



## RFP

- Modular
- Control up to 95 assets
- C.O.T.S.
- Web browser control
- User configurable
- Low C.O.O.
- Highest Power Density
- Simple integration
- PFC
- Universal AC/DC input

## PRODUCT OVERVIEW

ReFlex Power™ is a high density, modular programmable power system providing DC, AC and electronic load assets all under control of a single controller. It provides a reconfigurable, flexible platform ideal for ATE and production test environments where RFP™ can provide programmable stimulus and bias power as well as programmable loads for the device(s) under test.

The EIA 4U high RFP™ mainframe can hold up to 12 single-slot modules or combinations of single, dual and triple slot wide modules to configure (or reconfigure) the system for the particular requirements at hand. The mainframe can support up to 6 KW of output power providing the highest power density available.

Up to 8 chassis of modules, potentially up to 95 assets, can be controlled via a single controller. The controller communicates to the individual modules via a high speed proprietary bus protocol providing very high data rates and a high degree of deterministic control. The RFP™ controller communicates to the host controller via an Ethernet LAN connection compliant with the LAN Extension for Instrumentation (LXI™) standard, assuring interoperability and ease of integration.

RFP™ system modules can be combined via the controller, permitting the creation of "virtual assets" with the voltage/current combinations

required for a particular test regime. Creating "virtual assets" eliminates the acquisition and support elements of the cost of ownership.

The power modules offer the highest density available in the industry. The currently available power modules include

- Single slot, 330 Watt programmable DC supplies
  - 16V, 20A
  - 65V, 5.1A
- Dual slot, 1KW programmable DC supplies
  - 33V, 30A
  - 450V, 2.3A
- Triple slot, 875 VA, single phase, programmable AC supply
  - Dual range: 280V(rms), 3.5A(rms) or 140V(rms), 7A(rms)
- Triple slot, 500V, programmable electronic DC loads
  - 15A, 375 Watt
  - 30A, 750 Watt

The mainframe provides

- Internal power distribution, cabling, I/O and power connection and rack mounting for 12-asset slots. The mainframe also provides analog and digital bus connections. The analog bus provides multi-module control and fault I/O. The digital bus allows triggering and "daisy chain" control of up to 8 RFP™ mainframes, as well as "daisy chain" control of other Sorenson power supplies. Service power enters the back of the chassis while programmed output power is available at the front of each asset module.

## BENEFITS

- Reduced Cost of Ownership (COO)
  - Control multiple AC and DC power supplies and loads in one mainframe
  - Create "Virtual Assets"
  - Up to 95 assets controlled by a single IP address
  - PFC to 0.95
- Reduced space and logistics hassles
  - High power density
  - C.O.T.S. availability
  - Handles DC and AC power and load modules
  - User configurable
  - Universal AC/DC input
- Ease of integration
  - Web browser control
  - Trigger bus
  - Configure modules to parallel or series operation "on the fly"

## SPECIFICATIONS

### Input

AC 1 phase: 115/120/200/208/230V  $\pm 10\%$   
AC 3 phase: 115/200 or 120/208V  $\pm 10\%$  delta and wye  
AC 3 phase: 230/400V  $\pm 10\%$  wye – neutral  
AC Voltage Range AC: 103.5V to 253V  
(85Vac with output derating)  
DC Voltage Range DC: 210V to 300V (314V for 2 sec.)  
Frequency range: 47Hz to 63Hz

Power Factor: up to 0.95

### Module Interface Backplane

Slot Positions: 12 slots  
Multi-module control interface  
Configuration Guidelines  
Up to 8 Chassis may be interconnected  
Parallel units must be in adjoining slots  
Multi-phase units must be in adjoining slots

### Modules Served

Single slot, 330 Watt programmable DC supplies  
16V, 20 A  
65V, 5.1 A  
Dual slot, 1 KW programmable DC supplies  
33V, 30A  
450V, 2.3A  
Triple slot, 875 VA, single phase, programmable AC supply  
Dual range: 280 V(rms), 3.5A(rms) **or** 140V(rms), 7 A(rms)  
Triple slot, 500V, programmable electronic DC loads  
15A, 375 Watt  
30A, 750 Watt

### EIB-2 Bus

Data - ARCNET  
I/O – Inhibit  
I/O – Fault  
I/O – Trigger in  
I/O – Trigger out  
I/O – Common

### Environmental

Temperature Range, Operating: -10° C to 55° C  
Temperature Range, Storage: -40° C to 70 °C  
Humidity, Operating: 95%  
Altitude, Operating: up to 15,000 feet  
Shock and vibration: Class 3 Mil-PRF-28800F

### Physical

Dimensions: 7" (177.8mm) (4U) high x 15" (381 mm) deep  
EIA RS-310 rack mount  
Weight: 11.4 lbs - Mainframe  
Rack Mount: RETMA brackets  
Cooling: Modules have integral fan cooling  
Module Sizes  
Single Slot  
1.4" (35.6mm) W x 6.75" (171.5mm) H x 15" (381 mm) D  
Dual Slot  
2.8" (71.1) W x 6.75" (171.5mm) H x 15" (381 mm) D  
Triple Slot  
4.2" (106.7mm) W x 6.75" (171.5mm) H x 15" (381 mm) D

### Regulatory

Certified to UL 61010-1, CSA C22.2 No. 61010.1 and IEC/EN 61010-1.  
Compliance with EN61326 and FCC 21 CFR, Subpart J  
CE Mark is to EMC and LVD

**All specifications: 25°  $\pm$  5°C.**  
**All specifications are subject to change without prior notification**