



## 25W Single Output Switching Power Supply

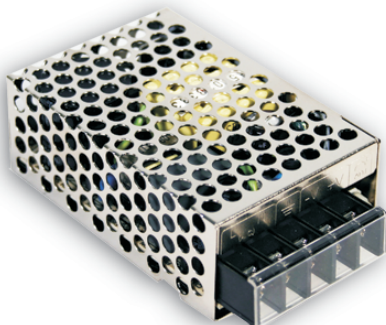
# RS-25 series

Authorized Distributor: Total Power International, Inc.

Toll Free: 877-646-0900(US)

PH# (978)453-7272

www.total-power.com



### ■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- All using 105°C long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 70°C
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- 3 years warranty



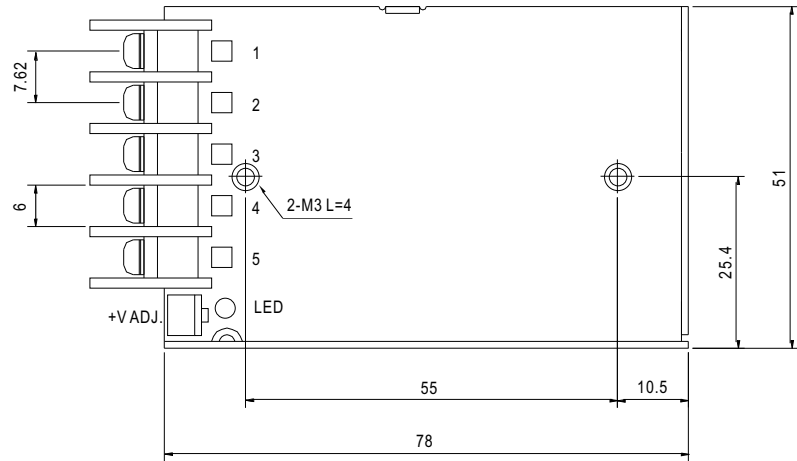
### SPECIFICATION

MODEL		RS-25-3.3	RS-25-5	RS-25-12	RS-25-15	RS-25-24	RS-25-48
OUTPUT	DC VOLTAGE	3.3V	5V	12V	15V	24V	48V
	RATED CURRENT	6A	5A	2.1A	1.7A	1.1A	0.57A
	CURRENT RANGE	0 ~ 6A	0 ~ 5A	0 ~ 2.1A	0 ~ 1.7A	0 ~ 1.1A	0 ~ 0.57A
	RATED POWER	19.8W	25W	25.2W	25.5W	26.4W	27.36W
	RIPPLE & NOISE (max.) <small>Note.2</small>	80mVp-p	80mVp-p	120mVp-p	120mVp-p	120mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	2.85 ~ 3.6V	4.75 ~ 5.5V	10.8 ~ 13.2V	13.5 ~ 16.5V	22 ~ 27.6V	42 ~ 54V
	VOLTAGE TOLERANCE <small>Note.3</small>	±3.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION <small>Note.4</small>	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION <small>Note.5</small>	±2.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1200ms, 23ms/230VAC      2200ms, 30ms/115VAC at full load					
HOLD UP TIME (Typ.)	80ms/230VAC      14ms/115VAC at full load						
INPUT	VOLTAGE RANGE	88 ~ 264VAC      125 ~ 373VDC (Withstand 300VAC surge for 5sec. Without damage)					
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY(Typ.)	72%	77%	79%	82%	84%	85%
	AC CURRENT (Typ.)	0.7A/115VAC      0.4A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 30A/230VAC					
	LEAKAGE CURRENT	<2mA / 240VAC					
PROTECTION	OVERLOAD	110 ~ 180% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	3.8 ~ 4.45V      5.75 ~ 6.75V      13.8 ~ 16.2V      17.25 ~ 20.25V      27.6 ~ 32.4V      55.2 ~ 64.8V Protection type : Shut off o/p voltage, clamping by zener diode					
ENVIRONMENT	WORKING TEMP.	-20 ~ +70℃ (Refer to output load 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 6)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved					
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC    I/P-FG:1.5KVAC    O/P-FG:0.5KVAC					
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH					
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B					
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3					
OTHERS	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, light industry level, criteria A					
	MTBF	309.7Khrs min.    MIL-HDBK-217F (25℃)					
	DIMENSION	78*51*28mm (L*W*H)					
	PACKING	0.2Kg; 60pcs/13Kg/0.46CUFT					
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. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 0% to 100% rated load. 6. 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.						

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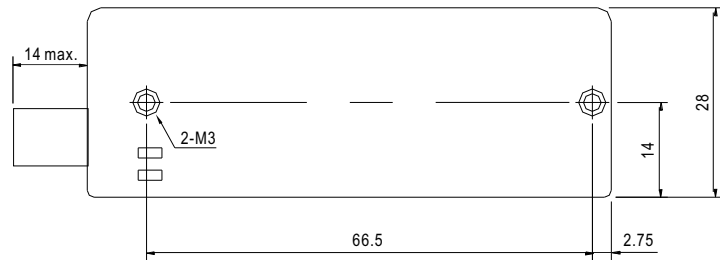
### Mechanical Specification

Case No.931A Unit:mm



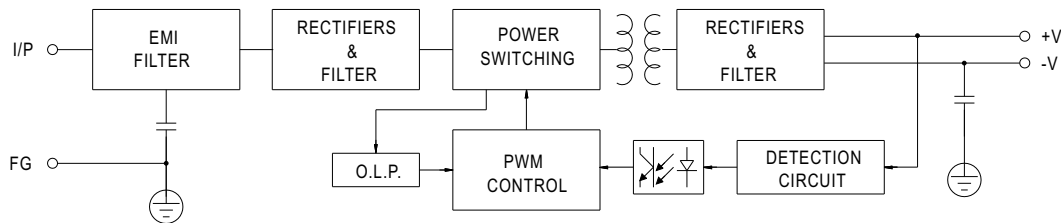
Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	DC OUTPUT -V
2	AC/N	5	DC OUTPUT +V
3	FG $\perp$		

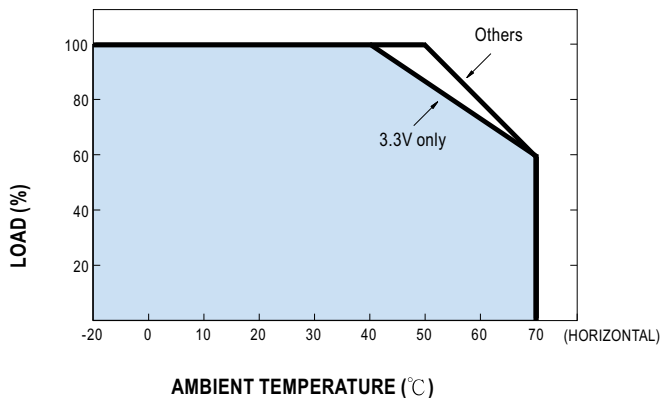


### Block Diagram

fosc : 60KHz



### Derating Curve



### Static Characteristics (24V)

