



Наличие и актуальные цены на

MPM-20-12

<https://www.mean-well.ru/store/MPM-20-12/>



BS EN/EN60335-1 ANSI/AAMI ES60601-1 BS EN/EN60601-1 IEC60601-1 TPTC004

Features

- 2.06"x1.07" compact size
- Medical safety approved (2 x MOPP) according to ANSI/AAMI ES60601-1 and IEC/BS EN/EN60601-1
- Suitable for BF application with appropriate system consideration
- No load power consumption<0.1W
- Extremely low leakage current
- Wide operating temp. range -35 ~ +85°C
- EMI class B for class II configuration
- Protections:
Short circuit / Overload / Over voltage / Over temperature
- No minimum load required
- 3 years warranty

Applications

- Portable medical device
- Mobile clinical workstation
- Medical computer monitor
- Medical examination instrument

GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

Description

MPM-20 is a 20W high density and small size (52.4*27.2*24mm) AC/DC module type medical power supply series offered in pin type. It features the operation for 80~264VAC, a low no load power consumption less than 0.1W, a high efficiency up to 87%, Class II (no FG) double insulation, outstanding dissipation and high lifespan thanks to the interior potting, 2G anti-vibration, high EMC performance, 4KVAC isolation, etc. The design observes IEC/BS EN/EN60601-1 and ANSI/AAMI ES60601-1 version three with 2xMOPP level and ultra-low leakage current (<80 μ A). It is very suitable for BF (patient contact) type medical device or relevant equipment.

Model Encoding

MPM - 20 - 5

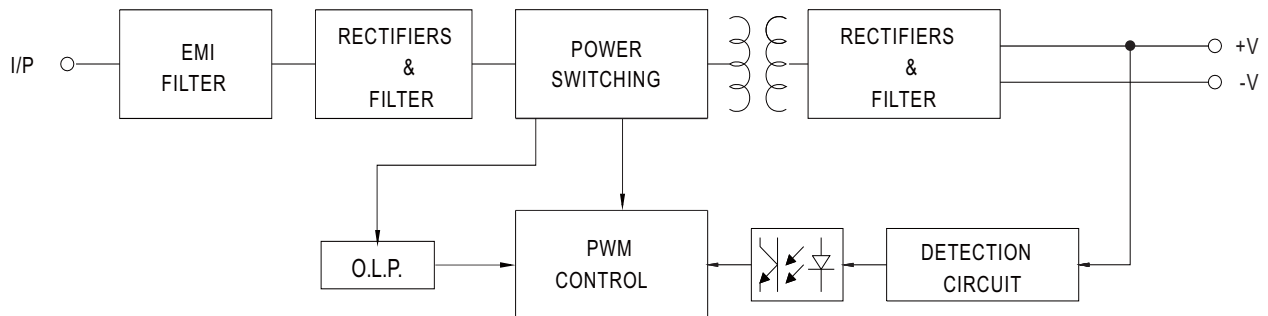
Output voltage
Rated wattage
Series name

