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 115/200VAC, 400Hz, 28VDC, and 270VDC converters designed to provide aircraft ground power in support of hangar and ramp aircraft maintenance activities, and on flight lines when aircraft engines are secured. The 400Hz towable PwrKart provides up to 180kVA output power and is designed to service the largest commercial and military aircraft on the market today. The dual outputs provided can be single source controlled, be individually voltage regulated and line drop compensated, and configured for partial redundancy.

These 400Hz Ground Power Units (GPUs) range from 20kVA to 180kVA. Dependent upon rating, these units are available in mobile, towable, fixed and bridge-mounted configurations.

STANDARD FEATURES:
- IP55
- Certified to UL 1012
- 3 Phase, 380-480VAC input
- Indoor/Outdoor (Hangar/Ramp) Use
- ≤ 5% Input Current Distortion at max load
- Automatic Input Line Monitoring
- Internal Communication Ports - USB, RJ45 (ETHERNET), RS485 (Modbus), & RS232
- External Communication Port – USB
- Advanced Integrated Display (AID™) Console
- 8000 Event Log / Diagnostics
- 15% Automatic Line Drop Compensation
- Emergency Power “OFF” Switch
- 18-Inch Hazard Area Clearance
- I/O Voltage, Current, & Frequency Monitoring
- Elapsed Time Meter
- Sleep Mode
- Front Panel Voltage Adjust
- Front Panel Summary Fault Indicators
- Input & Output Cable Racks
- Single Input Connection
- Input High Voltage Transient Protection
- Multi Language Display - Arabic, Asian, English, French, German, Italian, Portuguese, Russian and Spanish, Others - Specify

OPTIONS:
- Alternate 3-phase, Input Voltages of 208-240 or 600VAC
- 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
- External Communication Port - Ethernet
- Output Safety Disconnect
- Second 28VDC output
- 300% overload for 6 seconds
- Alternately Selectable 400Hz or 270VDC at same kW ratings, either output
- TCP/IP/Ethernet interface (Modbus)
- No Break Power Transfer Compatible
- Individual Output Voltage Regulation / ALDC
- Alternate Mounting Configurations Available
- Custom Paint & Decals (Standard Color - White)
- CSA Certified
- CE Mark Certified
- Ground Fault Monitor
- Neutral Interrupt Protection
- Universal Safety Interlock

MECHANICAL SPECIFICATIONS:
Size:  See Figure 1
Weight:
- 120.0kVA = 2,537lbs. (1,151kg.)
- 150.0kVA = 2,888lbs. (1,310kg.)
- 180.0kVA = 3,060lbs. (1,388kg.)
Enclosure:  NEMA 250 - Type 3SX
Cooling:  Forced Convection

SPECIFICATIONS / STANDARDS (Meets of Exceeds):
- NFPA 70 (NEC 500)
- EN 60079-10
- DFS-400
- ISO 461-1/2
- ISO 1540
- ISO 6858
- SAE ARP 5015
- MIL-STD-1472
- MIL-STD-704F
- UFGS 26 35 43
- EN 61000-6-2 and -4**
- 2006/95/EC**

**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:
Input Current Distortion  ≤ 5%, typically 3%
Voltage  380 - 480 volts, +10%, -15%, 3Ø, 3 or 4 wire plus ground (Alternate Voltages Available)
Frequency  45 - 65 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  94% typical at full load; 92% typical at half load; varies depending on configuration
Energy Efficiency Ratio  20.0 typical

OUTPUT:
Power Rating  120, 150, or 180 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
Voltage  115/200 volts, 3Ø, 4 wire, grounded neutral
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)  15%

FIGURE 1

Specifications subject to change without notice