



AXA POWER®

AXA 2200 - 120-180 kVA Solid-state GPU

AXA Power is the world's leading supplier of 400 Hz solid-state Ground Power Units with more than 6.000 units in operation at leading airports world-wide.

AXA Ground Power Units have proven their strengths through deliveries to leading airports around the world. With the AXA 2200 series, completely new standards for operation, economy and design of GPUs have been created. The AXA 2200 has been developed to live up to actual as well as to future demands with regard to efficiency, safety and flexibility towards all kinds of aircraft.

The AXA 2200 series provides:

- High Reliability
- Simple and Safe Operation
- High Output Voltage Quality
- Fast and Easy Service / Maintenance
- · Long Lifetime



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Input

- Voltage range: 3 x 400 V ±15%
- Frequency: 50/60 Hz ±5%
- · Rectification: 12 pulse
- Rated current: 152 A (120) ±15%
 190 A (150) ±15%, 228 A (180) ±15%
- Line current distortion: <13% (120 kVA)
 < 10% (150-180 kVA)
- · Power factor: >0.96 at 100% load
- Inrush current: None, soft start

Output

- Power: 120-150-180 kVA, PF 0.8
- Voltage: 3 x 115/200 V
- Frequency: 400 Hz ± 0.1%
- · Power factor: 0.7 lagging to 0.95 leading
- Voltage regulation: <0.5% for balanced load and up to 30% unbalanced load
- Voltage recovery: Delta U <8% and rec. time <10 ms at 100% load change
- Total harm. content:
 <2% at linear load (typ. 1.5%),
 <2% at non linear load acc. to ISO 1540
- Crest factor: 1.414 ± 3%
- Voltage modulation: <1.0%
- Phase angle symmetry: 120° ± 1° for balanced load 120° ± 2° for 30% unbal. load

Protection

- Protection class: IP55
- No break power transfer
- Over/under voltage at in/output
- Overload
- · Internal high temperature
- Internal voltage error
- Short circuit at output
- Generative loads

Weight

- 820kg- fixed and bridge-mounted
- 950kg mobile version

Efficiency

- Overall efficiency:
 >0.93 at 100% load

 >0.92 at 50 % load, PF: 0.8 (180)
- Stand by losses: <100W

Environmental

- Operating temperature: -40°C to +52°C (125°F)
- Relative humidity 10-95%
- Noise level <65 dB(A)@1m typically 60 dB(A)

Overload ratings

125% for 600 seconds
150% for 30 seconds
200% for 10 seconds

Miscellaneous

- MTBF (proven): 100.000 hours
- MTTR: max. 20 minutes

Available standard options

- Portable service lamp
- · External voltage feedback
- External emergency stop
- Lockable doors
- · Remote control box
- · Anti-condensation heater
- · Serial communication
- Cover for instrumentation
- Military interlock system
- Individual overload protection of two outlets
- Terminal extension for 2 pcs of 7 core cables
- · Additional output contactor
- Indication lamp for 400 Hz ready
- Potential free outlets
- Single outlet 120-180 kVA
- · Neutral conductor rupture supervision
- 90% switch interlock
- GPU enable
- · Door interlock
- Earth leakage relay (RCM)
- Indication lamp for interlock present

Norms and Standards

DFS400 Specification for 400 Hz aircraft power
 ISO 6858 Aircraft ground support electric supplies
 BS 2G 219 General requirements

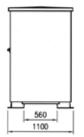
BS 2G 219 General requirements
 for ground support equipment

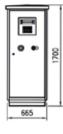
MIL-STD-704 Aircraft electric power characteristics
 SAE ARP 5015 Ground equipment 400 Hz gound power

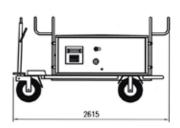
performance requirement
EN62040-1-1 General & safety requirement
EN61558-2-6 General & safety requirement

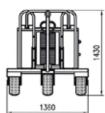
EN61558-2-6 General & safety requirement EN61000-6-4 Electromagnectic compatibility - Generic emission standard

• EN61000-6-2 Generic immunity standard

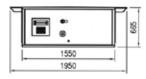












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