THE XBL ADVANTAGE

Testing Tomorrow's Power

TDI POWER
DYNALOAD

DEMANDING APPLICATIONS DEMAND TDI POWER

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TDI POWER DYNALOAD

The XBL SERIES

testing tomorrow's power...

6000 W model
4000 W model (shown in optional black)

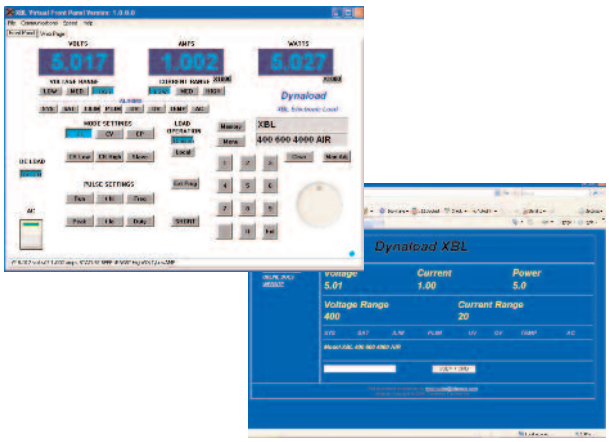
2000 W model

800 W model

To meet industry demands, Dynaload has developed a line of electronic loads that offer cutting-edge functionality at a competitive price. The XBL series is a reliable, precision controlled, high speed load for fuel cell testing, power supply testing, battery testing and custom applications.

The XBL Dynaload Series features 800, 2000, 4000, and 6000 Watt models with wide range voltage inputs and sophisticated computer programming via GPIB, Ethernet, or RS232. These units feature an integrated web page for local system operation and control.

Graphical User Interface



Individual models are available for specialized low voltage high current applications. High voltage models up to 1000 volts are also available.

All models include easy to apply master slave parallel capabilities and closed box calibration. Higher power models incorporate variable speed forced air cooling to assure a quiet environment.

The XBL SERIES

Features & Specifications...

FEATURES

- Excellent Programming Accuracy
- High Speed Programmable Slew Rate
- Ethernet Control
- Closed Box Calibration
- RBL Command Support
- Pulse Load Shaping
- Full Range Switching
- 19 inch Rack Mount
  - 3U high (2000w)
  - 5U high (4000w)
  - 6U high (6000w)

OPERATION

Constant Current: 0 to selected full scale current
Prog. Accuracy: 0.1% of setpoint ±5ma
Resolution: .0015% of selected full scale

Constant Resistance: Constant Resistance mode operates in Amps/Volt units entered in ohms or A/V
Prog. Accuracy: 1% of setpoint
Resolution: .0015% of selected full scale

Constant Voltage: 0 to selected selected full scale
Prog. Accuracy: 1% of setpoint +/- 250mv
Resolution: .0015% of selected full scale

Constant Power: 0 to full scale power
Prog. Accuracy: 1% of setpoint +/- 2W
Resolution: .0015% of full scale power

ANALOG MODE

Ext. Prog: 0 to 10 Volts input yields 0 to selected full scale current.
Input Impedance: 330k Ohms

PULSE MODE

Frequency: 1Hz to 3.5kHz
Duty Cycle: 0 - 100%
Minimum Pulse Width: 150µsec

Adjustable Slew Rate:
10µsec to 1 sec in 10 µsec steps

OUTPUT SIGNALS

Current Sample Output:
Scaling:10 Volts = selected full scale
Accuracy:+/-0.5% of selected full scale +/- 10mV

PROTECTION

Current Limit:
Range: 0-105% of selected full scale
Resolution: 0.4% of selected full scale

Voltage Limit:
Range: 0-105% of selected full scale
Resolution: 0.4% of selected full scale

Power Limit:

800W	Range: 0 - 840 Watts
2000W	Range: 0 - 2100 Watts
4000W	Range: 0 - 4200 Watts
6000W	Range: 0 - 6300 Watts

Thermal: Load disconnect at internal temperature of 90°C

Under Voltage:
Range: Programmable 0 - full range (default OV)
Resolution: 0.4% of selected full scale

COMMUNICATION CHANNEL READBACK

Current:
Resolution: .0015% of selected full scale
Accuracy: 0.1% +/-10ma

Voltage:
Resolution: .0015% of selected full scale
Accuracy: 1% +/- 10mV

Power:
Resolution: .0015% of selected full scale
Accuracy: 1% +/- 2W

Communication Modes:
IEEE 488
RS 232
Ethernet (HTTP, TCP, & Telnet)

MISCELLANEOUS

AC Input: User Selectable 100VAC,120VAC, 200VAC, 240VAC, +/-10%, 48 - 62 Hz @ 350W(2000W, 4000W, and 6000W models)

User selectable 120VAC, 240VAC, +/- 10%, 48 - 62Hz @ 350W (800W model)

Ambient Temp: 0°C to 40°C

Weight:

800W:	26lbs. (39.0kg)
2000W:	59lbs. (26.8kg)
4000W:	86lbs. (39.0kg)
6000W:	112lbs. (50.8kg)

XBL 50-150-800 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 10 Volts, 20 Volts, 50 Volts
Current: 2 Amps, 20 Amps, 150 Amps
Power: 800 Watts
Short Circuit: 0.004 Ohms max.

