



20W Single Output Encapsulated Type

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

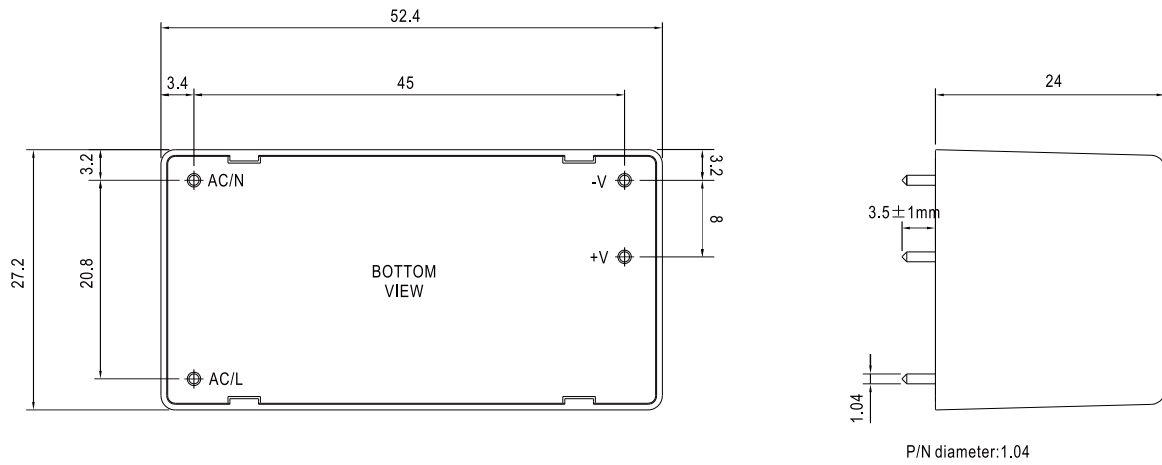


SPECIFICATION

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	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				
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC 40A/230VAC				
LEAKAGE CURRENT	< 0.25mA/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
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, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
	LEAD TEMPERATURE	260±5°C, 5s (max.) ← add				
SAFETY &	SAFETY STANDARDS	UL60950-1, TUV EN60950-1, EAC TP TC 004 approved				
	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 EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020				
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, heavy industry level(surge L-N:1KV), criteria A, EAC TP TC 020				
OTHERS	MTBF	970.3Khrs min. MIL-HDBK-217F (25°C)				
	DIMENSION	52.4*27.2*24mm (L*W*H)				
	PACKING	0.05Kg/240pcs/13Kg/0.97CUFT				
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. 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. 5. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).					

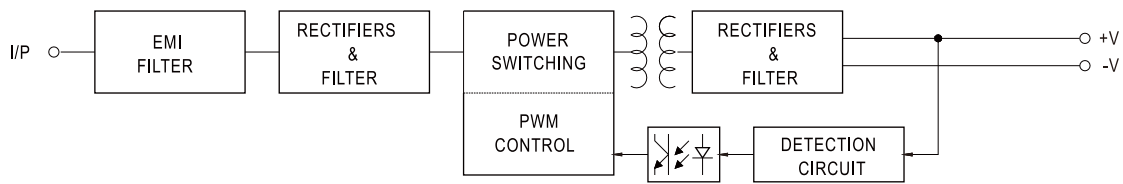
Mechanical Specification

Case No.219A Unit:(mm)

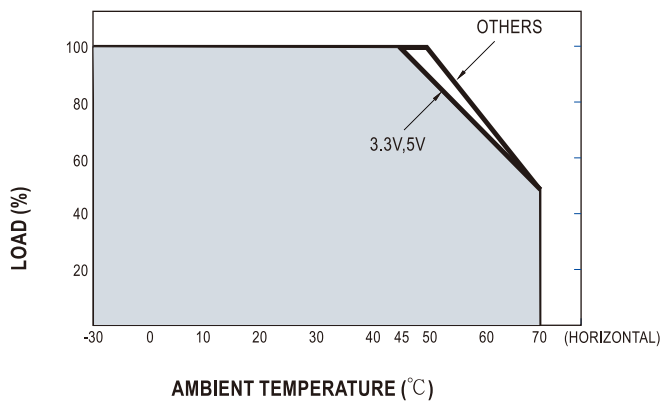


Block Diagram

fosc : 100KHz



Derating Curve



Output Derating VS Input Voltage

