

RBL488 SERIES 4000 / 3000 WATTS



GENERAL SPECIFICATIONS

OPERATION

Constant Current: 0 to selected full scale current
 Prog. Accuracy (Range): (high/med) ranges: $\pm 0.25\%$ (low) range: $\pm 0.5\%$
 Regulation: $\pm 0.1\%$ of selected full scale
 Resolution(IEEE): 1/4000 of selected full scale
Constant Resistance: Constant Resistance mode
 operates in Amps/Volt, IEEE units entered in ohms or A/V
 Prog. Accuracy: $\pm 3\%$ of selected full scale
 Regulation: $\pm 3\%$ of selected full scale
 Resolution(IEEE): 1/4000 of selected full scale
Constant Voltage: 0 to selected selected full scale
 Prog. Accuracy (Range): (high/med) ranges: $\pm 0.25\%$ (low): $\pm 0.5\%$
 Regulation: $\pm 0.15\%$ of selected full scale
 Resolution(IEEE): 1/4000 of selected full scale
Constant Power: 0 to full scale power
 Prog. Accuracy: $\pm 3\%$ of full scale
 Regulation: $\pm 3\%$ of full scale
 Resolution(IEEE): 0.25% of full scale power
ANALOG MODE
Ext. Prog: 0 to 10 Volts input yields 0 to selected full

scale loading in all operating modes.
 Input Impedance: 330k Ohms
 Prog. Response: Limited by internal adjustable slew rate limiter

PULSE MODE

Frequency: 0.06Hz to 3,333Hz
 Accuracy: 0.1%
 Duty Cycle: 0 - 100%(IEEE), 10 - 90%(Analog)
 Accuracy: 0.1%

Adjustable Slew Rate:

Max: 0 to full scale in 10 μ S
 Min: 0 to full scale in 10mS

OUTPUT SIGNALS

Current Sample Output:

Scaling: 10 Volts = selected full scale
 Accuracy: $\pm 0.5\%$ of selected full scale
Sync Output:
 Timing: Synchronous with pulse generator.
 Output: Sink with 10k pull up to +15V

PROTECTION

Current Limit:
 Analog Models: Approximately 105% of selected full scale current
 Range(IEEE): 0 - 105% of selected full scale
 Resolution(IEEE): 0.5% of selected full scale
Voltage Limit:
 Analog Models: Load disconnect at 105% of selected full scale voltage
 Range(IEEE): 0 - 105% of selected full scale
 Resolution(IEEE): 0.5% of selected full scale
Power Limit:
 Analog Models: Approximately 4250 Watts
 Range(IEEE): 0 - 4200 Watts
 Resolution(IEEE): 20 Watts
Thermal:
 Load disconnect at internal temperature of 105°C
Undervoltage:
 Load inhibited at less than 1 Volt, when enabled

IEEE-488 READBACKS

Current:
 Resolution: 1/4000 of Selected Full Scale
 Accuracy(Range): (High/Med): $\pm 0.25\% \pm 1$ Digit (Low): $\pm 0.5\% \pm 1$ Digit

Voltage:
 Resolution: 1/4000 of Selected Full Scale
 Accuracy(Range): (High/Med): $\pm 0.25\% \pm 1$ Digit (Low): $\pm 0.5\% \pm 1$ Digit

Power:
 Resolution: 1 Watt
 Accuracy: 0.50%

MISCELLANEOUS

AC Input: User Selectable 100VAC, 120VAC, 200VAC, 240VAC, $\pm 10\%$, 48 - 62 Hz @ 350W

Ambient Temp: 0°C to 40°C

RBL488 50-1000-4000

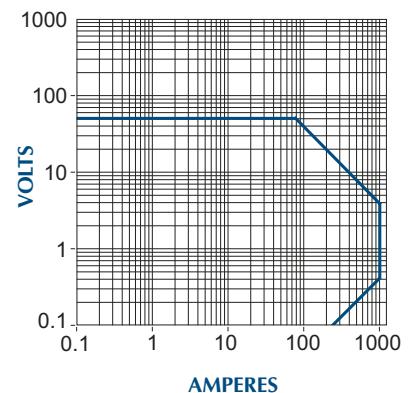
OPERATING RANGES (FULL SCALES)

Voltage: 10 Volts, 20 Volts, 50 Volts
Current: 100 Amps, 500 Amps, 1000 Amps
Power: 4000 Watts
Short Circuit: 0.0004 Ohms max.

CONSTANT RESISTANCE RANGES

High Ohms Mode			
Range	100A	500A	1000A
10V	0-5 A/V	0-25 A/V	0-50 A/V
20V	0-2.5 A/V	0-12.5 A/V	0-25 A/V
50V	0-1 A/V	0-5 A/V	0-10 A/V
Low Ohms Mode			
Range	100A	500A	1000A
10V	0-50 A/V	0-250 A/V	0-500 A/V
20V	0-25 A/V	0-125 A/V	0-250 A/V
50V	0-10 A/V	0-50 A/V	0-100 A/V

INPUT CHARACTERISTICS:



SAFE OPERATING AREA & SPECIFICATIONS

The RBL 488 Dynaload Series features 400, 800, 2000 and 4000 watt models with wide range IEEE 488 computer programming. Individual models are designed for low voltage high current application up to 1000 amperes at fractions of a volt whereas other models are designed for midrange applications and high voltage applications up to 1000 volts. Equivalent RBL Dynaloads are available with RS 232 and Analog programming for laboratory as well as production applications. All models include easy to apply master slave parallel capabilities and all higher power models incorporate variable speed forced air cooling to assure a quiet environment. Features include:

- High Speed Adjustable Slew Rate
- Front Panel or Remote Control
- 19 inch Rack Mount - 5U high
- Pulse Load Shaping
- Full Range Switching
- Quiet Variable Speed Fans

RBL488 100-600-4000

OPERATING RANGES (FULL SCALE range)

Voltage: 10 Volts, 50 Volts, 100 Volts
Current: 20 Amps, 200 Amps, 600 Amps
Power: 4000 Watts
Short Circuit: 0.003 Ohms max.

