

page 1 of 4

date 09/2008

DESCRIPTION: Switching Power Supply PART NUMBER: VPS-45 series

features

- · universal AC input/Full range
- low leakage current < 0.5mA
- · short circuit protection
- · over load protection
- · over voltage protection · cooling by free air convection
- · 100% full load burn-in test
- · fixed switching frequency at 65KHz
- · 2 year warranty





	preset	output	outpu	t current	ri	ipple & noise ³	
MODEL	voltage	tolerance ²	18 CFM	convection	line regulation4	(pp)	efficiency
VPS-45-3.3	3.3V	±3%	10.7 A	8 A	± 1%	80 mV	69%
VPS-45-5	5V	±3%	10.5 A	8 A	± 1%	100 mV	74%
VPS-45-7.5	7.5V	±3%	7.0 A	5.4 A	± 1%	100 mV	75%
VPS-45-12	12V	±2%	4.4 A	3.7A	± 1%	100 mV	76%
VPS-45-13.5	13.5V	±2%	3.9 A	3.3 A	± 1%	100 mV	77%
VPS-45-15	15V	±2%	3.5 A	3 A	± 1%	100 mV	77%
VPS-45-24	24V	±2%	2.2 A	1.9 A	± 1%	100 mV	78%
VPS-45-27	27V	±2%	1.95 A	1.7 A	± 1%	100 mV	78%
VPS-45-48	48V	±2%	1.1 A	1 A	± 1%	100 mV	78%

Notes:

- 1. All parameters not specifically mentioned are measured at 230VAC input, rated load, 25°C ambient
- 2. Tolerance includes set up tolerance, line regulation, load regulation
- 3. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uF & 47 uF capacitor
- 4. Line regulation is measured from low line to high line at rated load
- 5. Output provide up to maximum current, but related to maximum output power.
- 6. Connect earth ground to either M1, M2, or tab F for EMI purposes

V-Infinity reserves the right to make changes to its products or to discontinue any product or service without notice, and to advise customers to verify the most up-todate product information before placing orders. V-Infinity assumes no liability or responsibility for customer's applications using V-Infinity products other than repair or replacing (at V-I's option) V-Infinity products not meeting V-I's published specifications. Nothing will be covered outside of standard product warranty.



page 2 of 4date 09/2008

PART NUMBER: VPS-45 series **DESCRIPTION:** Switching Power Supply

INPUT

parameter	conditions/description	min	nom	max	units	
input frequency		47		440	Hz	
input voltage		90		264	V ac	
		127		370	V dc	
input current	At 115 VAC			0.8	Α	
	At 230 VAC			0.56	Α	
inrush current	peak measured at 115 VAC at full load, cold start			15	Α	
	peak measured at 230 VACat full load, cold start			30	Α	

OUTPUT

parameter	conditions/description	min	nom	max	units
turn on delay				800	mS
rise				30	mS
hold up time				60	mS
output over-voltage	115% to 135%				

PROTECTION CIRCUIT

parameter	conditions/description
overload	53-75W (3.3 v: 36~55w)Hiccup mode, recovers automatically after fault condition is removed

GENERAL AND SAFETY

parameter	conditions/description	min nom	max	units
operating temp.	refer to output derating curve	-10	60	ºC
storage temp.		-20	85	οC
operating humid.	Non-condensing	20%	90%	RH
storage humid.	Non-condensing	10%	95%	RH
EMC	CISPR 22/EN55022 class B, EN61000-3-2,-3, EN6100-4	-2,3,4,5,6,8,11, ENV50204,	EN55024, Lig	ght industry level
safety	UL60950, TUV EN60950-1 approved			
leakage current	Regular type @ 240VAC		0.75	mA
vibration	2G 10 min. /1 cycle for 60 min on X, Y and Z Axis	10	500	Hz
isolation voltage	Applied for 1 minute			
(HI-POT)	Primary to secondary:	500 / 100M Ohms		VDC
	Primary to earth ground:	500 / 100M Ohms		VDC
	secondary to earth ground:	500 / 100M Ohms		VDC
withstand voltage	Applied for 1 minute			
	Primary to secondary:	3000		VAC
	Primary to earth ground:	1500		VAC
	secondary to earth ground:	500		VAC
temp. coefficient	±0.5% / ° C	0	50	°C



page 3 of 4

date 09/2008

PART NUMBER: VPS-45 series DESCRIPTION: Switching Power Supply

MECHANICAL

parameter	conditions/description	min	nom	max	units
weight				190	grams
enclosure	5(L) x 3(W) x 1.1(H) PCB only				inches

INPUT CONNECTOR - (CN1)

parameter	conditions/description	
AC input	Molex Part No. 5277-02 (2 oins)	
	Suggested mating plug: Molex Part No. 5915 with 5914 crimp terminals	

OUTPUT CONNECTOR - (CN2)

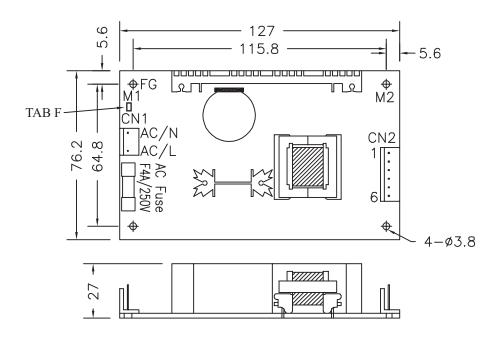
parameter	conditions/description
output (option 1)	Molex Part No. 5273-06 (6 pin)
	Output pin assignment, V+ (Pins 1-3), V- (Pins 4-6)
	Suggested mating connector: Molex Part No. 5915 with 5914 crimp terminals



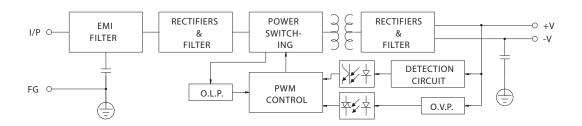
page 4 of 4date 09/2008

PART NUMBER: VPS-45 series **DESCRIPTION:** Switching Power Supply

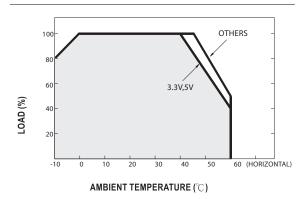
DIMENSIONS (mm)



BLOCK DIAGRAM



OUTPUT DERATING



STATIC CHARACTERISTICS

