



# JetPower® III 400Hz Ground Power System

“JBT for the Perfect Turn”



# JetPower® III Technical Specifications

## Maximum Input Current

Input Volts	45 kVA	90 kVA	140 kVA	180 kVA
380 V.	63 Amps	126 Amps	196 Amps	252 Amps
400 V.	60 Amps	120 Amps	186 Amps	239 Amps
415 V.	58 Amps	116 Amps	179 Amps	232 Amps
480 V.	50 Amps	100 Amps	155 Amps	200 Amps

## Dimensions (all point of use units)

Width	60" (1.53 m)	
Height	24" (.61 m)	180 kVA Unit only 30" (.76 m)
Depth	50" (1.27 m)	

## Weight (approximate)

45 kVA	90 kVA	140 kVA	180 kVA
900 lbs. (409 kg)	1,100 lbs. (500 kg)	1,700 lbs. (773 kg)	2,000 lbs. (910 kg)

## Housing

Electronic sections in NEMA 4 (IP55) enclosure with an aluminum case and structural members. Custom colors are available.

## Environmental Conditions

Capable of normal operation from -40°C to +55°C (-40°F to +131°F).

## Noise

Not greater than 65 dBA at 1.5 m height, 1 m distance.

## Maintenance

No preventative maintenance required. Mean Time To Repair (MTTR) 30 minutes at module level. Reduced part count and increased circuit and component protection enhance reliability.

## Input

- AC Power: 380-480 Volt, 3 phase, 50/60 Hertz, at -15% to +10% of nominal voltage rating. Unit is phase rotation independent.
- Starting Current: Starting inrush not to exceed 100% current required when operating at rated output.
- Power Factor: From 25% to 100% rated load, input power factor is greater than 0.95.
- Efficiency: Greater than 92% at any load above 50% of rated load.

## Output Voltage, Frequency, and Phase

- Voltage Drift: Less than 1% at constant load (ambient temperature change 55°C in 8 hours).
- Voltage Regulation: Better than 1%.
- Total Harmonic Distortion: Less than 3% (line-to-line/line-to-neutral). Individual harmonics less than 2%.
- DC Content: Less than 100 mV.
- Voltage modulation: Less than 0.5% as measured from the peak of one waveform to the peak of another adjacent waveform under steady rated load conditions.
- Transient Performance: Output voltage recovery less than 50ms at 100% load change.
- Voltage Operating Range: +/- 10% of rated voltage
- Output Frequency Regulation: 400 Hz +/- 0.1%
- Phase Displacement: 120" +/- 1.5"

## Overloads and System Protection

- Overload Capacity: 125% for 10 minutes, 150% for 30 seconds, 200% for 10 seconds.
- Protection: Input & Output Over or Under Voltage, Output Overload, Loss of E/F, E/F Over Voltage, Bus Discharge Fault, Heat Sink Over Temperature, Output Frequency Fault, and an IGBT Fault.

## Internal Controls and Indicators

- Auto/manual Switch–Voltage Control
- 28 Volt E/F Interlock Bypass Switch
- Start/Stop Control
- Line Drop Compensation
- DC Bus Voltage Adjustment
- LCD Display Contrast Adjustment
- Voltage Adjustment (+/- 10%)
- Hour Meter (99,999 hrs.)

## External Front Panel Lights

- Solid Red Light–Internal or External Fault
- Solid Yellow–Input Power Applied
- Flashing Yellow–28 Volt in Bypass
- Solid Green–400 Hz Power Present
- Flashing Green–28 Volt not available

## LCD Display Plain English Indicators

- Input Voltage Phase A
- Input Voltage Phase B
- Input Voltage Phase C
- Input Voltage Average (3 Phase Avg.)
- Input Current (3 Phase Avg.)
- Output Voltage Phase A
- Output Voltage Phase B
- Output Voltage Phase C
- Output Voltage Average (3 Phase Avg.)
- Phase A Output Current
- Phase B Output Current
- Phase C Output Current
- Output Current Average (3 Phase Avg.)
- Output kVA (total)
- Accumulated Kilowatt hours
- Output Frequency
- +5 VDC
- +15 VDC
- +24 VDC
- Event History, 490 events [(start/stop) and (fault/reset)]

All current operating readings and event history are available on optional RS321485 Data Port.

## Options

- 12-Step Input Rectifier
- Additional Input Distortion Filter
- 28 VDC Unit (only available on the 90 kVA size)
  - Output Current: 0 to 600 amps (continuous)
  - Up 2000 amps (engine starting)



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