

YMR90 SERIES

90W



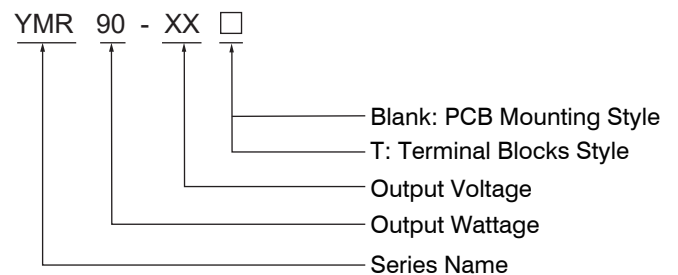
YMR90 is a 90W miniature (87*52*30mm) AC-DC module-type power supply, ready to be soldered onto the PCB boards of various kinds of electronic instruments or industrial automation equipments. This product allows the universal input voltage range of 85~305VAC.



Features

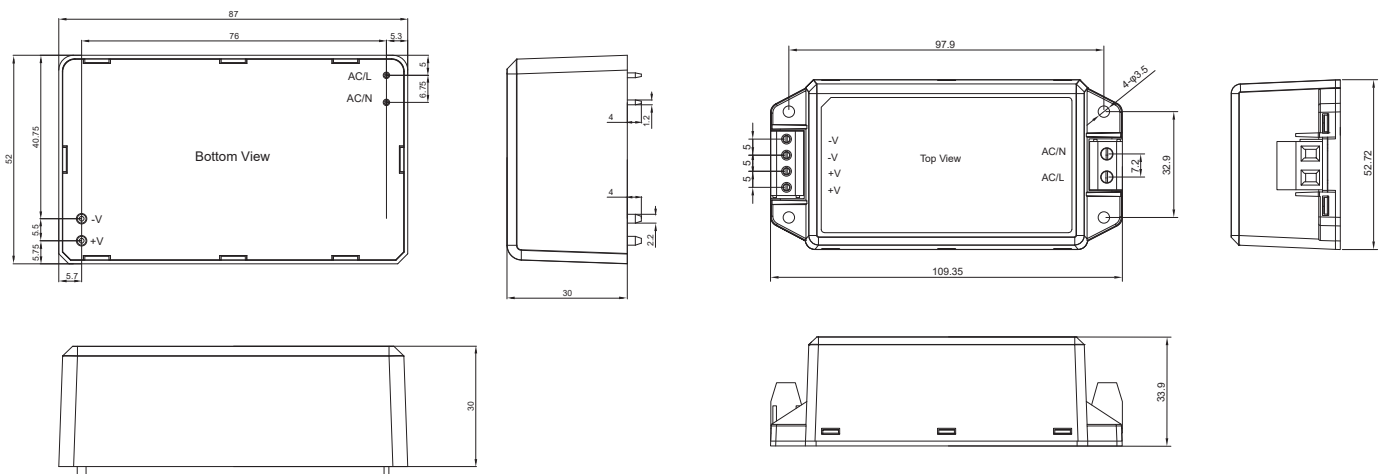
- Universal AC Input/ Full Range
- No load power consumption < 0.15W
- Wide operating temperature range -30~85℃
- High efficiency up to 91.5%
- Protections: Short circuit/Over load/Over voltage
- Isolation Class II
- Three years warranty

Model Description



Dimensions and installation

(Unit: mm , tolerance: ±0.5mm)



