



## 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 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 $\mu$ 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

- High Speed Adjustable Slew Rate
- Front Panel or Remote Control
- Operation to Less Than 200mv
- Pulse Load Shaping
- Full Range Switching
- IEEE-488 Standard, RS-232 Available

# SAFE OPERATING AREA & SPECIFICATIONS

Even more compact than the 800W RBL model, the 400W model is the newest addition to the RBL family. The RBL488 400 watt models offer full size load capabilities in a VERY compact size. The RBL488 400 Watt model will sink up to 60 amps for 400 watt requirements but never sacrifice accuracy at lighter load levels. With its compact size and convenient carrying handle, this model is an excellent choice for portable applications and miscellaneous fieldwork.

## RBL488 100-60-400

### OPERATING MODES

**Constant Current:** 0 to selected full scale current  
**Program Accuracy:** 60A, 30A and 6A ranges +/-0.5  
**Regulation:** +/- 0.1% of full scale  
**Resolution:** 1/4000 of selected full scale  
**Constant Resistance:** Operates in Ohms or Amps/Volt (selectable)  
**Program Accuracy:** +/- 3% of full scale  
**Regulation:** +/- 3% of full scale  
**Resolution:** 1/4000 of selected full scale

### High Ohms Mode

Range	6A	30A	60A
10V	0-.3 A/V	0-1.5 A/V	0-3 A/V
50V	0-.06 A/V	0-.3 A/V	0-.6 A/V
100V	0-.03 A/V	0-.15 A/V	0-.3 A/V

### Low Ohms Mode

Range	6A	30A	60A
10V	0-3 A/V	0-15 A/V	0-30 A/V
50V	0-.6 A/V	0-3 A/V	0-6 A/V
100V	0-.3 A/V	0-1.5 A/V	0-3 A/V

**Constant Voltage:** 0 to selected full scale current  
**Program Accuracy:** 100V, 50V and 10V ranges +/-0.5  
**Regulation:** +/- 0.15% of full scale  
**Resolution:** 1/4000 of selected full scale  
**Constant Power:** 0 – 400 Watts  
**Program Accuracy:** +/- 4% of full scale  
**Regulation:** +/- 4% of full scale  
**Resolution:** 0.1 Watts  
**Short circuit:** 0.05 Ohms Max.

### PULSE MODES

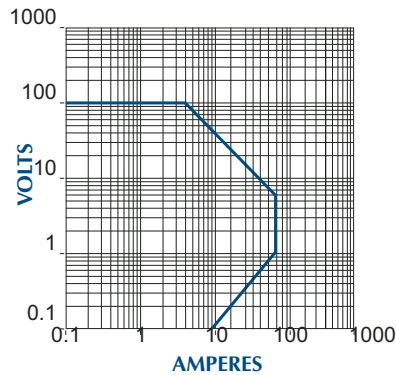
**Operation:** Pulse added on top of D.C. setpoint  
 May be used in conjunction with external programming  
**Frequency:** .01 to 3333Hz.  
**Accuracy:** .1%  
**Duty Cycle:** 0 – 100%  
**Accuracy:** .1%  
**Slew Rate:** 10 micro seconds to .4 seconds

### OUTPUT SIGNALS

**Current Sample Output**  
**Scaling:** 10 Volts = Selected full scale current  
**Accuracy:** .5% of full scale  
**Sync Output:**  
**Timing:** Synchronous with pulse generator  
**Output:** Sink with 10K ohm up to +15VDC

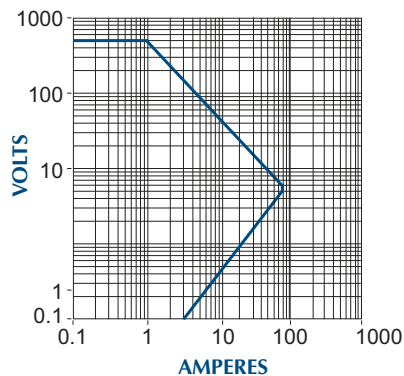
### INPUT CHARACTERISTICS:

#### RBL488 100-60-400



### INPUT CHARACTERISTICS:

#### RBL488 400-60-400



## RBL488 400-60-400

### OPERATING MODES

**Constant Current:** 0 to selected full scale current  
**Program Accuracy:** 60A, 30A and 6A ranges +/-0.5  
**Regulation:** +/- 0.1% of full scale  
**Resolution:** 1/4000 of selected full scale  
**Constant Resistance:** Operates in Ohms or Amps/Volt (selectable)  
**Program Accuracy:** +/- 3% of full scale  
**Regulation:** +/- 3% of full scale  
**Resolution:** 1/4000 of selected full scale

### High Ohms Mode

Range	6A	30A	60A
20V	0-.15 A/V	0-.75 A/V	0-1.5 A/V
200V	0-.015 A/V	0-.075 A/V	0-.15 A/V
400V	0-.0075 A/V	0-.0375 A/V	.075 A/V

### Low Ohms Mode

Range	6A	30A	60A
20V	0-1.5 A/V	0-7.5 A/V	0-15 A/V
200V	0-.15 A/V	0-.75 A/V	0-1.5 A/V
400V	0-.075 A/V	0-.375 A/V	0-.75 A/V

**Constant Voltage:** 0 to selected full scale current  
**Program Accuracy:** 400V, 200V and 20V ranges +/-0.5  
**Regulation:** +/- 0.15% of full scale  
**Resolution:** 1/4000 of selected full scale  
**Constant Power:** 0 – 400 Watts  
**Program Accuracy:** +/- 4% of full scale  
**Regulation:** +/- 4% of full scale  
**Resolution:** 0.1 Watts  
**Short circuit:** 0.05 Ohms Max.

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**Timing:** Synchronous with pulse generator  
**Output:** Sink with 10K ohm up to +15VDC

# 400W OUTLINE

