RBL Series 4000 / 3000 Watts

General Specifications

OPERATION

Constant Current: 0 to selected full scale current
Prog. Accuracy (Range): (high/med) ranges: ±0.25%
(low) range: ±0.5%
Regulation: ±0.1% of selected full scale
Constant Resistance: Constant Resistance mode operates in Amps/Volt units entered in ohms or A/V
Prog. Accuracy: ±3% of selected full scale
Regulation: ±3% of selected full scale
Constant Voltage: 0 to selected selected full scale
Prog. Accuracy (Range):
(high/med) ranges: ±0.25%
(low): ± 0.5%
Regulation: ±0.15% of selected full scale
Constant Power: 0 to full scale power
Prog. Accuracy: ±3% of full scale
Regulation: ±3% of full scale

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 20kHz
Accuracy: 0.1%
Duty Cycle: 10 - 90%(Analog)
Accuracy: 0.1%

Adjustable Slew Rate:
Max: 0 to full scale in 10µS
Min: 0 to full scale in 10mS

OUTPUT SIGNALS

Current Sample Output:
Scaling: 10 Volts = selected full scale
Accuracy: ±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
Voltage Limit:
Analog Models: Load disconnect at 105% of selected full scale voltage
Power Limit:
Analog Models: Approximately 4250 Watts
Thermal: Load disconnect at internal temperature of 105°C
Undervoltage: Load inhibited at less than1 Volt, when enabled

MISCELLANEOUS

AC Input: User Selectable 100VAC, 120VAC, 200VAC, 240VAC, ±10%, 48 - 62 Hz @ 350W
Ambient Temp: 0°C to 40°C

RBL 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

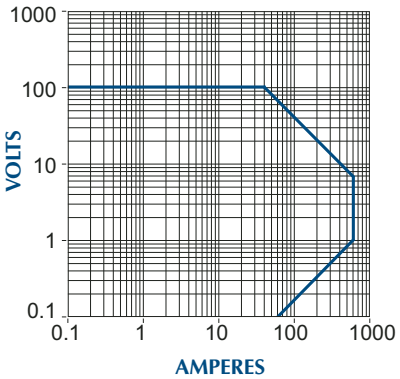
High Ohms Mode

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

INPUT CHARACTERISTICS:



Safe Operating Area & Specifications

The RBL 4000 series will provide the full capabilities of the RBL family in an intuitive and easy to use manually controlled model. All functions and range switching features are presented for complete flexibility in a development lab environment. For complex current waveforms, remote analog programming is maintained across the series.

- **High Speed Adjustable Slew Rate**
- **Front Panel or Remote Control**
- **Operation to Less Than 200mv**
- **Pulse Load Shaping**
- **Full Range Switching**
- **Quiet Variable Speed Fans**

RBL 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

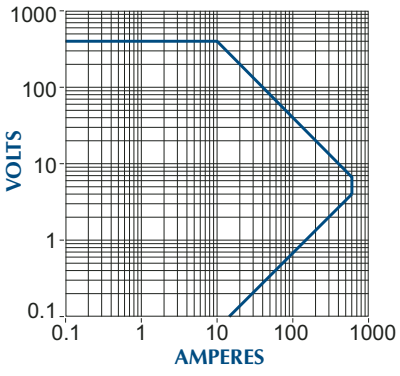
High Ohms Mode

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-.25A/V	0-2.5 A/V	0-7.5 A/V

INPUT CHARACTERISTICS:



RBL 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

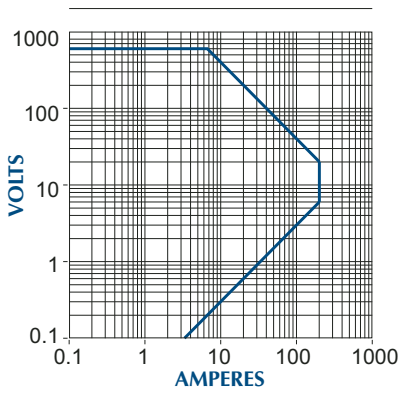
High Ohms Mode

Range	2A	20A	200A
20V	0-.05 A/V	0-.5 A/V	0-5A/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	0-1.666A/V

INPUT CHARACTERISTICS:



RBL 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

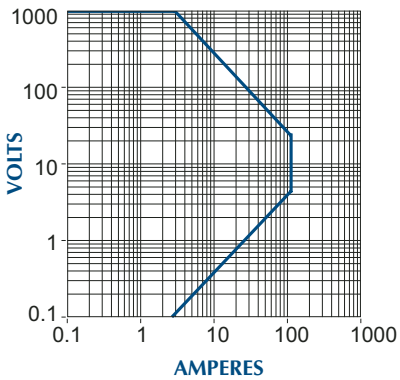
High Ohms Mode

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

INPUT CHARACTERISTICS:



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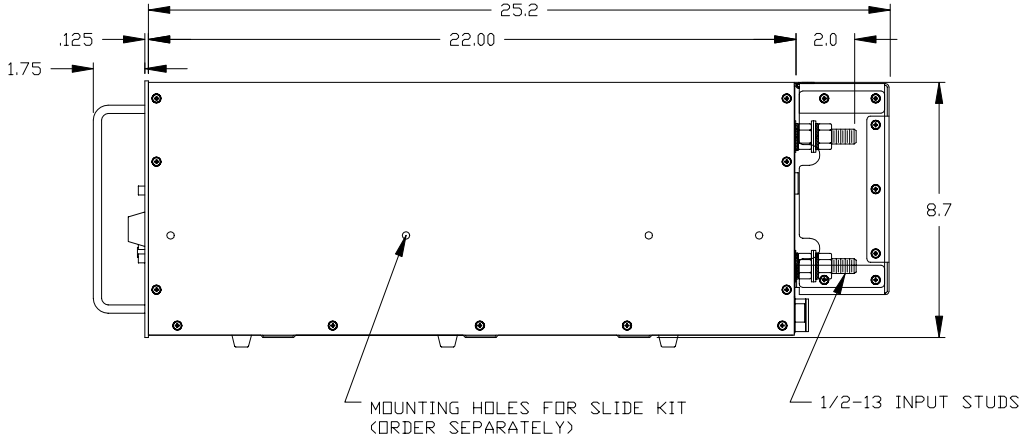
4000W Outline



(SAFETY COVER NOT SHOWN)