



LINEAR ENCAPSULATED POWER MODULES

REGULATED 5Vdc-250Vdc
P.C. CARD OR CHASSIS MOUNTING



FEATURES

- **UL, CE & CSA
Approved (All Models)**
- **Regulation Line &
Load 0.2% to 0.02%**
- **P.C. Card/Chassis
Mounting**
- **High Isolation Voltage
Available**
- **Short Circuit
Protection**
- **Single, Dual & Triple
Outputs**
- **Finger Safe Terminal
Available**

P3, P5 Series

Specifications

115 Vac, 50 to 400 Hz @ 25°C

INPUT

Voltage Range.....105-125 Vac, 50-60 Hz
.....400Hz available

OUTPUT

Voltage Accuracy @ FL for Singles,±1.0%
Line Regulation: Single Output.....±0.2%
Load Regulation: Single Output.....±0.2%
Temperature Coefficient±0.02%/°C typ.

GENERAL

Isolation Resistance.....50MOhms
Protection.....Short Circuit Protection

ENVIRONMENTAL

Operating Temperature Range.....-25 to +71°C
.....-40 to +85°C Optional
Storage Temperature Range.....-25 to +85°C
Cooling.....Free Air Convection

PHYSICAL

Dimensions.....See Chart and Diagrams

1. Case style ending with letter "T" (Chassis mounted units with terminal barrier strip) are designated by the suffix "T". Case styles A,B,C,D,G and E (PC card mounting) do not require suffixing.
2. **Most competitors pinouts available--contact factory.**
3. For 400HZ, use suffix "04" after model number.
4. For wide operating temperature range, use "W" suffix after model number, \$20 price increase at 1-9 quantity.

FAST DELIVERY

Selection Guide

(Continued)

	Output (Vdc)	Output Current (mA)	Regulation		Ripple & (mV rms)	Case	Model Number	Slow Blow (A)	
			Line	Load					
SINGLE OUTPUT VOLTAGE	5	200	0.20%	0.20%	1.0	G, 1GT	P34-5SM	1/32	
		500	0.20%	0.20%	0.5	A, 1AT	P37	1/16	
		500	0.02%	0.05%	0.5	A, 1AT	P37-1	1/16	
		1000	0.20%	0.20%	1.0	B, 1BT	P38	1/8	
		1000	0.02%	0.05%	1.0	B, 1BT	P38-1	1/8	
		1000	0.02%	0.05%	0.5	C, 1CT	P38/1.56	1/8	
		2000	0.02%	0.10%	1.0	C, 1CT	P39	1/4	
		3000	0.02%	0.15%	1.0	D, 1DT	P39-3	3/8	
	10	120	0.10%	0.10%	1.0	E, 1ET	P33-10SM	1/32	
		150	0.10%	0.10%	1.0	A, 1AT	P33-10S	1/16	
		250	0.10%	0.10%	1.0	B, 1BT	P34-10S	1/16	
		500	0.02%	0.05%	0.5	C, 1CT	P37-10S	1/8	
		1000	0.02%	0.05%	0.5	D, 1DT	P38-10S	3/8	
	12	1500	0.02%	0.05%	0.5	D, 1DT	P38-10SA	1/4	
		100	0.10%	0.10%	1.0	E, 1ET	P32-12SM	1/32	
		120	0.02%	0.10%	1.0	A, 1AT	P33-12S	1/16	
		200	0.10%	0.10%	1.0	B, 1BT	P34-12S	1/16	
		500	0.02%	0.10%	0.5	C, 1CT	P37-12S	1/5	
	15	1000	0.10%	0.10%	1.0	D, 1DT	P38-12S	3/10	
		80	0.10%	0.10%	1.0	E, 1ET	P33-15SM	1/32	
		120	0.02%	0.10%	1.0	A, 1AT	P33-12S	1/16	
		200	0.10%	0.10%	1.0	B, 1BT	P34-15S	1/10	
		300	0.10%	0.10%	1.0	C, 1CT	P35-15S	1/8	
	18	500	0.02%	0.10%	0.5	C, 1CT	P37-15S	1/5	
		800	0.02%	0.10%	1.0	D, 1DT	P38-15S	3/10	
		50	0.10%	0.10%	1.0	E, 1ET	P32-18SM	1/32	
		50	0.02%	0.05%	1.0	A, 1AT	P32-18S	1/32	
		100	0.02%	0.05%	1.0	B, 1BT	P33-18S	1/16	
	24	100	0.10%	0.10%	1.0	E, 1ET	P32-24SM	1/32	
		100	0.10%	0.10%	1.0	A, 1AT	P33-24S	1/16	
		200	0.10%	0.10%	1.0	B, 1BT	P34-24S	1/8	
		300	0.10%	0.10%	1.0	C, 1CT	P35-24S	1/5	
		500	0.10%	0.10%	1.0	D, 1DT	P37-24S	1/4	
	48	800	0.10%	0.10%	1.0	H, 1HT	P38-24S	3/8	
		1000	0.10%	0.10%	1.0	H, 1HT	P39-24S	1/2	
		50	0.20%	0.20%	2.0	B, 1BT	P32-48S	1/16	
		100	0.20%	0.20%	2.0	B, 1BT	P33-48S	1/8	
		200	0.20%	0.20%	2.0	C, 1CT	P34-48S	1/4	
	50	50	0.05%	0.20%	2.0	B, 1BT	P32-50S	1/16	
		100	0.05%	0.20%	2.0	B, 1BT	P33-50S	1/8	
		200	0.05%	0.20%	2.0	C, 1CT	P34-50S	1/4	
		300	0.20%	0.20%	3.0	D, 1DT	P35-50S	3/8	
	75	35	0.05%	0.20%	2.0	B, 1BT	P32-75S	1/10	
		70	0.05%	0.20%	2.0	B, 1BT	P33-75S	1/5	
		150	0.05%	0.20%	2.0	C, 1CT	P34-75S	3/10	
		200	0.10%	0.20%	3.0	D, 1DT	P35-75S	3/8	
	100	25	0.05%	0.20%	2.0	B, 1BT	P32-100S	1/16	
		50	0.05%	0.20%	2.0	B, 1BT	P33-100S	1/8	
		100	0.05%	0.20%	3.0	C, 1CT	P34-100S	1/4	
		150	0.10%	0.20%	3.0	D, 1DT	P35-100S	3/8	

