

PoWerMaster[®] ADV Plus

400 Hz and 28.5 VDC in One Package

45kVA, 60kVA and 90kVA Solid State Frequency Converters



DESCRIPTION

The Hobart PoWerMaster[®] ADV Plus is the latest addition to the Hobart Solid-State power conversion family. This ADVanced unit combines state-of-the-art technology and over 50 years of ground power experience to provide the highest quality power under the most demanding conditions. Both 400 Hz. AC and 28.5 VDC are combined in one package to service a wide range of aircraft. User-friendly controls and a superior diagnostic system result in a converter that is easy to use and requires minimal training. In addition to the bridge mount configuration, the ADV is also available on trailers for mobility and as a fixed mount. State-of-the-art design, ease of use, flexibility and superior reliability are among the many reasons the PoWerMaster[®] ADV Plus has set a new industry standard.

OPTIONS

- Bridge mounting kit
- Trailer mounted
- Floor stand kit
- Remote control module
- Remote Annunciation
- CE Kit

Hobart is an ISO9001 Certified Manufacturer

FEATURES AND BENEFITS

- 400 Hz and 28.5 VDC in a single package
- Up to 90 kVA of 400 Hz power
- 600 Amps DC continuous
- 2500 Amps DC starting current
- State-of-the-art 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
- Built-in line-drop Compensation
- Simplified fault reporting & maintenance
- Protected against input micro breaks

Aviation Ground Equipment Corp.

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Specifications:

Inputs

Model	Amperage	Hertz	Voltage
45SX200	50 @ 460 VAC 59 @ 400 VAC	45-65	340-530
60SX200	66 @ 460 VAC 76 @ 400 VAC	45-65	340-530
90SX200	100 @ 460 VAC 118 @ 400 VAC	45-65	340-530

AC Output

- Ratings: 45kVA (36kW continuous)
60kVA (48kW continuous)
90kVA (72kW continuous)
- Overloads: 125% - 10 minutes
150% - 30 seconds
200% - 10 seconds
- 115/200 VAC, 3Ph, 400Hz
- Short Circuit Protected
- NBPT: specifically designed to service present and future aircraft no-break power requirements

DC Output

- Ratings: 28.5 VDC,
600 Amps Continuous
2500 Amps Starting Current
- Overloads: 125% - 10 minutes
- Short Circuit Protected

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)

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

AC Voltage

- Voltage Regulation: < ± 1% up to rated load
- THD (total harmonic distortion): <3%
- IHD (individual harmonic content): <2%
- DC Content: 100 mV maximum
- Phase Displacement: 120 ± 1.5 degrees
- Transient Performance exceeds MIL-STD 704E
- Output Voltage Adjustment Range: ± 15%
- Phase voltage displacement with balanced load: <2%
- Phase 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%

DC Voltage

- Voltage Regulation: ± .05% up to rated load
- Ripple Voltage meets Mil -Std 704E

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/46

Enclosure

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

Protection

- Input: Phase loss
Low/High Input Voltage
- AC Output: Over/Under Voltage
Over/Under Frequency
Overload: (see above)
Short Circuit – Solid State shutdown of unit without damage to unit
- DC Output: Over/Under Voltage
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
/overcorrect
Lamp test

Controls / Indicators

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

Weight

	Lbs.	Kg
45SX200	1220	554
60SX200	1220	554
90SX200	1220	554

Specifications subject to change without notice

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