SPECIFICATION

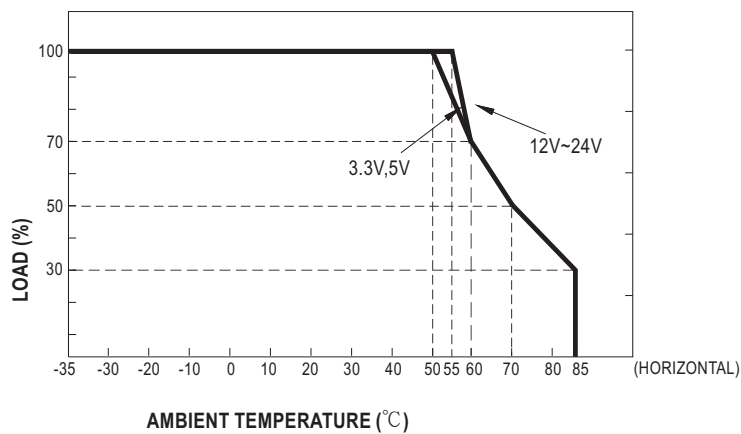
MODEL	MPM-20-3.3		MPM-20-5		MPM-20-12		MPM-20-15		MPM-20-24		
OUTPUT	DC VOLTAGE	3.3V		5V		12V		15V		24V	
	RATED CURRENT	4.5A		4A		1.8A		1.4A		0.9A	
	CURRENT RANGE	Note.2 0 ~ 4.5A		0 ~ 4A		0 ~ 1.8A		0 ~ 1.4A		0 ~ 0.9A	
	PEAK CURRENT	4.95A		4.4A		1.98A		1.54A		0.99A	
	RATED POWER	14.9W		20W		21.6W		21W		21.6W	
	PEAK LOAD(10sec.)	Note.3 16.3W		22W		23.8W		23.1W		23.8W	
	RIPPLE & NOISE (max.)	Note.4 150mVp-p		150mVp-p		150mVp-p		180mVp-p		180mVp-p	
	VOLTAGE TOLERANCE	Note.5 ±2.0%		±2.0%		±2.0%		±2.0%		±2.0%	
	LINE REGULATION	±0.5%		±0.5%		±0.3%		±0.3%		±0.3%	
	LOAD REGULATION	±0.5%		±0.5%		±0.5%		±0.5%		±0.5%	
	SETUP, RISE TIME	1500ms, 30ms/230VAC 1500ms, 30ms/115VAC at full load									
	HOLD UP TIME (Typ.)	40ms/230VAC 10ms/115VAC at full load									
INPUT	VOLTAGE RANGE	Note.6 80 ~ 264VAC		113V~370VDC							
	FREQUENCY RANGE	47 ~ 440Hz									
	EFFICIENCY (Typ.)	81%		85%		85.5%		87%		87%	
	AC CURRENT (Typ.)	0.75A/115VAC		0.5A/230VAC							
	INRUSH CURRENT (Typ.)	COLD START		20A/115VAC		45A/230VAC					
	LEAKAGE CURRENT (max.)	Note.7 Touch current <80μA/264VAC									
PROTECTION	OVERLOAD	110% ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed									
	OVER VOLTAGE	3.8 ~ 5V		5.8 ~ 6.8V		13.8 ~ 16.2V		17.3 ~ 20.3V		27.6 ~ 32.4V	
	OVER TEMPERATURE	Protection type : Shut off o/p voltage, clamping by zener diode									
		Protection type : Shut down o/p voltage, recovers automatically after temperature goes down									
ENVIRONMENT	WORKING TEMP.	-35 ~ +85℃ (Refer to "Derating Curve")									
	WORKING HUMIDITY	20 ~ 90% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH non-condensing									
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 55℃)									
	SOLDERING TEMPERATURE	Wave soldering: 265℃,5s (max.); Manual soldering: 390℃,3s (max.)									
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes									
	OPERATING ALTITUDE	Note.8 5000 meters									
SAFETY & EMC (Note.9)	SAFETY STANDARDS	IEC60601-1, TUV BS EN/EN60601-1, IEC60335-1, Dekra BS EN/EN60335-1, EAC TP TC 004, UL ANSI/AAMI ES60601-1 (3.1 version), CAN/CSA-C22 3 rd Edition approved									
	ISOLATION LEVEL	Primary-Secondary: 2xMOPP									
	WITHSTAND VOLTAGE	I/P-O/P:4KVAC									
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH									
	EMC EMISSION	Parameter	Standard				Test Level / Note				
		Conducted emission	BS EN/EN55011 (CISPR11)				Class B				
		Radiated emission	BS EN/EN55011 (CISPR11)				Class B				
		Harmonic current	BS EN/EN61000-3-2				Class A				
		Voltage flicker	BS EN/EN61000-3-3				-----				
	EMC IMMUNITY	BS EN/EN55035, BS EN/EN60601-1-2									
		Parameter	Standard				Test Level / Note				
		ESD	BS EN/EN61000-4-2				Level 4, 15KV air ; Level 4, 8KV contact				
		RF field susceptibility	BS EN/EN61000-4-3				Level 3, 10V/m(80MHz~2.7GHz) Table 9, 9~28V/m(385MHz~5.78GHz)				
		EFT bursts	BS EN/EN61000-4-4				Level 3, 2KV				
		Surge susceptibility	BS EN/EN61000-4-5				Level 3, 1KV/Line-Line				
		Conducted susceptibility	BS EN/EN61000-4-6				Level 3, 10V				
		Magnetic field immunity	BS EN/EN61000-4-8				Level 4, 30A/m				
		Voltage dip, interruption	BS EN/EN61000-4-11				100% dip 1 periods, 30% dip 25 periods, 100% interruptions 250 periods				
OTHERS		MTBF	7319.8K hrs min. Telcordia SR-332 (Bellcore) ; 1210.0K hrs min. MIL-HDBK-217F (25℃)								
	DIMENSION	52.4*27.2*24mm (L*W*H) or 2.06"*1.07"*0.94" inch									
	PACKING	0.056Kg; 240pcs/14.4Kg/0.94CUFT									
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. No minimum load required. 3. 33% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power. 4. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μf & 47 μf parallel capacitor. 5. Tolerance : includes set up tolerance, line regulation and load regulation. 6. Derating may be needed under low input voltages. Please check the derating curve for more details. 7. Touch current was measured from primary input to DC output. 8. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). 9. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx										

