



20W Output Switching Power Supply

IRM-20 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

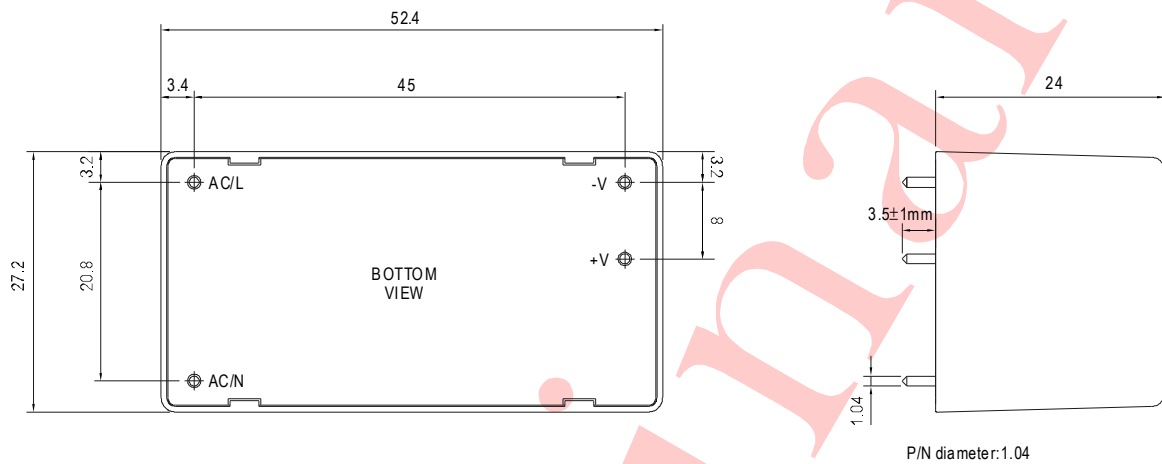


SPECIFICATION

MODEL		IRM-20-3.3	IRM-20-5	IRM-20-12	IRM-20-15	IRM-20-24
OUTPUT	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	240mVp-p	300mVp-p	480mVp-p
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION	±0.3%	±0.3%	±0.3%	±0.3%	±0.3%
	LOAD REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	600ms, 20ms/230VAC 1000ms, 20ms/115VAC at full load				
HOLD UP TIME (Typ.)	40ms/230VAC 10ms/115VAC at full load					
INPUT	VOLTAGE RANGE	85 ~ 264VAC 120 ~ 370VDC				
	FREQUENCY RANGE	47 ~ 440Hz				
	EFFICIENCY (Typ.)	74%	78%	82%	83%	84%
	AC CURRENT (Typ.)	0.6A/115VAC 0.4A/230VAC				
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC 40A/230VAC				
	LEAKAGE CURRENT	< 0.75mA/240VAC				
PROTECTION	OVERLOAD	115%~150% 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℃ (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)				
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes				
SAFETY & EMC (Note 4)	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℃ / 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, criteria A				
OTHERS	MTBF	Khrs min. MIL-HDBK-217F (25℃)				
	DIMENSION	52.4*27.2*24mm (L*W*H)				
	PACKING	0.58Kg; pcs/ Kg/ CUFT				
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 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. 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 EMC directives.					

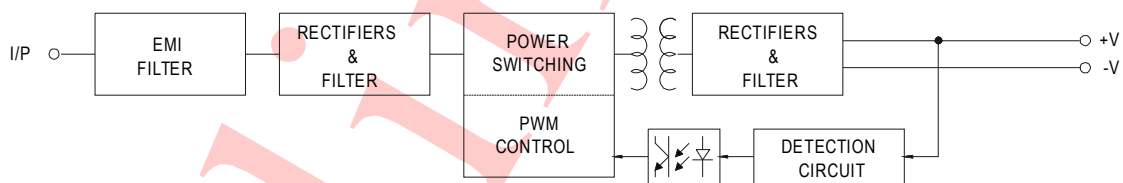
Mechanical Specification

Case No. Unit:mm

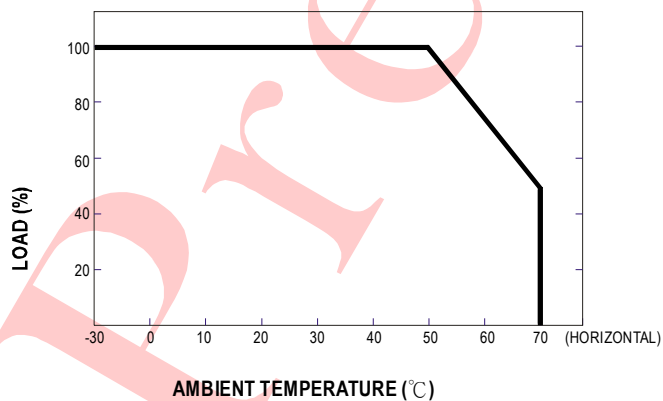


Block Diagram

fosc: 100KHz



Derating Curve



Output Derating VS Input Voltage