CONSTANT RESISTANCE RANGES

High Ohms Mode

Range	2A	20A	150A	
10V	0.1	1.0	7.5	A/V
20V	0.05	0.5	3.75	A/V
50V	0.02	0.2	1.5	A/V

Low Ohms Mode

Range	2A	20A	150A	
10V	1.0	10.0	75.0	A/V
20V	0.5	5.0	37.5	A/V
50V	0.2	2.0	15.0	A/V

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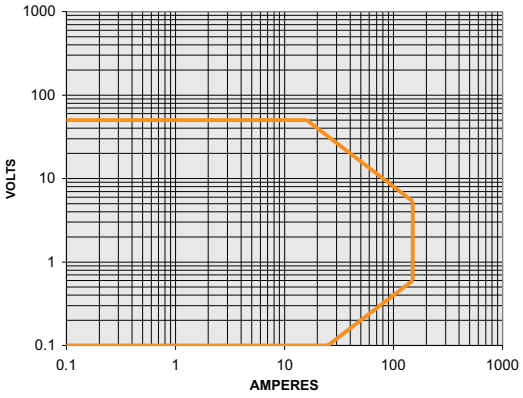


XBL 100-120-800 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 10 Volts, 50 Volts, 100 Volts
Current: 2 Amps, 20 Amps, 120 Amps
Power: 800 Watts
Short Circuit: 0.008 Ohms max.

CONSTANT RESISTANCE RANGES

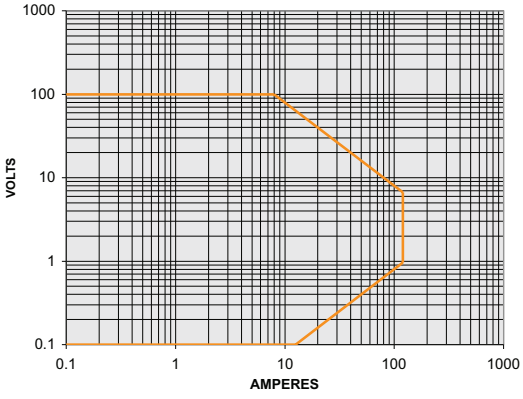
High Ohms Mode

Range	2A	20A	120A	
10V	0.1	1.0	6.0	A/V
50V	0.02	0.2	1.2	A/V
100V	0.01	0.1	0.6	A/V

Low Ohms Mode

Range	2A	20A	120A	
10V	1.0	10.0	60.0	A/V
50V	0.2	2.0	12.0	A/V
100V	0.1	1.0	6.0	A/V

INPUT CHARACTERISTICS:



XBL 400-120-800 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 20 Volts, 200 Volts, 400 Volts
Current: 2 Amps, 20 Amps, 120 Amps
Power: 800 Watts
Short Circuit: 0.03 Ohms max.

CONSTANT RESISTANCE RANGES

High Ohms Mode

Range	2A	20A	120A	
20V	0.05	0.5	3.0	A/V
200V	0.005	0.05	0.3	A/V
400V	0.0025	0.025	0.15	A/V

Low Ohms Mode

Range	2A	20A	120A	
20V	0.5	5.0	30.0	A/V
200V	0.05	0.5	3.0	A/V
400V	0.025	0.25	1.5	A/V

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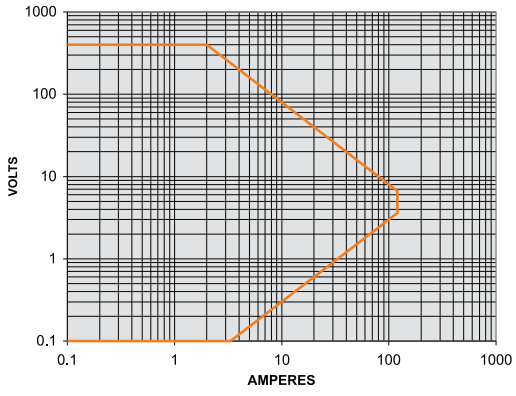


XBL 600-40-800 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 20 Volts, 200 Volts, 600 Volts
Current: 2 Amps, 20 Amps, 40 Amps
Power: 800 Watts
Short Circuit: 0.10 Ohms max.