CONSTANT RESISTANCE RANGES

High Ohms Mode

Range	20A	200A	600A
10V	0-1 A/V	0-10 A/V	0-30 A/V
50V	0-.2 A/V	0-2 A/V	0-6 A/V
100V	0-1 A/V	0-1 A/V	0-3 A/V

Low Ohms Mode

Range	20A	200A	600A
10V	0-10 A/V	0-100 A/V	0-300 A/V
50V	0-2 A/V	0-20 A/V	0-60 A/V
100V	0-1 A/V	0-10 A/V	0-30 A/V

RBL488 400-600-4000

OPERATING RANGES (FULL SCALES)

Voltage: 20 Volts, 200 Volts, 400 Volts
Current: 20 Amps, 200 Amps, 600 Amps
Power: 4000 Watts
Short Circuit: 0.010 Ohms max.

CONSTANT RESISTANCE RANGES

High Ohms Mode

Range	20A	200A	600A
20V	0-.5 A/V	0-5 A/V	0-15 A/V
200V	0-.05 A/V	0-5 A/V	0-1.5 A/V
400V	0-.025 A/V	0-.25 A/V	0-.75 A/V

Low Ohms Mode

Range	20A	200A	600A
20V	0-5 A/V	0-50 A/V	0-150 A/V
200V	0-.5 A/V	0-2.5 A/V	0-15 A/V
400V	0-.25 A/V	0-2.5 A/V	0-7.5 A/V

RBL488 600-200-4000

OPERATING RANGES (FULL SCALES)

Voltage: 20 Volts, 200 Volts, 600 Volts
Current: 2 Amps, 20 Amps, 200 Amps
Power: 4000 Watts
Short Circuit: 0.035 Ohms max.

CONSTANT RESISTANCE RANGES

High Ohms Mode

Range	2A	20A	200A
20V	0-.05 A/V	0-.5 A/V	0-5 A/V
200V	0-.005 A/V	0-.05 A/V	0-.5 A/V
600V	0-.0016 A/V	0-.016 A/V	0-.166 A/V

Low Ohms Mode

Range	2A	20A	200A
20V	0-.5 A/V	0-5 A/V	0-50 A/V
200V	0-.05 A/V	0-.5 A/V	0-5 A/V
600V	0-.016 A/V	0-.166 A/V	0-1.666 A/V

RBL488 1000-100-3000

OPERATING RANGES (FULL SCALES)

Voltage: 100 Volts, 500 Volts, 1000 Volts
Current: 2 Amps, 20 Amps, 100 Amps
Power: 3000 Watts
Short Circuit: 0.033 Ohms max.

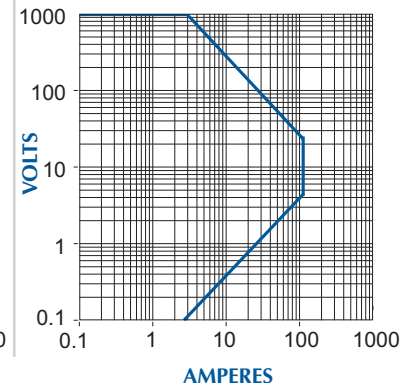
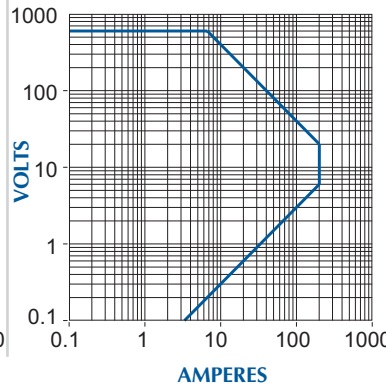
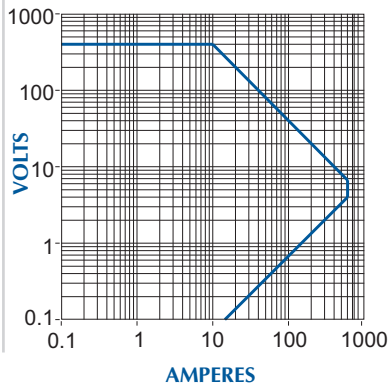
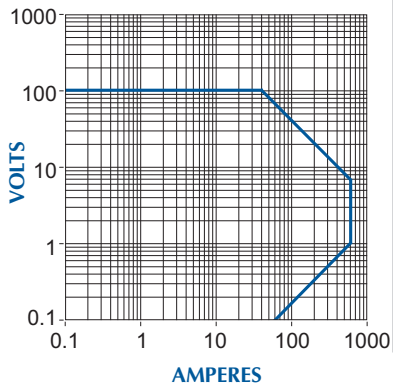
CONSTANT RESISTANCE RANGES

High Ohms Mode

Range	2A	20A	100A
100V	0-.01 A/V	0-.10 A/V	0-.50 A/V
500V	0-.002 A/V	0-.02 A/V	0-.10 A/V
1000V	0-.001 A/V	0-.01 A/V	0-.05 A/V

Low Ohms Mode

Range	2A	20A	100A
100V	0-.10 A/V	0-1.0 A/V	0-5 A/V
500V	0-.02 A/V	0-.20 A/V	0-1.0 A/V
1000V	0-.01 A/V	0-.10 A/V	0-.50 A/V



4000W OUTLINE

