

COREPOWER®

1425

400 Amp Power Conversion Unit (PCU)

The COREPOWER® Induction Starter Generator System revolutionizes aircraft power utilization on the ground. The Power Conversion Unit coupled with the Starter Generator Unit provides 250A of available power at sub-idle engine speeds and full rated power at engine idle, mimicking the benefits of an Auxiliary Power Unit, while providing 400A of power for starting and normal operations.



Features

- High efficiency
- Eliminates separate bus current monitors
- Able to respond intelligently to various commands and stimuli, and can monitor and report a variety of operating parameters including bus voltage and currents
- Contains a processor-based controller and can communicate over an ARINC 429 data bus
- Software configurable for key operating characteristics
- High reliability and low maintenance
 - PCU MTBF >8,000 hours
- 28VDC output voltage: programmable set-point = 28.0, 28.5, 28.75 and 29.0VDC
- Static regulation: ± 0.3 VDC
- Overload operation:
 - 600 amps for five minutes
 - 800 amps for 20 seconds
 - 850 amps short circuit limit

- Programmable generator speed transition:
 - Cut-in (5,000 to 7,000 rpm)
 - Cut-off (4,500 to 6,500 rpm)
- Incorporates current sharing capability

Power

Bi-directional converter

Output: 28.5VDC, 400 amps (11,400W)

- Full power from 6,200 to 12,000 rpm
- Derated power from 4,700 to 6,200 rpm

Safety

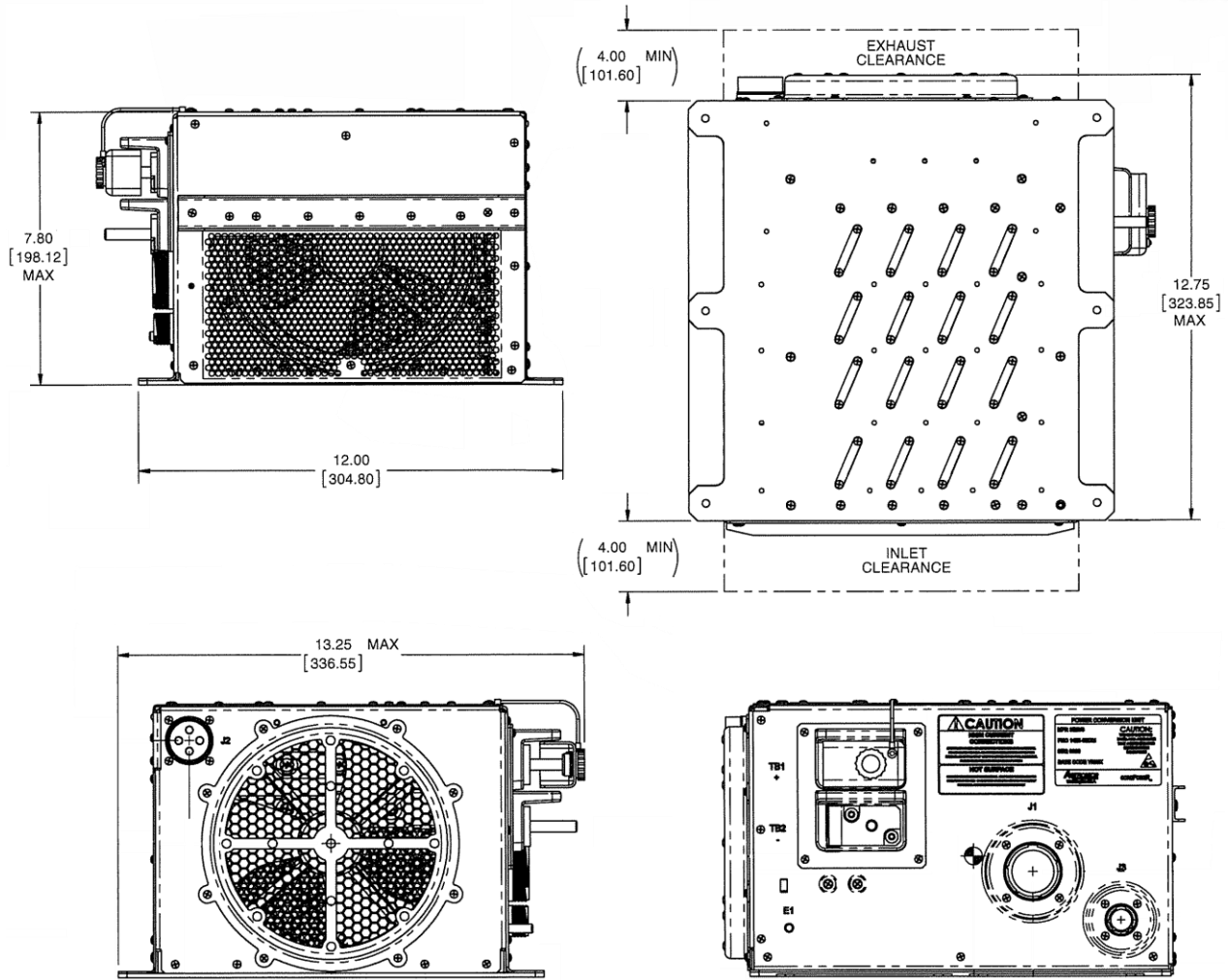
- Detects ground faults within the Starter Generator Unit (SGU), the PCU and the PCU/SGU interconnecting harnesses
- Dual mode temperature protection (caution and fault)
- High reliability 28VDC over-voltage protection, DAL A
- Provides monitor for PCU 28.5VDC output current and voltage (digital data bus)

KEY BENEFITS

- Eliminates separate bus current monitors
- Monitors output current and voltage
- Detects and reports ground faults within the Starter Generator Unit and interconnect harness
- Software configurable for start torque and key operating parameters

Qualification

- RTCA/DO-160G



Size

12.75 in W x 7.80 in H x 13.25 in L
 (254.0 mm W x 196.6 mm H x 304.8 mm L)

Weight (PCU)

24.50 lbs (10.26 kg) max

System Weight (SGU + PCU)

55.24 lbs (25.06 kg)

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