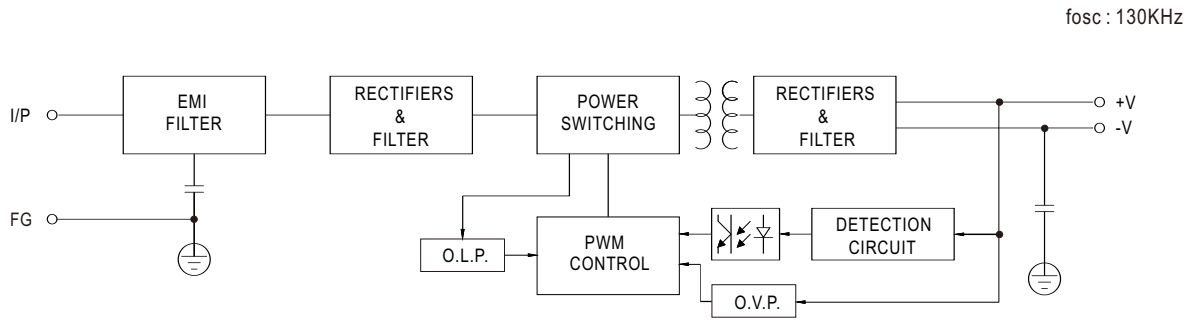




**SPECIFICATION**

MODEL	RSD-60H-3.3	RSD-60H-5	RSD-60H-12	RSD-60H-24		
OUTPUT	DC VOLTAGE	3.3V	5V	12V	24V	
	RATED CURRENT	12A	12A	5A	2.5A	
	CURRENT RANGE	0 ~ 12A	0 ~ 12A	0 ~ 5A	0 ~ 2.5A	
	RATED POWER	39.6W	60W	60W	60W	
	RIPPLE & NOISE (max.) Note.2	100mVp-p	80mVp-p	50mVp-p	50mVp-p	
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±2.0%	
	LINE REGULATION	±0.5%	±0.5%	±0.3%	±0.2%	
	LOAD REGULATION	±0.5%	±0.5%	±0.3%	±0.2%	
	SETUP, RISE TIME	100ms, 60ms at full load				
	HOLD UP TIME (Typ.)	H-type comply with S2 level(10ms) @ full load				
INPUT	VOLTAGE RANGE CONTINUOUS	40 ~ 160VDC				
	EFFICIENCY (Typ.)	87%	89%	92.5%	91.5%	
	DC CURRENT (Typ.)	0.415A/110VDC	0.62A/110V			
	INRUSH CURRENT (Typ.)	20A/110VDC				
PROTECTION	OVERLOAD	105 ~ 135% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed				
	OVER VOLTAGE	4.3 ~ 4.95V	5.75 ~ 7V	13.8 ~ 16.2V	27.6 ~ 32.4V	
		Protection type : Shut down o/p voltage, re-power on to recover				
ENVIRONMENT	WORKING TEMP.	-40 ~ +55°C (no derating) ; +70°C @ 60% load by free air convection ; +70°C (no derating with external base plate)				
	WORKING HUMIDITY	5 ~ 95% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH non-condensing				
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)				
	VIBRATION	10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes ; Mounting : compliance to IEC61373				
SAFETY & EMC (Note 4)	SAFETY STANDARDS	Meet IEC60950-1 (LVD)				
	WITHSTAND VOLTAGE	I/P-O/P:4KVDC I/P-FG:2.5KVDC O/P-FG:2.5KVDC				
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH				
	EMC EMISSION	Conducted	Parameter	Standard	Test Level / Note	
				EN55011	Class A	
		Radiated		EN55032	Class B	
				EN55011	Class A	
			EN55032	Class B		
		Harmonic Current		EN6100-3-2	Class A	
	Voltage Flicker		EN6100-3-3	-----		
	EMC IMMUNITY	ESD	Parameter	Standard	Test Level / Note	
				EN61000-4-2	Level 3, ±8KV air ; Level 3, ±6KV contact	
		Radiated Field		EN61000-4-3	Level X	
		EFT / Burst		EN61000-4-4	Level 3, 2KV at power Level 4, 2KV at signal	
		Surge		EN61000-4-5	Level 3, 1KV Line-Line, Level 3, 2KV Line-Earth	
Conducted			EN61000-4-6	Level 3		
RAILWAY STANDARD	Compliance to EN45545-2 for fire protection ; Meet EN50155 / IEC60571 including IEC61373 for shock & vibration, EN50121-3-2 for EMC					
OTHERS	MTBF	593.8K hrs min. MIL-HDBK-217F (25°C)				
	DIMENSION	128*60*25mm (L*W*H)				
	PACKING	0.29Kg; 48pcs/14.9Kg/0.76CUFT				
NOTE	<ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 110VDC input, rated load and 25°C of ambient temperature.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li> <li>Strongly recommended that external output capacitance should not exceed 5000uF.</li> </ol>					

**Block Diagram**



**Input Fuse**

There is one fuse connected in series to the positive input line, which is used to protect against abnormal surge. Fuse specifications of each model are shown as below.

Type	Fuse Type	Reference and Rating
G	Time-Lag	CONQUE MST, 10A, 250V
L	Time-Lag	CONQUE MST, 5A, 250V
H	Time-Lag	CONQUE MST, 2.5A, 250V

**Input Reverse Polarity Protection**

There is a MOSFET connected in series to the negative input line. If the input polarity is connected reversely, the MOSFET opens and there will be no output to protect the unit.

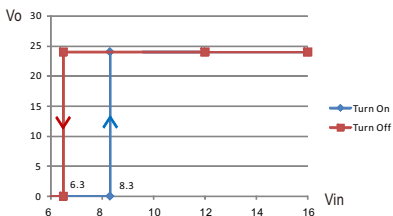
**Input Range and Transient Ability**

The series has a wide range input capability. With  $\pm 40\%$  of rated input voltage, it can withstand that for 1 second.

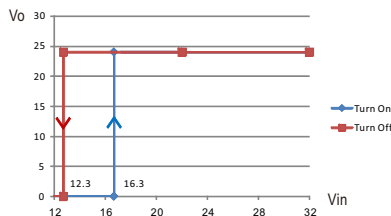
**Input Under-Voltage Protection**

If input voltage drops below  $V_{imin}$ , the internal control IC shuts down and there is no output voltage. It recovers automatically when input voltage reaches above  $V_{imin}$ , please refer to the cruve below.

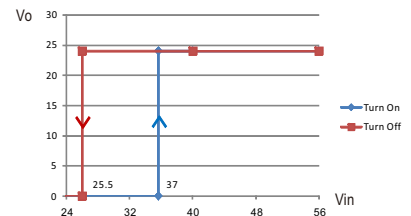
RSD-60G-24



RSD-60L-24



RSD-60H-24



**Inrush Current**

Inrush current is suppressed by a resistor during the initial start-up, and then the resistor is bypassed by a MOSFET to reduce power consumption after accomplishing the start-up.