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 Low ProFile Series includes 115/200VAC, 400Hz, 28VDC, and 270VDC converters designed to provide aircraft ground power in "low profile" applications such as under passenger boarding bridges, in maintenance hangars, or on flight lines. This versatile design is particularly well suited for field installations where low clearances for aircraft are required. The 400Hz fixed Low ProFile unit 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.

Output power ratings for 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. When ramp or floor space is a premium, the Low ProFile GPU can be installed as an overhead mounted unit.

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
- Advanced Integrated Display (AID™) Console
- 8000 Event Log / Diagnostics
- Internal Communication Ports - USB, RJ45 (ETHERNET), RS485 (Modbus), & RS232
- External Communication Port – USB
- 15% Automatic Line Drop Compensation
- Emergency Power “OFF” Switch
- I/O Voltage, Current, & Frequency Monitoring
- Elapsed Time Meter
- Sleep Mode
- Front Panel Voltage Adjust
- Front Panel Summary Fault Indicators
- 4 Inch Leg Kit
- 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)
- AC Output Power Cable with Aircraft Plug (Specify Length)
- Input & Output Cable Racks
- Output Universal Aircraft Safety Interlock Circuit Disconnect (Single or Dual)
- External Communication Port - Ethernet
- Output Safety Disconnect
- 28VDC or 270VDC output
- Second 28VDC output
- 300% overload for 6 seconds or 425% overload for 1 second* (Specify)
- Non Linear Load
- Alternately third or fourth outputs - 28VDC each at 600 Amps continuous with Individual Safety Disconnect from aircraft
- Alternately Selectable 400Hz or 270VDC at same kW ratings, either output
- TCP/IP/Ethernet interface (Modbus)
- Indoor Touch Screen Panel
- Individual Output Voltage Regulation / ALDC
- No Break Power Transfer Compatible
- Custom Paint & Decals (Standard Color - White)
- CSA Certified
- CE Mark Certified
- 18-Inch Hazard Area Clearance
- Alternate Mounting Configurations Available
- Neutral Interrupt Protection
- Universal Safety Interlock

MECHANICAL SPECIFICATIONS:
Size: See Figure 1
Weight: 120.0kVA = 1,332lbs. (604kg.)
150.0kVA = 1,683lbs. (763kg.)
180.0kVA = 1,855lbs. (841kg.)
Enclosure: NEMA 250 - Type 3SX
Cooling: Forced Convection

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

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

* IAW MIL-STD-704F & ISO 6858: 2017
**Defined Basis of CE Mark Certification
## GENERAL SPECIFICATIONS

### INPUT:
- **Input Current Distortion**: ≤ 5%, typically 3%
- **Voltage**: 380 to 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%

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**NOTE**

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

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**FIGURE 1**

![Diagram of the UFC SERIES Low ProFile™ GROUND POWER UNIT (GPU)]