



RFP: DC ELECTRONIC LOAD

- High Voltage (500V) Input
- Two models
- Up to 750W/500V
- Parallel up to 8 automatically
- Modular
- High Power Density
- Control up to 95 assets
- C.O.T.S.
- Web browser control
- User configurable
- Low C.O.O.
- Simple integration
- Brown-out resistant

PRODUCT OVERVIEW

ReFlex Power™ DC Loads are part of the high density, modular and programmable family of power system elements available for the RFP™ platform. Providing both stimulus and load capabilities within the same system simplifies integration and enables the creation of more complex “virtual assets” such as multi-quadrant sources.

RFP DC loads operate with inputs up to 500V with up to 15A/375W or up to 30A/750W. The RFP system can automatically control paralleling of up to 8 load modules with no degradation of any individual module’s specifications.

SYSTEM OVERVIEW

RFP™ provides a reconfigurable, flexible platform ideal for ATE and production test environments where it can provide programmable stimulus and bias power as well as programmable loads for the device(s) under test.

BENEFITS

- Reduced Cost of Ownership (COO)
 - Control multiple AC and DC power supplies and loads in one mainframe
 - Series and parallel operation allows large voltage and current test coverage with a single solution
 - Controlled by RFP™ controller which is compliant with LXI™ standard for assured interoperability and ease of integration
- Reduced space and logistics problems
 - High voltage operation
 - C.O.T.S. availability
 - RFP™ also accommodates AC and DC power modules
 - User configurable
 - Universal AC and DC input to mainframe
 - Voltage and current measurement available from load

Model	375W	750W
Current Mode		
Range	0 – 15 A	0 – 30 A
Resolution	0.9 mA	1.8 mA
Accuracy	0.3% of FS	0.3% of FS
Analog Control		
Range	0 to 5V or 0 to 10V = FS	
Accuracy	0.3% of FS	
Bandwidth	8kHz @ -3dB & 10kΩ	
Resistance Mode		
Range 1, Resolution	1 – 99 Ω, 1Ω	
Range 2, Resolution	100 – 1000 Ω, 100Ω	
Range 3, Resolution	1000 – 5000 Ω, 1000Ω	
Accuracy	5% of setpoint	

DC Input Ratings	375V	750V
Voltage	500V	500V
Current	15A	30A
Power	375W	750W
Min Voltage, Full Load	3V	3V

Physical

Size: RFP Chassis Slots: 3
 4.2" (106.7mm) W x 6.75"
 (171.5mm) H x 15" (381 mm) D
 Weight 7.5 lbs (375W); 10.4 lbs (750W)

Connectors

DC Input and Sense: MS3102R20-24P
 Remote Programming: DB9

General

Stability: <0.1% of FS after 8 hrs
 Temperature Stability: <0.05% of FS/°C

Protection

Overvoltage: 525V ± 3%
 Overcurrent: 20A ± 3% (375W)
 40A ± 3% (750W)
 Overpower: 19-394W ± 5% (375W)
 38 – 788W ± 5% (750W)
 Reverse Voltage: Clamped to -15V ± 3%

Parallel Operation

Up to eight modules
 Current sharing proportional to full-scale
 No de-rating of individual modules
 Control interface is automatically configured
 Must be adjacent module

Noise

30mA (pk-pk), 20 Hz to 20 MHz bandwidth

Programming Response Time: 55ms
 Input Trigger Response Time: ≤5ms
 Dynamic Response (10 to 90/90 to 10%): 50ms
 Remote Sense: 0.75V per source line
 Max Float Voltage: 500Vdc any input terminal to chassis
 Cooling: Internal fans, require 110 CFM minimum airflow at altitude and ambient temperature
 Indicators:
 POWER ON (LED, green)
 INPUT ON (LED, green)
 FAULT (LED, red)

Environmental

Temp. Range, Operating: -10° C to 55° C
 Temp. Range, Storage: -40° C to 70 °C
 Humidity, Operating: 95%
 Altitude, Operating: up to 15,000 ft for 375W,
 6,500 ft for 750W
 Shock and Vibration: Class 3 MIL-PRF-28800F

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°±5°C.
All specifications are subject to change without prior notification

Measurement

Digital Volt Meter	
Range	0 – 500V
Resolution	33mV
Accuracy	0.1% of FS

Digital Ammeter		
Range	0 – 15A	0 – 30A
Resolution	0.9 mA	1.8 mA
Accuracy	0.3% of FS	0.3% of FS