

UDC SERIES PwrKart™ 28VDC GROUND POWER UNIT



50/60HZ INPUT CONFIGURATION
(Shown with standard touch screen 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 Port - USB
- Emergency Power "OFF" Switch
- 18-Inch Hazard Area Clearance
- Advanced Integrated Display (AID™) Console
- Input Frequency Monitoring
- I/O Voltage and Current Monitoring
- Elapsed Time Meter Access
- Front Panel Voltage Adjust
- Front Panel Summary Fault Indicators
- Input & Output Cable handle
- Maintenance Free Tires
- Input High Voltage Transient Protection
- Output Current Limit Adjust from 150 to full rated current
- Multi Language Display - Arabic, Asian, English, French, German, Italian, Portuguese, Russian and Spanish, Others - Specify

This product was manufactured in a plant whose quality management system is registered to ISO 9001:2015.



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. Selfdiagnostic 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 or 600 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
- Various Convenience Outlets (Specify Voltage & Frequency)
- 50 or 100 foot Input Power Cable (Pigtail)
- 9 or 12 Inch Top Cable Storage Rack
- DC Output Power Cable with Plug (Up to 65' Feet)
- Output Universal Aircraft Safety Interlock Circuit Disconnect (Single Output Only)
- External Communication Port - Ethernet
- Output Safety Disconnect
- Bench Top Voltage Adjust
- Input Auto Ranging
- ≤ 5% Input Current Distortion at Max Load
- 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
- CE Mark Certified
- Pneumatic Ramp Tires or Solid Core Casters
- UltraLite™ Upgrade Package

MECHANICAL SPECIFICATIONS:

Size: See Figure 1
 Weight: 340lbs. (154kg.)
 Enclosure: NEMA 250 - Type 3SX
 Cooling: Forced Convection

SPECIFICATIONS / STANDARDS (Meets or Exceeds):

NFPA 70 (NEC 500)	ISO 6858
EN 60079-10	UFGS 26 35 43
ISO 461-1/2	MIL-STD-1472
ISO 1540	MIL-STD-704F

GENERAL SPECIFICATIONS

INPUT:

Voltage	208-240V and 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 3SX, IP55

OUTPUT:

Model 420

Full Load Rating	425 amps continuous
Overload (10% duty cycle)	600 amps for 1 hour 1000 amps for 1 minute
Engine Start Capacity (10% duty cycle)	Adjustable up to 1600A for 30 sec or 2000A for 10 sec

Model 620

Full Load Rating	600 amps continuous
Overload (10% duty cycle)	1000 amps for 1 minute
Engine Start Capacity (10% duty cycle)	Adjustable up to 2000A for 30 sec

Voltage	28 VDC, 2 wire, grounded negative
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Voltage Regulation

- 100% continuous rated load and ±10% input voltage ± 0.5%
- No load to rated load with nominal input voltage ± 0.5%

Voltage Adjust	28 VDC ± 10%
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Current Limit Adjust	150A to full rated current
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Protection	Overload, short circuit, over voltage and safety disconnect
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Power Regulation	10%
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FIGURE 1