1. Case style ending with letter "T" (Chassis mounted units with terminal barrier strip) are designated by the suffix "T". Case styles A,B,C,D,G and E (PC card mounting) do not require suffixing.

2. **Most competitors pinouts available--contact factory.**

3. For 400HZ, use suffix "04" after model number.

4. For wide operating temperature range, use "W" suffix after model number, \$20 price increase at 1-9 quantity.

Selection Guide

(Continued)

	Output (Vdc)	Output Current (mA)	Regulation		Ripple & (mV rms)	Case	Model Number	Slew Rate (A)	
			Line	Load					
SINGLE OUTPUT	150	17	0.05%	0.20%	2.0	A, 1AT	P32-150S	1/16A	
		35	0.05%	0.20%	3.0	B, 1BT	P33-150S	2/10A	
		70	0.05%	0.20%	3.0	C, 1CT	P34-150S	1/4A	
		100	0.20%	0.20%	3.0	D, 1DT	P35-150S	3/8A	
	180	15	0.05%	0.20%	3.0	B, 1BT	P32-180S	1/16	
		30	0.05%	0.20%	3.0	B, 1BT	P33-180S	1/5	
		55	0.05%	0.20%	3.0	C, 1CT	P34-180S	1/4	
		80	0.10%	0.20%	3.0	D, 1DT	P35-180S	3/8	
	200	12	0.05%	0.20%	3.0	B, 1BT	P32-200S	1/16	
		25	0.05%	0.20%	3.0	B, 1BT	P33-200S	1/8	
		50	0.05%	0.20%	3.0	C, 1CT	P34-200S	1/4	
		75	0.10%	0.20%	3.0	D, 1DT	P35-200S	3/8	
	250	10	0.05%	0.20%	3.0	B, 1BT	P32-250S	1/16	
		20	0.05%	0.20%	3.0	B, 1BT	P33-250S	1/8	
		40	0.05%	0.20%	3.0	C, 1CT	P34-250S	1/4	
		60	0.10%	0.20%	3.0	D, 1DT	P35-250S	3/8	
DUAL OUTPUTS	±5	±50	0.02%	0.02%	1.0	A, 2AT	P32-5	1/32	
		±100	0.10%	0.10%	1.0	A, 2AT	P33-5	1/32	
		±200	0.10%	0.10%	1.0	B, 2BT	P34-5	1/16	
		±300	0.02%	0.05%	0.5	C, 2CT	P35-5	1/10	
		±500	0.02%	0.05%	0.5	C, 2CT	P37-5	1/8	
		±1000	0.01%	0.10%	1.0	D, 2DT	P38-5	1/4	
	±8	±500	0.10%	0.10%	82.0	D, 2DT	P37-8	1/5	
	±10	±100	0.02%	0.05%	82.0	A, 2AT	P33-10	1/16	
	±12	±25	0.10%	0.10%	2.0	G, 1GT	P31-12M	1/32	
		±25	0.02%	0.05%	5.0	A, 2AT	P31-12	1/32	
		±50	0.02%	0.05%	5.0	A, 2AT	P32-12	1/32	
		±100	0.10%	0.10%	1.0	A, 2AT	P33-12	1/16	
		±200	0.10%	0.10%	1.0	B, 2BT	P34-12	1/8	
		±300	0.10%	0.10%	1.0	C, 2CT	P35-12	1/5	
		±500	0.10%	0.10%	1.0	D, 2DT	P37-12	3/10	
		±800	0.10%	0.10%	1.0	D, 2DT	P38-12	2/5	
	±15	±25	0.10%	0.10%	2.0	G, 1GT	P31-M	1/32	
		±25	0.20%	0.20%	1.0	A, 2AT	P31	1/32	
		±25	0.02%	0.02%	0.5	A, 2AT	P31-1	1/32	
