SUNPOWER TECHNOLOGY CORP.
16F.-1, No.150, Jian 1st Rd., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.).
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SPS-018-xx Series

Single Output

Green mode function



62 x 50.8 x 28 mm
2.44 x 2.0 x 1.10 inch

Features:

- Green mode design, no load < 0.15W
- Small size, high efficiency
- Over voltage protection：Limiting voltage mode
- Over load ＆ short circuit protection：Hiccup mode
- Output voltage ±10% adjustment
- 100% full load burn-in test
- -20℃~70℃ Operating temperature
- UL, cUL, CB, CE approved
- 3 years warranty

Specification:

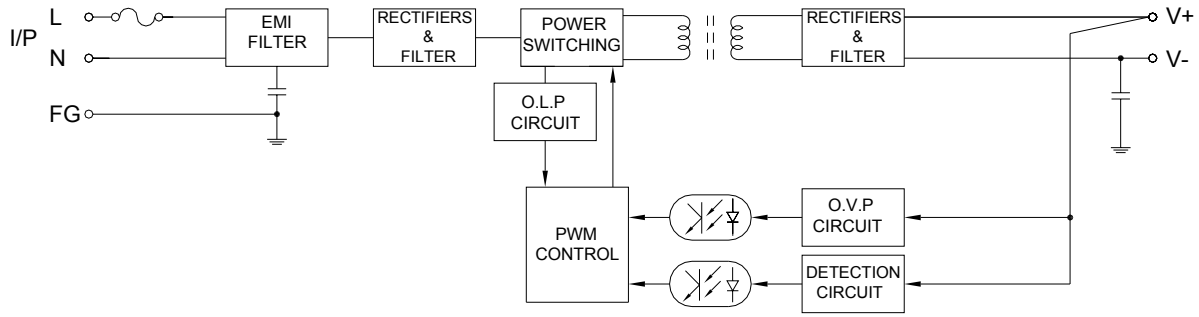
INPUT	**Voltage**	85V ~ 264VAC universal full range or 120V ~ 375VDC.				
	Frequency	47 ----- 63 Hz				
	Current	<0.5A@100V AC input, full load condition				
	Inrush Current (TYP.)	30A@115V , 50A@230V AC input, Cold start at 25℃ ambient				
	Leakage Current	<0.5mA@264V AC input				
OUTPUT	**MODEL No.**	**SPS-018-3.3**	**SPS-018-05**	**SPS-018-12**	**SPS-018-15**	**SPS-018-24**
	Voltage	3.3V	5V	12V	15V	24V
	Min Load	0A	0A	0A	0A	0A
	Max Load	3A	3A	1.5A	1.2A	0.75A
	Output Tolerance ②	± 3%	± 2%	± 1%	± 1%	± 1%
	Ripple Noise MAX. ③	80mV	80mV	120mV	150mV	200mV
	Efficiency (TYP.)	73%	78%	83%	84%	85%
	Output MAX.	10W	15W	18W	18W	18W
PROTECTION	**Over Voltage**	3.8~4.6V	5.8~7.0V	13.8~16.8V	17.3~21.0V	27.6~33.6V
		Limiting voltage latch or Shutdown and latch off, recover after re-start up				
	Over Load＆Short Circuit	When power supply over 105% max load or short circuit acted, power supply will go into hiccup mode and recover automatically after the fault is removed.				
ELEC. CHAR.	**Rise time**	<50mS				
	Hold up time	>60mS@230V, full load condition				
	Setup time	<1 Sec@100 ～ 240V AC				
	Green mode function	Power consumption at no load < 0.15W at 230VAC input				
ENVIRONMENT	**Temperature** ④	Operating: -20 ~ +70℃ ; De-rating: 50 ~ 70℃: 2.5%/℃ ; Storage: -40 ~ +85℃				
	Humidity	Operating: 20% ~ 90% RH (non condensing) ; Storage: 10% ~ 95% RH (non condensing)				
	Altitude	6562 ft (≒ 2000 m) operating				
SAFETY	**Withstand voltage**	I/P-O/P:3KVAC, I/P-FG:1.8KVAC, O/P-FG:0.5KVAC, 1minute				
	Isolation resistance	I/P-O/P, I/P-FG, O/P-FG ＞100MΩ/500VDC at 25℃/ 70% RH				
	Safety standard	UL 62368-1, 2nd Edition, 2014-12-01, CAN/CSA C22.2 No.62368-1-14, 2nd Edition, 2014-12, IEC 62368-1:2014				
EMC	**EMI**	**Test Items**	**Standard**	**Test Level**		
		Conducted	EN / BS EN 55032	Class B		
		Radiated	EN / BS EN 55032	Class B		
		Harmonic	EN / BS EN 61000-3-2	Class A		
		Voltage Flicker	EN / BS EN 61000-3-3	---		
	EMS	**Test Items**	**Standard**	**Test Level**		
		ESD	EN / BS EN 61000-4-2	Level 3, 8KV air；Level 2, 4KV contact		
		Radiated	EN / BS EN IEC 61000-4-3	Level 2		
		EFT / Burst	EN / BS EN 61000-4-4	Level 2		
		Surge	EN / BS EN 61000-4-5	Level 3, 1KV/Line-Line , 2KV/Line-Earth		
		Conducted	EN / BS EN 61000-4-6	Level 2		
		Magnetic Field	EN / BS EN 61000-4-8	Level 2		
		Voltage Dips and Interruptions	EN / BS EN IEC 61000-4-11	>95% dip 0.5 period, 30% dip 25 periods >95% interruptions 250 periods		
OTHERS	**Cooling**	Natural cooling.				
	M.T.B.F.	626.3K hours				
	Dimension	62 x 50.8 x 28 mm (L*W*H)				
	Packing	N.W.: 0.13 Kg / 1pc; 100pcs/ 0.85 CUFT / 1 CTN				
NOTE	① All measurements which not mentioned are based on 230VAC input, **output Max** at ambient 25℃ / 70%RH ② Output tolerance included set up voltage, line regulation and load regulation. ③ Ripple & noise are measured at 100~254VAC input with 10~50℃ condition and 20MHz of bandwidth by using a 10" ~15" twisted pair-wire terminated with a 0.1uF & a 47uF parallel capacitor. ④ The operating temperature shall follow the de-rating curve in spec ⑤ The power supply is considered a component of end-equipment. The end-equipment must be re-confirmed whether comply with EMC directives.					

