



30W Single Output Encapsulated Type

**IRM-30 series**



**■ Features**

- Universal AC input / Full range
- Compact size
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Isolation Class II
- No load power consumption < 0.1W
- 100% full load burn-in test
- High reliability
- 3 years warranty

**■ Applications**

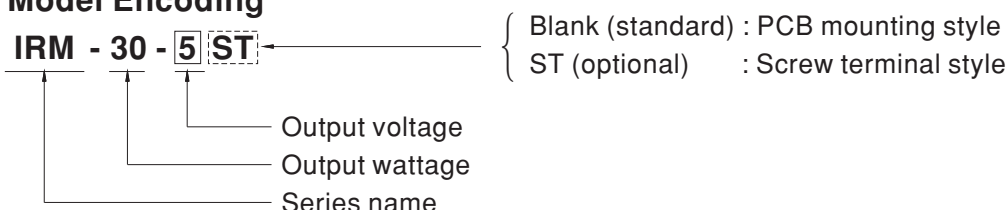
- Industrial electrical equipment
- Mechanical equipment
- Factory automation equipment
- Handheld electronic device

**■ Description**

IRM-30 is a 30W miniature (69.5\*39\*24mm) 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 a universal input voltage range of 85~264VAC. The plastic case with 94V-0 fire prevention level and the fully-potted silicone enhance the heat dissipation and meet the anti-vibration demand up to 5G; moreover, it provides the fundamental resistance to dust and moisture.

With the high efficiency up to 90% and the extreme low no-load power consumption below 0.1W, IRM-30 series fulfills the worldwide regulation for the low power consumption requirement for electronics. The entire series is a Class II design (no FG pin), incorporating the built-in EMI filtering components, enabling the compliance with EN55022 Class B; the supreme EMC features keep the end electronic units from electromagnetic interference. In addition to module-type model (the standard model), IRM-30 series also supplies the block terminal wiring type model (ST).

**■ Model Encoding**





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**SPECIFICATION**

MODEL	IRM-30-5	IRM-30-12	IRM-30-15	IRM-30-24	IRM-30-48	
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	48V
	RATED CURRENT	6A	2.5A	2A	1.3A	0.63A
	CURRENT RANGE	0 ~ 6A	0 ~ 2.5A	0 ~ 2A	0 ~ 1.3A	0 ~ 0.63A
	RATED POWER	30W	30W	30W	31.2W	30.2W
	RIPPLE & NOISE (max.) Note.2	200mVp-p	240mVp-p	300mVp-p	480mVp-p	480mVp-p
	VOLTAGE TOLERANCE Note.3	±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%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1000ms, 30ms/230VAC      1500ms, 30ms/115VAC at full load				
HOLD UP TIME (Typ.)	40ms/230VAC      12ms/115VAC at full load					
INPUT	VOLTAGE RANGE	85 ~ 264VAC				
	FREQUENCY RANGE	47 ~ 440Hz				
	EFFICIENCY (Typ.)	81%	87%	88%	88%	90%
	AC CURRENT (Typ.)	0.75A/115VAC      0.5A/230VAC				
	INRUSH CURRENT (Typ.)	COLD START 25A/115VAC      45A/230VAC				
	LEAKAGE CURRENT	< 0.75mA/240VAC				
PROTECTION	OVERLOAD	105% ~ 160% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed				
	OVER VOLTAGE	5.25 ~ 6.75V	12.6 ~ 16.2V	15.75 ~ 20.25V	25.2 ~ 32.4V	50.4 ~ 64V
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)				
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes				
SAFETY & EMC	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved				
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC				
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH				
	EMC EMISSION	Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,-3				
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, heavy industry level (surge L-N : 1KV), criteria A				
OTHERS	MTBF	593.3Khrs min.      MIL-HDBK-217F (25°C)				
	DIMENSION	PCB mounting style : 69.5*39*24mm (L*W*H)      Screw terminal style : 91*39.5*28.5mm (L*W*H)				
	PACKING	PCB mounting style : 0.109Kg;144pcs/16.7Kg/0.97CUFT      Screw terminal style : 0.12Kg;120pcs/15.4Kg/0.74CUFT				
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 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation.					

