

Features:

- Universal AC input 80~264VAC
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 4”X2” miniature size
- High efficiency up to 90%
- LED indicator for power on
- Cooling by free air convection for 84W and 120W with 10CFM forced air
- Built-in 12V/0.5A FAN supply
- Refer to medical safety (2XMOPP) according to ANSI/AAMI ES60601-1 and IEC/BS EN60601-1
- 3 years warranty

Specification

MODEL		HPS-120-12	HPS-120-15	HPS-120-24	HPS-120-27	HPS-120-36	HPS-120-48		
INPUT	VOLTAGE RANGE	80~264VAC 120~370VDC (Refer to“Static characteristics”)							
	FREQUENCY RANGE	47~63Hz							
	EFFICIENCY(Typ.)	89%	89%	89%	89%	90%	90%		
	AC CURRENT(Typ.)	2.3A/115VAC 1.2A/230VAC							
	INRUSH CURRENT(Typ.)	30A/115VAC 60A/230VAC (cold start)							
	LEAKAGE CURRENT	Earth leakage current<130uA/264VAC, touch current<40uA/264VAC							
OUTPUT	DC VOLTAGE	12V	15V	24V	27V	36V	48V		
	RATED CURRENT	10CFM	10A	8A	5A	4.44A	3.33A	2.5A	
		Convection	7A	5.6A	3.5A	3.11A	2.33A	1.75A	
	RATED POWER	10CFM	120W	120W	120W	119.88W	119.88W	120W	
		Convection	84W	84W	84W	83.97W	83.88W	84W	
	RIPPLE&NOISE (max.)	100mVp-p							
	VOLTAGE ADJ.RANGE	11.4~12.6V		14.2~15.8V		22.8~25.2V		25.6~28.4V	
	VOLTAGE TOLERANCE	±2%		±2%		±1%		±1%	
	LINE REGULATION	±0.5%		±0.5%		±0.5%		±0.5%	
	LOAD REGULATION	±1%		±1%		±1%		±1%	
SETUP, RISE TIME	500ms,30ms/230VAC 500ms,30ms/115VAC								
HOLD UP TIME(Typ.)	50ms/230VAC 10ms/115VAC								
PROTECTION	OVER LOAD	110%~150% rated output power Protection type: Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	15~18V	18~24V	29~35V	35~42V	43.5~52.5V	56~66V		
	OVER TEMPERATURE	Protection type: Shunt down, recovers after repower on							
FUNCTION	FAN SUPPLY	12V@ 0.5A for driving a fan; tolerance ±10% at main output 40% rated current(10CFM)							
ENVIRONMENT	WORKING TEMP., HUMIDITY	-30~+70°C (Refer to “ Derating curve”) , 20~90%RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40~+85°C, 10~95%RH							
	TEMP. COEFFICIENT	±0.03%/°C(0~50°C)							
	VIBRATION	10~500Hz, 2G 10min./1 cycle, 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			
		I/P-FG: 2KVac; 100MΩ / 500Vdc / 25°C / 70%RH			
		O/P-FG: 1.5KVac; 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		----
	Electromagnetic compatibility immunity	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 4, 2KV/L-N, 4KV/L/N-FG 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	≥500Khrs MIL-HDBK-217F(25°C)			
	DIMENSION	PCB: 101.6*50.8*29mm(L*W*H)			
	PACKING	0.19Kg; 96pcs/19.24Kg/1.51CUFT			
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>				

Mechanical specification

Top View

50.8

10CFM

Air flow direction

6cm

3.2

44.5

3

2

1

FS1

CN1

FS2

95.2

101.6

3.2

1

2

3

4

LED

SVR1

1- \varnothing 3.2

Front View

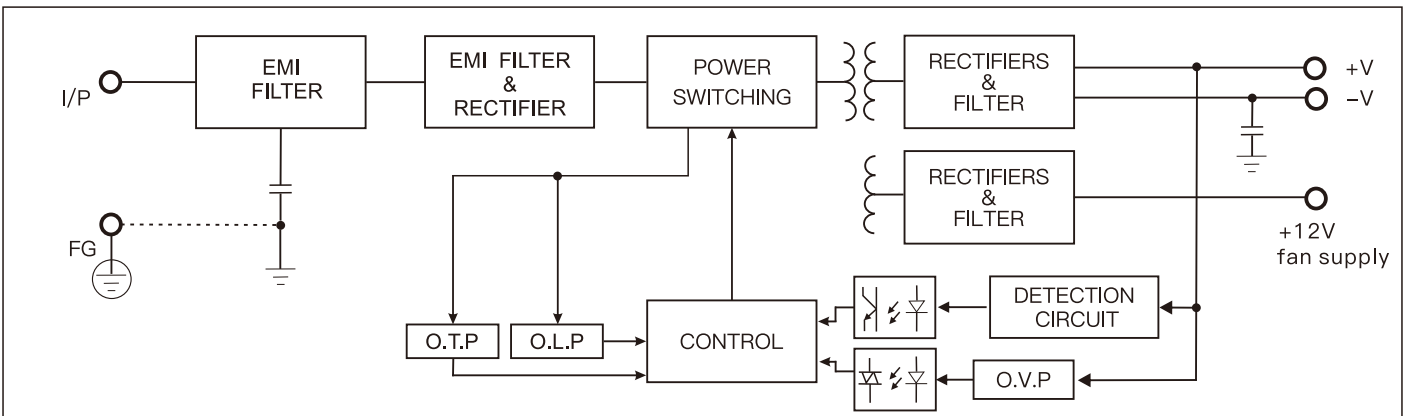
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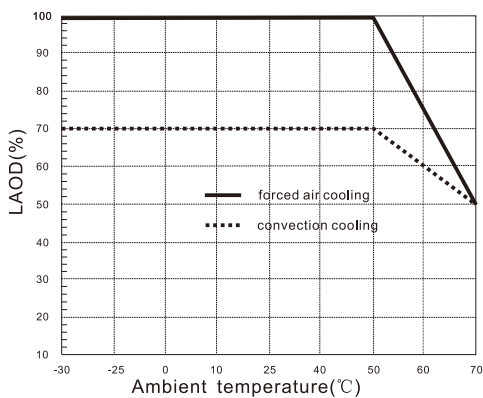
NOTE:
Unit: mm
SVR1: Output adjustable resistor
TOL: ± 1.00

Designator	Connector	Function	PIN NO.	Assignment
CN1	CJT A3963WV-3P- A or equivalent	AC input	1	AC/N
			2	NC
			3	AC/L
CN2	CJT A3963WV-6P or equivalent	DC output	1-2	+V
			3-4	-V
CN3	CJT A2501WV-2P or equivalent	12V Fan supply	1	-V
			2	+V

Block diagram



Derating curve



Static characteristics

