

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, IEC / EN 60950, IEC / EN 60335-1, IEC / EN 61558-2-16
- 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)	VOCH05-3.3S	VOCH05-5S	VOCH05-12S	VOCH05-24S
Max Output Wattage (W)	5W		5.04W	
Input	Voltage			
	90-305 VAC or 120-430 VDC for ITE 90-264 VAC or 120-370 VDC for Household			
	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	470uF	150uF	
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				
IEC60068-2-6 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes)				
Shock IEC60068-				
2-27				
Physical	Dimensions (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, IEC / EN 60950, IEC / EN 60335-1, IEC / EN 61558-2-16				
EMC	EMI (Conducted & Radiated Emission)			
	EN 55032 class B			
EMS (Noise Immunity)				
EN 55035				

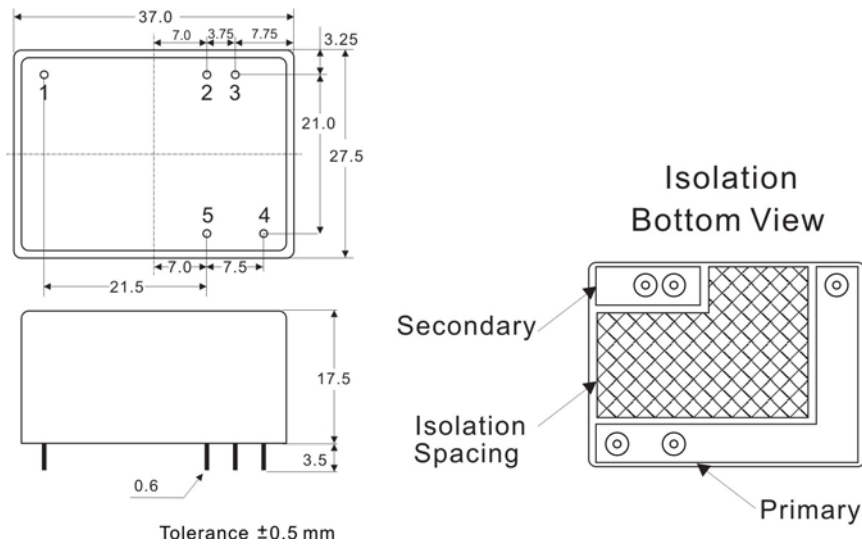
NOTE

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

2.  **SMPS** incorporating a short-circuit-proof safety isolating transformer (non-inherently)

3.  **SMPS** (Switching mode power supply unit)

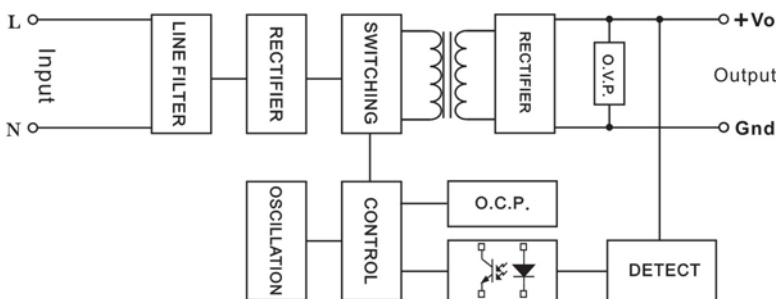
MECHANICAL DIMENSIONS (Top View)



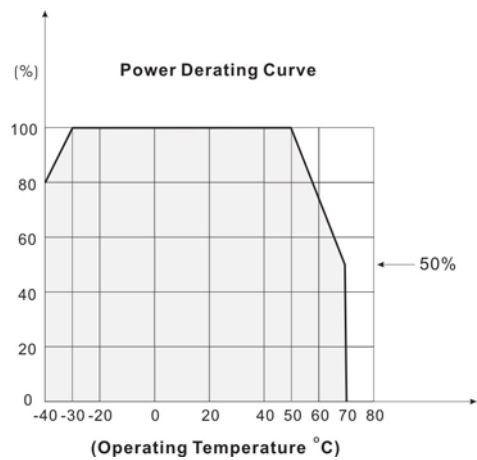
PIN#	Single
1 N	O CONNECT
2 +V	o
3 GND	
4	AC IN (L)
5	AC IN (N)

BLOCK DIAGRAM

Single Output



DERATING



We reserve the right to make alterations in the product materials and specifications without prior notification and consent to improve reliability, function or design or otherwise.