



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
- 3" x 2" 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-45-5	HPS-45-12	HPS-45-15	HPS-45-24	HPS-45-48
INPUT	VOLTAGE RANGE	80 ~ 264VAC(refer to 'static characteristic')				
	FREQUENCY RANGE	47~63Hz				
	EFFICIENCY(Typ.)	83%	88%	89%	90%	90%
	AC CURRENT(Typ.)	1.2A / 115VAC 0.7A / 230VAC				
	INRUSH CURRENT(Typ.)	30A/115VAC 60A/230VAC (cold start)				
	LEAKAGE CURRENT(max.)	Touch current< 80 μA/264VAC				
OUTPUT	DC VOLTAGE	5V	12V	15V	24V	48V
	RATED CURRENT	8A	3.8A	3A	1.9A	0.95A
	CURRENT RANGE	0~8.8A	0~4.18A	0~3.3A	0~2.1A	0~1.05A
	RATED POWER	40W	45.6W	45W	45.6W	45.6W
	PEAK LOAD(10sec.)	44W	50.2W	49.5W	50.2W	50.4W
	RIPPLE & NOISE (max.)	60mVp-p	100mVp-p	100mVp-p	120mVp-p	120mVp-p
	VOLTAGE ADJ.RANGE	4.7-5.5V	11.4-13.2V	13.5-16.5V	22.8-27.6V	45.6-52.8V
	VOLTAGE TOLERANCE	±2%	±2%	±2%	±1%	±1%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1%	±1%	±1%	±1%	±1%
	SETUP, RISE TIME	500ms, 30ms / 230VAC 500ms, 30ms / 115VAC at full load				
	HOLD UP TIME (Typ.)	30ms / 230VAC 16ms / 115VAC at full load				
PROTECTION	OVER LOAD	115 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed				
	OVER VOLTAGE	5.7-6.8V	13.8-16.2V	17.2-20.3V	28.4-32.4V	55.2-64.8V
		Protection type: Shunt down, recovers after repower on				
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 non-condensing				
	TEMP. COEFFICIENT	±0.03% /°C(0 ~ 50°C)				
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
	OPERATING ALTITUDE	4000 meters				

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: 76.2*50.8*24mm(L*W*H)		
	PACKING	0.09Kg; 108pcs/10.7Kg/ 1CUFT		
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 & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 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 View

Front View

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

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

Pin No.	Assignment	Mating Housing	Termina
1	AC/N	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/L		

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

Pin No.	Assignment	Mating Housing	Termina
1~2	+V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3~4	-V		

Block diagram

