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 PwrKart Series includes lightweight 115/200VAC, 400Hz, 28VDC, and 270VDC mobile converters for aircraft ground power applications in the hangar or ramp area. The dual output AC/DC PwrKart provides simultaneous AC and DC power from a single GPU. Kilowatt power for the complete unit is limited to the nominal rating of the 400Hz output of the unit. Because a single unit can do the work of two, Unitron's AC/DC PwrKart reduces operating and maintenance costs, and eases ramp congestion.

Output power ratings for the 115/200VAC, 400Hz mobile PwrKart range from 20kVA to 90kVA. Larger power ratings are available in towable, fixed and bridge-mounted configurations. In addition, Unitron offers a combination AC/DC GPU, which provides simultaneous 115/200VAC, 400Hz or 270VDC at 72kW, with 28VDC power from a single unit.

STANDARD FEATURES:
- IP55
- Certified to UL 1012
- Indoor/Outdoor (Hangar/Ramp) Use
- Automatic Input Line Monitoring
- Advanced Integrated Display (AID™) Console
- 8000 Event Log / Diagnostics
- TCP/IP/Ethernet interface (Modbus)
- Internal Communication Ports - USB, RJ45 (ETHERNET), RS485 (Modbus), & RS232
- External Communication Port – USB
- 10% Automatic Line Drop Compensation
- Emergency Power “OFF” Switch
- 18-Inch Hazard Area Clearance
- Voltage, Current, & Frequency Monitoring
- Elapsed Time Meter
- Sleep Mode
- Front Panel Voltage Adjust
- Front Panel Summary Fault Indicators
- Input & Output Cable Racks
- Input High Voltage Transient Protection
- Multi Language Display - Arabic, Asian, English, French, German, Italian, Portuguese, Russian and Spanish, Others - Specify

MECHANICAL SPECIFICATIONS:
Size: See Figure 1
Weight: 20.0kVA = 453lbs. (205kg.)
30.0kVA = 510lbs. (231kg.)
45.0kVA = 597lbs. (271kg.)
Enclosure: NEMA 250 - Type 3SX
Cooling: Forced Convection

OPTIONS:
- Alternate input voltage range 3Ø, 208-240 or 600VAC input
- Various Convenience Outlets (Specify Voltage and Frequency)
- 50 or 100 Foot Input Power Cable (Pigtail, Specify Required Length)
- AC Output Power Cable with Plug (Specify Required Length - Available in 30 or 60 foot standard lengths)
- Output Universal Aircraft Safety Interlock Circuit Disconnect (Single or Dual)
- External Communication Port - Ethernet
- Output Safety Disconnect
- Bench Top Voltage Adjust
- 28VDC or 270VDC Output
- Up to 675% Overload for 6 sec, Dependent on Rating
- No Break Power Transfer Compatible
- ≤5% Input Current Distortion at Max Load
- Alternate Mounting Configurations Available
- Pneumatic Ramp Tires
- Custom Paint & Decals (Standard Color - White)
- CSA Certified
- CE Mark Certified
- Input Auto Ranging
- Ground Fault Monitor
- Lockable Front Door
- Neutral Interrupt Protection
- Universal Safety Interlock
- 15% Automatic Line Drop Compensation

SPECIFICATIONS / STANDARDS (Meets or Exceeds):
NFPA 70 (NEC 500) ISO 461-1/2
EN 60079-10 ISO 1540
UFGS 26 35 43 ISO 6858
DFS-400 MIL-STD-1472
SAE ARP 5015 MIL-STD-704F
*Defined Basis of CE Mark Certification

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

**INPUT:**
- Voltage: 380 - 480V, ± 10%, 3Ø, 3 wire plus ground (Alternative Voltages Available)
- 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
- Relative Humidity: 10 - 95%, Non-Condensing
- Ingress of Water: Type 3SX, IP55

**ENERGY FACTORS:**
- Efficiency: 93% typical at full load; 90% typical at half load; varies depending on configuration
- Energy Efficiency Ratio: 20.0 typical

**OUTPUT:**
- Power Rating: 20, 30, or 45 kVA (Specify)
- Power Factor Range: 0.5 lagging to 0.8 leading
- Overload:
  - 100% continuous
  - 110% for 60 min
  - 125% for 10 min
  - 150% for 2 min
  - 200% for 20 sec (45kVA)
  - 300% for 20 sec (30kVA)
  - 450% for 20 sec (20kVA)
- Voltage*: 115/200 volts, 3Ø, 4 wire, grounded neutral
- Voltage Adjust*: ± 15%
- Crest Factor: 1.414 ± 3%
- Voltage Regulation: ± 1.0% under all conditions of line, balanced loads and temperature
- Voltage Transients: IAW MIL-STD-704F
- Frequency Regulation: 400 Hz ± 0.01% under all conditions of line, load and temperature
- Frequency Transients: None
- Phase Angle Regulation: ± 1° for balanced loads; ± 2° for unbalanced loads
- Harmonic Distortion: 2.0% maximum
- Protection: Overload, short circuit, over/undervoltage and safety disconnect
- Automatic Line Drop Compensation (ALDC): 10%

*Also available 120/208 VAC, adjustable ±10%

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**FIGURE 1**

![UFC SERIES PwrKart™ MOBILE GROUND POWER UNIT (GPU)](image_url)