



Description

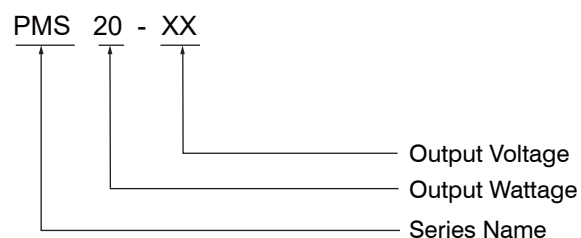
PMS20 is a 20W miniature (46.08*25.78*21.7mm) AC-DC module-type power supply, ready to be soldered onto the PCB boards of various kinds of electronic instruments or industrial automation equipments. This product allows the universal input voltage range of 85~305VAC.

RoHS 

Features

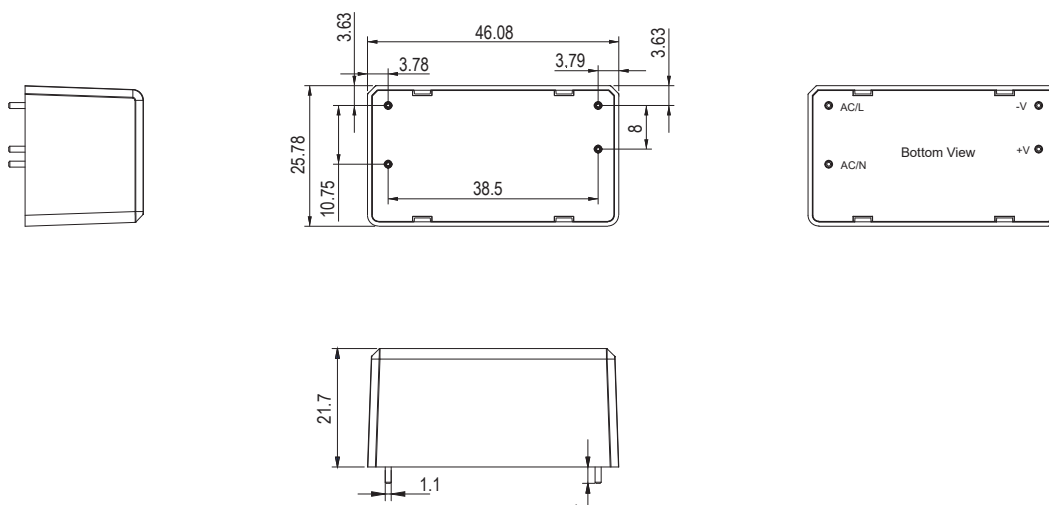
- Universal AC Input/ Full Range
- No load power consumption < 0.1W
- Wide operating temperature range -30~85° C
- High efficiency up to 82%
- Protections: Short circuit/Over load/Over voltage
- Isolation Class II
- Three years warranty

Model Description



Dimensions and installation

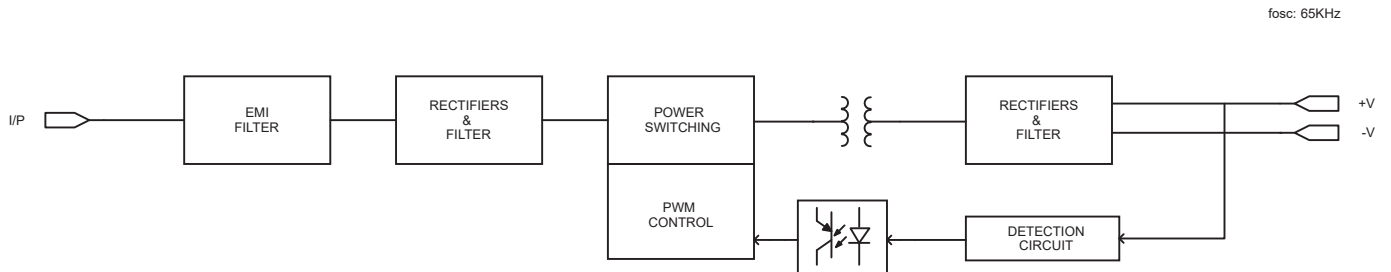
(Unit: mm , tolerance: $\pm 0.5\text{mm}$)