		±50	0.20%	0.20%	1.0	A, 2AT	P32	1/16	
		±50	0.02%	0.02%	0.5	A, 2AT	P32-1	1/16	
		±100	0.20%	0.20%	1.0	A, 2AT	P33	1/10	
		±100	0.02%	0.02%	1.0	A, 2AT	P33-1	1/10	
		±200	0.20%	0.20%	1.0	B, 2BT	P34	1/5	
		±200	0.02%	0.05%	1.0	B, 2BT	P34-1	1/5	
		±350	0.20%	0.20%	1.0	C, 2CT	P35	1/4	
		±350	0.02%	0.05%	1.0	C, 2CT	P35-1	1/4	
		±500	0.10%	0.10%	1.0	D, 2DT	P37-15	3/8	
		±800	0.10%	0.10%	1.0	D, 2DT	P38-15	1/2	
	±18	±50	0.10%	0.10%	1.0	A, 2AT	P32-18	1/16	
		±100	0.10%	0.10%	1.0	B, 2BT	P33-18	1/10	
	±24	±50	0.10%	0.10%	1.0	B, 2BT	P32-24	1/16	
		±100	0.10%	0.20%	1.0	B, 2BT	P33-24	1/8	
		±200	0.10%	0.20%	1.0	C, 2CT	P34-24	1/4	
TRIPLE VOLTAGE	5/±12	250/±60	0.02%	0.10%	1.0	C, 3CT	P51-12	1/10	
		250/±120	0.02%	0.10%	1.0	C, 3CT	P52-12	1/10	
		300/±180	0.02%	0.10%	1.0	C, 3CT	P53-12L	1/5	
		500/±120	0.02%	0.10%	1.0	C, 3CT	P53-12	1/5	
		1000/±150	0.02%	0.10%	1.0	0.30T	P53-1280	1/4	
	5/±15	250/±50	0.02%	0.10%	1.0	C, 3CT	P51-15	1/10	
		250/±100	0.02%	0.10%	1.0	C, 3CT	P52-15	1/10	
		300/±150	0.02%	0.10%	1.0	C, 3CT	P53-15L	1/5	
		500/±100	0.02%	0.10%	1.0	C, 3CT	P53-15	1/5	
		1000/±150	0.02%	0.10%	1.0	C, 3CT	P53-1580	1/4	

1. Case style ending with letter "T" (Chassis mounted units with terminal barrier strip) are designated by the suffix "T".

Case styles A,B,C,D,G and E (PC card mounting) do not require suffixing.

2. **Most competitors pinouts available--contact factory.**

3. For 400HZ, use suffix "04" after model number.

4. For wide operating temperature range, use "W" suffix after model number, \$20 price increase at 1-9 quantity.

© 2006 The Authors
Journal compilation © 2006 Blackwell Publishing Ltd

OPTIONS AVAILABLE	SUFFIX	
220Vac	X	
230Vac	XA	
240Vac	XE	
100Vac	Q	
115/220	AX	
Alternate Pin-Out	22	
Chassis mounting with terminal barrier strip (case styles ending with letter ("T"))	T	
Finger Safe Chassis Mount Terminal Barrier Strip	FST	
Wide Oper. Temp. Range	W	
400Hz	04	

Chassis mounting with terminal barrier strip (case styles ending with letter ("T"))

Finger Safe Chassis Mount
Terminal Barrier Strip

Wide Oper. Temp. Range
400Hz

② Most competitors pinouts available--contact factory.

