

AHCH05 SERIES

5 Watts

KEY FEATURES

- Ultra Compact Size: 2.04" x 1.04"
- Universal Input Range 90-305VAC, 47-440Hz
- I/O Isolation 4000VAC
- Operating Ambient Temperature Range -40°C to +85°C
- No Load Power Consumption < 0.1W
- Operating attitude 5000m (UL / IEC / EN 62368-1)
- Screw Terminal for Option
- EMC Compliant without External Components
- Safety Approval to UL / IEC / EN 62368-1, IEC / EN 60950-1
- Meet IEC / EN 60335-1, IEC / EN 61558-2-16
- 3-Year Product Warranty



ELECTRICAL SPECIFICATIONS

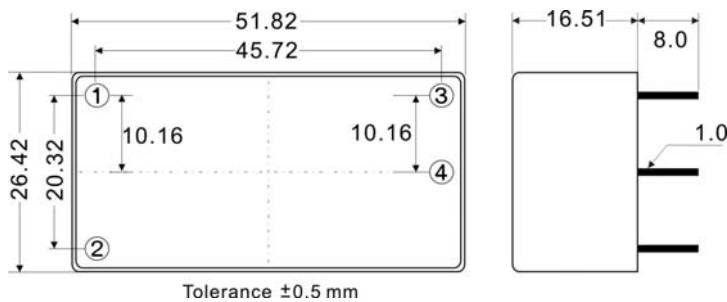
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

Model No. (Single Output)		AHCH05-3.3S	AHCH05-5S	AHCH05-12S	AHCH05-24S
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	2,200uF	330uF	70uF
	Ripple & Noise (Vp-p) (max.)	<100mV		<150mV	<200mV
	Efficiency (at 115VAC)	73%	76%	80%	82%
	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 (automatic recovery)			
Isolation	Input-Output (V.AC)	4000V			
Environment	Operating Temperature (Note 2)	-40°C...+85°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)	2.04 x 1.04 x 0.65 Inches (51.82 x 26.42 x 16.51 mm) Tolerance ±0.5 mm			
	Case Material	Plastic resin (flammability to UL 94V-0)			
	Weight	30 g			
	Cooling Method	Free air convection			
Safety	Agency Approvals	UL / IEC / EN 62368-1, IEC / EN 60950-1			
	Meet	IEC / EN 60335-1, IEC / EN 61558-2-16			
EMC	EMI (Conducted & Radiated Emission)	EN 55032 class B			
	EMS (Noise Immunity)	EN 55035			

NOTE

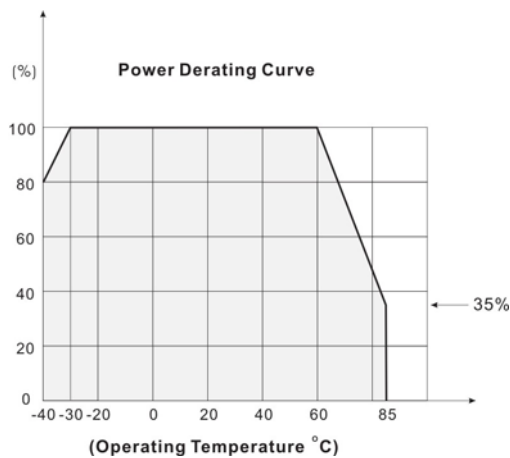
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. Due to varying customer application conditions, the product is tested for maximum operating temperature under full load only. For other regulatory requirements, please contact ARCH.
3. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

MECHANICAL DIMENSIONS (Top View)



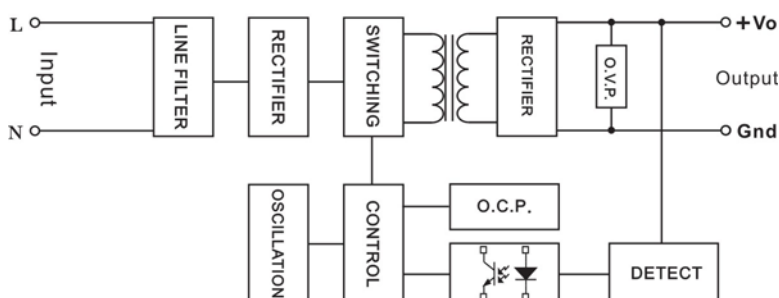
PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	+DC OUT
4	-DC OUT

DERATING



BLOCK DIAGRAM

Single Output



SCREW TERMINAL

AHCH05-A2



PIN#	Single
1	NO CONNECT
2	AC IN (N)
3	AC IN (L)
4	NO CONNECT
5	+DC OUT
6	-DC OUT
7	NO CONNECT
8	NO CONNECT