CONSTANT RESISTANCE RANGES

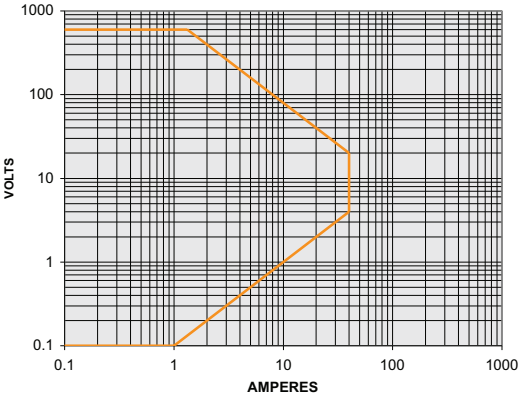
High Ohms Mode

Range	2A	20A	40A	
20V	0.05	0.5	1.0	A/V
200V	0.005	0.05	0.1	A/V
600V	0.001667	0.016667	0.03333	A/V

Low Ohms Mode

Range	2A	20A	40A	
20V	0.5	5.0	10.0	A/V
200V	0.05	0.5	1.0	A/V
600V	0.01667	0.166667	0.333333	A/V

INPUT CHARACTERISTICS:



SAFE OPERATING AREA & SPECIFICATIONS 2000W

XBL 50-400-2000 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 10 Volts, 20 Volts, 50 Volts
Current: 20 Amps, 200 Amps, 400 Amps
Power: 2000 Watts
Short Circuit: 0.00075 Ohms max.

CONSTANT RESISTANCE RANGES

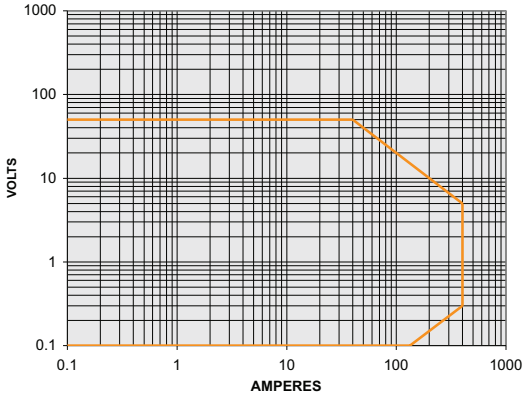
High Ohms Mode

Range	20A	200A	400A	
10V	1.0	10.0	20.0	A/V
20V	0.5	5.0	10.0	A/V
50V	0.2	2.0	4.0	A/V

Low Ohms Mode

Range	20A	200A	400A	
10V	10.0	100.0	200.0	A/V
20V	5.0	50.0	100.0	A/V
50V	2.0	20.0	40.0	A/V

INPUT CHARACTERISTICS:



XBL 100-300-2000 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 10 Volts, 50 Volts, 100 Volts
Current: 20 Amps, 200 Amps, 300 Amps
Power: 2000 Watts
Short Circuit: 0.003 Ohms max.

CONSTANT RESISTANCE RANGES

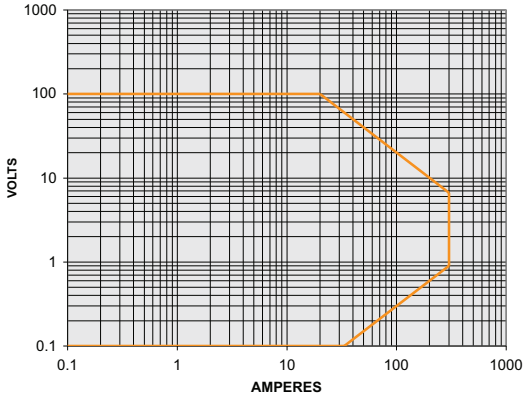
High Ohms Mode

Range	20A	200A	300A	
10V	1.0	10.0	15.0	A/V
50V	0.2	2.0	3.0	A/V
100V	0.1	1.0	1.5	A/V

Low Ohms Mode

Range	20A	200A	300A	
10V	10.0	100.0	150.0	A/V
50V	2.0	20.0	30.0	A/V
100V	1.0	10.0	15.0	A/V

INPUT CHARACTERISTICS:



tXBL 400-300-2000 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 20 Volts, 200 Volts, 400 Volts
Current: 20 Amps, 200 Amps, 300 Amps
Power: 2000 Watts
Short Circuit: 0.013 Ohms max.

CONSTANT RESISTANCE RANGES

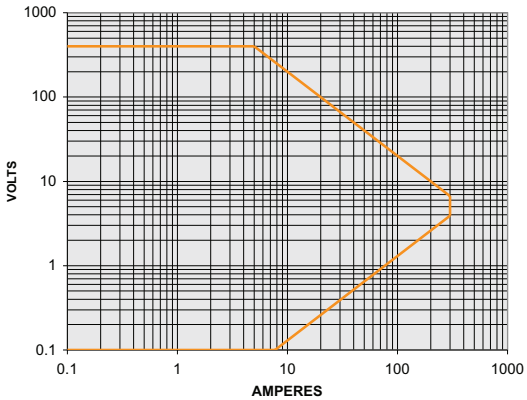
High Ohms Mode

Range	20A	200A	300A	
20V	0.5	5.0	7.5	A/V
200V	0.05	0.5	0.75	A/V
400V	0.025	0.25	0.375	A/V

Low Ohms Mode

Range	20A	200A	300A	
20V	5.0	50.0	75.0	A/V
200V	0.5	2.5	7.5	A/V
400V	0.25	2.5	3.75	A/V

INPUT CHARACTERISTICS:



XBL 600-100-2000 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 20 Volts, 200 Volts, 600 Volts
Current: 2 Amps, 20 Amps, 100 Amps
Power: 2000 Watts
Short Circuit: 0.04 Ohms max.

