

## VPOCH10 SERIES 10 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
- High Efficiency up to 86%
- EMC Compliant without External Components
- Safety Approval to UL / IEC / EN 62368-1, TUV IEC / EN 60335-1
- 3-Year Product Warranty



## ELECTRICAL SPECIFICATIONS

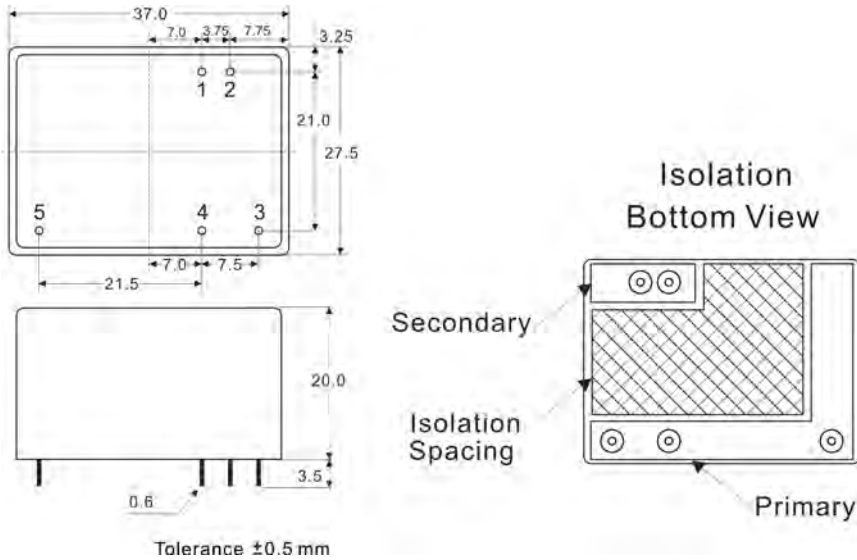
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No. ( Single Output )	VPOCH10-5S	VPOCH10-12S	VPOCH10-15S	VPOCH10-24S
Max Output Wattage (W)	10W			
Input	Voltage			
	90-305 VAC or 120-430 VDC ( N Connect +Vin ; L Connect -Vin ) for others 90-264 VAC or 120-370 VDC ( N Connect +Vin ; L Connect -Vin ) for Household			
	Frequency (Hz)			
	47-440 Hz			
	Current (Full load)			
	230 mA max. (115 VAC) / 140 mA max. (230 VAC)			
Output	Inrush Current			
	30 A max. (115 VAC) / 60 A max. (230 VAC)			
	Leakage Current			
	0.25 mA max.			
	External Fuse (mandatory)			
	2 A slow blow type			
Output	Voltage (V.DC.)			
	5V	12V	15V	24V
	Voltage Accuracy			
	±2%			
	Current (mA) max			
	2000	833	667	417
	Line Regulation (LL-HL) (typ.)			
	±0.2%			
Output	Load Regulation (0-100%) (typ.)			
	±1%		±0.5%	
	Maximum Capacitive Load			
	3,500uF	700uF	390uF	180uF
	Ripple & Noise (Vp-p) max			
	<150mV		<160mV	
	Efficiency (at 230VAC)			
	81%	85%	86%	86%
Hold-up Time (at 230VAC)				
30 ms min.				
Protection	Over Power Protection			
	Hiccup technique, auto-recovery			
	Over Voltage Protection			
Zener diode clamp				
Isolation	Short Circuit Protection			
	Hiccup mode, indefinite (automatic recovery)			
Environment	Input-Output (V.AC)			
	4000V			
	Operating Temperature			
	-40°C...+70°C ( with derating )			
	Storage Temperature			
	-40°C...+85°C			
	Temperature Coefficient			
±0.02%/°C				
Physical	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)			
Physical	Shock			
	IEC60068-2-6			
	Dimension (L x W x H)			
	1.46 x 1.08 x 0.79 Inches ( 37.0 x 27.5 x 20.0 mm ) Tolerance ±0.5 mm			
Physical	Case Material			
	Plastic resin (flammability to UL 94V-0)			
	Weight			
31 g				
Safety	Cooling Method			
	Free air convection			
EMC	Agency Approvals			
	UL / IEC / EN 62368-1, TUV IEC / EN 60335-1			
EMC	EMI (Conducted & Radiated Emission)			
	EN 55032 class B			
EMC	EMS (Noise Immunity)			
	EN 55035			

**NOTE**

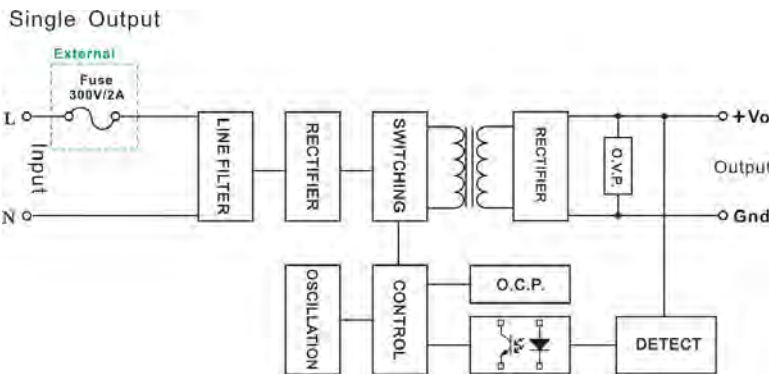
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. A fuse 300V/2A is directly connected to the input and this fuse is 3.2mm min. away from each polarity.

**MECHANICAL DIMENSION ( Top View )**



PIN#	Single
1	+Vo
2	GND
3	AC IN (L)
4	AC IN (N)
5	NC CONNECT

**BLOCK DIAGRAM**



**DERATING**

