

# PoWerMaster<sup>®</sup> EV

## 60/90 kVA Solid State Frequency Converters



### DESCRIPTION

The Hobart PoWerMaster<sup>®</sup> EV converters are the latest addition to the Hobart line of 400 Hz frequency conversion products. The flexible design allows for the GPU to be set up for either bridge, fixed, or trailer mount configurations. With our continued user-friendly controls and a superior diagnostic system, the converter is easy to use and requires minimal training. With a wide array of output ratings available, an optional 28.5 VDC output, and a broad choice of input voltage configurations, this unit has the versatility to provide power to all aircraft from the smallest commuter aircraft to the larger narrow-body aircraft. State-of-the-art design, ease of use, and proven reliability are among the many reasons the PoWerMaster<sup>®</sup> EV design has set a new industry standard.

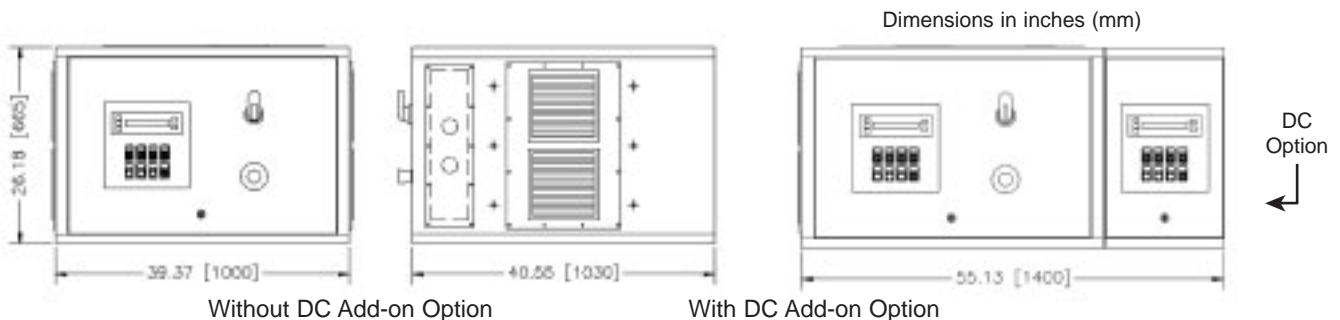
### OPTIONS

- Dual Output
- 28.5 VDC Output (600 A continuous, 2400 A peak)
- Bridge and Trailer Mounting Kit
- Remote Control Box
- Lost Neutral Protection
- Lockable Doors
- Plug-“N”-Play Automatic LDC (Single Output Only)

Contact factory for other available options.

### FEATURES

- Compact and Lightweight
- Low noise levels < 65 dbA at 1m
- 12-pulse rectification at input as standard with input current distortion < 10%
- Harmonic elimination at output with total harmonic out < 2%
- User friendly controls for simple daily operation
- All user information available via digital display
- Modular design throughout for easy access to all parts
- ETL (UL1012) Certification, CSA
- CE Compliant
- RS232 and RS422/RS485 Communication Port
- JBUS or Siemens Protocol
- Simplified fault reporting troubleshooting and maintenance
- NBPT Compatible



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### Specifications

#### Inputs

Model	Amperage & Voltage	Hertz
60SE200	76 @ 400 VAC ±15%	50-60 ±5%
	66 @ 460 VAC ±15%	
	63 @ 480 VAC ±15%	
90SE200	113 @ 400 VAC ±15%	50-60 ±5%
	99 @ 460 VAC ±15%	
	95 @ 480 VAC ±15%	

- Configuration: 3 wire with ground service
- Input Power Factor: 0.96
- Overall Efficiency: 0.93
- Load Power Factor: 0.8 @ 100%

#### Outputs

- Continuous Power Rating:
  - 60 kVA (48 kW)
  - 90 kVA (72 kW)
- 115/200 VAC, 3 Phase, 400 Hz. ±0.1%
- Overloads:
  - 100 – 125% – 10 minutes
  - 125 – 150% – 30 seconds
  - 150 – 200% – 10 seconds
  - 200 – 210% – 1 second
- Short Circuit Protected
- NBPT: Specifically designed to service present and future aircraft no-break power requirements.

#### Protections

- Input Over/Under-Voltage Overload
- Output Over/Under-Voltage Over/Under-Frequency Overload Short Circuit
- Physical Internal High Temperature Internal Voltage Error

#### Environmental

- Relative Humidity: 10 - 95%
- Operating Temperature: -40°C to +52°C
- Noise Level: < 65 dbA @ 1 m

#### Output Voltage

- Voltage Regulation: < 0.5% for balanced and 30% unbalanced loads
- THD (total harmonic distortion): < 2% at linear and non linear loads
- Phase Displacement:
  - 120° ±1° for balanced load
  - 120° ±2° for 30% unbalanced load
- Transient Performance: Meets MIL-STD-704F
- Crest Factor: 1.414±3%
- Voltage Modulation: < 1%

#### Maintenance

- No preventative maintenance required (other than filters)
- MTTR: Maximum 20 minutes
- MTBF: 100,000 hours

#### Enclosure

- Standard protection: IP55
- Ventilation: Filter forced air
- External circuit breaker handle with lock-out capability
- Emergency Stop Button

#### Codes

- UL1012
- MIL-STD-704F
- SAE ARP5015A
- DFS400
- ISO 6858
- BS 2G 219
- EN50091-1
- EN 61000-6-4
- EN 61000-6-2

#### Control/Indicators

- 400 Hz. On/Off: each output
- Mains/Lamps Test
- Common Error
- Digital Display (default mode):
  - Year/Month/Date
  - Hour/Minute
  - Output Voltage
  - Output Current
  - Output Frequency
- Alternate Display Modes (User Initiated)

#### Efficiency

- Overall Efficiency:
  - 0.93 at 100% load, P.F. = 0.8
  - 0.92 at 50% load, P.F. = 0.8
- Standby Losses: < 100W

#### Weights

- Bridge: 1,102 lbs (500 kg)
- Fixed: 1,102 lbs (500 kg)
- Trailer : 1,700 lbs (771 kg)

#### Trailer Dimensions (in. [mm]):

without DC	with DC
61 [1549] L	77 [1956] L
51 [1295] W	51 [1295] W
51 [1295] H	51 [1295] H

*Specifications subject to change without notice.*



Operator Control Panel

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