CONSTANT RESISTANCE RANGES

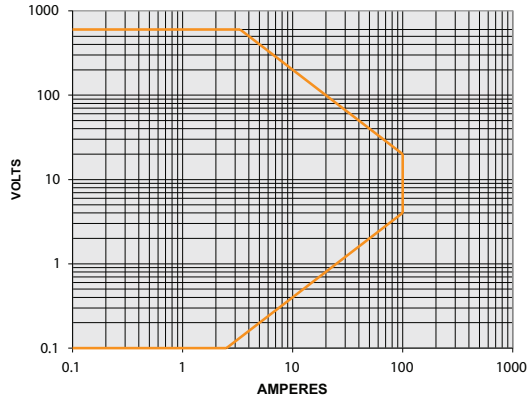
High Ohms Mode

Range	2A	20A	100A	
20V	0.05	0.5	2.5	A/V
200V	0.005	0.05	0.25	A/V
600V	0.001667	0.016667	0.083333	A/V

Low Ohms Mode

Range	2A	20A	100A	
20V	0.5	5.0	25.0	A/V
200V	0.05	0.5	2.5	A/V
600V	0.01667	0.166667	0.83333	A/V

INPUT CHARACTERISTICS:



XBL 50-1000-4000 AIR

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

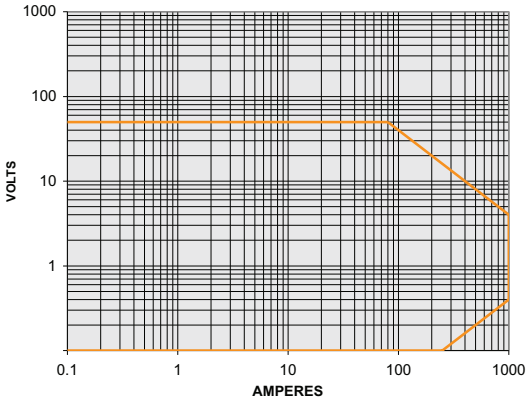
High Ohms Mode

Range	100A	500A	1000A	
10V	5.0	25.0	50.0	A/V
20V	2.5	12.5	25.0	A/V
50V	1.0	5.0	10.0	A/V

Low Ohms Mode

Range	100A	500A	1000A	
10V	50.0	250.0	500.0	A/V
20V	25.0	125.0	250.0	A/V
50V	10.0	50.0	100.0	A/V

INPUT CHARACTERISTICS:



XBL 100-600-4000 AIR

OPERATING RANGES (FULL SCALE range)

Voltage: 10 Volts, 50 Volts, 100 Volts
Current: 20 Amps, 200 Amps, 600 Amps
Power: 4000 Watts
Short Circuit: 0.0016 Ohms max.

CONSTANT RESISTANCE RANGES

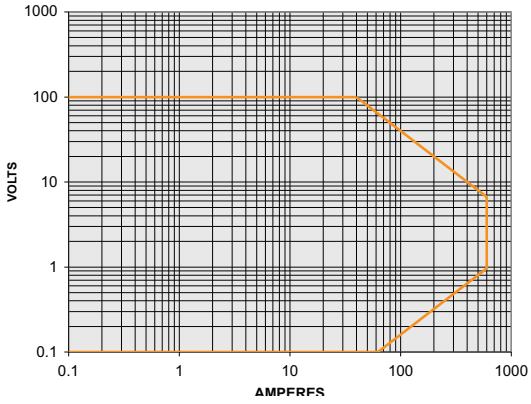
High Ohms Mode

Range	20A	200A	600A	
10V	1.0	10.0	30.0	A/V
50V	0.2	2.0	6.0	A/V
100V	0.1	1.0	3.0	A/V

Low Ohms Mode

Range	20A	200A	600A	
10V	10.0	100.0	300.0	A/V
50V	2.0	20.0	60.0	A/V
100V	1.0	10.0	30.0	A/V

INPUT CHARACTERISTICS:



XBL 400-600-4000 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 20 Volts, 200 Volts, 400 Volts
Current: 20 Amps, 200 Amps, 600 Amps
Power: 4000 Watts
Short Circuit: 0.0065 Ohms max.

CONSTANT RESISTANCE RANGES

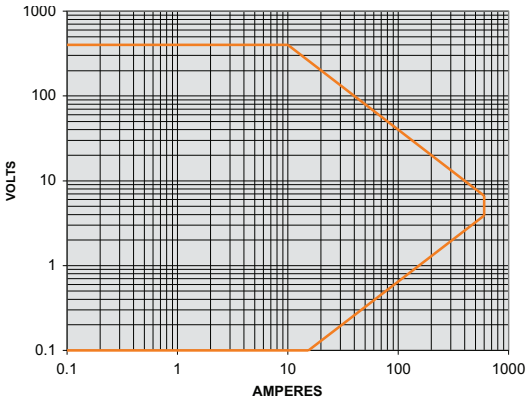
High Ohms Mode

Range	20A	200A	600A	
20V	0.5	5.0	15.0	A/V
200V	0.05	0.5	1.5	A/V
400V	0.025	0.25	0.75	A/V

Low Ohms Mode

Range	20A	200A	600A	
20V	5.0	50.0	150.0	A/V
200V	0.5	5.0	15.0	A/V
400V	0.25	2.5	7.5	A/V

INPUT CHARACTERISTICS:



XBL 600-200-4000 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 20 Volts, 200 Volts, 600 Volts
Current: 2 Amps, 20 Amps, 200 Amps
Power: 4000 Watts
Short Circuit: 0.019 Ohms max.

