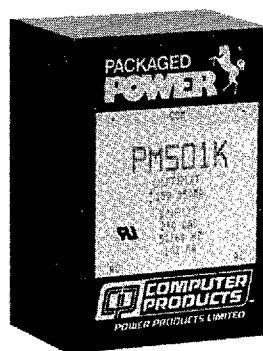


# PM500 SERIES

## Single, dual and triple outputs

Recommended for new design-ins

- OVP on 5V outputs
- Split bobbin wound
- PCB mounting
- UL and CSA approved
- 115, 220 and 240VAC input
- Short circuit protection
- The VM500 Series has EN60950 approval



**2 YEAR WARRANTY**

These encapsulated, PC-mountable linear power modules feature single, dual and triple output models for a wide variety of printed circuit board applications. The 5V output of all models have overvoltage crowbar protection as a standard feature. For maximum safety, all power transformers are split bobbin wound, rather than layer wound, to give total isolation with low coupling capacitance between primary and secondary. Conservative design and rating of these modules results in reliable operation

and long life. Standard input voltage is 115VAC; other optional inputs are 220 and 240VAC. Most models are available in standard and alternate pin configurations for second sourcing applications. This series includes sub-miniature modules for lower power applications where minimum circuit board space is available.

### SPECIFICATION

ALL SPECIFICATIONS ARE TYPICAL AT NOMINAL INPUT, FULL LOAD AND 25°C UNLESS OTHERWISE STATED

OUTPUT SPECIFICATIONS		
Voltage accuracy		±1.0% max.
Voltage adjustability	PM529 and PM563 only	Yes
Line regulation		See table
Load regulation		See table
Temperature coefficient		±0.02%/°C
Overvoltage protection	See table on facing page for relevant models	6.2V typical
Output power limit	Typical	130% to 200% FL
Short circuit protection	Switch off/on	100% to 200% FL
INPUT SPECIFICATIONS		
Input voltage range		See tables below
Input frequency range	PM500, See Note 3	47Hz to 400Hz
Safety ground leakage current		Less than 3.5mA @ 50Hz

GENERAL SPECIFICATIONS		
Efficiency		40% typical
Isolation voltage	PM series, no suffix PM series, suffix D	700VAC 2500VAC
Switching frequency		Linear
Approvals and standards	Safety PM5xx	CSA22.2-143/-154, UL478
Case material		Non-conductive black plastic
Weight	Case A Case B1 Case B2 Case B3 Case H	181g (6.4oz) 340g (12oz) 408g (14.4oz) 635g (22.4oz) 227g (8oz)
MTBF	See Note 4	710,000 hours
ENVIRONMENTAL SPECIFICATIONS		
Thermal performance	Operating amb. Non-operating amb. Derating, 50°C to 71°C Cooling	-25°C to +71°C -25°C to +85°C 2.5%/°C Free-air convection
Relative Humidity	Non-condensing	20% to 95% RH
Vibration		Encapsulated