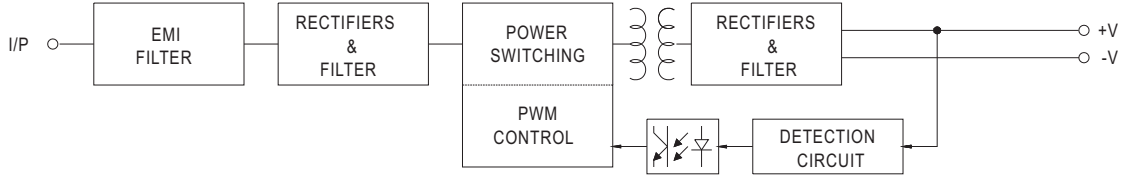


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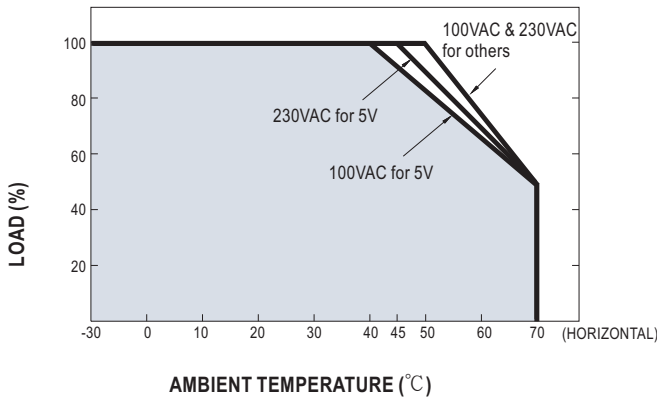
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■ Block Diagram

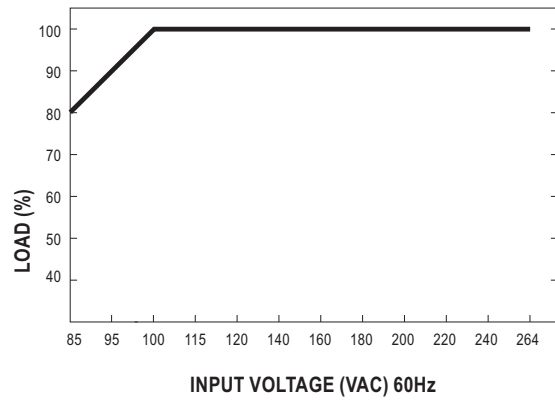
fosc : 65KHz



■ Derating Curve



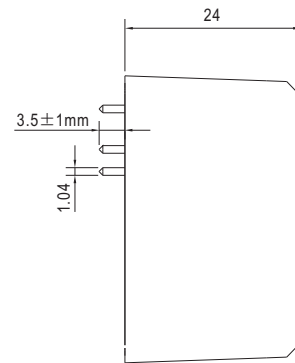
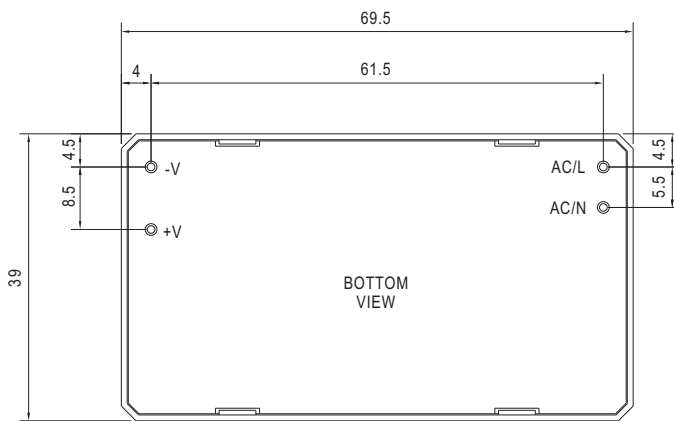
■ Output Derating VS Input Voltage



■ Mechanical Specification

Case No. Unit:mm

- PCB mounting style(Standard)



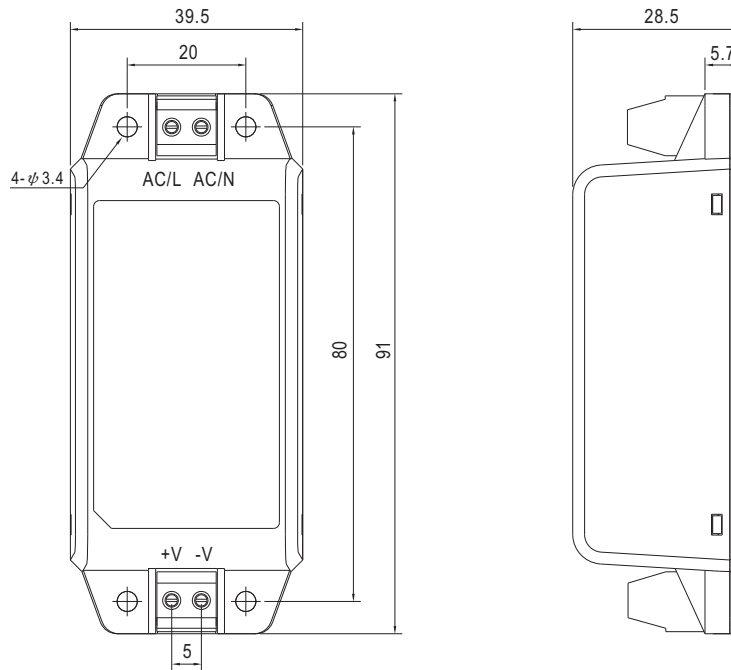
P/N diameter:1.04



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• Screw terminal style(Optional)



■ Installation Manual

Please refer to : <http://www.meanwell.com/webnet/search/InstallationSearch.html>