



FCX 270VDC powers every assembly station around the world for the F-35 Lightning II. FCX Precision 270VDC - PROVEN TO PERFORM.



**FCX**  
SYSTEMS

The preferred and best  
power of choice for all  
270VDC applications.

No other 270VDC power supply in the world is more proven or preferred than the FCX Precision DC unit. This reliable, high performance unit is the product of many years of support to F-22 and now F-35 test and production – and is absolutely the best choice for any 270VDC requirement.

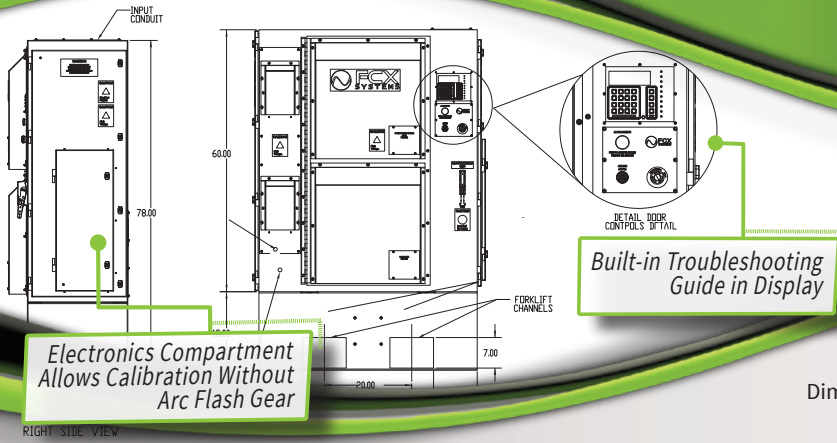
- The advanced design of the FCX 270VDC power supply delivers precise regulation and high dynamic response
- Meets or exceeds the most stringent requirements for 270VDC power, including Lockheed Martin's F-35 Ground Electrical Power Interface Specification
- Innovative, adaptive wave optimization and voltage stabilization for exceptionally "clean" power
- Laminated bus design eliminates transient voltage surges for high performance and increased reliability
- All models optimized and tested to perform from light loads to continuous full power rating, with robust overload capability, to handle the demands of 24/7/365 operations
- Advanced BITE - diagnostic and logging system with on board troubleshooting menu
- High contrast LED display with full feature user interface and 16-button keypad. Separate standalone controls to ensure ease of use for most frequent functions
- Standard RS485 Modbus communication
- Thermally controlled cooling fans designed to run only when necessary for increased efficiency

New 72kW rated  
270VDC Precision  
Power Supply Model  
VDC270-72kW is shown  
here in vertical fixed  
mount configuration.  
We offer a wide  
variety of unit ratings  
and configurations -  
standard and custom.  
Please contact  
us anytime at  
[sales@fcxinc.com](mailto:sales@fcxinc.com) with  
your requirements.



**"It was a pleasure testing a product  
that easily met or exceeded all  
requirements and expectations."**

- Lockheed Martin F-22 Ground Power  
Qualification Test Manager



**Specifications below based on 72kW-267A rated model VDC270-72kW. Other ratings and types available. Please contact us for information.**

## INPUT POWER

|   |   |
|---|---|
| Input Voltage (+/-10%)                        | 380 - 480VAC  |
| Input Frequency (+/- 1Hz)                     | 50-60Hz   |
| Input Phase                                   | 3ph, 4 Wire   |
| Input Current                                 | 480VAC, 3ph, 60Hz Input Current:<br>95A @ 100% / 238A @ 250% Overload<br><br>380VAC, 3ph, 50Hz Input Current:<br>118A @ 100% / 295A @ 250% Overload |
| Input Current Distortion (%I <sub>THD</sub> ) | ≤8% @ 100%  |
| Input Inrush Current                          | None (Soft start to rated power)  |
| Input Power Factor                            | ≥0.95 @ 50% to 100% Load  |
| Input Phase Rotation                          | Any   |
| Efficiency                                    | 480VAC, 3ph, 60Hz Efficiency:<br>≥92% @ 50% Load, ≥94% @ 100% Load<br><br>380VAC, 3ph, 50Hz Efficiency:<br>≥92% @ 50% Load, ≥94% @ 100% Load        |
| Protection                                    | Overload, Short Circuit, Output Over/Under Voltage, Phase Loss, Access Door Interlock, & Over-Temperature   |

## OUTPUT POWER

|                               |   |
|-------------------------------|---|
| DC Output #1A Voltage (+/-1%) | 270VDC  |
| DC Output #1B Voltage (+/-1%) | 28VDC   |
| DC Output #1A Current         | 267A  |
| DC Output #1B Current         | 15A   |
| Output Configuration          | 2 Wire  |
| Output Overload               | 125% to 250% (Adjustable)   |
| Output Voltage Adjust         | +/-10% of Nominal Voltage   |
| Line Drop Compensation        | 0-5%  |
| Output Voltage Ripple         | < 3 Volt Peak to Peak (100% Load)   |
| Protection                    | Overload, Short Circuit, Over/Under Voltage, Overload, & Over-Temperature |

## ENVIRONMENTAL & MECHANICAL

|           |   |
|-----------|---|
| Enclosure | NEMA 4 equivalent (IP66) steel enclosure with durable powder coat finish. Standard color: RAL9006 "White Aluminum" (gray), other colors available.<br><br>Integral 18 inch floor stand for compliance to NFPA 70 Article 500 Class 1 Div. 2 requirements. |
|-----------|---|

### Dimensions / Weight

1981mm high x 1270mm wide x 711mm deep (78"H x 50"W x 28"D) / 789 kg (2,040 lbs)

|                             |                                 |
|-----------------------------|---------------------------------|
| Operating Temperature Range | -40°C to 55°C / -40°F to 131°F  |
| Storage Temperature Range   | -40°C to 71°C / -40°F to 160°F  |
| Humidity                    | 0% to 100% without condensation |
| Audible Noise               | ≤68dB @ 10ft / 3m               |

## MONITORING AND CONTROLS

|            |  |
|------------|--|
| Display    | 4 line x 20 character LED display. Dedicated LED indicators for Power On, DC Buss Charged/270VDC Supply On, Interlock Supply On, 270VDC-267A On, 270V-267A Interlock On, Module Fault, Summary Fault |
| Control    | 16 key matrix keypad for full control and menu navigation. Dedicated push button controls for Start-Stop/Reset and Output On/Off.  |
| Monitoring | Full three-phase monitoring and display of input voltage and current, as well as DC output voltage and current, and DC buss voltage.   |

## CODES AND STANDARDS

|                 |  |
|-----------------|--|
| Meet or Exceeds | MIL-STD-704F<br>NFPA 70 (NEC)<br>UFGS 26 35 44<br>Lockheed Martin F-35 Ground Electrical Power Interface Specification (Document No. 2ZEU00004, Rev-0007)<br>ISO 9001:2008 (Quality)<br>CE Certification to 2014/35/EU, 2014/30/EU - EN 61010-1:2010, ENISO 12100:2010, EN 61000-6-2:2005, & EN 55011: 2009+A1 |
|-----------------|--|



## OPTIONS AND ACCESSORIES

|  |  |
|--|--|
| 270VDC Low Inductance Output Cables        | 30A Auxiliary 270VDC Output  |
| Custom Power Ratings                       | Remote Operator Stations: Push Button or Full Function LED Display |
| Mobile (trailer mount) Unit Configuration  | Integral Cable Rack  |
| Low Profile Flight Line Unit Configuration |  |
| 400Hz Input Power Option                   |  |



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SYSTEMS

*Engineered for Endurance*

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