YINGJIAO

YMR45 SERIES
45W

YMR45 is a 45W miniature (87*52*30mm) AC-DC module-type power supply, ready to be soldered onto the PCB boards of various kinds of electronic instruments or industriai automation equipments. This product allows the universal input voltage range of 85～305VAC.

c UL us UL62368-1 TÜVRheinland ZERTIFIZIERT EN60335-1 RoHS CE

Features

- Universal AC Input/ Full Range
- No load power consumption<0.15W
- Wide operating temperature range -30～85℃
- High efficiency up to 89.5%
- Protections: Short circuit/Over load/Over voltage
- Isolation Class II
- Three years warranty

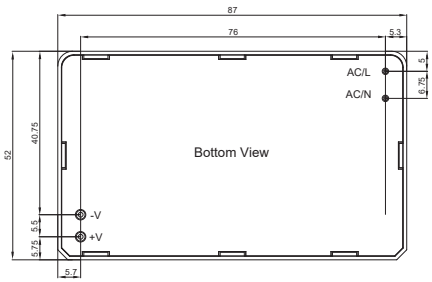
Model Description

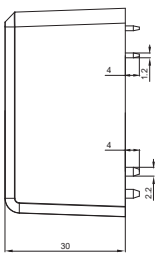
YMR 45 - XX □

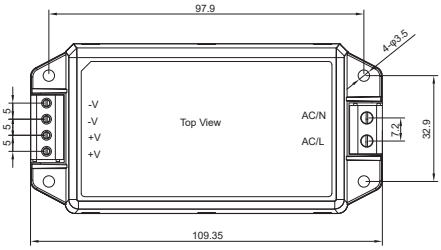
- Blank: PCB Mounting Style
- T: Terminal Blocks Style
- Output Voltage
- Output Wattage
- Series Name

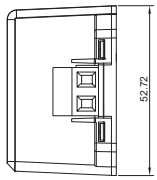
Dimensions and installation

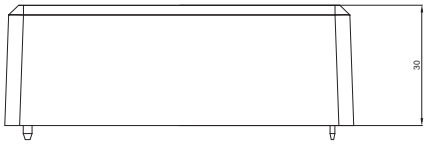
(Unit: mm , tolerance: ±0.5mm)