Block Diagram

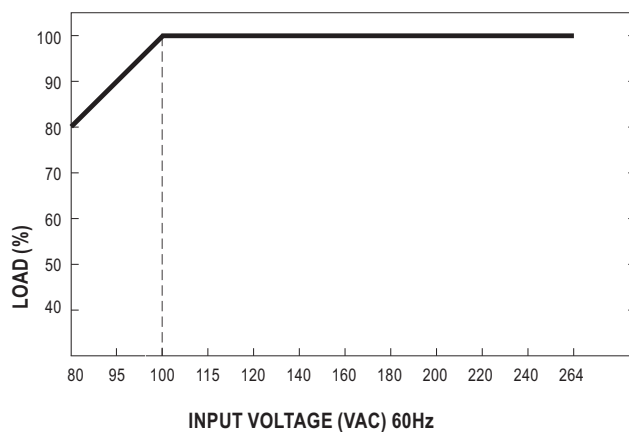
fosc : 100KHz



Derating Curve

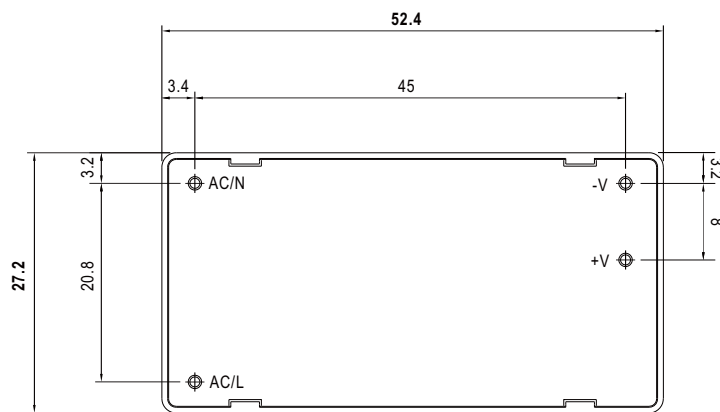


Output Derating VS Input Voltage

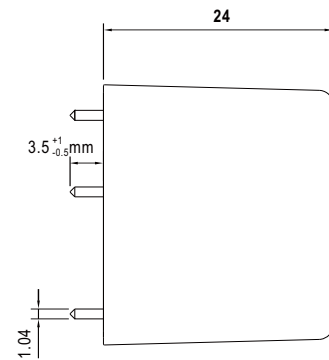


Case No.219A Unit:(mm)

■ Mechanical Specification



BOTTOM VIEW



SIDE VIEW

■ Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>