

AC-DC ITE Power Module

VPOCH05 SERIES 5 Watts

KEY FEATURES

- Ultra Compact Size: 1.46" x 1.08"
- Universal Input Range 90-305VAC, 47-440Hz
- I/O Isolation 4000VAC
- Operating Ambient Temperature Range -40°C to +70°C
- No Load Power Consumption < 0.1W
- EMC Compliant without External Components
- Safety Approval to UL / IEC / EN 62368-1
- Meet IEC / EN 60335-1
- 3-Year Product Warranty



ELECTRICAL SPECIFICATIONS

All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No. (Single Output)	VPOCH05-3.3S	VPOCH5-5S	VPOCH5-12S	VPOCH5-24S
Max Output Wattage (W)	5W		5.04W	
Input	Voltage			
	90-305 VAC or 127-430 VDC			
	Frequency (Hz)			
	47-440 Hz			
	Current (Full load)			
150 mA max. (115 VAC) / 90 mA max. (230 VAC)				
Inrush Current (<500us)				
30 A max. (115 VAC) / 60 A max. (230 VAC)				
Leakage Current				
0.25 mA max.				
Output	Voltage (V.DC.)			
	3.3V	5V	12V	24V
	Voltage Accuracy			
	±2%			
	Current (mA) max			
	1515	1000	420	210
	Line Regulation (LL-HL) (typ.)			
	±0.2%		±0.1%	
	Load Regulation (0-100%) (typ.)			
±1%		±0.5%		
Maximum Capacitive Load				
3,500uF		2,500uF		
Ripple & Noise (Vp-p) max				
<100mV		<150mV		
Efficiency (at 115VAC)				
73%		77%		
81%				
83%				
Hold-up Time (at 230VAC)				
15 ms min.				
Protection	Over Power Protection			
	Hiccup technique, auto-recovery ≥ 115% Io			
	Over Voltage Protection			
Zener diode clamp				
Short Circuit Protection				
Hiccup mode, indefinite (automatic recovery)				
Isolation	Input-Output (V.AC)			
4000V				
Environment	Operating Temperature			
	-40°C...+70°C (with derating)			
	Storage Temperature			
	-40°C...+85°C			
	Temperature Coefficient			
	±0.02%/°C			
	Humidity			
95% RH				
MTBF				
>450,000 h @ 25°C (MIL-HDBK-217F)				
Vibration				
IEC60068-2-27 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes)				
Shock				
IEC60068-2-6				
Physical	Dimension (L x W x H)			
	1.46 x 1.08 x 0.69 Inches (37.0 x 27.5 x 17.5 mm) Tolerance ±0.5 mm			
	Case Material			
	Plastic resin (flammability to UL 94V-0)			
Weight				
24 g				
Cooling Method				
Free air convection				
Safety	Agency Approvals			
	UL / IEC / EN 62368-1			
Meet				
IEC / EN 60335-1				
EMC	EMI (Conducted & Radiated Emission)			
	EN 55032 class B			
EMS (Noise Immunity)				
EN 55035				

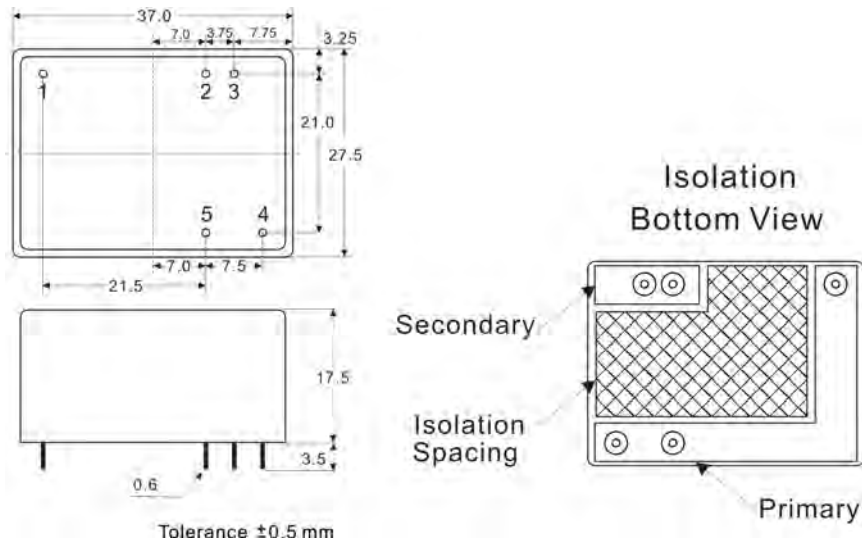
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NOTE

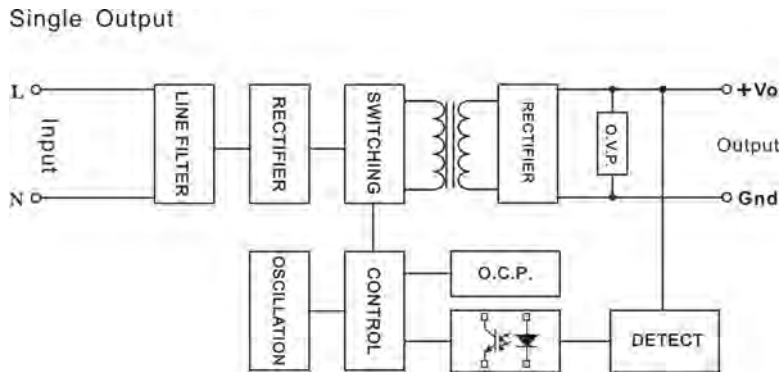
Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.

MECHANICAL DIMENSION (Top View)



PIN#	Single
1	NO CONNECT
2	+Vo
3	GND
4	AC IN (L)
5	AC IN (N)

BLOCK DIAGRAM



DERATING

