

## UFC SERIES FlatPak™ 400Hz GROUND POWER UNIT 312kVA



FIXED CONFIGURATION  
(Shown with touch screen front panel,  
excluding optional I/O PDU)

### STANDARD FEATURES:

- IP55
- Certified to UL 1012
- 3 Phase, 4 wire, 380/200 to 480/277VAC input (Specify)
- Indoor/Outdoor (Hangar/Ramp) Use
- 50/60 Hz input
- ≤ 5% Input Current Distortion at max load
- 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
- 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
- Forklift Tubes - 4 Inch
- Single Input Connection
- Input High Voltage Transient Protection
- 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. 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.

Each of the two identical power bays which each operate in paralleled harmony to give the desired power grid rating. Each of the bays can be located in near proximity (side by side or back to back) or in different areas of a utility room depending upon "niche" space available.

For those applications desiring (N+1)/Hot Swap Redundancy, the FlatPak Series can also be provided with an optional centrally located I/O Power Distribution Unit (PDU) to facilitate a more economical solution than requiring separately furnished PDUs.

Output power ratings for the 400Hz FlatPak Converter range from 20kVA to 400kVA in a single bay configurations and up to 800kVA in (N+1)/Hot Swap fully redundant systems where critical loads are involved. Additionally, the redundant configurations can be provided with "Load Management" to assure the most efficient level of operation for various load conditions. Contact factory for more details on Redundant Configurations.

### OPTIONS:

- 300% Overload for 6 sec.
- Alternate Output Voltages (208/120V, 600/345V)
- Various Convenience Outlets (Specify Voltage and Frequency)
- External Communication Port - Ethernet
- Input/Output Contactor
- Input and/or Output Circuit Breaker
- Auto Restart
- 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
- Stand - 4, 12 or 18 Inch
- Neutral Interrupt Protection
- Universal Aircraft Safety Interlock (Single or Dual)
- Non Linear Load
- Anti-Condensation Heater(s)

### MECHANICAL SPECIFICATIONS:

Size: See Figure 1  
Weight: 3,333 lbs (1,512 kg.)  
Enclosure: NEMA 250 - Type 3SX  
Cooling: Forced Convection

### 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**

\*\*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 - 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%, 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
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**OUTPUT:**

Standard Power Ratings	312 kVA
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**	575 volts, 3Ø, 3 wire
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