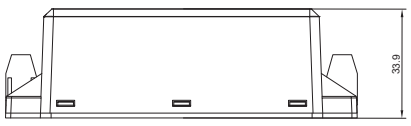












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Specification

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Model	Safety Model No.	YMR45-5□	YMR45-12□	YMR45-15□	YMR45-24□	YMR45-48□
Output	DC Voltage	5V	12V	15V	24V	48V
	Rated Current	8A	3.8A	3A	1.9A	0.94A
	Rated Power	40W	45.6W	45W	45.6W	45.12W
	Ripple & Noise(max.)	80mVp-p	120mVp-p	120mVp-p	150mVp-p	240mVp-p
	Voltage Tolerance	±2.5%	±2.5%	±2.5%	±2.5%	±2.5%
	Line Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load Regulation	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%
	Max.Capactive Load	6000uF	4400uF	3300uF	700uF	470uF
	Setup,Rise,Hold up Time	0.2s,35ms,50ms/230VAC(at full load)		0.2s,35ms,5ms/115VAC(at full load)		
Input	Rated Voltage Range	100-277VAC				
	Voltage Range	85-305VAC/120-430VDC				
	Frequency Range	47-63Hz				
	AC Current	1.8A/115VAC	0.9A/230VAC	0.75A/277VAC		
	Inrush Current	Cold Start 60A/600us at 230VAC 50Hz		Cold Start 30A/600us at 115VAC 50Hz		
	Leakage Current	<0.25mA/277VAC				
	Efficiency	83.5%	87.5%	88%	89.5%	89.5%
	No Load Power Consumption	<0.15W				
Protection	Over Load	115~160% Hiccup mode, recovers automatically after fault condition is removed.				
	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.				
	Over Voltage	5.25 ~ 7.5V	12.8 ~ 16V	17 ~ 24V	27 ~ 34V	50.4 ~ 63V
		Hiccup mode, recovers automatically after fault condition is removed.				
Ambient	Working TEMP.	-30 ~ +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	PCB Mounting: 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes Terminal Blocks: 10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes				
	Soldering Temperature	Wave soldering:265℃,5s(max.); Manual soldering:390℃,3s(max.)				
	Over Voltage Category	OVC III				
Safety	Safety Standards	EN60335-1, UL62368-1				
	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	EN55014-1	CLASS B		
		Radiated	EN55014-2	CLASS B		
		Harmonic Current	EN61000-3-2	CLASS A		
		Voltage flicker	EN61000-3-3	.....		
	EMC Immunity	EN55014-1, EN55014-2				
		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	Weight	PCB Mounting: 195g/pcs; Terminal Blocks: 260g/pcs				
	Packing	PCB Mounting: 48×27.5x16cm 50pcs/Carton; Terminal Blocks: 31.5×24.5x22cm 50pcs/Carton				
	Dimension (LxWxH)	PCB Mounting: 87 × 52 x 30 mm; Terminal Blocks: 109.35 × 52.72 x 33.9 mm				
	MTBF	895.4Khrs 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. 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). 5. 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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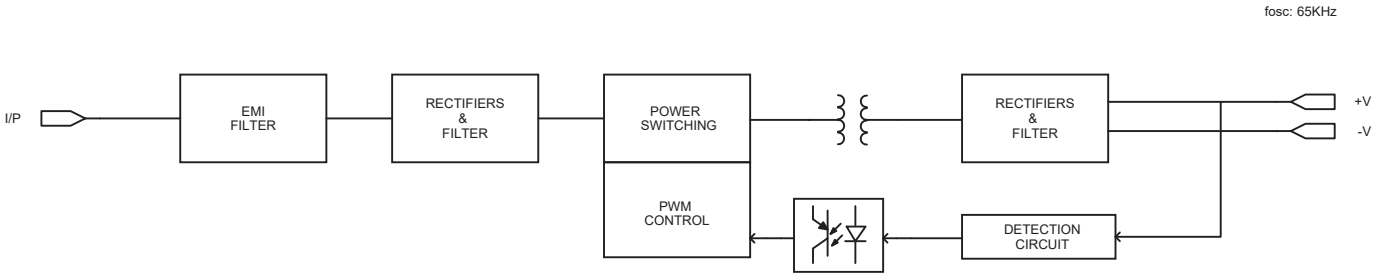
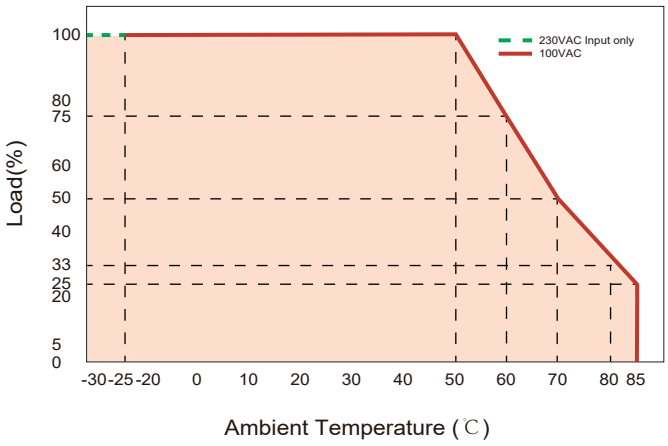
Block Diagram

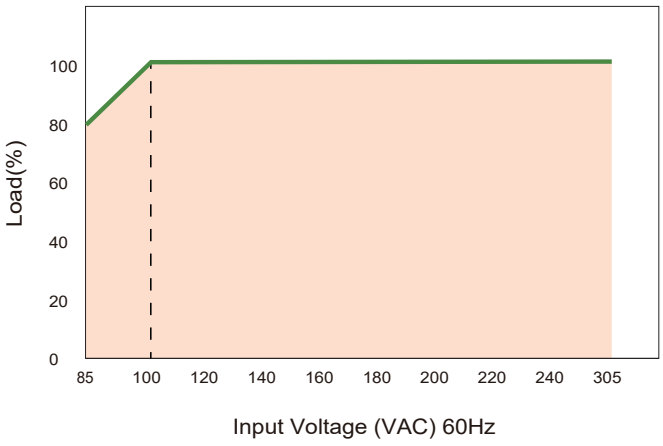


Engineering Data

Derating Curve



Static Characteristics



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