

UDC SERIES Low ProFile™ 28VDC GROUND POWER UNIT



HORIZONTAL CONFIGURATION
(Shown with standard 4 inch leg kit and
optional digital panel)

STANDARD FEATURES:

- IP55
- Certified to UL 1012
- Indoor/Outdoor (Hangar/Ramp) Use
- Automatic Input Line Monitoring
- 8000 Event Log / Diagnostics
- TCP/IP/Ethernet interface (Modbus)
- Internal Communication Ports - USB, RJ45 (ETHERNET), RS485 (Modbus), & RS232
- External Communication Ports – RJ45 (ETHERNET) & USB
- 10% Power Regulation
- Emergency Power “OFF” Switch
- Voltage and Current Monitoring
- Elapsed Time Meter Access
- Front Panel Summary Fault Indicators
- Front Panel Voltage Adjust ($\pm 10\%$)
- 4 Inch Leg Kit
- Input High Voltage Transient Protection
- Output Current Limit Adjust from 150 to full rated current

This product was manufactured in a plant
whose quality management system is
registered to ISO 9001:2008.



APPLICATION:

Since its beginning in 1960, Unitron has specialized in the design and development of reliable solid-state power systems. Through an innovative design, advanced self-diagnostic systems (BITE) and modular construction, Unitron products assure maximum power availability and minimal repair time.

The Low ProFile™ Series includes lightweight 115/200VAC, 400Hz, 28VDC, and 270VDC converters for aircraft ground power applications in the hangar or ramp area.

Unitron’s **28VDC fixed Low ProFile** GPUs are rated to provide 425 amps continuous output power, with starting currents from 2000 amps and is capable of running off of 50 or 60Hz sources. In addition, Unitron offers a combination AC/DC GPU, which provides simultaneous 115/200VAC, 400Hz with 28VDC power from a single unit.

OPTIONS:

- Alternate 3Ø Input Voltage Range Available - 575-600VAC
- 9 or 12 Inch Top Cable Storage Rack
- DC Output Power Cable with Plug (Available in 20, 30, 40 ft. lengths)
- Output Universal Aircraft Safety Interlock Circuit Disconnect (Single Output Only)
- Output Safety Disconnect
- Dual 28VDC output (Contact Factory)
- Alternate Mounting Configurations Available
- Lockable Front Door
- Custom Paint & Decals (Standard Color - White. Also available in Mango color for no extra charge.)
- Leg Kit - 12 or 18 Inch*
- Stand - 4, 12 or 18 Inch*
- Forklift Tubes - 4 Inch
- CSA Certified
- UltraLite™ Upgrade Package

* IAW NFPA 70, Article 513.10 (c) (1) - 18 Inch Rule (18" Leg Kit & Stand only)

MECHANICAL SPECIFICATIONS:

Size: See Figure 1
Weight: 240lbs. (109kg.)
Enclosure: NEMA 3RX Corrosion Resistant
Cooling: Forced Convection

SPECIFICATIONS / STANDARDS:

ISO 1540	Characteristics of aircraft electrical system
ISO 6858	Aircraft ground support electrical supplies
MIL-STD-704F	Aircraft electric power characteristics
MIL-STD-1472	Human Engineering Design Criteria

GENERAL SPECIFICATIONS

INPUT:

Voltage	208-240V or 380-480V, $\pm 10\%$, 3 ϕ , 3 or 4 wire plus ground (Specify manual tap position at time of order)
Frequency	50 - 60 Hz $\pm 10\%$
Phase Rotation	Any
Protection	Over/undervoltage, loss of phase, overcurrent, short circuit. Voltage transient protection IAW IEEE C62.41.1, Location Cat. B/C
Inrush Current	No greater than 100% of full load current

ENVIRONMENTAL:

Acoustical Noise	65 dBA maximum at 5 feet (1.5m)
Temperature Range	-40°C to +55°C
EMI/RFI	Compatible with aircraft systems
Relative Humidity	10 - 95%, Non-Condensing
Ingress of Water	Type 3RX, IP55

OUTPUT:

Full Rated Load	425 amps continuous
Engine Start Capacity (10% duty cycle)	Adjustable up to 1600 amps for 1 minute or 2000 amps for 30 seconds
Overload (10% duty cycle)	600 amps for 1 hour 1000 amps for 10 minutes
Voltage	28 VDC, 2 wire, grounded negative
Voltage Regulation	<ul style="list-style-type: none"> 100% continuous rated load and $\pm 10\%$ input voltage $\pm 0.5\%$ No load to rated load with nominal input voltage IAW ISO 6858 Overload with nominal input voltage See start mode curves
Voltage Adjust	28 VDC $\pm 10\%$
Current Limit Adjust	150A to full rated current
Protection	Overload, short circuit, over voltage and safety disconnect
Power Regulation	10%

FIGURE 1

