



Input

- State of the art semiconductor technology (IGBT) Rectifier
- Power Factor Correction (PF= 1)
- Up to 90% efficiency
- Low input harmonics (<1.5% THDi), to comply with the strictest regulations @ any load.

Output

- 800Hz DC-DC Converter
- Galvanic Isolation

Norms and Standards

- Aviation** ▪ ISO 6858 - Aircraft ground support electric supplies
- SAE ARP 5015 - Ground equipment 400 Hz ground power performance requirement

- Military** ▪ MIL-STD-704 - Aircraft electric power characteristics

- EMC** ▪ EN61000-6-4 - Electromagnetic compatibility - Generic emission standard
- EN61000-6-2 - Generic immunity standard

- Safety** ▪ IEC 60529 Degrees of protection provided by enclosures (IP Code)
- IEC 62477-1 - Safety requirements for power electronic converter systems and equipment

- Environmental** ▪ Dry heat test (steady state) IEC 60068-2-2 subclause 5.3
- Damp heat test IEC 60068-2-78 subclause 6
 - Vibration test IEC 60068-2-6 subclause 6
 - Salt mist test IEC 60068-2-52 subclause 6
 - Dust and sand test Test Lc1 of IEC 60068-2-68

Efficiency

- Up to 90% efficiency
- Green Standby Function - losses: 20 W
- No load losses: <0.5 kW.

Technology

- Enclosure Protection class up to Ip55
- Enclosure with C5-M coating
- Over/Under voltage at output:
 - Under voltage <20V (4 sec)
 - Over voltage <34V (4 sec)
 - Short Circuit <5V at current limit (4 sec)
- Overload capability designed for:
 - Power stage 150% - Continuous
 - Magnetics 120% - Continuous
- Overload protections set at:
 - 2400A - 5 seconds
- Over temperature protection.

Specifications

28VDC 600A GROUND POWER UNIT

Input

- 4 Wire
- 3 phase 460V/480V AC | $\pm 10\%$
- 50/60Hz | $\pm 10\%$
- Input current harmonics | $<2\%$ @ Full Load

Output

- Output 28.5VDC | $\pm 1\%$
- Continuous current capability (at 28.5VDC) | 600A
- Maximum Current Limit (at 28VDC) | 2400A for up to 5sec
- Current Limit adjusting steps (from 600A) | $\pm 0.5\%$
- Voltage regulation up to 600A | 1%
- Ripple | $<0.5\%$
- Dynamic Recovery to 90% VDC | $<40\text{ms}$
- Voltage Compensation | 0-4V up to 600A (remote feedback)
- Galvanic Isolation | 800Hz Transformer
- IGBT + DIODE Rectifier

Environmental Conditions

- Coolant temperature (max) | Forced air up to 40°C
- Ambient temperature (min/max) | -40°C to 40°C
- Relative humidity (min/max) | 0% to 90% without condensation
- Pollution degree | 2
- OVC (Overvoltage Category) | 3
- Altitude | Up to 2000m



Technical Drawing

