

UFC SERIES FlatPak™ 400Hz GROUND POWER UNIT 156.5-200kVA



FIXED CONFIGURATION
(Shown with standard digital front panel
and optional privacy panel)

STANDARD FEATURES:

- IP55
- Certified to UL 1012
- 3 Phase, 4 wire, 380/200 to 480/277VAC Input (Specify)
- 50/60 Hz input
- ≤ 5% Input Current Distortion
- 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 Ports - RJ45 (Ethernet) & USB
- 15% Automatic Line Drop Compensation
- Emergency Power "OFF" Switch
- I/O Voltage, Current, & Frequency Monitoring
- Elapsed Time Meter
- Front Panel Summary Fault Indicators
- Forklift Tubes - 4 Inch
- Input High Voltage Transient Protection
- Multi Language (Romanization) Display - English, French, German, Italian, Portuguese, Russian and Spanish, Others - Specify

MECHANICAL SPECIFICATIONS:

Size: See Figure 1
 Weight: See Figure 1
 Enclosure: NEMA 3RX Corrosion Resistant
 Cooling: Forced Convection

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 FlatPak™ Series includes 400Hz converters specifically designed for installation where space is limited. The units mount "flat" against a wall, and offer the smallest size to power rating ratio in the industry. Also, by using noise reduction technology, Unitron converters are quiet enough to be located close to the equipment they serve. No special soundproofing or other insulation is required.

Standard output power ratings for the **400Hz FlatPak Converter** range from 20kVA to 400kVA. For higher system ratings to 2MW, contact factory. In addition to fixed units, Unitron offers 400Hz, 28VDC and combination AC/DC converters in mobile and towable configurations. Also available are 270VDC outputs at various power ratings.

OPTIONS:

- Second 28VDC output
- Alternate Output Voltages (120/208V, 600/345V)
- Input/Output Contactor
- Input and/or Output Circuit Breaker
- Auto Restart
- 300% overload for 6 seconds
- Non Linear Load
- Parallelable (Grid Expansion)
- Redundant (N+1/Hot Swap)
- Custom Paint & Decals (Standard Color - White)
- Ground Fault Monitor
- Lockable Front Door
- CSA Certified
- CE Mark Certified
- No Break Power Transfer Compatible (Aircraft Load)
- Touch Screen Front Panel
- Stand - 4, 12 or 18 Inch
- Neutral Interrupt Protection
- Universal Aircraft Safety Interlock (Single or Dual)
- 28VDC Aircraft Safety Interlock (Single or Dual)
- Anti-Condensation Heater(s)

SPECIFICATIONS / STANDARDS:

EN 61000-6-2*	Electromagnetic compatibility Immunity standard for industrial environments
EN 61000-6-4*	Electromagnetic compatibility Emission standard for industrial environments
2006/95/EC*	Low Voltage Directive
ISO 1540	Characteristics of aircraft electrical system
ISO 6858	Aircraft ground support electrical supplies
SAE ARP 5015	Ground equipment 400Hz ground power performance requirement
MIL-STD-704F	Aircraft electric power characteristics
MIL-STD-1472	Human Engineering Design Criteria
DFS-400	Specification for 400Hz aircraft power supply
*Defined Basis of CE Mark Certification	



This product was manufactured in a plant
whose quality management system is
registered to ISO 9001:2008.

GENERAL SPECIFICATIONS

INPUT:

Input Current Distortion	≤ 5%, typically 3%
Voltage	380/200V to 415/240V or 480/277V, +10%, -15%, 3Ø, 3 or 4 wire plus ground (Specify)
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%
Ingress of Water	Type 3RX, IP55

ENERGY FACTORS:

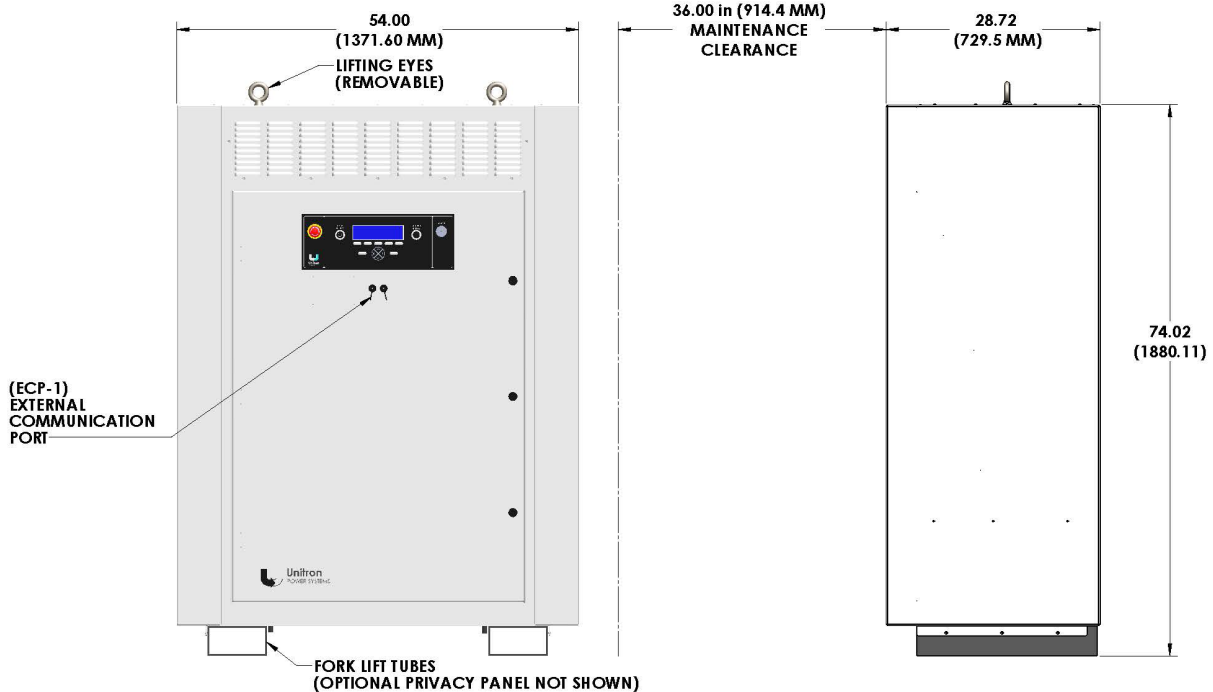
Efficiency	94% typical at full load, 92% typical at half load; varies depending on configuration
Energy Efficiency Ratio	20.0 typical

OUTPUT:

Standard Power Ratings	156.5, 187.5, 200 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%

NOTE:

**Alternate output voltages available when specified



Weight*:

156.5kVA - 1,673lbs (759kg.)

187.5kVA - 1,765lbs (801kg.)

200kVA - 1,820lbs (826kg.)

*Weight varies with options

FIGURE 1