CONSTANT RESISTANCE RANGES

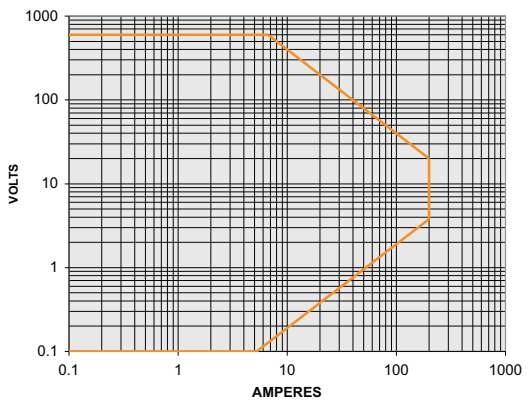
High Ohms Mode

Range	2A	20A	200A	
20V	0.05	0.5	5.0	A/V
200V	0.005	0.05	0.5	A/V
600V	0.001667	0.016667	0.166667	A/V

Low Ohms Mode

Range	2A	20A	200A	
20V	0.5	5.0	50.0	A/V
200V	0.05	0.5	5.0	A/V
600V	0.016667	0.166667	1.666667	A/V

INPUT CHARACTERISTICS:



SAFE OPERATING AREA & SPECIFICATIONS 4000W

SAFE OPERATING AREA & SPECIFICATIONS 6000W

XBL 100-600-6000 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 10 Volts, 50 Volts, 100 Volts
Current: 20 Amps, 200 Amps, 600 Amps
Power: 6000 Watts
Short Circuit: 0.0016 Ohms max.

CONSTANT RESISTANCE RANGES

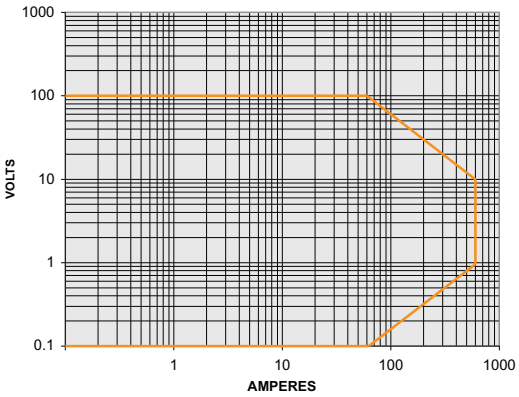
High Ohms Mode

Range	20A	200A	600A	
10V	1.0	10.0	30.0	A/V
50V	0.2	2.0	6.0	A/V
100V	0.1	1.0	3.0	A/V

Low Ohms Mode

Range	20A	200A	600A	
10V	10.0	100.0	300.0	A/V
50V	2.0	20.0	60.0	A/V
100V	1.0	10.0	30.0	A/V

INPUT CHARACTERISTICS:



XBL 400-600-6000 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 20 Volts, 200 Volts, 400 Volts
Current: 20 Amps, 200 Amps, 600 Amps
Power: 6000 Watts
Short Circuit: 0.0065 Ohms max.

CONSTANT RESISTANCE RANGES

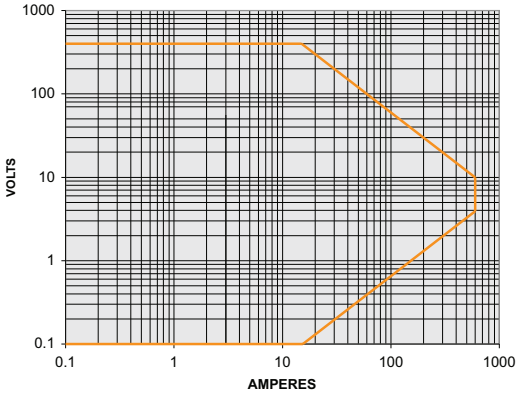
High Ohms Mode

Range	20A	200A	600A	
20V	0.5	5.0	15.0	A/V
200V	0.05	0.5	1.5	A/V
400V	0.025	0.25	0.75	A/V

Low Ohms Mode

Range	20A	200A	600A	
20V	5.0	50.0	150.0	A/V
200V	0.5	5.0	15.0	A/V
400V	0.25	2.5	7.5	A/V

INPUT CHARACTERISTICS:



XBL 600-200-6000 AIR

OPERATING RANGES (FULL SCALES)

Voltage: 20 Volts, 200 Volts, 600 Volts
Current: 2 Amps, 20 Amps, 200 Amps
Power: 6000 Watts
Short Circuit: 0.015 Ohms max.

