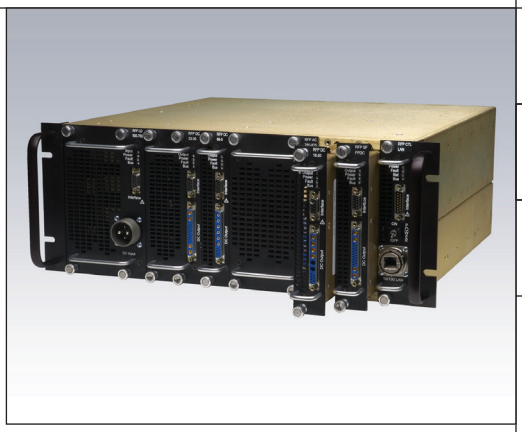
Elgar ReFlex Power™ Series

Modular
AC/DC/Loads

Modular Programmable AC/DC/Loads Power System

- Truly Modular Design
- Digital System and Power Converter Control
- Control up to 95 assets across 8 mainframes with a single controller
- Control multiple AC and DC power supplies and loads in one or more mainframes
- Create "virtual assets" on the fly
- Highest Power Density
- World-wide AC or DC input



Universal AC/DC

LXI ETHERNET

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.

Up to 8 mainframes, potentially up to 95 modules, can be controlled via a single controller. The controller communicates to the individual modules via a high speed proprietary bus protocol. The RFP™ controller communicates to the host controller via an Ethernet LAN connection designed in compliance with the LAN Extension for Instrumentation (LXI™) standard, assuring interoperability and ease of integration.

Virtual Output Channels

By using the powerful ReFlex Power capabilities, the modules can be combined via the controller in series or parallel groups, or series / parallel arrays to form new assets, or "virtual outputs." This can be accomplished "on the fly" within a test program, with no need to shut down and reconfigure modules.

This unique capability greatly extends the operating range of a ReFlex Power System, and establishes a new power stimulus paradigm. Virtual output channels reduce the overall asset count in any particular system, while increasing the range of voltage and currents available for DUT stimulus.

Virtual channels can be set up across mainframes, and multiple virtual channels can reside in a single mainframe or system.

By implementing this functionality in test systems or as part of an overall test strategy, users can reduce both up-front capital costs, as well as long term supply chain, logistics and support costs.

Available power modules include

Single slot, 330 Watt programmable DC supplies
- 16V, 20.6A
- 65V, 5.1A

Dual slot, 1kW programmable DC supplies
- 33V, 30A
- 50V, 20A
- 50V, 25A
- 120V, 8.3A
- 450V, 2.3A

Triple slot, 875 VA, single phase, programmable AC supply
- Dual range: 280V AC, 3.5A AC
- Dual Range: 140V AC, 7A AC

Triple slot, 500V, programmable electronic DC loads
- 375 Watt, 500V, 15A
- 375 Watt, 500V, 30A

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AMETEK®
PROGRAMMABLE POWER

Elgar ReFlex Power™ Series

www.ProgrammablePower.com

Programmable System Control Module

- LXI Ethernet interface
- SRQ functionality embedded in VISA layer
- Operates as instrument or socket connection
- Up to 16 individual sessions simultaneously
- One controller for up to 95 discrete power assets
- Modular
- IVI drivers available

The ReFlex Power™ (RFP™) System Controller (RFPC) provides a single command and status communication port for all power assets (power supplies and loads) within the RFP™ system. The RFP™ architecture is essentially a distributed processor system, and the role of the RFPC is command interpreter and redirector, plus manager of module status messages.

The unique features of the RFP™ system of configurability and extensibility are made possible through the use of the latest in controls technology. An FPGA-based implementation uses VHDL, embedded processor cores for firmware based systems control, ARCnet™ inter-module communication and LAN system communications.

