

AOCH10 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%
- Operating attitude 5000m (UL / IEC / EN 62368-1)
- EMC Compliant without External Components
- Safety Approval to UL / IEC / EN 62368-1, IEC / EN 60950-1, TUV IEC / EN 60335-1, TUV 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)		AOCH10-5S	AOCH10-12S	AOCH10-15S	AOCH10-24S
Max Output Wattage (W)		10W			
Input	Voltage	90-305 VAC or 120-430 VDC (N Connect +Vin ; L Connect -Vin)			
	Frequency (Hz)	47-440 Hz			
	Current (Full load)	230 mA max. (115 VAC) / 140 mA max. (230 VAC)			
	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%			
	Load Regulation (0-100%) (typ.)	±1%		±0.5%	
	Maximum Capacitive Load	3,500uF	700uF	390uF	180uF
	Ripple & Noise (Vp-p) (max.)	<150mV		<160mV	1% Vout
	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			
	Short Circuit Protection	Hiccup mode (automatic recovery)			
Isolation	Input-Output (V.AC)	4000V			
Environment	Operating Temperature (Note 5)	-40°C...+70°C (with derating)			
	Storage Temperature	-40°C...+85°C			
	Temperature Coefficient	±0.02%/°C			
	Altitude During Operation (UL / IEC / EN 62368-1)	5000m			
	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 0.79 Inches (37.0 x 27.5 x 20.0 mm) Tolerance ±0.5 mm			
	Case Material	Plastic resin (flammability to UL 94V-0)			
	Weight	31 g			
	Cooling Method	Free air convection			
Safety	Agency Approvals	UL / IEC / EN 62368-1, IEC / EN 60950-1, TUV IEC / EN 60335-1, TUV 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)

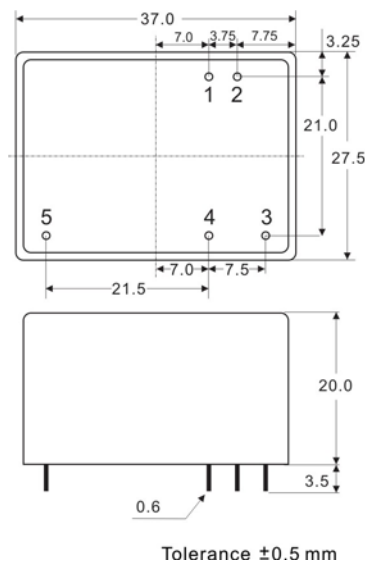
3.  **SMPS** (Switching mode power supply unit)

4. A fuse 300V/2A is directly connected to the input and this fuse is 3.2mm min. away from each polarity.

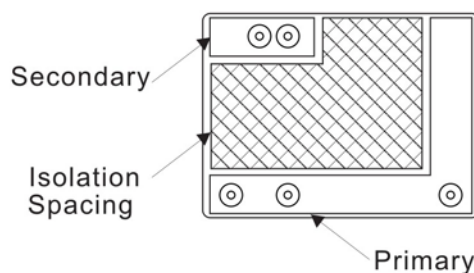
5. Due to varying customer application conditions, the product is tested for maximum operating temperature under full load only. For other regulatory requirements, please contact ARCH.

6. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

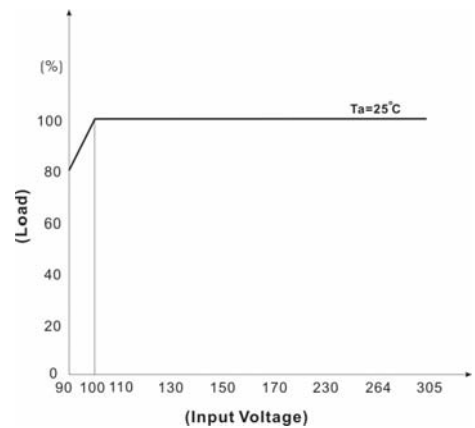
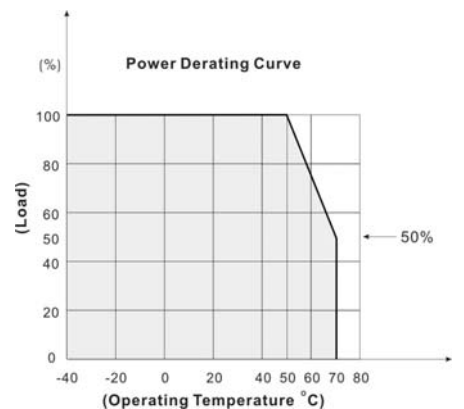
MECHANICAL DIMENSIONS (Top View)



Isolation Bottom View



DERATING



BLOCK DIAGRAM

Single Output

