

UFC SERIES FlatPak™ 400Hz GROUND POWER UNIT 20kVA - 90kVA



FIXED CONFIGURATION (Shown with standard touch screen front panel)

STANDARD FEATURES:

- IP55
- Certified to UL 1012
- 3 Phase, 380-480VAC 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
- Front Panel Voltage Adjust
- Front Panel Summary Fault Indicators
- Forklift Tubes 4 Inch
- 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. 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.

Output power ratings for the **400Hz FlatPak Converter** range from 20kVA to 400kVA. In addition to fixed units, Unitron offers 400Hz, 28VDC and combination AC/DC converters in mobile and towable configurations.

OPTIONS:

- Output Universal Aircraft Safety Interlock Circuit Disconnect (Single or Dual)
- Various Convenience Outlets (Specify Voltage and Frequency)
- External Communication Port Ethernet
- Output Safety Disconnect
- Second 28VDC output (20 45 kVA Only)
- Indoor Touch Screen Panel
- Alternate Output Voltages (120/208V, 575V)
- Input/Output Contactor
- Bench Top Voltage Adjust
- Auto Restart
- 300% overload for 6 seconds or 425% overload for 1 second* (Specify)
- 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
- Stand 4, 12 or 18 Inch
- Neutral Interrupt Protection
- Universal Safety Interlock
- * IAW MIL-STD-704F and ISO 6858:2017

MECHANICAL SPECIFICATIONS:

Size: See Figure 1
Weight: See Figure 1

Enclosure: NEMA 250, Type 3SX Cooling: Forced Convection

SPECIFICATIONS / STANDARDS (Meets of 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 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 94% typical at full load,

> 92% typical at half load; varies depending on

configuration

Energy Efficiency Ratio 20.0 typical

OUTPUT:

Power Rating 20, 30, 45, 62.5, 75, or 90 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 (45-90kVA) 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

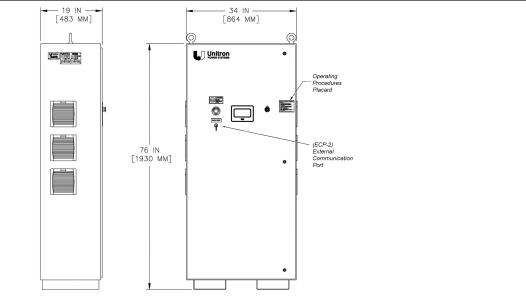
Automatic Line Drop 15%

Compensation (ALDC)

NOTE:

**Alternate output voltage of 120/208 volt available when specified **Also available 120/208 VAC, adjustable ± 10%

FIGURE 1



Weight*:

20.0kVA = 525lbs. (238kg.)45.0kVA = 580lbs. (263kg.)75.0kVA = 978lbs. (444kg.)

*Weight varies with options

30.0kVA = 555lbs. (252kg.)62.5kVA = 710lbs. (322kg.) 90.0kVA = 1,040lbs. (472kg.)

UFC FlatPak™ SERIES GROUND POWER UNIT (GPU)