ELECTRONIC MEASUREMENTS INC.

EXX SERIES

PRODUCT DESCRIPTION

The EXX power supply is a programmable DC power supply designed for system or bench top applications. The EXX provides low ripple and noise along with excellent transient response.

For higher power requirements, the EXX can be easily combined with EXH Series supplies in dual, triple and quad configurations. With six standard models, three remote programming options and hundreds of configurations, the EXX is the flexible solution for your growing system.

For a power supply which will grow with your design, test or ATE environment, get the flexible, high performance EXX.

FEATURES

- Low output noise and ripple, excellent line and load regulation and fast transient response.
- LED meters with analog bar graphs for reading voltage and current.
- Optional overvoltage protection (OVP).
- Automatic crossover into voltage or current mode with LED indicator.
- Wide range of voltage/current combinations.
- Analog RS232 or GPIB programming (optional).

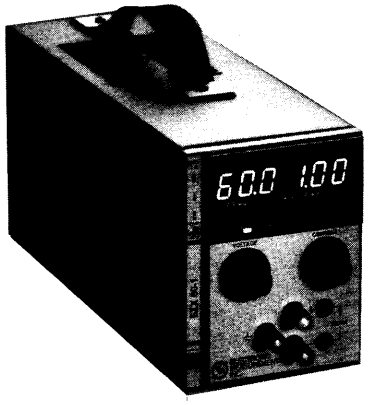
OPTIONS & ACCESSORIES

- **AC I/P:** Standard AC115, Optional AC220, AC230, AC240
- **AC I/P Cords:**
  NAO - Standard (125V, 10A/13A);
  NA1 - (N.Amer 250V, 10A);
  CE1 - (C. Eur. 250V, 13A);
  UK2 - (US 250V, 10A fuse);
  IN1 - (India 250V, 6A);
  XX1 - (Other 250V, 10A user plug)
- **M11:** 10-turn Current Potentiometer
- **RM:** Rack Mount Kit
- **APG: Internal Analog Programming Interface** - Includes overvoltage protection (OVP), remote ON/OFF, master/slave tracking.
- **GPIB: Internal GPIB Interface** - Full feature GPIB programming with 14-bit resolution and software calibration.
- **SAMI: Single Address Multichannel Interface** to serial link up to 31 supplies at one IEEE-488 address. Complete internal programming as with the GPIB interface.
- **RS232: Internal RS232 Interface:** Serial instrument programming using the RS232 protocol.

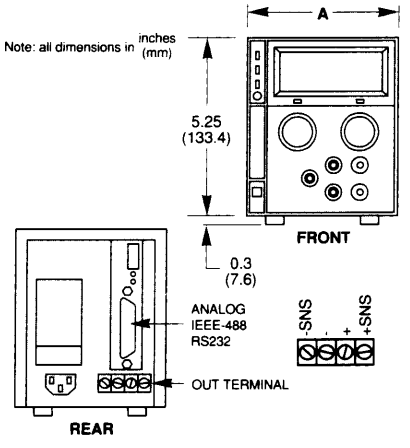
MODELS

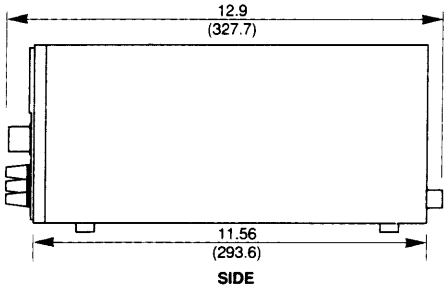
Model-	Voltage	Current
EXX 7-6	0-7V	0-6A
EXX 15-4	0-15V	0-4A
EXX 20-3	0-20V	0-3A
EXX 30-2	0-30V	0-2A
EXX 60-1	0-60V	0-1A
EXX 120-0.5	0-120V	0-0.5A

