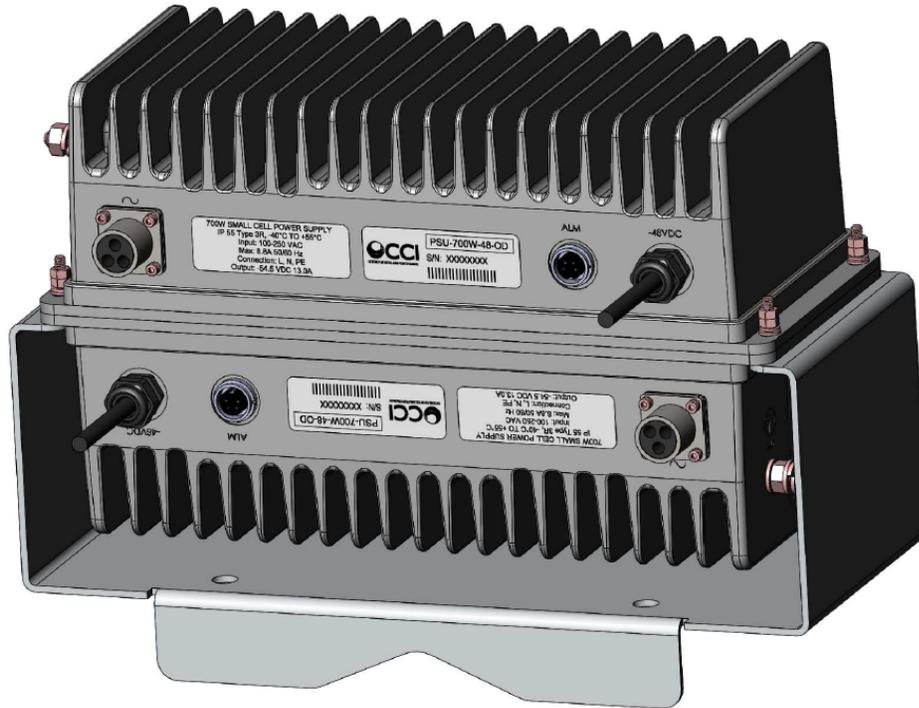
*AC and Alarm Cables sold separately, 2 each required per twin PSU, available in multiple lengths, consult Parts & Accessories section below for part numbers.



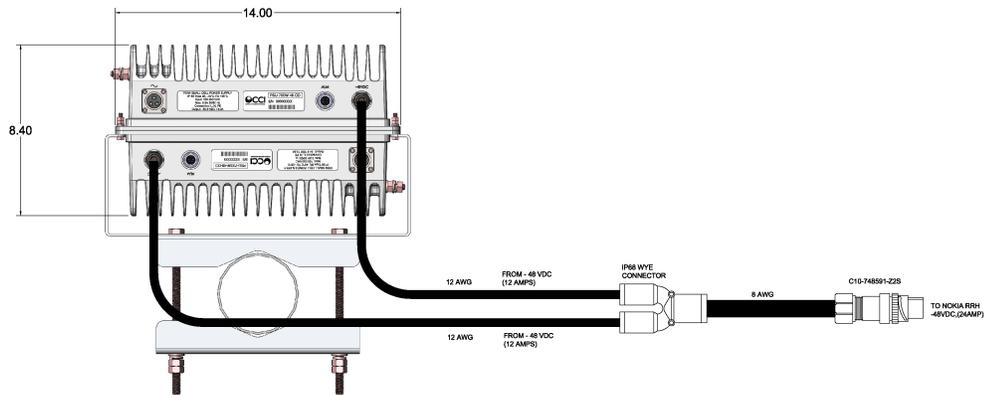
SPECIFICATIONS

Twin RRU Power Supply

PSU-1200W-48-x



PSU-1200W-48-x Twin RRU AC/DC Power Supply Render



PSU-1200W-48-x Twin RRU AC/DC Power Supply Outline Drawing, Nokia output cable shown. DC termination is two wire pigtail, connector shown is not included.



Parts & Accessories

| | |
|---------------------------|--|
| PSU-1200W-48-N | Twin RRU AC/DC Power Supply with Single DC Output for Nokia (1200W, -48 VDC) <i>Note: Requires two (2) AC input cables that are not included see below for options. Available in 9 foot or 35 foot lengths.</i> |
| PSU-1200W-48-E | Twin RRU AC/DC Power Supply with Twin DC Output for Ericsson (2 x 700W, -48 VDC) <i>Note: Requires two (2) AC input cables that are not included see below for options. Available in 9 foot or 35 foot lengths.</i> |
| PSU-1200W-48-N-K9 | PSU-1200W-48-N Kit, Including two 9 ft alarm cables (PSU-700W-ALC-9FT) and two 9 ft. AC cables (PSU-700W-ACC-9FT) and one 1200W power supply (PSU-1200W-48-N) |
| PSU-1200W-48-N-K35 | PSU-1200W-48-N Kit, Including two 9 ft alarm cables (PSU-700W-ALC-9FT) and two 35 ft. AC cables (PSU-700W-ACC-35FT) and one 1200W power supply (PSU-1200W-48-N) |
| PSU-1200W-48-E-K9 | PSU-1200W-48-N Kit, Including two 9 ft alarm cables (PSU-700W-ALC-9FT) and two 9 ft. AC cables (PSU-700W-ACC-9FT) and one 1200W power supply (PSU-1200W-48-E) |
| PSU-1200W-48-E-K35 | PSU-1200W-48-N Kit, Including two 9 ft alarm cables (PSU-700W-ALC-9FT) and two 35 ft. AC cables (PSU-700W-ACC-35FT) and one 1200W power supply (PSU-1200W-48-E) |
| PSU-700W-ALC-9FT | Alarm Cable, 9 Foot |
| PSU-700W-ACC-9FT | AC Input Cable, 9 Foot (Wire Size - 12 AWG) |
| PSU-700W-ACC-35FT | AC Input Cable, 35 Foot (Wire Size - 12 AWG) |
| PSU-1200W-48-PMK | Pole Mounting Kit (for Twin RRU PSU) |

Certifications

ISO 9001