CONSTANT RESISTANCE RANGES

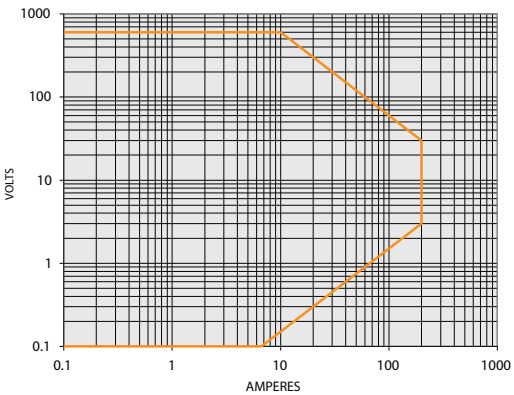
High Ohms Mode

Range	2A	20A	200A	
20V	0.05	0.5	5.0	A/V
200V	0.005	0.05	0.5	A/V
600V	0.001667	0.016667	0.166667	A/V

Low Ohms Mode

Range	2A	20A	200A	
20V	0.5	5.0	50.0	A/V
200V	0.05	0.5	5.0	A/V
600V	0.016667	0.166667	1.666667	A/V

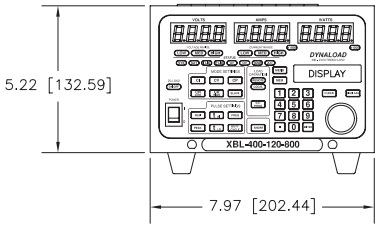
INPUT CHARACTERISTICS:



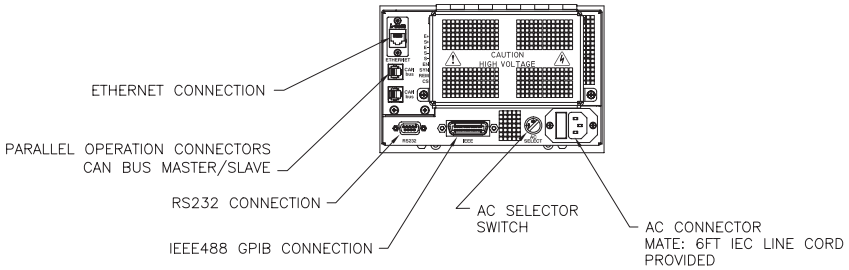
The XBL SERIES

Outlines...