60 WATT DC POWER SUPPLY



DIMENSIONS





MODEL	A (width)	WEIGHT lb.	WEIGHT kg.
SINGLE	4.25 (107.9)	9.5	4.3
DUAL	8.5 (215.0)	17.9	8.1
TRIPLE	12.75 (323.8)	26.3	12.0
QUAD with rack	19 (482.6)	36.7	16.7

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EXX SERIES

60 Watt DC Power Supply

SPECIFICATIONS[1]

MODELS	EXX 7-6	EXX 15-4	EXX 20-3	EXX 30-2	EXX 60-1	EXX 120-0.5
Output Ratings						
Output Voltage	0-7V	0-15V	0-20V	0-30V	0-60V	0-12V
Output Current	0-6A	0-4A	0-3A	0-2A	0-1A	0-0.5A
Output Power	42W	60W	60W	60W	60W	60W
Line Regulation[2]						
Voltage (0.01% of Vmax+2mV)	2.7mV	3.5mV	4mV	5mV	8mV	14mV
Current (0.1% of Imax+250uA)	0.85mA	0.65mA	0.55mA	0.45mA	0.35mA	0.3mA
Load Regulation[3]						
Voltage (0.01% of Vmax+2mV)	2.7mV	3.5mV	4mV	5mV	8mV	14mV
Current (0.1% of Imax+1mA)	0.85mA	0.65mA	0.55mA	0.45mA	0.35mA	0.3mA
Meter Accuracy						
Voltage (1% of Vmax+1 count)	0.08V	0.25V	0.3V	0.4V	0.7V	2.2V
Current (1% of Imax+1 count)	0.07A	0.05A	0.04A	0.03A	0.02A	0.006A
Output Noise & Ripple (rms)						
Voltage	1mV	1mV	1mV	1mV	1mV	1mV
Current	2mA	2mA	2mA	2mA	2mA	2mA

[1]Specifications are warranted over a temperature range of 0-30°C with default local sensing. Above 30°C, derate output linearly to zero at 70°C
[2]For input voltage variation over the AC input voltage range with constant rated load
[3]For 0-100% load variation, with constant nominal line voltage

AC input: 104-127Vac at 1.2A, 57-63Hz
Maximum Voltage Differential from output to safety ground: 400 Vdc

ADDITIONAL CHARACTERISTICS

MODELS	EXX 7-6	EXX 16-4	EXX 20-3	EXX30-2	EXX 60-1	EXX 120-0.5
Stability[4]						
Voltage (0.2% of Vmax)	1.4mV	3mV	4mV	6mV	12mV	24mV
Current (0.3% of Imax)	1.8mA	1.2mA	0.9mA	0.6mA	0.3mA	0.15mA
Temperature Coefficent[5]						
Voltage (0.015% of Vmax/°C)	1.05mV	2.25mV	3mV	4.5mV	9mV	18mV
Current (0.02% of Imax/°C)	1.2mA	0.8mA	0.6mA	0.4mA	0.2mA	0.1mA

[4]Drift over 8 hours after 60 minute warmup
[5]Change in output per OC change in ambient temperature, with constant line and load

Operating Ambient Temperature: 0-30°C with default local sensing. Above 30° derate output linearly to zero at 70°C
Storage Temperature Range: −55 to +85°C
Humidity Range: 0-80% RH Non-condensing
Front Panel Control: 10-turn voltage and 1-turn current potentiometers (10-turn current control optional)
Front Panel Voltage Control Resolution: 0.2% of Vmax
Voltage Mode Transient Response Time: 100 μs recovery to 0.05% band for ±50% load change in the range of 25% to 100% of the rated load
Agency Approvals: CSA

Internal GPIB/RS232 Interface Specifications

EXH SERIES	VOLTAGE MODE		CURRENT MODE		OVP	
	Resolution	Accuracy	Resolution	Accuracy	Resolution	Accuracy
Program	0.01% of Vmax	0.14% of Vmax	0.01% of Imax	0.11% of Imax	0.01% of Vmax	1.0% of Vmax
Readback	0.01% of Vmax	0.19% of Vmax	0.01% of Imax	0.16% of Imax	—	—

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