



### Features :

- Universal AC input / Full range
- Refer to medical safety EN60601-1(2XMOPP)
- Protections: Short circuit /Over load /Over voltage
- Cooling by free air convection
- 1.8" x 2.5" compact size
- LED indicator for power on
- No load power consumption <0.1W
- Operating altitude up to 4000 meters
- 3 years warranty

### Specification

MODEL		HPS-15-3.3	HPS-15-5	HPS-15-7.5	HPS-15-12	HPS-15-15	HPS-15-24	HPS-15-27	HPS-15-36	HPS-15-48
INPUT	VOLTAGE RANGE	80~264Vac 120~370Vdc (refer to 'static characteristic')								
	FREQUENCY RANGE	47~63Hz								
	EFFICIENCY(Typ.)	85%	86%	86%	87%	87%	89%	89%	90%	91%
	AC CURRENT(Typ.)	0.4A/115Vac 0.2A/230Vac								
	INRUSH CURRENT(Typ.)	45A/230Vac (cold start)								
	LEAKAGE CURRENT	Touch current <100uA/240Vac								
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	27V	36V	48V
	RATED CURRENT	3A	3A	2A	1.25A	1A	0.63A	0.56A	0.42A	0.32A
	CURRENT RANGE	0~3.3A	0~3.3A	0~2.2A	0~1.4A	0~1.1A	0~0.69A	0~0.62A	0~0.46A	0~0.34A
	RATED POWER	9.9W	15W	15W	15W	15W	15.12W	15.12W	15.12W	15.36W
	PEAK LOAD(10 SEC.)	10.89W	16.5W	16.5W	16.8W	16.5W	16.56W	16.74W	16.56W	16.32W
	RIPPLE&NOISE(max.)	50mVp-p	50mVp-p	80mVp-p	80mVp-p	100mVp-p	150mVp-p	180mVp-p	200mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	3.1~3.6V	4.75 ~ 5.5V	7.13~8.25V	10.8~13.5V	13.5~16.5V	21.6~27V	24.3~29.7V	32.4~39.6V	43.2~52.8V
	VOLTAGE TOLERANCE	±2%	±2%	±2%	±1%	±1%	±1%	±1%	±1%	±1%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1%	±1%	±1%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1000ms,30ms/230Vac 2000ms,30ms/115Vac								
	HOLD UP TIME(Typ.)	50ms/230Vac 10ms/115Vac at full load								
PROTECTION	OVER LOAD	115%~160% rated output power Protection type: Hiccup mode ,recovers automatically after fault condition is removed.								
	OVER VOLTAGE	3.8-4.85V	5.75-6.75V	8.6~10.2V	13.8~16.2V	17.2~20.25V	27.6~32.4V	31~36.45V	41.4~48.6V	55.2~64.8V
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)								
	OPERATING ALTITUDE	4000 meters								
	VIBRATION	10~500Hz, 2G 10min./1 cycle, period for 60 min. each along X、Y、Z axes								

Safety and electromagnetic compatibility	Safety standards	Refer to UL62368-1,TUV EN62368-1,CCC GB4943.1,EN60601-1(2XMOPP)		
	Withstand voltage and isolation resistance	I/P-O/P: 4KVac; 100MΩ / 500Vdc / 25°C / 70%RH		
	Electromagnetic	Parameter	Standard	Test Level / Note
		Conducted emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1	Class B
		Radiated emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1	Class B
		Harmonic current	BS EN/EN61000-3-2,GB17625.1	Class A
		Voltage flicker	BS EN/EN61000-3-3	----
		BS EN/EN55035		
		Parameter	Standard	Test Level /Note
		ESD	BS EN/EN61000-4-2	Level 4, 8KV air, Level 2, 4KV contact, criteria A
	RF field susceptibility	BS EN/EN61000-4-3	Level 3, criteria A	
	EFT bursts	BS EN/EN61000-4-4	Level 3, criteria A	
	Surge susceptibility	BS EN/EN61000-4-5	Level 3, 1KV/L-N, criteria A	
	Conducted susceptibility	BS EN/EN61000-4-6	Level 3, criteria A	
	Magnetic field immunity	BS EN/EN61000-4-8	Level 4, criteria A	
	Voltage dips and interruptions	BS EN/EN61000-4-11	>95% dip 0.5 periods, 30% dip 25 periods , >95% interruptions 250 periods	
OTHERS	MTBF	≥650Khrs MIL-HDBK-217F(25°C)		
	DIMENSION	PCB: 63.5*45.7*24mm(L*W*H)		
	PACKING	0.06Kg; 180pcs/ 11.8Kg/ 1.38CUFT		
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. 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.</p> <p>3. Tolerance: includes set up tolerance, line regulation and load regulation.</p> <p>4. Line regulation is measured from low line to high line at rated load.</p> <p>5. Load regulation is measured from 0% to 100% rated load</p> <p>6. Length of set up time is measured at cold first start, Turning ON/OFF the power supply very quickly may lead to increase of the set up time.</p> <p>7. The ambient temperature derating of 5°C/1000m is needed for operating altitude great than 2000m(6500ft).</p> <p>8. 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.</p> <p>9. Peak load 33% duty cycle maximum within every 30 seconds. Average output power should not be exceed the rated power.</p>			

## Mechanical specification

Top Viwe

Front Viwe

NOTE:  
Unit: mm  
SVR1:Output adjustable resistor  
TOL: ±1.00

AC Input Connector(CN1): JST B3P-VH or equivalent.

Pin No	Assignment	Mating Housing	Terminal
1	AC/L	JST VHR or equivalent	ST SVH21T-P1.1 or equivalent
2	No Pin		
3	AC/N		

DC Output Connector(CN2): JST B2P-VH or equivalent.

Pin No	Assignment	Mating Housing	Terminal
1	+V	JST VHR or equivalent	ST SVH21T-P1.1 or equivalent
2	-V		

## Block diagram