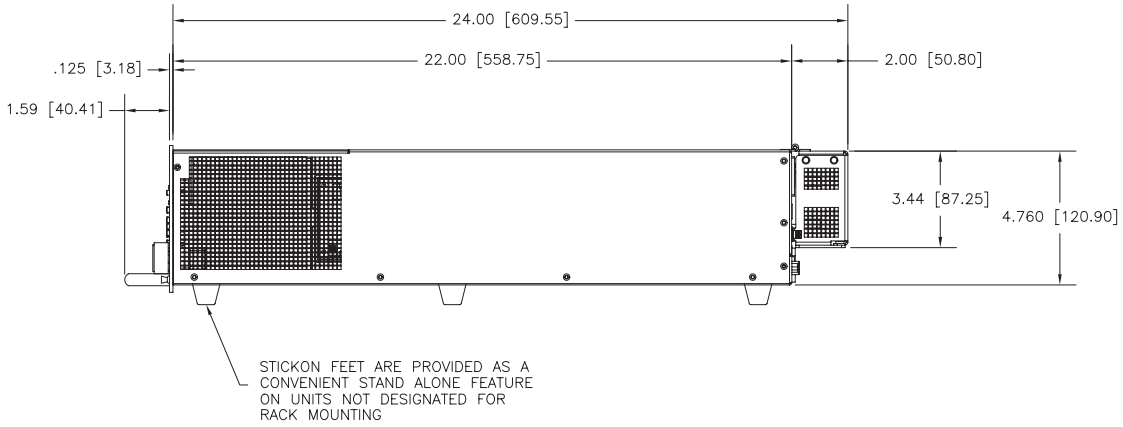
800W OUTLINE



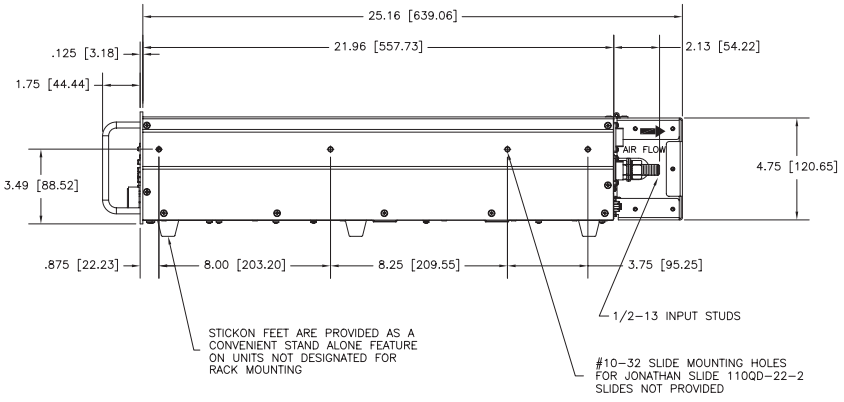
FRONT VIEW

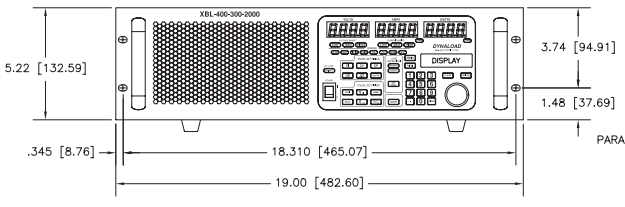


REAR VIEW

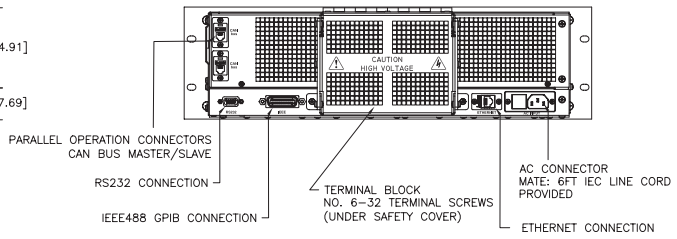


2000W OUTLINE





FRONT VIEW

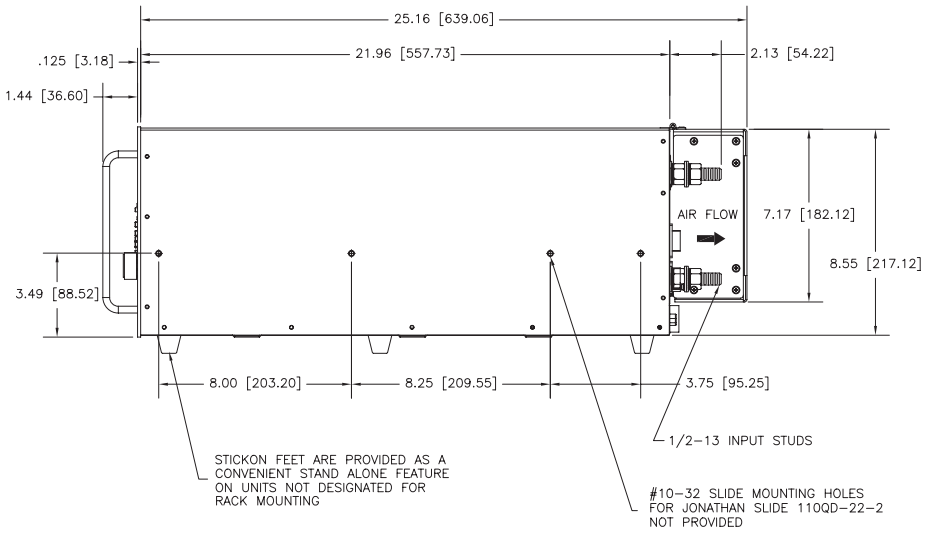


REAR VIEW

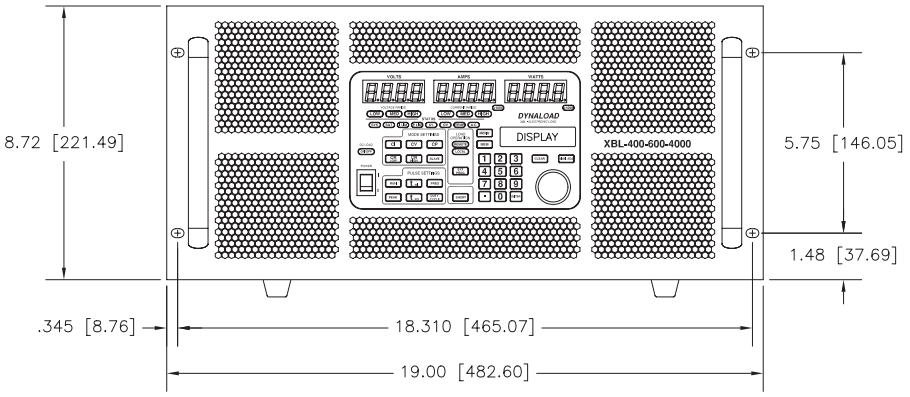
The XBL SERIES

Outlines...

