

UDC SERIES PwrKart™ 28VDC GROUND POWER UNIT



TOWABLE CONFIGURATION
(Shown with mango paint color and
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 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. 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 and trailer mounted converters for aircraft ground power applications in the hangar or ramp area.

Unitron's **28VDC mobile PwrKart** provides either 400 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 and 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)
- 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)
- Lockable Front Door
- CSA Certified
- CE Mark Certified
- Pneumatic Ramp Tires
- UltraLite™ Upgrade Package

MECHANICAL SPECIFICATIONS:

Size:	See Figure 1
Weight:	1,053lbs. (478kg.)
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

Model 620

Full Load Rating	600 amps continuous
Overload (10% duty cycle)	1000 amps for 1 minute

Model 420/620

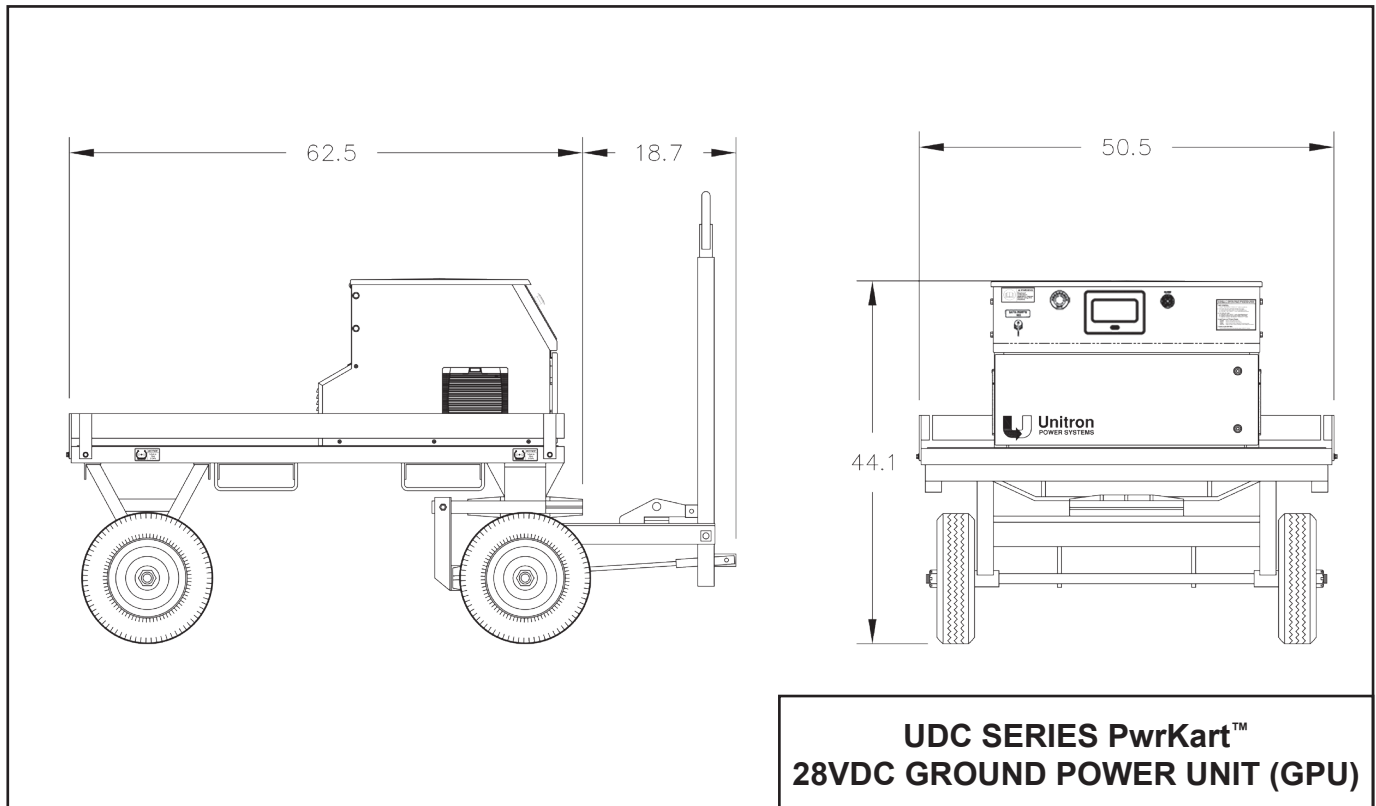
Engine Start Capacity (10% duty cycle)	Adjustable up to 1600 amps for 35 seconds or 2000 amps for 30 seconds
Voltage	28 VDC, 2 wire, grounded negative

Voltage Regulation

- 100% continuous rated load ± 0.5% over any nominal input voltage range
- No load to rated load with nominal input voltage ± 0.5%
- 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



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