Programmable 1000 / 1250W High Power DC Modules

- Near Linear Performance
- Truly Modular
- ≥0.95 PF
- Digital control loop technology
- High Power Density (3.5 watts/ cubic inch)
- "Virtual Assets" by:
  - Series operation
  - Parallel operation
  - Combined operation with loads

Two Slot 1000W / 1250W DC Power Modules

1000W / 1250W Model Number	Description
RFP-D2033-030-1G1B	33Vdc, 30A, w/ Output Relay
RFP-D2033-030-2D1B	33Vdc, 30A, w/ Output Relay + Ext'd Operating Temperature
RFP-D2050-020-1G1B	50Vdc, 20A, w/ Output Relay
RFP-D2050-020-2D1B	50Vdc, 20A, w/ Output Relay + Ext'd Operating Temperature
RFP-D2050-025-1G1B	50Vdc, 25A, w/ Output Relay
RFP-D2050-025-2D1B	50Vdc, 25A, w/ Output Relay + Ext'd Operating Temperature
RFP-D2120-8A3-1G1B	120Vdc, 8.3A, w/ Output Relay
RFP-D2120-8A3-2D1B	120Vdc, 8.3A, w/ Output Relay + Ext'd Operating Temperature
RFP-D2450-2A3-1G1B	450Vdc, 2.3A, w/ Output Relay
RFP-D2450-2A3-2D1B	450Vdc, 2.3A, w/ Output Relay + Ext'd Operating Temperature

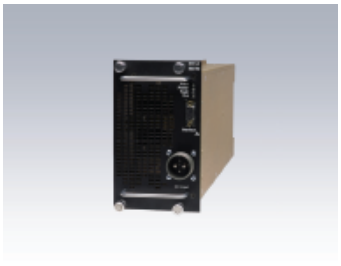
Programmable 300W Low Power DC Modules

- Near Linear Performance
- Truly Modular
- ≥0.95 PF
- Digital control loop technology
- High Power Density (3.5 watts/ cubic inch)
- "Virtual Assets" by:
  - Series operation
  - Parallel operation
  - Combined operation with loads

Single Slot 300W DC Power Modules

300W Model Number	Description
RFP-D1016-021-1G1B	16Vdc, 20.6A, w/ Output Relay
RFP-D1016-021-2D1B	16Vdc, 20.6A, w/ Output Relay + Ext'd Operating Temperature
RFP-D1065-5A1-1G1B	65Vdc, 5.1A, w/ Output Relay
RFP-D1065-5A1-2D1B	65Vdc, 5.1A, w/ Output Relay + Ext'd Operating Temperature

High Density Programmable AC Power Modules

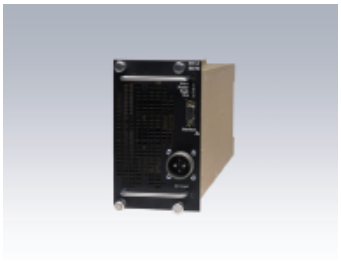


- Single or multi-phase output
- Parallel operation up to 5250 VA, 3 phase
- 4.8 Crest factor
- Digital control loop technology
- Brown out protection to 65% of nominal input line
- Up to 875 VA
- 45 to 1200 Hz or 5000 Hz

Three Slot 875VA AC Power Modules

AC Model Number	Description
RFP-A301K-875-1G1B	875VA, 45-1.2 kHz w/ Output Relay
RFP-A301K-875-2D1B	875VA, 45-1.2 kHz w/ Output Relay + Ext'd Operating Temperature
RFP-A305K-875-1G1B	875VA, 45-5.0 kHz w/ Output Relay
RFP-A305K-875-2D1B	875VA, 45-5.0 kHz w/ Output Relay + Ext'd Operating Temperature

High Density Programmable Active Load Modules



- High Voltage (500V) Input
- Digital control loop technology
- Two models: 375 W & 750 W
- Up to 15 A or 30 A
- Parallel up to 8 automatically
- Modular
- High Power Density
- Simple integration

Three Slot 500V, 15A or 30A Active Load Modules

Active Load Model Number	Description
RFP-D3500-375-1G1B	500Vdc, 15A w/ Output Relay
RFP-D3500-375-2D1B	500Vdc, 15A w/ Output Relay + Ext'd Operating Temperature
RFP-D3500-750-1G1B	500Vdc, 30A w/ Output Relay
RFP-D3500-750-2D1B	500Vdc, 30A w/ Output Relay + Ext'd Operating Temperature