Oshkosh AeroTech Jetpower® Plus CX 400 Hz/ 270 VDC Combo Ground Power System

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JETWAY SYSTEMS®
For the Perfect Turn

Jetpower® Plus CX 400 Hz/270 VDC Combo Technical Specifications

Design Elements

As one of the world's leading suppliers of aircraft power products, Oshkosh AeroTech offers a combined unit for powering your commercial and military aircraft; Jetpower® Plus CX 400 Hz/270 VDC combination system for hangar or fixed location applications. This combination unit has a 90 kVA 400 Hz and a 72 kW 270 VDC output. The Jetpower® Plus CX 400 Hz/ 270 VDC combination system incorporates the reliability and diagnostic capabilities of other Jetpower® products. A 12-step input is standard. This combination ground power system is capable of servicing military aircraft that require 400 Hz or 270 VDC from a single unit. Today's ground power needs are demanding, therefore the Jetpower® Plus CX 400 Hz/270 VDC combination unit withstands extreme outdoor and indoor environments.

Maximum Input Current

Input Volts	90 kVA/72 kW
380 V.	126 Amps
400 V.	120 Amps
415 V.	116 Amps
480 V.	100 Amps

Dimensions

Width	36 in (914 mm)
Height	73 in (1854 mm)
Depth	32 in (813 mm)

Weight (approximate)

2,000 lbs.
(907 kg)

Housing

NEMA 3R (IP23) steel enclosure painted with blue polyurethane paint and epoxy primer. Custom colors are available.

Environmental Conditions

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

Noise

Less than 70 dBA (1.5 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.

Output Voltage, Frequency, and Phase

400 HZ

- Voltage Drift: Less than 1% at constant load [ambient temperature change 131°F (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"

270 VDC

- Voltage Drift: Less than 1% at constant load [ambient temperature change 131°F (55°C) in 8 hours]
- Voltage Regulations: Less than 1%
- Output Voltage Transient per MIL-STD-704F

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 loa
- Input Current Distortion: 10% maximum input current distortion at 100% load.

Overloads and System Protection

400 HZ

- 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 IGBT Fault.

270 VDC

- 200% for 5 seconds

Internal Controls and Indicators

- Auto/Manual Switch–Voltage Control
- 28 Volt E/F Interlock Bypass Switch (400 Hz)
- Start/Stop Controls
- Line Drop Compensation
- DC Bus Voltage Adjustment
- LCD Display Contrast Adjustment
- Voltage Adjustment (+/- 10%)
- Hour Meter (99,999 hrs.)
- 270 VDC 28 Volt Interlock Output (15 Amp)

External Front Panel Lights

- Solid Red–Internal or External Fault
- Solid Yellow–Input Power Applied
- Solid Green–400 Hz Power Present
- Solid Green- 270 VDC Power Present

LCD Display Plain English Indicators

- Input Voltage Phase A, Phase B, and Phase C
- Input Voltage Average
- Input Current (Average of 3 Phases)
- Output Voltage Phase A, Phase B, and Phase C (400 Hz)
- Output Voltage Average (3 Phase Avg.) (400 Hz)
- Output Voltage (270 VDC)
- Phase A , Phase B, and Phase C Output Current (400 Hz)
- Output Current Average (400 Hz)
- Output Current (270 VDC))
- Output kVA (total)
- Accumulated Kilowatt hours
- Output Frequency
- +5 VDC
- +15 VDC
- +24 VDC
- Date and Time
- Event History
- Lamp Test

*All current operating readings and event history are available on optional RS232, RS485 Data Port.

**Meets or exceeds OEM power requirements for the F35 and other advanced fighter aircraft.

This information is provided for reference only and should not be used as technical specification data. This information is subject to change without notice. Please contact an Oshkosh AeroTech sales office for formal technical information.

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