ARCH ELECTRONICS CORP.

AC-DC ITE Power Module

AOCH05 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

(In Progress)

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)		AOCH05-3.3S	AOCH05-5S	AOCH05-12S	AOCH05-24S
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) / 100 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	<200mV
	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)			
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	In Progress			
	Cooling Method	Free air convection			
Safety	Agency Approvals	UL / IEC / EN 62368-1 (In Progress)			
	Meet	IEC / EN 60335-1 (In Progress)			
EMC	EMI (Conducted & Radiated Emission)	EN 55032 class B (In Progress)			
	EMS (Noise Immunity)	EN 55035 (In Progress)			

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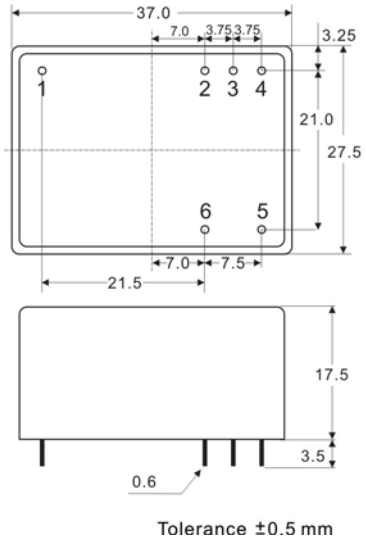
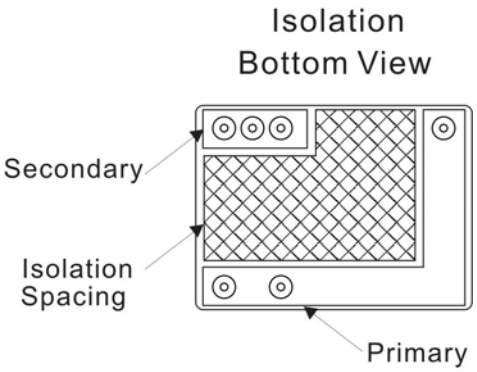
NOTE

1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

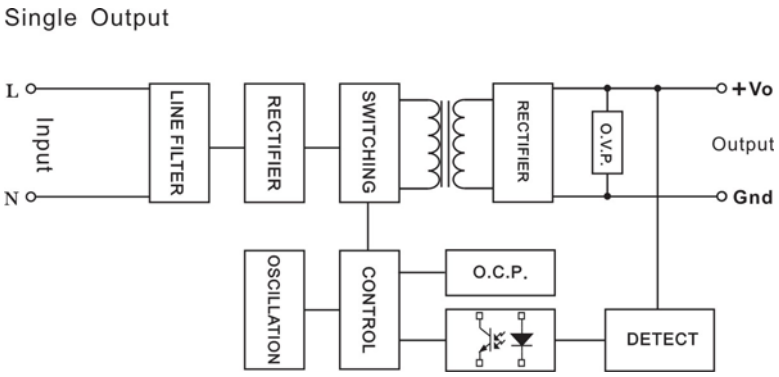
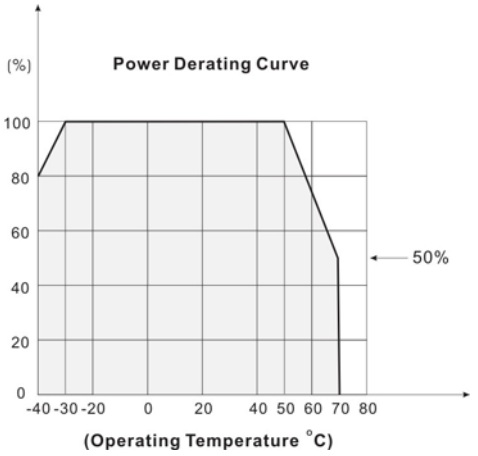
MECHANICAL DIMENSION (Top View)





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

BLOCK DIAGRAM



DERATING