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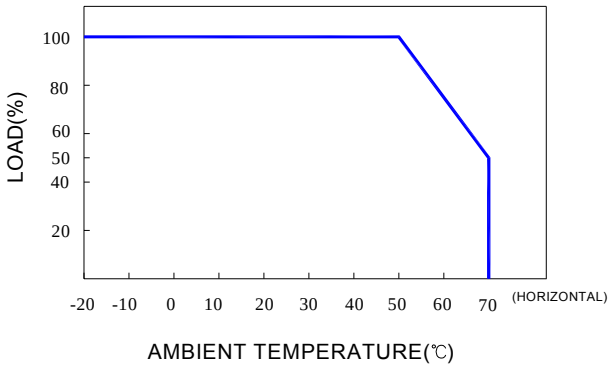
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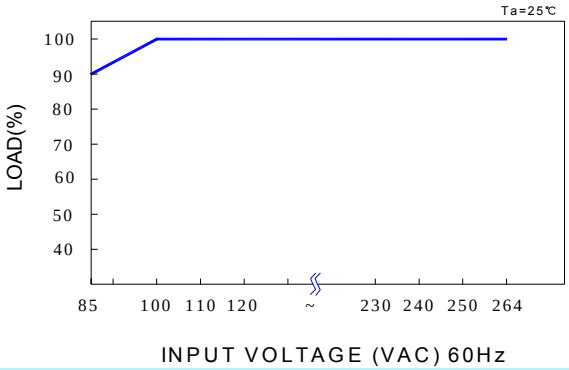
Block Diagram：US2-1



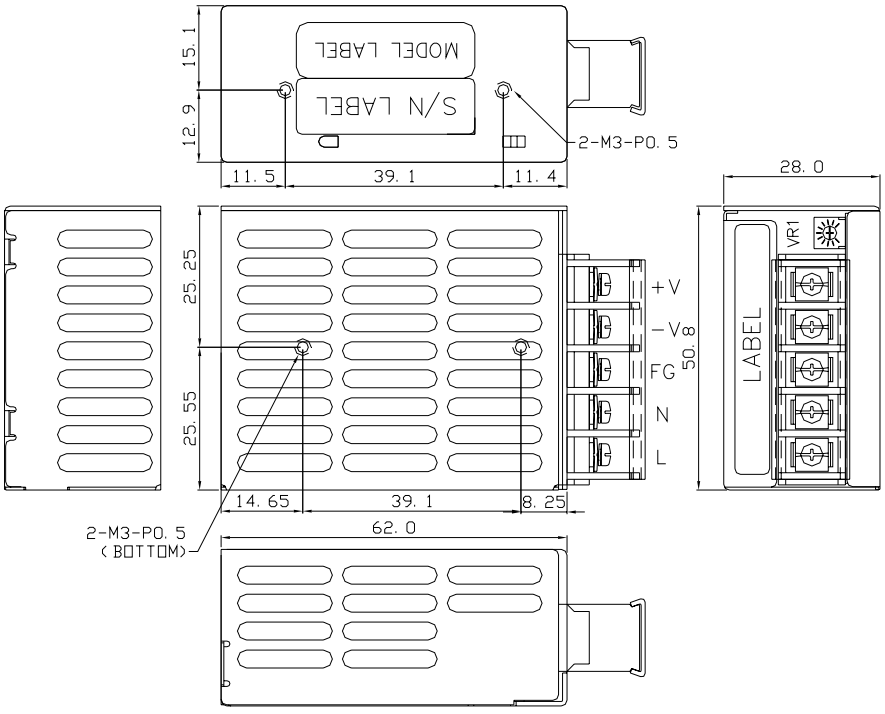
De-rating Curve：



Output De-rating Vs Input Voltage：



Dimension: (Unit: mm)



Terminal Pin. No Assignment: 5P/7.62mm w/plastic cover

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	DC OUTPUT –V
2	AC/N	5	DC OUTPUT +V
3	FG		

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