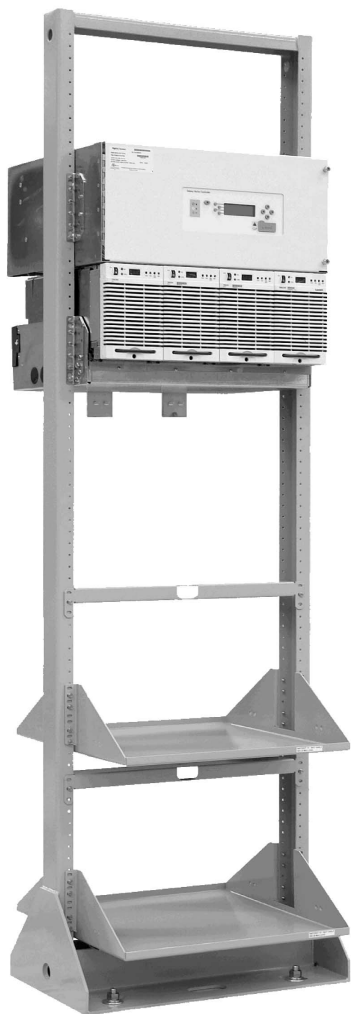


# Infinity Frame Mounted System

**FMS 2100 Series**

**+24V Output, Maximum 800A, 1200A**



**The Infinity Frame Mounted System (FMS)** is an extremely flexible 23-inch rack-mount power system that supports two modular rectifier families. Modular system components address a wide range of power applications, and allow effective solutions to your system's current power requirements with low initial cost and managed future growth.

Infinity FMS power solutions are available up to 1000A in a half-height framework, up to 1500A in a full-height framework, and up to 500A in a sub-rack system suitable for cabinet applications. The half-height option allows mounting on top of various batteries and or stands.

## **Features**

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- High power density
- High efficiency
- Modular plug-and-play components
- Remote monitoring capability
- Universal ac input
- Seismic zone 4
- Low Voltage Load Disconnect and Low Voltage Battery Disconnect options
- A variety of dc distribution options available
- NP1300 or 596 rectifier options
- System EMI FCC level B

## **Features**

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- Laptop tray
- External light
- Universal plinth
- Additional battery shelf with cables and disconnects

The Half-height system can be arranged for up to twelve NP1300 or eight 596 series rectifiers for redundant systems ranging from 50A to 1000A. The full-height system holds up to twenty-four NP1300 and twelve 596 series rectifiers or it can also accommodate battery trays to meet battery reserve time as needed. The sub-rack system holds up to three NP1300 or four 596 rectifiers for redundant, extended temperature rated systems ranging from 50A to 500A.

A significant advantage of the FMS modular concept is the introduction of the new Dual Voltage and Converter plants. The Dual Voltage plant consists of +24V and -48V building blocks all in the same framework allowing powering of systems

having dual voltage inputs. The Converter plant introduces the new 20A converter module for -48V conversion, particularly useful if the 48v load is small, or the need to maintain a single battery bank is present.

## **System Features**

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### **Maximum Design Efficiency**

The Infinity FMS has exceptional power density. Incremental, cost-effective system growth is made possible through convenient front-access design and lightweight modular components. In addition using a single set of components over a wide range of applications reduces training, parts inventory, and management. Moreover, many of the same components are used in the reliable Galaxy Power Systems.

### **Simplified Engineering**

The Infinity FMS is designed to provide you with easy installation and minimal maintenance. Every building block within the Infinity range is designed to the highest quality and reliability standards. By adding remote monitoring and configuration management to your system, Infinity will provide you with fault indication and general performance data; valuable input to assist in reducing service intervals and when planning for future expansion.

### **Automated System Setup**

For automated installation and set up, the controller and rectifiers communicate via a digital interface. A newly added rectifier automatically identifies itself to the controller by transmitting its type and serial number, and the controller then sets the output voltage to a pre-established value. The digital interface automates the installation and setup process and eliminates the need to use potentiometers to separately set the output voltage or balance current sharing.

### **Continuous Operation**

The Infinity FMS is designed for continuous operation and in-service upgrades, allowing system components— including rectifiers, distribution, and controller options—to be added in the field without interrupting service.

