

EXH SERIES

PRODUCT DESCRIPTION

The EXH power supply is a 300 watt programmable DC power supply designed for system or bench top applications. The EXH offers exceptional regulation, transient response and low ripple. It packs 300 Watts of power into a 1/4 rack weighing under 8 pounds.

For even higher precision requirement, EXH power supplies can be easily combined with EXX Series supplies in dual, triple and quad configurations with an optional 19-inch rack adapter. For enhanced control, you can upgrade the EXH from front panel control to remote analog signal or to computer programming.

EXH Supplies are designed and manufactured according to stringent Quality Standards. They are covered by a three year warranty and fully supported with parts, service and application advice.

For big power in a small package, choose the EXH DC power supply.

FEATURES

- Excellent regulation and transient response.
- Automatic crossover into voltage or current mode with an LED indicator.
- Single, dual, triple and quad outputs configurations.
- LED meters with analog bar graphs for voltage and current reading.
- Analog, GPIB or RS232 programming (optional).

- Optional overvoltage protection (OVP)

OPTIONS & ACCESSORIES

- **AC I/P:** Standard AC115, Optional AC220 (200-250V)
- **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 fuse);
 - 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

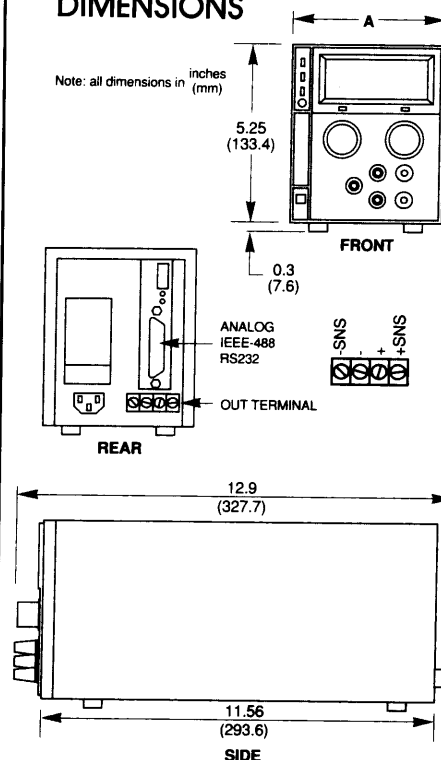
Model-	Voltage	Current
EXH 15-20	0-15V	0-20A
EXH 30-10	0-30V	0-10A
EXH 60-5	0-60V	0-5A

300 WATT DC POWER SUPPLY



DIMENSIONS

Note: all dimensions in inches (mm)



MODEL	A (width)	WEIGHT	
		lb.	kg.
SINGLE	4.25 (107.9)	7.7	3.5
DUAL	8.5 (215.9)	14.2	6.5
TRIPLE	12.75 (323.8)	20.6	9.4
QUAD with rack	19 (482.6)	33.7	15.3

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300 Watt DC Power Supply

SPECIFICATIONS¹

MODELS	EXH 15-20	EXH 30-10	EXH 60-5
Output Ratings			
Output Voltage	0-15V	0-30V	0-60V
Output Current	0-20A	0-10A	0-5A
Output Power	300W	300W	300W
Line Regulation ²			
Voltage (0.01% of Vmax + 2mV)	3.5mV	5mV	8mV
Current (0.1% of Imax + 1mA)	3mA	2mA	1.5mA
Load Regulation ³			
Voltage (0.01% of Vmax + 2mV)	3.5mV	5mV	8mV
Current (0.1% of Imax + 1mA)	3mA	2mA	1.5mA
Meter Accuracy			
Voltage (1% of Vmax + 1 count)	0.25V	0.4V	0.7V
Current (1% of Imax + 1 count)	0.3A	0.2A	0.06A
Output Noise & Ripple at rear			
(20Hz-20MHz) RMS	5mV	5mV	5mV
P-P	100mV	100mV	100mV

¹Specifications 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

²For input voltage variation over the AC input voltage range with constant rated load

³For 0-100% load variation, with constant nominal line voltage

AC input: 104-127Vac at 6Arms, 57-63Hz

Maximum Voltage Differential from output to safety ground: 400 Vdc

ADDITIONAL CHARACTERISTICS

MODELS	EXH 15-20	EXH 30-10	EXH 60-5
Stability ⁴			
Voltage (0.2% of Vmax)	3mV	6mV	12mV
Current (0.3% of Imax)	6mA	3mA	1.5mA
Temperature Coefficient ⁵			
Voltage (0.015% of Vmax/°C)	2.25mV	4.5mV	9mV
Current (0.02% of Imax/°C)	4mA	2mA	1mA

⁴Drift over 8 hours after 60 minute warmup

⁵Change 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: < 500µs recovery to 0.05% band for ±50% load change in the range of 25% to 100% of the rated load

Agency Approvals: CSA, FCC Part 15, Subpart J, Class A standards for radiated and conducted emissions.

Internal GPIB/RS232 Interface Specifications

EXH SERIES	VOLTAGE MODE		CURRENT MODE		OVP	
	Resolution	Accuracy	Resolution	Accuracy	Resolution	Accuracy
Program	0.01% of Vmax	0.12% of Vmax	0.01% of Imax	0.11% of Imax	0.01% of Vmax	1.0% of Vmax
Readback	0.01% of Vmax	0.17% of Vmax	0.01% of Imax	0.16% of Imax	—	—

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