

YMR5 SERIES

5W



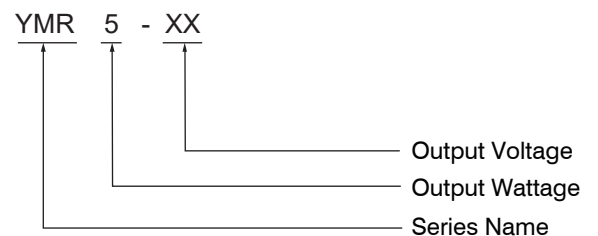
YMR5 is a 5W miniature (46.08*25.78*21.7mm) AC-DC module-type power supply, ready to be soldered onto the PCB boards of various kinds of electronic instruments or industrial automation equipments. This product allows the universal input voltage range of 85~305VAC.

RoHS CE

Features

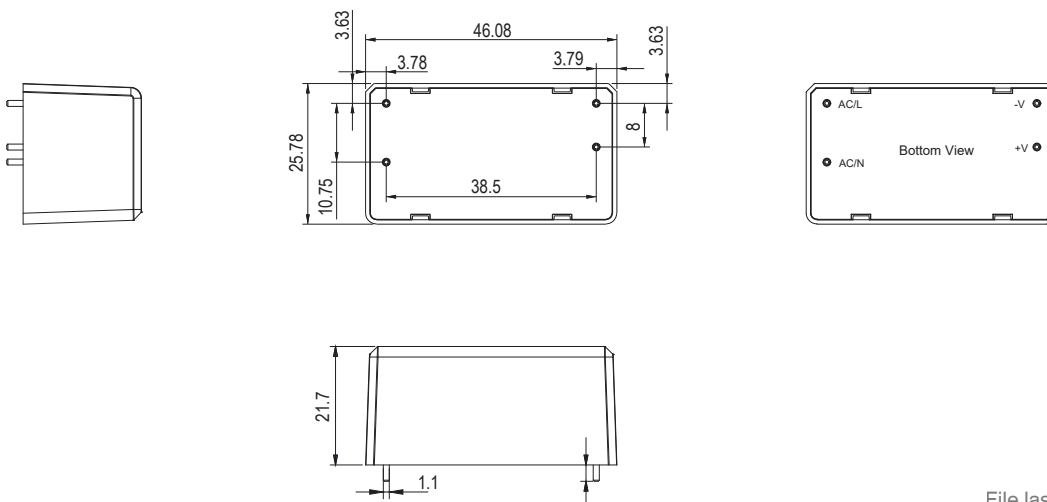
- Universal AC Input/ Full Range
- No load power consumption < 0.1W
- Wide operating temperature range -30~85℃
- High efficiency up to 82.5%
- Protections: Short circuit/Over load/Over voltage
- Isolation Class II
- Three years warranty

Model Description



Dimensions and installation

(Unit: mm , tolerance: ± 0.5 mm)



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Specification

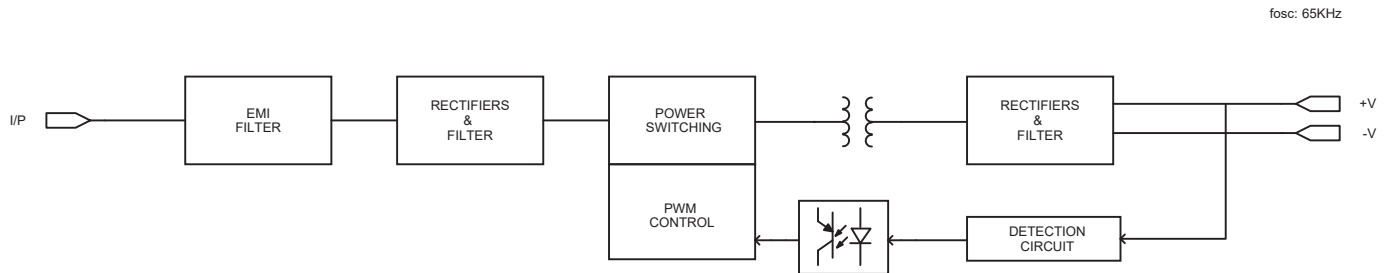
Model	Safety Model No.	YMR5-3.3	YMR5-5	YMR5-12	YMR5-15	YMR5-24	
Output	DC Voltage	3.3V	5V	12V	15V	24V	
	Rated Current	1.25A	1A	0.42A	0.33A	0.23A	
	Rated Power	4.125W	5W	5.04W	4.95W	5.52W	
	Ripple & Noise(max.)	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	
	Voltage Tolerance	±2.5%	±2.5%	±2.5%	±2.5%	±2.5%	
	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	12000uF	8500uF	1600uF	960uF	500uF	
	Setup,Rise,Hold up Time	1.2s,30ms,80ms/230VAC(at full load)			1.4s,30ms,12ms/115VAC(at full load)		
Input	Rated Voltage Range	100-277VAC					
	Voltage Range	85-305VAC/120-430VDC					
	Frequency Range	47-440Hz					
	AC Current	0.3A/115VAC	0.1A/230VAC	0.08A/277VAC			
	Inrush Current	Cold Start 40A/800us at 230VAC 50Hz			Cold Start 20A/800us at 115VAC 50Hz		
	Leakage Current	<0.707mA/277VAC					
	Efficiency	74%	78%	80.5%	82.5%	81%	
	No Load Power Consumption	<0.1W					
Protection	Over Load	110~260% Hiccup mode, recovers automatically after fault condition is removed.					
	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.					
	Over Voltage	3.8 ~ 6V	5.8 ~ 7.5V	12.8 ~ 16V	17 ~ 24V	27 ~ 34V	
		Recovers automatically after fault condition is removed.					
Ambient	Working TEMP.	-30 ~ +85℃ (Full load can be operated at -30℃ to 50℃ , while load should be reduced at 50℃ to 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 ~ 40℃)					
	Vibration	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes					
	Soldering Temperature	Wave soldering:265℃ ,5s(max.); Manual soldering:390℃ ,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℃ / 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	25g/pcs; 41 x 36 x 16 cm; 200pcs/carton					
	Dimension (LxWxH)	46.08 x 25.78 x 21.7 mm					
	MTBF	1454.7Khrs min. MIL-HDBK-217F(25℃)					
Note	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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℃/1000m with fanless models and of 5℃/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". (as available on https://yingjiao.com/wp-content/uploads/2025/06/EMI_Testing_of_Component_Power_Supplies_Yingjiao.pdf)						

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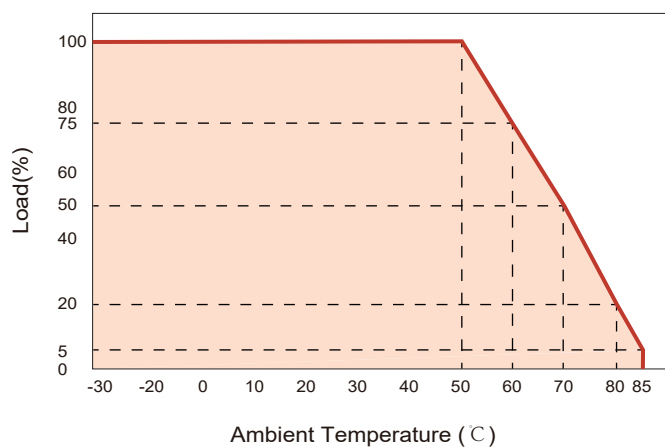
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Block Diagram



Engineering Data

Derating Curve



Static Characteristics

