

# Power Supplies

## Modular AC/DC Power Supplies

### GENERAL DESCRIPTION

Analog Devices offers a broad line of modular ac/dc power supplies that provide both OEMs and designers a reliable, easy to use, low-cost solution to their power requirements. Models are available in PC mountable and chassis mountable designs with 5 volt to 15 volt (single, dual, triple) outputs and current ratings from 25 mA to 5 amps. Since these modular supplies are fully encapsulated, no trimming or external component selection is necessary; simply mount the unit, connect power and output leads, and you're on the air! Most Analog Devices' power supplies are available from stock in both large and small quantities with substantial discounts being applied to large quantity orders.

### AC/DC POWER SUPPLY FEATURES

- Current Limit Short Circuit Protection
- PC Mounted and Chassis Mounted Versions
- Single (+5 V), Dual ( $\pm 12$  V,  $\pm 15$  V), and Triple ( $\pm 15$  V/+5 V,  $\pm 15$  V/+1 V to +15 V) Output Supplies
- Current Outputs:
  - 25 mA to 1000 mA for Dual and Triple Output Supplies
  - 250 mA to 5000 mA for Single Output Supplies
- Wide Input Voltage Range
- Low Output Ripple and Noise
- Excellent Line & Load Regulation Characteristics
- High Temperature Stability
- Free-Air Convection Cooling; No External Heat Sink Required

### GENERAL SPECIFICATIONS

#### Power Requirements

Input Voltage Range: 105 V ac to 125 V ac  
 Frequency: 50 Hz to 250 Hz

#### Electrical Specifications

Temperature Coefficient: 0.02%/°C  
 Output Voltage Accuracy:  $\pm 2\%$ , max

See Specifications Table  
 Breakdown Voltage: 500 V rms, min  
 Isolation Resistance: 50 M $\Omega$

Short Circuit Protection: All ac/dc power supplies employ current limiting. They can withstand substantial overload including direct short. Prolonged operation should be avoided since excessive temperature rises will occur.

#### Environmental Requirements

Operating Temperature Range:  $-25^{\circ}\text{C}$  to  $+71^{\circ}\text{C}$

Storage Temperature Range:  $-25^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

### SPECIFICATIONS - Typical @ $+25^{\circ}\text{C}$ and 115 V ac 60 Hz unless otherwise noted\*

Type	Model	Output Voltage Volts	Output Current mA	Line Reg. %	Load Reg. %	Output Voltage Error max	Ripple & Noise mV rms max	Dimensions Inches		
PC Board Mounted	904	$\pm 15$	$\pm 50$	0.02	0.02	$\pm 200$ mV -0 mV	0.5	3.5 $\times$ 2.5 $\times$ 0.875		
	902	$\pm 15$	$\pm 100$	0.02	0.02	+300 mV -0 mV	0.5	3.5 $\times$ 2.5 $\times$ 1.25		
	Dual Output	902-2	$\pm 15$	$\pm 100$	0.02	0.02	+300 mV -0 mV	0.5	3.5 $\times$ 2.5 $\times$ 0.875	
		920	$\pm 15$	$\pm 200$	0.02	0.02	+300 mV -0 mV	0.5	3.5 $\times$ 2.5 $\times$ 1.25	
	925	$\pm 15$	$\pm 350$	0.02	0.02	$\pm 1\%$	0.5	3.5 $\times$ 2.5 $\times$ 1.62		
	921	$\pm 12$	$\pm 240$	0.02	0.02	+300 mV -0 mV	0.5	3.5 $\times$ 2.5 $\times$ 1.25		
	Single Output	905	5	1000	0.02	0.05	$\pm 1\%$	1	3.5 $\times$ 2.5 $\times$ 1.25	
		922	5	2000	0.02	0.05	$\pm 1\%$	1	3.5 $\times$ 2.5 $\times$ 1.62	
		928	5	3000	0.05	0.10	$\pm 2\%$	5 (typ)	3.5 $\times$ 2.5 $\times$ 1.25	
		Triple Output	923	$\pm 15$ +5	$\pm 100$ 500	0.02 0.02	0.02 0.05	$\pm 1\%$ -1%	0.5 0.5	3.5 $\times$ 2.5 $\times$ 1.25
			927	$\pm 15$ +5	$\pm 150$ 1000	0.02 0.02	0.02 0.10	$\pm 2\%$ $\pm 2\%$	0.5 (typ) 1.0 (typ)	3.5 $\times$ 2.5 $\times$ 1.62
			2B35J	$\pm 15$ +1 to +15**	$\pm 65$ 125	0.08 0.08	0.1 0.1	(-0, +300 mV) 0.25	0.5	3.5 $\times$ 2.5 $\times$ 1.25
2B35K			$\pm 15$ +1 to +15**	$\pm 65$ 125	0.01 0.01	0.02 0.02	(-0, +300 mV) 0.25	0.5	3.5 $\times$ 2.5 $\times$ 1.25	
Chassis Mounted		952	$\pm 15$	$\pm 100$	0.05	0.05	$\pm 2\%$	1	4.4 $\times$ 2.7 $\times$ 1.45	
		970	$\pm 15$	$\pm 200$	0.05	0.05	$\pm 2\%$	1	4.4 $\times$ 2.7 $\times$ 1.45	
		Dual Output	973	$\pm 15$	$\pm 350$	0.05	0.05	$\pm 2\%$	1	4.4 $\times$ 2.7 $\times$ 2.00
	975		$\pm 15$	$\pm 500$	0.05	0.05	$\pm 2\%$	1	4.4 $\times$ 2.7 $\times$ 2.00	
	Single Output	955	5	1000	0.05	0.15	$\pm 2\%$	2	4.4 $\times$ 2.7 $\times$ 1.45	
		976	5	3000	0.05	0.10	$\pm 2\%$	5 (typ)	4.75 $\times$ 2.7 $\times$ 1.45	
		977	5	5000	0.05	0.10	$\pm 2\%$	5 (typ)	4.75 $\times$ 2.7 $\times$ 1.45	
	Triple Output	972	$\pm 15$ +5	$\pm 150$ 300	0.02 0.02	0.02 0.10	$\pm 2\%$ $\pm 2\%$	0.5 (typ) 1.0 (typ)	4.75 $\times$ 2.7 $\times$ 1.45	
		974	$\pm 15$ +5	$\pm 150$ 1000	0.02 0.02	0.02 0.10	$\pm 2\%$ $\pm 2\%$	0.5 (typ) 1.0 (typ)	4.75 $\times$ 2.7 $\times$ 1.45	

\*Consult Analog Devices Power Supplies Catalog for additional information.

\*\*Resistor programmable.

Specifications subject to change without notice.