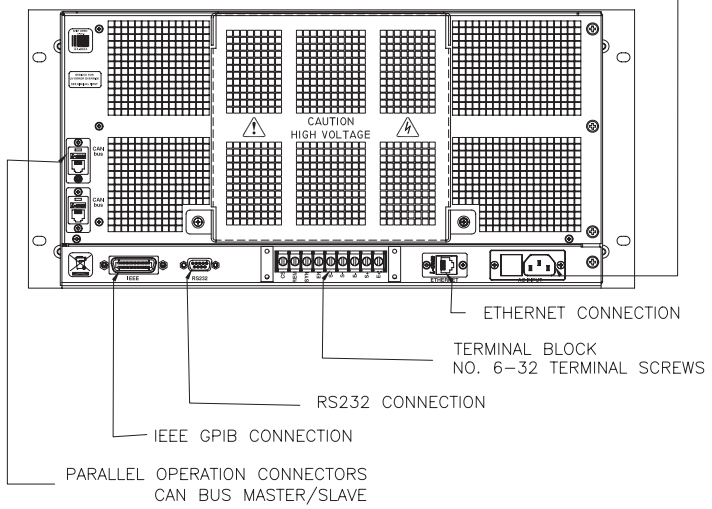
4000W OUTLINE



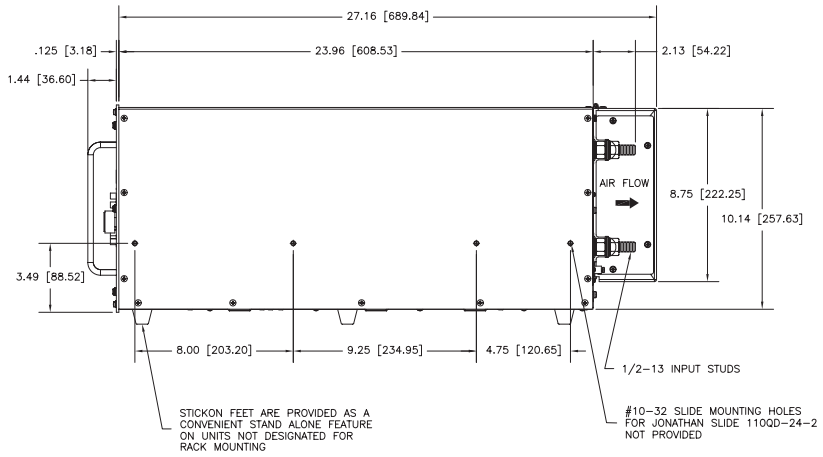
FRONT VIEW

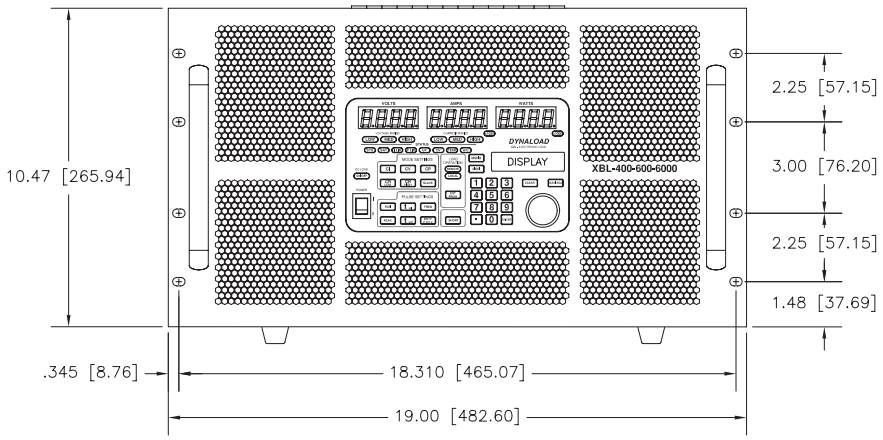


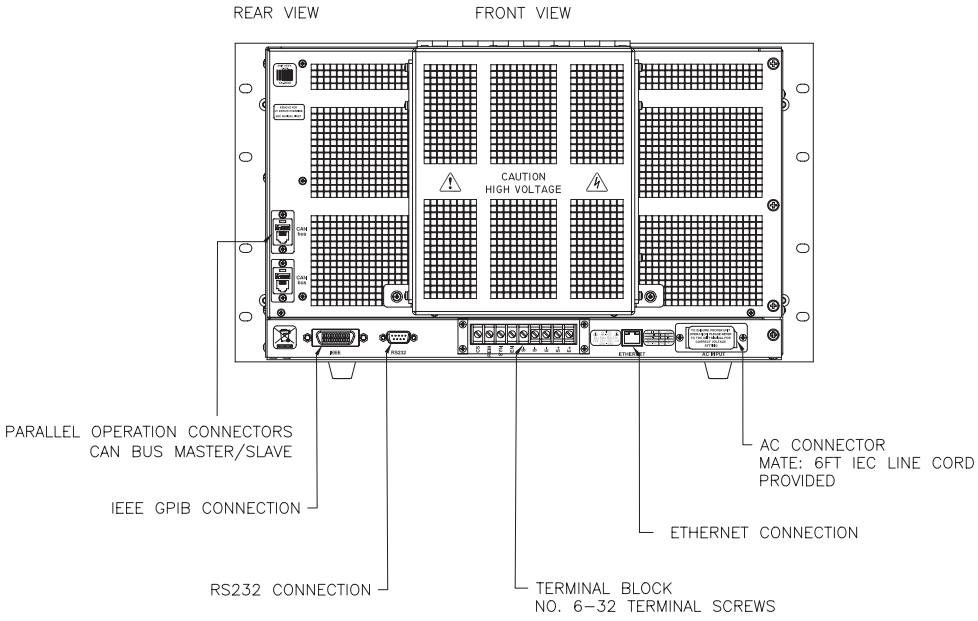
REAR VIEW



6000W OUTLINE







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