



APPLICATION

PCTI is a leader in designing, engineering, and manufacturing of Aircraft Frequency Converters since their inception back in 1991. PCTI's success in Frequency Converters comes from our reliable and rugged design. Our products are used by the US military in some of the harshest environments and conditions around the world.

PCTI's Ground Power Unit includes 115/200vac, 400hz, 28VDC and 270VDC designed for easy movement during installation and for environmental safety, with 18" of clearance in the Hangar area. PCTI's AC/DC power conversion reduces operating and maintenance costs while reducing the equipment down time.

Please feel free to contact PCTI to discuss these products or Combo AC/DC GPUs.

Standard Specifications

Input

Service:	380V-480V _{AC} \pm 10%, 3 Phase, 4 Wire
Frequency:	50/60 Hz
Efficiency:	85% at full load
Power Factor:	0.8 to unity at full load and nominal input

Output

Service:	115V/200VAC 3 phase, 4 wire, adjustable 90% to 110%
Frequency:	400Hz, \pm 0.05%
Power:	20, 30, or 45kVA
Regulation:	1% independent phase regulation for combined no load to full load at rated input voltage change

Control Technology: Digitally Synthesized Pulse Width Modulation (PWM)

Transient Response: 500 microseconds for a 90% load change on any phase or combination of phases

Wave Shape: Sinewave

Crest Factor: 1.41 ± 0.1

THD: less than 2% THD, 1% on any single frequency, and less than 4% for non-linear loads

Current Limit: 110% of load

Power Factor: 0.8 lead to 0.8 lag. Continuous zero lead to zero lag at full rated output without damage to the unit.

Overload Capacity: 110% for 1 hour (60 minutes)
125% for 10 minutes
150% for 2 minutes

Front Panel Devices

- Power ON Indicator
- Run indicator
- Undervoltage indicator
- Overvoltage indicator
- Voltage trim adjust \pm 10%
- Start pushbutton
- Stop/Reset pushbutton
- Fault indicator
- Analog Frequency Meter
- Analog Output Voltmeter w/3 Phase selector switch
- Analog Output Ammeter w/3 Phase selector switch
- Elapsed Time Meter (operating hours counter)

Protection

- Input Circuit Breaker
- Output Contactor
- Electrical door interlock with bypass
- E&F Interlock w/bypass feature
- Overvoltage
- Undervoltage
- Overcurrent/Overload – self protected. Will withstand output short circuit cleared by internal solid-state circuitry.
- Output under frequency
- Isolation Transformer
- Overtemperature

Mechanical/Environmental

- Temperature Range:
 - Ambient: -40°C to 55°C
 - Storage: -40°C to 65°C
- Altitude up to 1000 meters
- Humidity to 98% 40°C, noncondensing
- Enclosure, NEMA 3R, Outdoor
- Mounting: Vertical Freestanding
- 18" Hazard Clearance
- Dimension and Weight based on unit Power Rating
- 20KVA: 76"Hx32"Wx24"D 1200 lbs.

Available Power Ratings

Power Rating	Model Number
20kVA	FC20-200-460-01
30kVA	FC30-200-460-01
45kVA	FC45-200-460-01

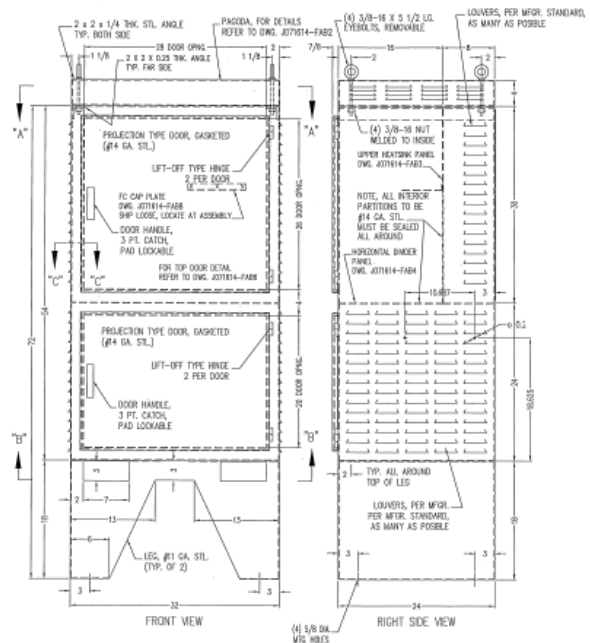
Applicable Standards

- MIL-STD-704F (Aircraft Electrical Power Characteristics)
- ANSI
- NEC
- IEEE

Options and Accessories

- Alternate input voltage, 208-240 or 600vAC
- 28vDC or 270vDC output (considered a COMBO Unit at PCTI)
- Aircraft safety Interlock circuit disconnect
- Ethernet communication port with static IP web interface
- Digital or HMI displays

- Custom Paint and decals (base color, industrial gray)
- Certification options
 - UL1012
 - CSA certification
 - CE Mark certification
- Input cable jacketed 3-conductor with ground, pigtailed and plug ready (specify length)
- Output cable: 6 Pole cable assy. with 4 - 1/0 cables and 1 - 12/2 cable - with aircraft plug (specify length)
- Cable Grips
- Cable Reel
- Cable Mounting Racks
- Remote Controls
- Drawings



Contact

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