

PoWerMaster[®] Central System

Space Vector PWM Technology

350kVA Solid State Frequency Converters



DESCRIPTION

The Hobart PoWerMaster[®] Central System Converter is the latest addition to the Hobart Solid State Frequency converter power conversion family. This 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. A standard 12-pulse front end is utilized to minimize input current harmonics. User-friendly controls and a superior diagnostic system result in a converter that is easy to use and requires minimal training. Ability to parallel up to eight converters allows for up to 2,800 kVA of total power. State-of-the-art design, ease of use, and superior reliability are among the many reasons the PoWerMaster[®] Central System Converter has set a new industry standard.

FEATURES AND BENEFITS

- State-of-the-art Space Vector PWM switching technology
- Clean, reliable power
- User-friendly controls
- Easy access for service
- 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
- Individual Phase Regulation at Output
- Harmonic Elimination at Output
- Protected against input micro-breaks

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Specifications

Inputs

Model	Amperage	Hertz	Voltage
350SX200	390 @ 460VAC	48-63	390-530

- Configuration: 3 wire with grounded service
- Starting Current: <100% full load
- Power Factor: >0.96 lagging from 10% to full load
- Line Current Distortion: <10%

Output

- Power: 350kVA (280kW continuous)
- 575 VAC, 3Ph, 400Hz
- Power Factor 0.7 lagging to 0.95 leading
- Overloads: 125% – 10 minutes
150% – 30 seconds
200% – 1 seconds
- Short Circuit Protected

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
Power Supply voltage
Component Failure
Transister failure / overcurrent
Lamp test

Environmental

- Accoustical 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
- Phase Displacement: 120 ±1.5 degrees
- Transient Performance exceeds Mil-Std-704E
- Output Voltage Adjustment Range: ±15%
- Crest Factor: 1.414 ±3%

Maintenance

- No preventive maintenance required
- Mean Time To Repair (MTTR) = Max. 20 minutes
- Mean Time Between Failures (MTBF) = 100,000 hours

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

Controls/Indicators

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

Weight

3970 lbs. (1800 kg)

Dimensions

- Width: 52 inches (133 cm)
- Depth: 43 inches (110 cm)
- Height: 80 inches (176 cm)

Specifications subject to change without notice.

PoWerMaster® is a registered trademark of Hobart Brothers Company

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