

UDC SERIES PwrKart™ 28VDC GROUND POWER UNIT



50/60HZ INPUT CONFIGURATION
(Shown with 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)
- 10% Power Regulation
- Internal Communication Ports - USB, RJ45 (Ethernet), RS485 (Modbus), & RS232
- External Communication Ports - RJ45 (Ethernet) & USB
- Emergency Power "OFF" Switch
- 18-Inch Hazard Area Clearance
- Voltage and Current Monitoring
- Elapsed Time Meter Access
- Front Panel Summary Fault Indicators
- Front Panel Voltage Adjust ($\pm 10\%$)
- Input & Output Cable handle
- Input High Voltage Transient Protection
- Output Current Limit Adjust from 150 to full rated current

APPLICATION:

Since its beginning in 1960, Unitron has specialized in the design and development of reliable solid-state power systems. Our PWM topography represents the most advanced design available in today's market. Self-diagnostic systems (BITE) and modular construction, assure maximum power availability and minimal repair time.

The PwrKart™ Series includes lightweight 115/200VAC, 400Hz, 28VDC, and 270VDC mobile converters for aircraft ground power applications in the hangar or ramp area. With the lightest weight-to-power rating ratio in the market, all Unitron mobile units are easily maneuvered by a single person within the hangar environment.

Unitron's **28VDC mobile PwrKart** provides 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
- 50 or 100 foot Input Power Cable (Pigtail)
- 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
- Custom Paint & Decals (Standard Color - White. Also available in mango color for no extra charge)
- Lockable Front Door
- CSA Certified
- Pneumatic Ramp Tires
- UltraLite™ upgrade package

MECHANICAL SPECIFICATIONS:

Size: See Figure 1
 Weight: 340lbs. (154kg.)
 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

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



GENERAL SPECIFICATIONS

INPUT:

Voltage	208-240V or 380-480V, ± 10%, 3Ø, 3 or 4 wire plus ground (Specify manual tap position at time of order)
Frequency	50 - 60 Hz ± 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

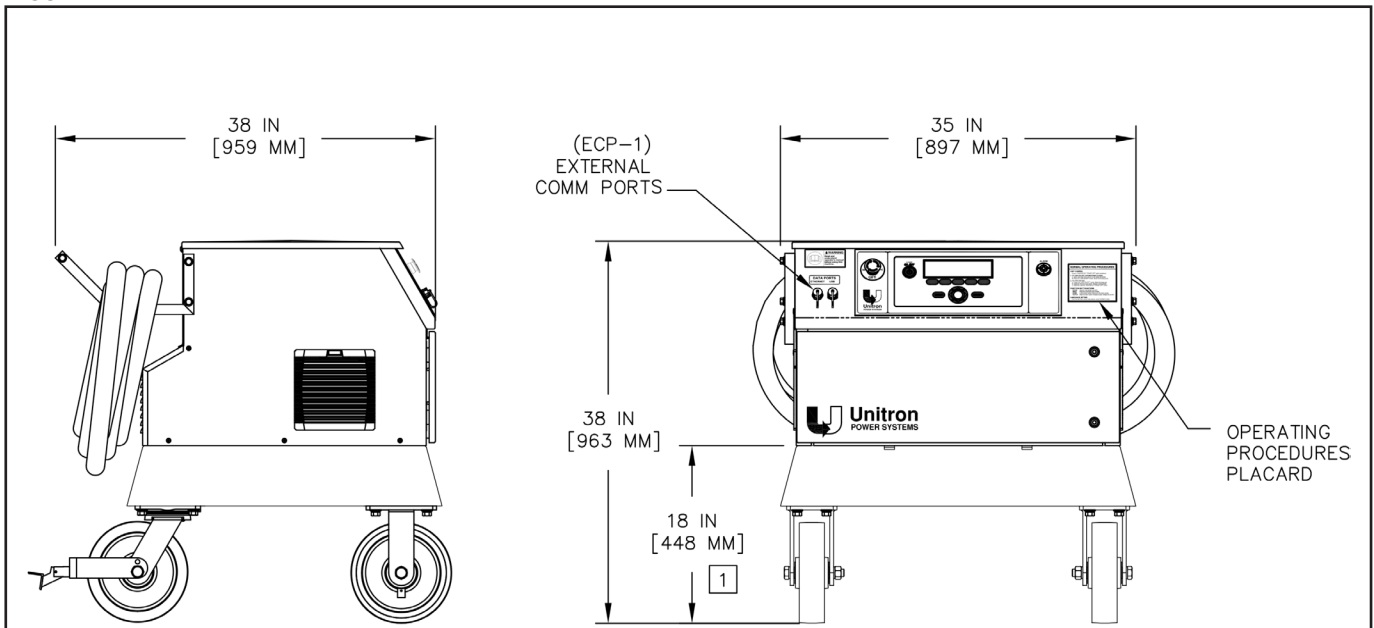
ENVIRONMENTAL:

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	
• 100% continuous rated load and ±10% input voltage	± 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 ± 10%
Current Limit Adjust	150A to full rated current
Protection	Overload, short circuit, over voltage and safety disconnect
Power Regulation	10%

FIGURE 1



1. SAFETY CLEARANCE IAW ARTICLE 513-10(A) OF THE NATIONAL ELECTRICAL CODE (NEC)—REFERENCE NFPA 70-1996 AND EN60079-10

**UDC SERIES PwrKart™
28VDC GROUND POWER UNIT (GPU)**