

Hobart PoWerMaster[®] ADV



Advanced PWM Technology 140 kVA & 180 kVA Solid State Frequency Converter



Performance Features:

- IGBT 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 (UL1012 and CSA) Certification
- Advanced diagnostics
- 12 pulse rectifier for lower ITHD
- Built-in Line-Drop Compensation
- Simplified fault reporting & maintenance
- Protected against input power micro-breaks
- 12 pulse rectifier for lower ITHD

Options:

- Dual output
- TCP/IP & RS485 connections
- Parallel Kit
- 600V 50/60 Hz line input
- Trailer or bridge mounted
- Remote control station
- CE kit

*HOBART is part of ITW GSE
– the world's leading supplier of Ground Support Equipment*

ITW GSE HOBART

It's all about connections

Specifications

Hobart 140 kVA & 180 kVA PoWerMaster® ADV

Input

Model	Amperage @ Voltage	Hertz	Voltage
140SX200	165 @ 400 VAC	45-65	340-530, 600
	138 @ 480 VAC	45-65	340-530, 600
	110 @ 600 VAC	45-65	340-530, 600
180SX200	212 @ 400 VAC	45-65	340-530, 600
	177 @ 480 VAC	45-65	340-530, 600
	142 @ 600 VAC	45-65	340-530, 600

- Configuration: 3 wire with grounded service
- Starting current: <100% full load
- ITHD: 12-pulse <10%
- Input power factor: >.98 lagging from 10% to full load
- Overall efficiency: 93% to 95% for 50-100% load
- Standby losses: 1.8kW
- No load losses: 4.6kW

Output

- 115/200 VAC, 3Ph, 400 Hz
- Two 90 kVA rated outputs

Continuous Total Power Rating:

- 140kVA (112kW continuous, 404 amps)
- 180kVA (144kW continuous, 520 amps)

Overloads

- >125% rated load for 10 minutes
- >150% for 30 seconds
- >200% for 10 seconds

Electrical Characteristics

- Voltage Regulation: <1% no load to full load
- Output Voltage Adjustment is ± 15 volts
- Line Drop Compensation: Maximum 8%
- Individual Harmonic Distortion: <2% of the fundamental (RMS) voltage
- Total Harmonic Distortion: <3% of the fundamental (RMS) voltage
- DC Content: <100 mV
- Voltage Transients meet MIL-STD-704F and SAE ARP5015A
- Phase displacement (balanced load): 120° ± 1.5°
- Frequency Regulation: ± 0.2 Hz (.05%)
- Frequency Modulation < ± 0.25%

Environmental

- Operating Temperature: -40°F to +125°F (-40°C to +52°C)
- Relative Humidity 10% - 95% non-condensing
- Acoustical Noise: <67 dBA @ 1.5m high & 1m distance

Enclosure

- Aluminum NEMA 3R (IP54)
- Ventilation: Filtered forced air
- External circuit breaker handle with lock-out capability
- Emergency Stop Button
- Acid washed with zinc rich primer and anti-corrosive polyester powder topcoat
- Standard color RAL 7035

Protection

Input:

- Phase loss
- Over/under voltage
- Overload

Output

- Over/under voltage
- Over/under frequency
- Overload: (see output section)
- Short circuit (L-L; L-N; L-G)
- NBPT capable

Physical

- Door interlock
- Cooling loss/over temperature
- Bridge interlock
- Output contactor failure
- Power supply voltage
- Transistor failure/over-current

Maintenance

- Minimum preventative maintenance

Controls / Indicators

- On/Off: each output
- Output Voltage: each phase (L-N) and average
- Output Current: each phase and average
- Input Power Lamp (green)
- AC Output Power Lamp: (amber)
- Fault Lamp (red)
- EF Interlock Status
- Circuit Breaker Handle: removes input power
- Line drop compensation adjust push buttons
- Elapsed time hour meter (inside)
- Lamp Test

140 KVA			
Style	UOM	Dimensions	Weight
Vertical	Inches/Lbs	51" L x 23" W x 78" H	2053 lbs
	cm/kg	129.5 L x 58.9 W x 198.1 H	931 kg
Bridge Mounted	Inches/Lbs	60" L x 50" W x 18" H	1782 lbs
	cm/kg	152.4 L x 127.2 W x 45.7 H	808 kg
Trailer Mounted	Inches/Lbs	74.8" L x 50.3" W x 48.5" H	2,195 lbs
	cm/kg	1900 L x 128 W x 123.2 H	996 kg

180 KVA			
Vertical	Inches/Lbs	51" L x 34.8" W x 78" H	2,173 lbs
	cm/kg	129.5 L x 88.3 W x 198.1 H	986 kg
Bridge Mounted	Inches/Lbs	60" L x 53" W x 23" H	1,900 lbs
	cm/kg	152.4 L x 134.6 W x 58.4 H	862 kg
Trailer Mounted	Inches/Lbs	146" L x 104" W x 74" H	2,650 lbs
	cm/kg	370.8 L x 264.2 W x 188 H	1,202 kg