



FCX SYSTEMS

Ground POWER Solutions For All Generations Of Aircraft

Built-in Troubleshooting
Guide In Display

Electronics Compartment
Allows Calibration Without
Arc Flash Gear

The FCxtreme Series provides reliable solid-state converters that are designed to provide aircraft ground power in "low profile" applications such as under passenger boarding bridges, in maintenance hangars, or on flight lines.

All models optimized and tested to perform a continuous output power rating with 200% overload capacity in 24/7 operations.

- Individual phase regulation, improved efficiency, and lower input current distortion
- Innovative, adaptive wave optimization and voltage stabilization
- Laminated bus design eliminates transient voltage surges for high performance and increased reliability
- Lightweight powder-coated steel enclosure with sealed electronics compartment superior to typical aluminum enclosures to reduce RF emissions
- Full-featured user interface with detailed troubleshooting menus added to the advanced diagnostic and logging system
- High contrast LED display with 16-button keypad and separate standalone controls to ensure ease of use for most frequent functions
- Standard RS485 Modbus communication and integration capability with available RJ45 Ethernet and Wi-Fi connection capability

FCXTREME

X60 | X90 | X120 | X180

UNIT PERFORMANCE

Efficiency	93% or better at 100% load
NBPT	Fully capable of No Break Power Transfer for all aircraft
MTTR	Mean time to repair: less than 30 minutes
Operational Life	20 to 25 years
MTBF	Mean time between failure: 24,000 hours

Suitable For:

Fixed and Rotary Wing Aircraft and All Other
400 Hz Applications

Through an innovative design, advanced diagnostic and logging systems, and rugged modular construction, FCxtreme Series products assure maximum power availability and minimal maintenance time.

www.fcxinc.com | 304.983.0400 | sales@fcxinc.com



INPUT POWER

Input Voltage	480VAC +/- 10% standard, other input voltages available
Input Frequency	60Hz +/- 1Hz standard, 50Hz optional
Input Phase Rotation	Any (automatic phase lock)
Inrush Current	None (soft start to rated power)
Protection	Overload, short circuit, over voltage, temperature, access door interlock
Input I _{THD}	≤5% at rated load, ≤8% at any load

OUTPUT POWER

Output Power Rating	60kVA/60kW continuous 90kVA/90kW continuous 120kVA/120kW continuous 180kVA/180kW continuous
Output Frequency	400Hz, +/- 0.01% for any load condition
Output Voltage	200V L-L / 115V L-N – adjustable +/- 10%
Voltage Regulation	+/- 1% Maximum
Voltage Recovery	Meets or exceeds limits of MIL-STD-704F, typically less than 50 milliseconds with a 100% load change
Voltage Balance	+/- 1% for balanced loads, +/- 2% for 25% unbalanced loads
Harmonic Content	1.5% max., 1% typical (line to line or line to neutral)
Overload Capacity	125% for one hour, 150% for 5 minutes, 200% for 20 seconds
Protection	Overload, short circuit, over and under voltage per MIL-STD-704F, over temperature, isolation, aircraft 28VDC E/F interlock, access door interlock

MONITORING AND CONTROLS

Display	4 x 20 character backlit display and dedicated indicator lights, with LED configuration for harsh environments
Control	16-key matrix keypad for full control and monitoring, as well as dedicated stand alone push button controls for Start, Stop/Reset, and Output On/Off control for user friendly operation
Metering	Full three-phase monitoring and display of input and output voltage, current, and frequency; built-in troubleshooting guide in display; dedicated elapsed time meter also provided

ENVIRONMENTAL

Enclosure	NEMA 3R equivalent (IP22). Electronics area rated NEMA 4 (IP66)
Audible Noise Level	Less than 65dba typical @ 1m
Ambient Temp. Range	Operating: -40 °C to +50 °C (-40 °F to +122 °F)
Humidity	0% to 100% without condensation
Altitude	0 to 3,000 meters (9,842 ft.) without derating
Wind	Up to 201 km/hr (125/ mph)

MECHANICAL

Construction	Lightweight powder coated steel enclosure over durable steel frame with sealed electronics compartment
Size	508mm high x 1524mm wide x 1270mm deep (23" x 60" x 50")
Weight	60-90 Series: 725 kg (1,600 lbs) 120-180 Series: 943 kg (2,080 lbs)
Finish	Standard color: traffic white (RAL 9016) powder coat, other colors available

CODES AND STANDARDS

Meets or Exceeds	MIL-STD-704F BS2G-219	SAE ARP-5015 DFS-400
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OPTIONS AND ACCESSORIES

28.5VDC Output with 600A rating	Dual outputs
Wi-Fi communications integration	Bridge mounting brackets
Cable retriever or cable hoist	Pantograph cable delivery system
Towable 4-wheel trailer, with cable racks	Floor stand kit
Dual or single cable racks	Remote operators station(s)
Output power cables	Power usage monitoring
300% overload for 60/90 kVA units	



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SYSTEMS

Engineered for Endurance

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