### **Simplified Plant Management**

The Infinity FMS system operates with the Galaxy Vector controller. The controller serves as the single interface point for rectifier control, alarm and status reporting, battery management and plant diagnostic.

### **Controller Options**

The GALAXY VECTOR Controller is a powerful, space efficient, cost efficient, controller with many beneficial features, including:

- Four-by-twenty LCD for current, voltage, and plant status display
- Control for up to 24 rectifiers
- Automatic rectifier restart
- Reserve engine transfer sequencing
- Selective high-voltage shutdown
- Alarm monitoring of rectifiers and plan components
- Office alarm interface with six relay outputs
- Controls optional low-voltage battery or load disconnects
- Slope thermal mode control
- Recharge current limit
- Alarm test

**Specifications**

**Input (596B6 Rectifier)**

Nominal Voltage	208 to 240 Vac, single phase, 2-wire plus ground
Voltage Limit, Steady State	176 to 264 Vac
Frequency	67 to 63 Hz
Nominal AC Input Current (per rectifier)	18.52A at 208 Vac 15.9A at 240 Vac
Power Factor	>0.99 from 50% to 100% load
Total Harmonic Distortion	<3% at 100% load

**Output**

Float/Boost Voltage Limit	22 to 30 Vdc
Regulation	±0.5% with Galaxy Controller
Ripple	100 mVrms
Noise	<2 mV psophometric
Output Current (maximum per rectifier)	110A from -40 to -13 °C 137A from -13 to +40 °C 125A from +40 to +50 °C 110A from +50 to +65 °C

**Physical**

Height	<b>Full-height frame:</b> 84 in. (2134 mm) <b>Half-height frame:</b> 42 in. (1067 mm)
Width	26 in. (659 mm)
Depth	18 in. (459 mm)
Weight (approximate without rectifiers)	<b>Full-height frame:</b> 310 lb (141 kg) <b>Half-height frame:</b> 255 lb (116 kg)

**Environmental**

Operating Temperature Range	-40 to 65 °C (-40 to 149 °F)
Operating Relative Humidity	5% to 90% non-condensing
Storage Temperature Range	-40 to 65 °C (-40 to 149 °F)
Storage Relative Humidity	5% to 90% non-condensing
Audible Noise	<52 dBA (0 to 30 °C), <60 dBA (31 to 50 °C), based on single rectifier
EMC (up to 8 rectifiers)	FCC, EN 55022, CISPR22, Level B, conducted and radiated
Immunity	FCC and CISPR22 (EN55022) Class B

**Safety / Standards Compliance**

Safety Standards	UL1950, EN60950 (IEC950), CSA*234/950
Certification Marks	UL Recognized (Canada and U.S.), CE marking, NEBs Certification

## Ordering Information

System	Description	Comcode
	Half-height	H569462G1
	Full-height	H569462G2
	Sub-rack-system	H569462G9
	PXS shelf for 596BX	H569462G51
	Initial rectifier shelf for NP1300	H569462G54
	Additional rectifier shelf for NP1300	H569462G55
	+24V 24 pos DC distribution panel with LVLD and vector controller	H569462G61
	+24V 24 pos DC distribution panel with LVBD and vector controller	H569462G64
	+24V 24 pos DC distribution panel with vector controller, no LVD	H569462G65
	+24V 24 pos DC distribution panel with vector controller, no LVD	H569462G67
	+24V/-48V 24 position DC distribution panel for NP and 596 rectifiers (no controller and no LVD option)	H569462G70
	Battery tray for NSB110FT	H569462G46
	Battery tray for NSB170FT	H569462G47
	NP1300	108984667
	596B4	108687765
	596B5	108969874
	596B6	108982893
FMS2110	H569462G1,G1,G64	TBD
SRS2120	H569462G9,G51,G64	108985953
FMS2120	H569462G2,G64,G51,G47-2	108991254
FMS2120	H569462G2,G65,G51-2,G70	108993696
FMS4130	H569462G2,G64,G51,G70,G60,G54,G46-2	108991386
FMS4130	H569462G2,G64,G51,G70,G60,G54,G47-2	108993903
FMS4140	Full-height system with +24V/-48V DC/DC Converter modules	TBD



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