

PoWerMaster® ADV

ADVanced PWM Technology

37.5kVA & 45kVA Solid State Frequency Converters



DESCRIPTION

The Hobart PoWerMaster® ADV is the latest in lightweight ground power for Regional Jets and other mid-size aircraft. This ADVanced 400Hz converter is available in 37.5kVA & 45kVA with single or dual outputs. The trailer mounted package features excellent mobility and ease of handling for the ramp or hangar environment. The PoWerMaster® ADV is designed to supply the highest quality power under the most demanding conditions. Advanced controls along with an easy to use interface make the Hobart PoWerMaster® ADV

OPTIONS

- 37.5kVA or 45kVA
- Single or dual output
- Trailer (hand operated mini or larger towable)
- Output and input cables
- Interrogation service tool
- 208 or 240V 50/60 Hz line input
- Bridge mounting kit
- 12 pulse input current harmonic kit

FEATURES

- ADVanced PWM switching technology
- Clean, reliable power
- NBPT compatibility
- Lightest weight in the industry
- User-friendly controls
- Easy access for service
- Rust-free aluminum enclosure
- Built-in input power circuit breaker
- Memory stores 200 events for >30 years
- Measures power flow (kwh)
- High efficiency for low operating costs
- ETL (UL 1012) Certification
- CE compliant
- Advanced diagnostics
- RS232 Communication Port
- Simplified fault reporting & maintenance
- Protected against input micro breaks
- Extremely quiet operation

Aviation Ground Equipment Corp.

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PoWerMaster® ADV

37.5 & 45kVA Solid State Frequency Converters

Specifications:

Inputs

Model	Amperage	Hertz	Voltage
37.5SX200	46 @ 460 VAC 51 @ 400 VAC 100 @ 208 VAC	45-66	340-530
45SX200	55 @ 460 VAC 61 @ 400 VAC 120 @ 208 VAC	45-66	340-530

Output

- Ratings: 37.5kVA (30kW continuous)
45kVA (36kW continuous)
- Overloads: 125% - 10 minutes
150% - 30 seconds
200% - 15 seconds
300% - 10 seconds
- 115/200 VAC, 3Ph, 400Hz
- Short Circuit Protected
- NBPT: specifically designed to service present and future aircraft no-break power requirements

Protection

- Input: Phase loss
Low/High Input Voltage
- Output: Over/Under Voltage
Over/Under Frequency
Overload: (see above)
Short Circuit – Solid state shutdown of unit without damage to unit
- Internal: Door interlock
Cooling loss/Over temperature
Bridge Interlock
Contactor Failure –
Contacts Stuck (Open/Closed)
Coil Open
Power Supply Voltage
Transistor failure/overcurrent
Lamp test

Environmental

- Acoustical Noise: <65dBA @ 1.5M high, 1M distance
- Operating Temperature: -40° C to +52° C (-40° F to +125° F)
- Non-Operating Temperature: -40° C to +60° C (-40° F to +140° F)

Voltage

- Voltage Regulation: <1% up to rated load
- THD (total harmonic distortion): <3%
- IHD (individual harmonic content): <2%
- DC Content: 100 mV maximum
- Voltage Modulation: <0.5% RMS
- Phase Displacement: 120±1.5 degrees
- Transient Performance exceeds MIL-STD 704E
- Output Voltage Adjustment Range: ±15%
- Phase voltage displacement with balanced load: <2%
- Voltage balance (with 10% unbalanced load on a single phase): <3 volts
- Crest Factor: 1.414±0.07
- Line Drop Compensation: Automatic up to 8%

Enclosure

- Aluminum NEMA 3R IP54
- Ventilation: Filtered forced air
- External circuit breaker handle with lock-out capability

Codes and Standards

- UL1012
- MIL-STD 704E
- ARP 5015
- DFS 400
- EMC (89/336/EEC)
EN55011: 1991
EN61000-4-3: 1996
EN50204: 1995
EN61000-4-6: 1996
EN61000-4-4: 1995
EN61000-4-2: 1995
- Low Voltage (73/23/EEC)
- MIL-STD-461B/462

Frequency

- Frequency Modulation: <±0.25%
- Frequency Regulation: ±0.2 HZ (.05%)
- Frequency Drift: ±0.05% at any load

Maintenance

- No preventative maintenance required
- Mean time to repair (MTTR)= 20 minutes

Controls / Indicators

- On/Off: each output
- Output Voltage: each phase (L-N) and average
- Output Current: each phase and average
- Input Power Lamp (green)
- Output Power Lamp: each output (amber)
- Fault Lamp (red)
- EF Interlock Status
- Circuit Breaker Handle: removes input power
- Door Interlock
- Line Drop Compensation Adjust

Weight

	Standard	12-Pulse
37.5SX200	1100 lbs. (500 kg)	1300 lbs. (590 kg)
45SX200	1100 lbs. (500 kg)	1300 lbs. (590 kg)

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