

[2 YEAR WARRANTY]

(LVD) VM500 Series only

PM500 and VM500 SERIES

Single, dual and triple output

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

These encapsulated, PC-mountable linear power modules feature 23 single output, 14 dual output and 13 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 5 subminiature modules for lower power applications where minimum circuit board space is available.

GENERAL SPECIFICATIONS

SPECIFICATION All specifications are typical at nominal input, full load at 25°C unless otherwise stated

OUTPUT SPECIFICATION	ONS	
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 mo	6.2V typical odels
Output power limit	Typical	130% to 200% FL
Short circuit protection	Switch off/on	100% to 200% FL
INPUT SPECIFICATION	IS	
Input voltage range		See tables below
Input frequency range	PM500, See Note 3 VM500	47Hz to 400Hz 47Hz to 63Hz
Safety ground leakage current		Less than 3.5mA @ 50Hz

leakage current	@ 50Hz	Non-c	ting amb. perating amb. ng, 50°C to 71°C g Fre
		Relative Humidity Non-c	ondensing
		Vibration	
PM500 INPUT VOLTAGE	SUFFIX	VM534D INPUT VOLTAGE	SI
PM500 INPUT VOLTAGE 115±10VAC	SUFFIX (NONE)	VM534D INPUT VOLTAGE 200 to 233VAC	SI

Efficiency		40% typical		
Isolation voltage	PM series, no suffix PM series, suffix D PM series, suffix K VM534D	700VAC 2500VAC 2500VAC 3000VAC		
Switching frequency		Linear		
Approvals and standards	Safety VM534D Safety PM5xx CSA22.2	IEC950 -143/-154, UL478		
Case material		Non-conductive black plastic		
Weight	Case A Case B1 (incl. VM534D 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	Non-operating amb. Derating, 50°C to 71°C	-25°C to +71°C -25°C to +85°C 2.5%/°C e-air convection		
Relative Humidity	Non-condensing 2	20% to 95% RH		
Vibration		Encapsulated		

SUFFIX
D

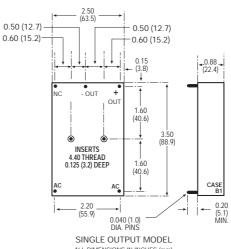
240±20VAC

1 to 10.5 Watt AC/DC encapsulated modules

OUTPUT OUTPUT	REGULATION		RIPPLE AND	OACE	AVAILABLE MODELS				
VOLTAGE	CURRENT	OVP	LINE	LOAD	NOISE	CASE	110VAC	220VAC	240VAC
	SINGLE OUTPUT								
5VDC	250mA	Yes	±0.02%	±0.04%	1mV rms	B1		PM533D	
5VDC	500mA	Yes	±0.02%	±0.04%	1mV rms	B1	PM534	PM534D	PM534K
5VDC	500mA	Yes	±0.02%	±0.04%	2.8mV rms	B1		VM534D	
5VDC	1000mA	Yes	±0.02%	±0.04%	1mV rms	B2	PM542	PM542D	PM542K
5VDC	2000mA	Yes	±0.02%	±0.05%	1mV rms	В3	PM545	PM545D	PM545K
12VDC	240mA	No	±0.02%	±0.02%	0.5mV rms	B2	PM515	PM515D	
12VDC	400mA	No	±0.02%	±0.02%	1mV rms	В3		PM516D	
12VDC	600mA	No	±0.02%	±0.02%	1mV rms	В3		PM517D	
24VDC	100mA	No	±0.02%	±0.02%	0.5mV rms	B2		PM566D	
24VDC	200mA	No	±0.02%	±0.02%	0.5mV rms	В3		PM567D	
24VDC	400mA	No	±0.02%	±0.02%	1mV rms	В3		PM568D	
			SUB MINI	ATURE SINGLE O	JTPUT SERIES (1)			
5VDC	250mA	No	±0.05%	±0.05%	0.5mV rms	Н	PM529	PM529D	PM529K
12VDC	100mA	No	±0.02%	±0.02%	0.5mV rms	А	PM563	PM563D	
				DUAL OUTPL	JT T				
±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	В3	PM597	PM597D	PM597K
±15VDC	±25mA	No	±0.20%	±0.20%	2mV rms	B1	PM538		
±15VDC	±100mA	No	±0.02%	±0.02%	0.5mV rms	B1	PM505	PM505D	
±15VDC	±200mA	No	±0.02%	±0.02%	0.5mV rms	B2	PM565	PM565D	
±15VDC	±350mA	No	±0.02%	±0.02%	1mV rms	В3	PM501	PM501D	PM501K
				TRIPLE OUTPL	JT (2)				
5V/±12VDC	300/±180mA	No	±0.02%	±.05%/±.02%	0.5mV rms	B2	PM595S	PM595DS	
5V/±12VDC	500/±120mA	No	±0.02%	±.05%/±.02%	0.5mV rms	B2		PM591D	
5V/±12VDC	1000/±150mA	Yes	±0.02%	±.01%/±.02%	1.0/0.5mV rms	ВЗ	PM592	PM592D	
5V/±15VDC	300/±150mA	Yes	±0.05%	±.10%/±.05%	0.5mV rms	B2	PM594	PM594DS	
5V/±15VDC	500/±100mA	Yes	±0.05%	±.10%/±.05%	0.5mV rms	B2	PM590	PM590D	PM590K
5V/±15VDC	1000/±150mA	Yes	±0.02%	±.01%/±.02%	1.0/0.5mV rms	В3	PM593	PM593D	PM593K

- 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 $(20k\Omega, min.)$ between the trim terminal and the positive (+) output terminal. To lower the output voltage, connect a resistance ($20k\Omega$, 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.

VM534D



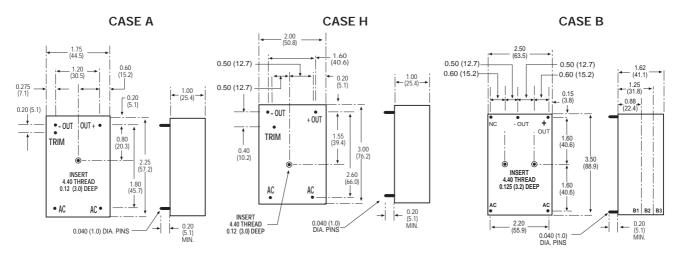
ALL DIMENSIONS IN INCHES (mm)



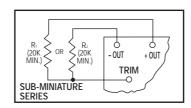
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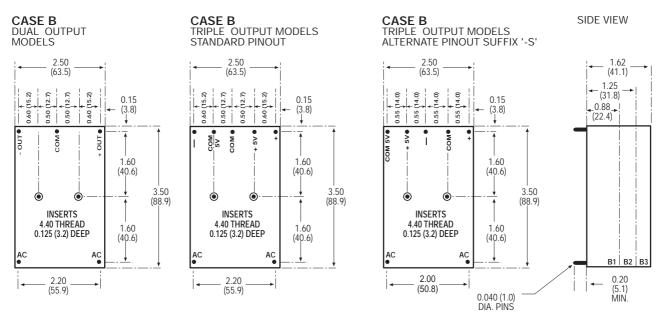
Single output PM500 series



ALL DIMENSIONS IN INCHES (mm)



Dual and triple output PM500 series



ALL DIMENSIONS IN INCHES (mm)

International Safety Standard Approvals

IEC950 Certificate No. IDP080 (VM534D only)

TI UL478 Reg. File No. E131987

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