



## ■ Features :

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



## **SPECIFICATION**

MODEL		IRM-20-3.3	IRM-20-5	IRM-20-12	IRM-20-15	IRM-20-24	
ОИТРИТ	DC VOLTAGE	3.3V	5V	12V	15V	24V	
	RATED CURRENT	4.5A	4A	1.8A	1.4A	0.9A	
	CURRENT RANGE	0 ~ 4.5A	0 ~ 4A	0 ~ 1.8A	0 ~ 1.4A	0 ~ 0.9A	
	RATED POWER	14.85W	20W	21.6W	21W	21.6W	
	RIPPLE & NOISE (max.) Note.2	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	
	VOLTAGE TOLERANCE Note.3	±2.5%	±2.5%	±2.5%	±2.5%	±2.5%	
	LINE REGULATION	±0.5%	±0.5%	±0.3%	±0.3%	±0.3%	
	LOAD REGULATION	±1%	±1%	±0.5%	±0.5%	±0.5%	
	SETUP, RISE TIME	1000ms, 20ms/230VAC 1000ms, 20ms/115VAC at full load					
	HOLD UP TIME (Typ.)	40ms/230VAC 8ms/115VAC at full load					
INPUT	VOLTAGE RANGE	85 ~ 264VAC 120 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 440Hz					
	EFFICIENCY (Typ.)	76%	79%	84%	84%	85%	
	AC CURRENT (Typ.)	0.6A/115VAC 0.4A/	230VAC	<u> </u>			
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC 40A/230VAC					
	LEAKAGE CURRENT	< 0.75mA/240VAC					
PROTECTION	OVERLOAD	115%~160% rated output power					
		Protection type: Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	3.8 ~ 4.46V	5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V	
		Protection type : Shut off o/p voltage, clamping by zener diode					
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 STANDARDS	UL60950-1, TUV EN60950-1 approved					
SAFETY &	WITHSTAND VOLTAGE I/P-O/P:3KVAC						
EMC (Note 4)	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	970.3Khrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	52.4*27.2*24mm (L*W*H)					
	PACKING	0.059Kg/240pcs/15.2Kg/0.97CUFT					
NOTE	Ripple & noise are measure     Tolerance : includes set up	All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.  Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.  Folerance: includes set up tolerance, line regulation and load regulation.  The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets among directives.					



## ■ Mechanical Specification Case No.219A Unit:(mm) 52.4 45 24 AC/N $3.5\pm1$ mm +V <del></del> 27.2 20.8 BOTTOM VIEW AC/L P/N diameter:1.04 **■** Block Diagram fosc: 100KHz RECTIFIERS RECTIFIERS POWER -○ +V ЕМІ & FILTER FILTER SWITCHING -○ -V FILTER PWM DETECTION CONTROL CIRCUIT ■ Derating Curve ■ Output Derating VS Input Voltage OTHERS 100 80 80 3.3V,5V 60 70 LOAD (%) LOAD (%) 40 50 20 40 45 50 70 (HORIZONTAL) -30 30 85 115 120 140 160 180 200 220 240 264 AMBIENT TEMPERATURE (°C) INPUT VOLTAGE (VAC) 60Hz