PM500 INPUT VOLTAGE	SUFFIX
115±10VAC	(NONE)
220±20VAC	D

# 1 to 10.5 Watt AC/DC encapsulated modules

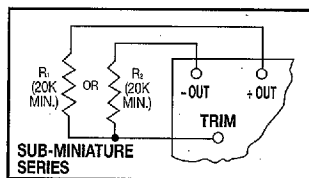
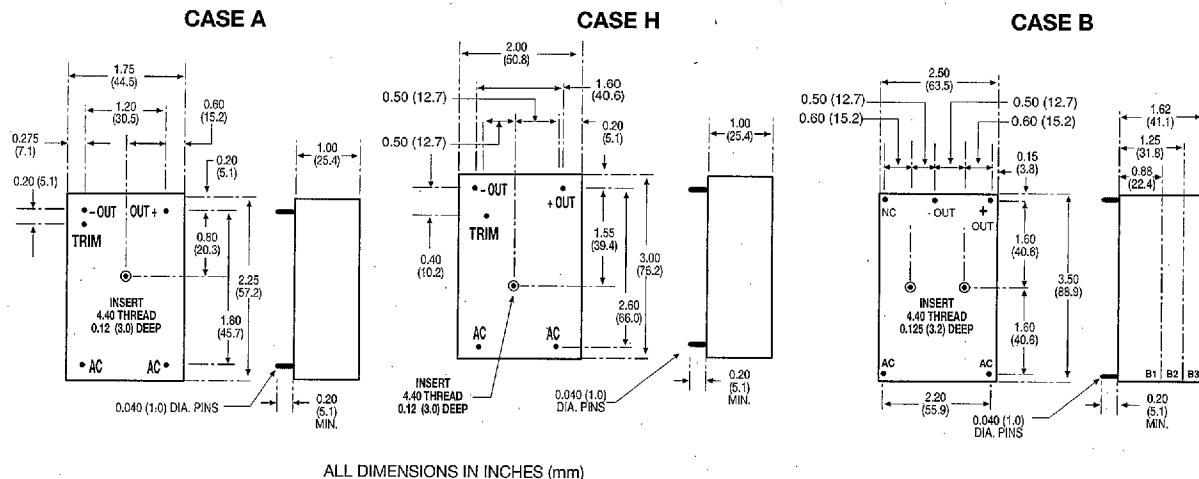
OUTPUT VOLTAGE	OUTPUT CURRENT	OVP	REGULATION		RIPPLE AND NOISE	CASE	AVAILABLE MODELS	
			LINE	LOAD			110VAC	220VAC
SINGLE OUTPUT								
5VDC	250mA	Yes	±0.02%	±0.04%	1mV rms	B1		PM533D
5VDC	1000mA	Yes	±0.02%	±0.04%	1mV rms	B2	PM542	
5VDC	2000mA	Yes	±0.02%	±0.05%	1mV rms	B3	PM545	
12VDC	400mA	No	±0.02%	±0.02%	1mV rms	B3		PM516D
12VDC	600mA	No	±0.02%	±0.02%	1mV rms	B3		PM517D
24VDC	100mA	No	±0.02%	±0.02%	0.5mV rms	B2		PM566D
24VDC	200mA	No	±0.02%	±0.02%	0.5mV rms	B3		PM567D
24VDC	400mA	No	±0.02%	±0.02%	1mV rms	B3		PM568D
SUB MINIATURE SINGLE OUTPUT SERIES <sup>(1)</sup>								
5VDC	250mA	No	±0.05%	±0.05%	0.5mV rms	H		PM529D
12VDC	100mA	No	±0.02%	±0.02%	0.5mV rms	A	PM563	PM563D
DUAL OUTPUT								
±12VDC	±25mA	No	±0.02%	±0.02%	2mV rms	B1	PM509	PM509D
±12VDC	±120mA	No	±0.02%	±0.02%	0.5mV rms	B1	PM536	PM536D
±12VDC	±240mA	No	±0.02%	±0.02%	0.5mV rms	B2		PM537D
±12VDC	±400mA	No	±0.02%	±0.02%	0.5mV rms	B3	PM597	PM597D
±15VDC	±100mA	No	±0.02%	±0.02%	0.5mV rms	B1	PM505	
±15VDC	±350mA	No	±0.02%	±0.02%	1mV rms	B3	PM501	
TRIPLE OUTPUT <sup>(2)</sup>								
5V/±12VDC	300/±180mA	No	±0.02%	±0.05%/±0.02%	0.5mV rms	B2		PM595D
5V/±12VDC	500/±120mA	No	±0.02%	±0.05%/±0.02%	0.5mV rms	B2		PM591D
5V/±12VDC	1000/±150mA	Yes	±0.02%	±0.01%/±0.02%	1.0/0.5mV rms	B3	PM592	
5V/±15VDC	300/±150mA	Yes	±0.05%	±0.10%/±0.05%	0.5mV rms	B2	PM594	
5V/±15VDC	500/±100mA	Yes	±0.05%	±0.10%/±0.05%	0.5mV rms	B2	PM590	
5V/±15VDC	1000/±150mA	Yes	±0.02%	±0.01%/±0.02%	1.0/0.5mV rms	B3	PM593	

## Notes

- Trim connection on all sub-miniature series modules provides a means of externally adjusting a units output voltage precisely to its labelled value. To raise the output voltage, connect a resistance (20kΩ, min.) between the trim terminal and the positive (+) output terminal. To lower the output voltage, connect a resistance (20kΩ, min.) between the trim terminal and the negative (-) output terminal.
- Triple output models only: on standard pin-out models the 5V output common is isolated from the ±12VDC or ±15VDC common.
- Some units should be derated for operation at 400Hz. Please contact the factory for details.
- M.T.B.F. figures are based on actual product performance. Consult factory for details.
- All models are only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.

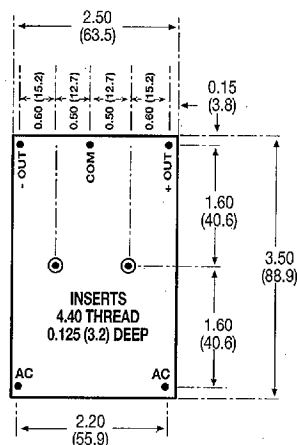
# 1 to 10.5 Watt AC/DC encapsulated modules

## Single output PM500 series

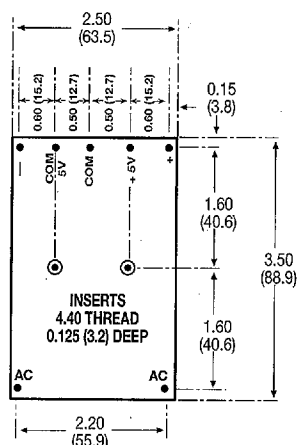


## Dual and triple output PM500 series

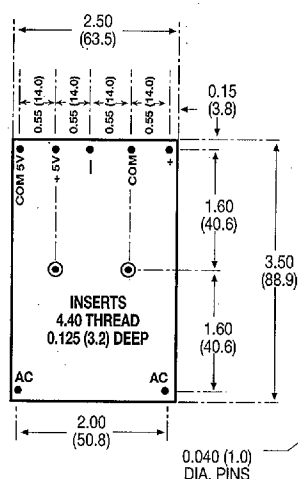
**CASE B**  
DUAL OUTPUT  
MODELS



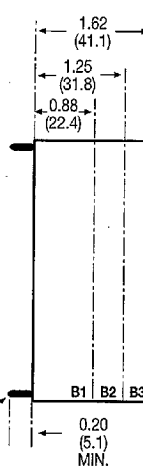
**CASE B**  
TRIPLE OUTPUT MODELS  
STANDARD PINOUT



**CASE B**  
TRIPLE OUTPUT MODELS  
ALTERNATE PINOUT SUFFIX '-S'



SIDE VIEW



ALL DIMENSIONS IN INCHES (mm)

International Safety Standard Approvals

UL478 Reg. File No. E131987

CSA22.2-143 and -154 Reg. File No. LR59996