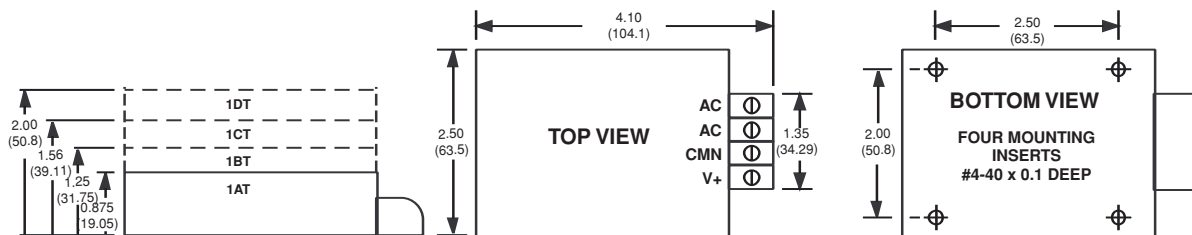
All Dimensions are in inches (mm)

Page 4 of 6

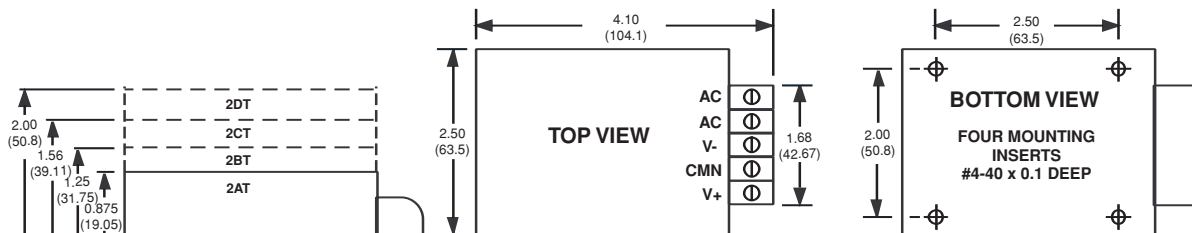
Power Supply Options

(Continued)

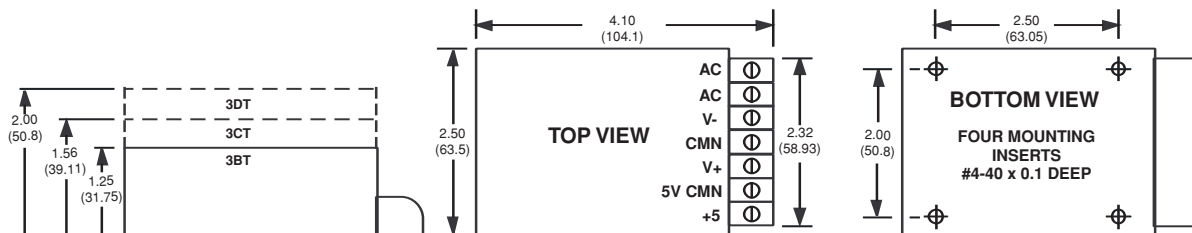
CHASSIS MOUNTED UNITS



SINGLE OUTPUT MODELS



DUAL OUTPUT MODELS

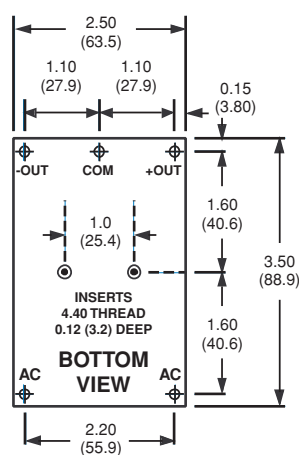


TRIPLE OUTPUT MODELS

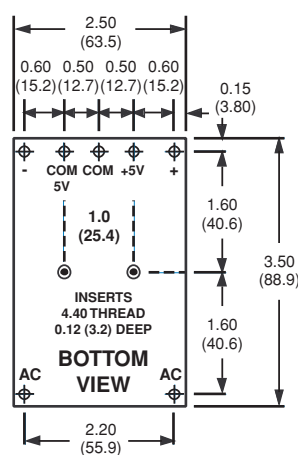
All Dimensions are in inches (mm)

ALTERNATE PIN-OUT

SINGLE & DUAL OUTPUT MODELS

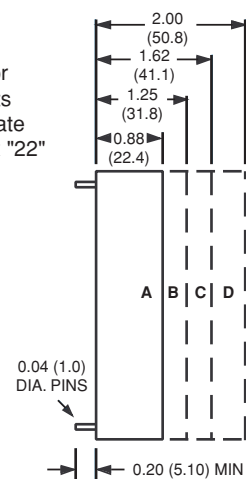


TRIPLE OUTPUT MODELS



Note:
* No connection for single output units
* To specify alternate pin-out use suffix "22"

