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*
- 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

* For ≤ 62.5kVA, 28VDC is available simultaneously with 400Hz full load rating; for 75kVA & 90kVA, 28VDC is limited to the total kW full load rating of the unit. No engine start capacity while using the 400Hz output.

** 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
- 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 Compensation (ALDC)**
- 15%

### FIGURE 1

Weight:
- 20.0kVA = 525lbs. (238kg.)
- 45.0kVA = 580lbs. (263kg.)
- 75.0kVA = 978lbs. (444kg.)
- 30.0kVA = 555lbs. (252kg.)
- 62.5kVA = 710lbs. (322kg.)
- 90.0kVA = 1,040lbs. (472kg.)

*Weights vary with options

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