Specification

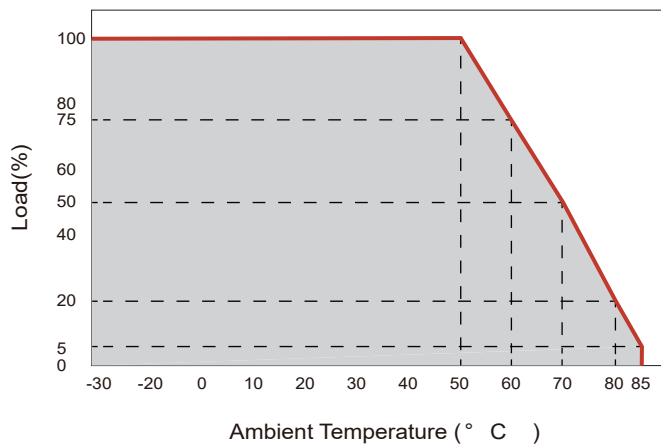
Model	Safety Model No.	PMS20-3.3	PMS20-5	PMS20-12	PMS20-15	PMS20-24
Output	DC Voltage	3.3V	5V	12V	15V	24V
	Rated Current	4.5A	4A	1.8A	1.4A	0.9A
	Rated Power	14.85W	20W	21.6W	21W	21.6W
	Ripple & Noise(max.)	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p
	Voltage Tolerance	±2.5%	±2.5%	±2.5%	±2.5%	±2.5%
	Line Regulation	±0.3%	±0.3%	±0.3%	±0.3%	±0.3%
	Load Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Max.Capactive Load	8000uF	5000uF	2000uF	1000uF	800uF
	Setup,Rise,Hold up Time	1.0s,30ms,30ms/230VAC(at full load)1.5s,30ms,8ms/115VAC(at full load)				
Input	Rated Voltage Range	100-277VAC				
	Voltage Range	85-305VAC/120-430VDC				
	Frequency Range	47-63Hz				
	AC Current	0.6A/115VAC	0.4A/230VAC	0.3A/277VAC		
	Inrush Current	Cold Start 40A/400us at 230VAC 50Hz			Cold Start 20A/600us at 115VAC 50Hz	
	Leakage Current	<0.25mA/277VAC				
	Efficiency	76%	79%	84%	84%	85%
	No Load Power Consumption	<0.1W				
Protection	Over Load	110~160%				
		Hiccup mode, recovers automatically after fault condition is removed.				
	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.				
	Over Voltage	3.8 ~ 4.46V	5.8 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V
Hiccup mode, recovers automatically after fault condition is removed.						
Ambient	Working TEMP.	-30 ~ +85° C (Full load can be operated at -30° C to 50° C , while load should be reduced at 50 to 85° C . Refer to"Derating Curve".)				
	Working Humidity	20 ~ 90%RH Non-condensing				
	Storage TEMP. Humidity	-40 ~ +85° C ,10 ~ 95%RH Non-condensing				
	TEMP. Coefficient	±0.03%/(0 ~ 40° C)				
	Vibration	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
	Soldering Temperature	Wave soldering:265° C ,5s(max.); Manual soldering:390° C ,3s(max.)				
	Over Voltage Category	OVC II; According to EN62368-1; altitude up to 2000 meters				
Safety	Safety Standards	EN62368-1				
	Withstand Voltage	I/P-O/P: 3KVAC/1min				
	Isolation Resistance	I/P-O/P:100M Ohms / 500VDC / 25° C / 70% RH				
EMC	EMC Emission	Parameter	Standard		Test Level	
		Conducted	EN55032(CISPR32)		CLASS B	
		Radiated	EN55032(CISPR32)		CLASS B	
		Harmonic Current	EN61000-3-2		CLASS A	
		Voltage flicker	EN61000-3-3			
	EMC Immunity	EN55035				
		Parameter	Standard		Test Level	
		ESD	EN61000-4-2		Level 3, 8KV air,Level 2, 4KV contact criteria B	
		Radiated Susceptibility	EN61000-4-3		Level 3, criteria A	
		EFT/Burest	EN61000-4-4		Level 3, criteria B	
		Surge	EN61000-4-5		Level 3, 1KV/L-N, criteria B	
		Conducted	EN61000-4-6		Level 3, criteria A	
		Magnetic Field	EN61000-4-8		Level 4, criteria A	
		Voltage Dips and interruptions	EN61000-4-11		95% dip 0.5 periods, 30% dip 25 periods, 95% interruptions 250 periods	
Others	Packing	55g/pcs; 42.5 x 39.5 x 18.5cm ; 200pcs/carton				
	Dimension (LxWxH)	46.08 x 25.78 x 21.7 mm				
	MTBF	1364.7Khrs min. MIL-HDBK-217F(25)				
Note	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25° C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time. 5. The ambient temperature derating of 3.5° C/1000m with fanless models and of 5° C /1000m with fan models for operating altitude higher than 2000m (6500ft). 6. The power supply is considered as an independent unit ,but the final equipment still need to re-confirm that the whole system complies with the EMC directives.For guidance on how to perform these EMC tests,please refer to "EMI testing of component power supplies".					

Block Diagram



Engineering Data

Derating Curve



Static Characteristics