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Specification

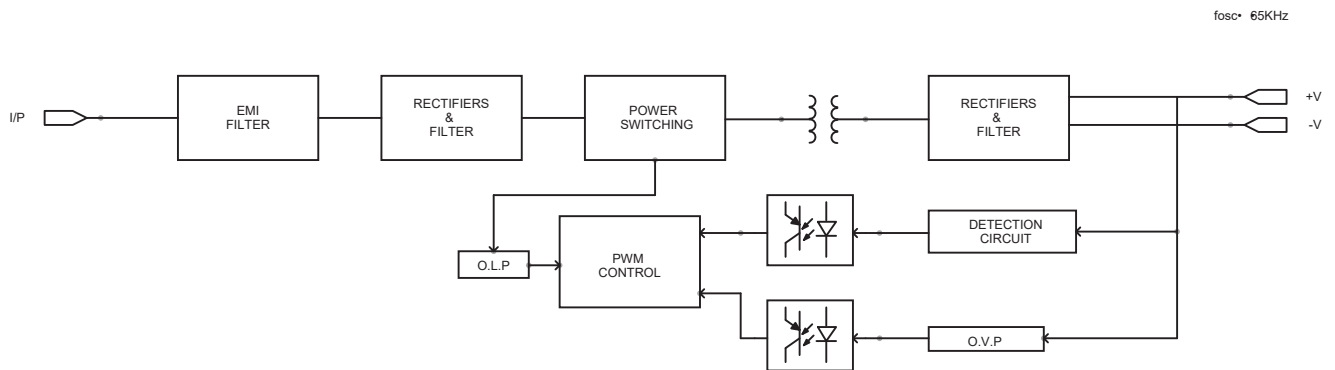
Model	Safety Model No.	YMR90-12 □	YMR90-15 □	YMR90-24 □	YMR90-48 □
Output	DC Voltage	12V	15V	24V	48V
	Rated Current	6.7A	5.67A	3.75A	1.88A
	Rated Power	80.4W	85.05W	90W	90.2W
	Ripple & Noise(max.)	120mVp-p	150mVp-p	200mVp-p	360mVp-p
	Voltage Tolerance	±2.0%	±2.0%	±2.0%	±2.0%
	Line Regulation	±0.5%	±0.5%	±0.5%	±0.5%
	Load Regulation	±1.0%	±0.5%	±0.5%	±0.5%
	Max.Capactive Load	6800uF	4500uF	3000uF	470uF
	Setup,Rise,Hold up Time	0.5s,50ms,50ms/230VAC(at full load)0.5s,50ms,12ms/115VAC(at full load)			
Input	Rated Voltage Range	100-277VAC			
	Voltage Range	85-305VAC/120-430VDC			
	Frequency Range	47-63Hz			
	AC Current	2.0A/115VAC	1.1A/230VAC	0.9A/277VAC	
	Inrush Current	Cold Start 100A/800us at 230VAC 50Hz		Cold Start 40A/800us at 115VAC 50Hz	
	Leakage Current	<0.25mA/277VAC			
	Efficiency	89.5%	90.5%	91%	91.5%
	No Load Power Consumption	<0.15W			
Protection	Over Load	105~160% Hiccup mode, recovers automatically after fault condition is removed.			
	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.			
	Over Voltage	12.6 ~ 16.5V	15.75 ~ 24V	25.2 ~ 34V	50.4 ~ 65V
		Shut off o/p voltage, clamping by zener diode			
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 II; According to EN62368-1; altitude up to 2000 meters			
Safety	Safety Standards	EN IEC 62368-1, EN60335-1, EN62233, 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	EN IEC 55014-1		CLASS B
		Radiated	EN IEC 55014-2		CLASS B
		Harmonic Current	EN61000-3-2		CLASS A
		Voltage flicker	EN61000-3-3	
	EMC Immunity	EN IEC 55014-1, EN IEC 55014-2			
		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 2, criteria B
		Surge	EN61000-4-5		Level 2, 1KV/L-N, criteria B
		Conducted	EN61000-4-6		Level 2, criteria A
		Magnetic Field	EN61000-4-8		Level 2, criteria A
Voltage Dips and interruptions		EN61000-4-11		0%UT 0.5 periods,40%UT 10/12 periods 70%UT 25/30 periods	
Others	Weight	PCB Mounting: 220g/pcs; Terminal Blocks: 285g/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	755.4Khrs 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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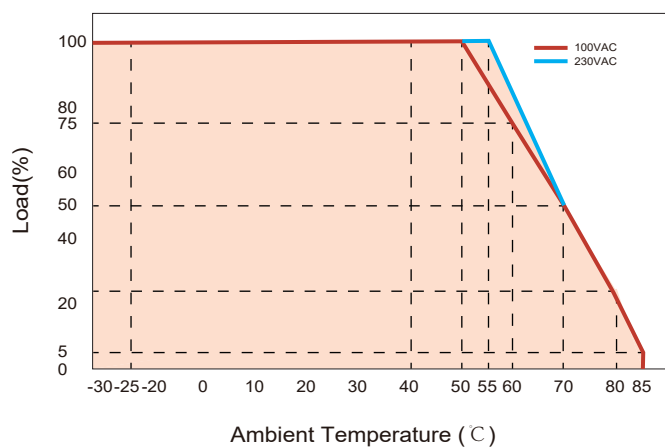
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Block Diagram



Engineering Data

Derating Curve



Static Characteristics