SIDE VIEW

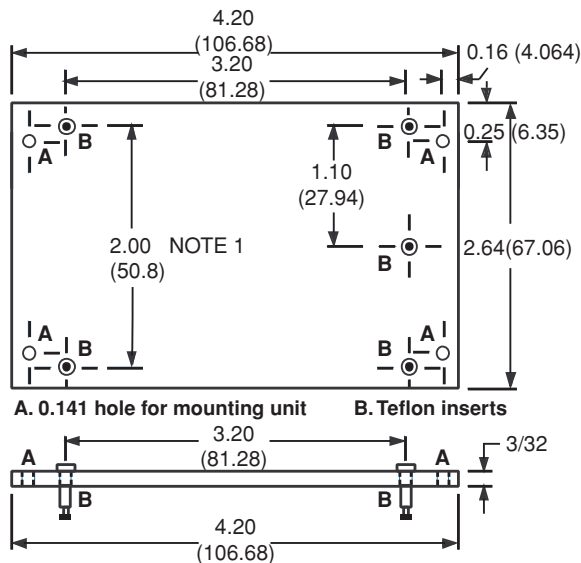


All Dimensions are in inches (mm)

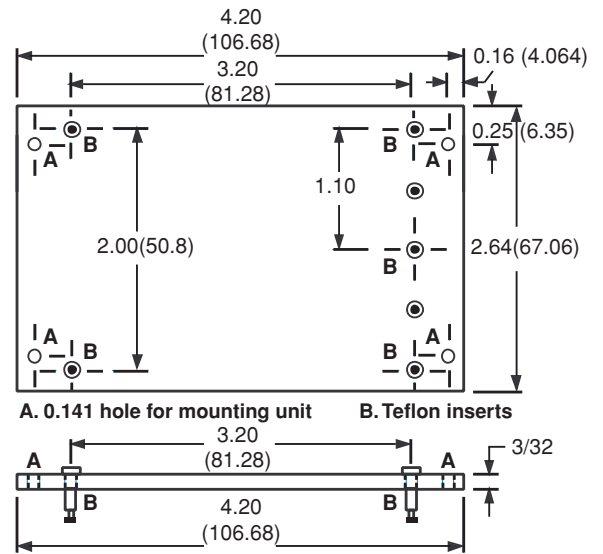
POWER SUPPLY ACCESSORIES

SOCKETS

(Continued)



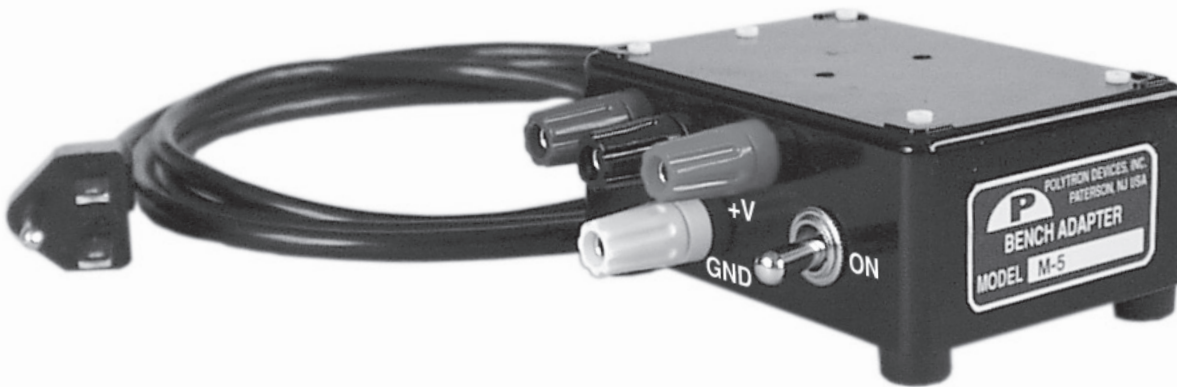
MODEL S-5 \$10.00ea. (For single and dual voltage units Cases A, A1, B, C, D)
NOTE 1: For 2.2" AC pin spacing specify S-5/22



MODEL S-7 \$12.00ea.
(For triple voltage units Cases C, D)

All Dimensions are in inches(mm)

BENCH ADAPTER



Designed for all Single and Dual Linear
Power Supplies in Cases A, B, C, D.

MODEL M-5 (2.0" AC Pin Spacing)
M-5/22(2.2" AC PIN SPACING)
\$85.00/ea.