

**AHC SERIES**

**5 Watts**

**KEY FEATURES**

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Regulated Output
- Low Ripple and Low Noise
- Isolation Class II
- Small Size: 2.0 x 1.0 x 0.6 Inches
- CE, CB and UL Approval
- 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.	AHC-3.3S	AHC-5S	AHC-12S	AHC-15S	AHC-24S	
Max Output Wattage (W)	4W	5W	5W	5W	5.5W	
Input	Voltage					
	90-264 VAC or 120-370 VDC					
	Frequency (Hz)					
	47-440 Hz					
	Current (Full load)					
	110 mA max. (115 VAC) / 70 mA max. (230 VAC)					
Inrush Current (<2ms)						
10 A max. (115 VAC) / 20 A max. (230 VAC)						
Leakage Current						
0.75 mA max.						
External Fuse (mandatory)						
1.5 A slow blow type						
Output	Voltage (V.DC.)	3.3V	5V	12V	15V	24V
	Voltage Accuracy	±2%				
	Current (mA) max	1250	1000	420	333	230
	Line Regulation (LL-HL) (typ.)	±0.3%.				
	Load Regulation (5-100%) (typ.)	±0.5%.				
	Minimum Load	0%				
	Maximum Capacitive Load (at 230VAC)	13800 uF	6000 uF	1400 uF	1000 uF	170 uF
	Ripple	<0.2% Vout +40mV max (Vp-p)				
	Noise	<0.5% Vout +50mV max (Vp-p)				
	Efficiency	68%	71%	75%	75%	77%
	Hold-up Time	15 ms min.				
Protection	Over Power Protection	Hiccup technique, auto-recovery				
	Over Voltage Protection	Zener diode clamp				
	Short Circuit Protection	Hiccup mode, indefinite (automatic recovery)				
Isolation	Input-Output (V.AC)	3000V				
Environment	Operating Temperature	-25°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	Dimensions (L x W x H)	2.0 x 1.0 x 0.6 Inches ( 51.2 x 25.8 x 15.4 mm ) Tolerance ±0.5 mm				
	Case Material	Plastic resin with Fiberglass (flammability to UL 94V-0)				
	Weight	30 g				
	Cooling Method	Free air convection				
Safety	Agency Approvals	UL / IEC / EN 60950, EN 62368-1				
EMC	EMI (Conducted & Radiated Emission)	EN 55032 class B				
	EMS (Noise Immunity)	EN 55024				

**AHC SERIES**

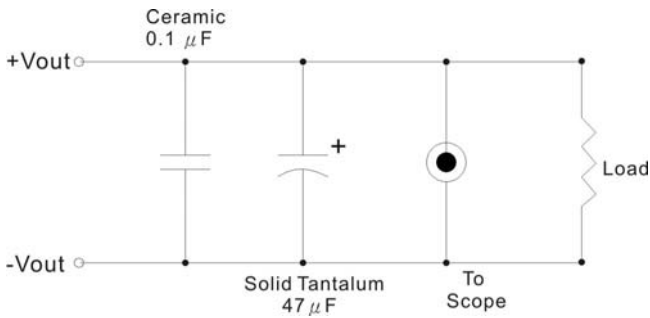
**5 Watts**

**NOTE**

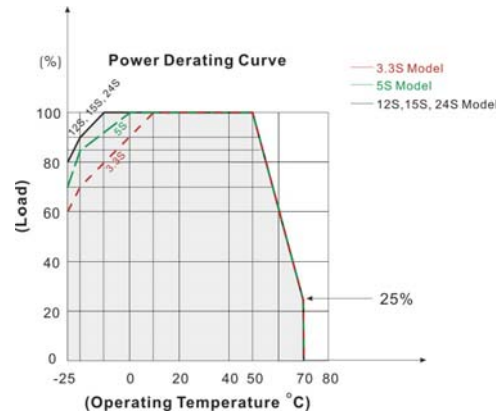
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. It's recommended to add Varistor 14S471K at L / N input side in parallel.
3. Safety approvals cover frequency 47-63 Hz.
4. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

**OUTPUT NOISE**

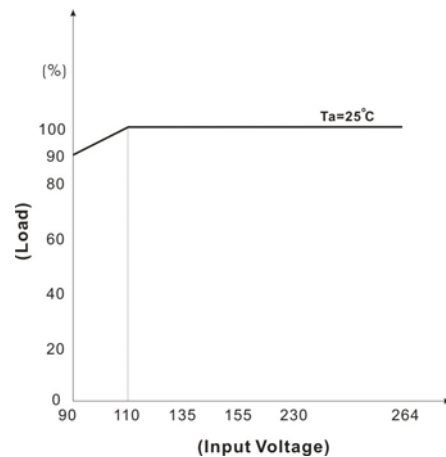
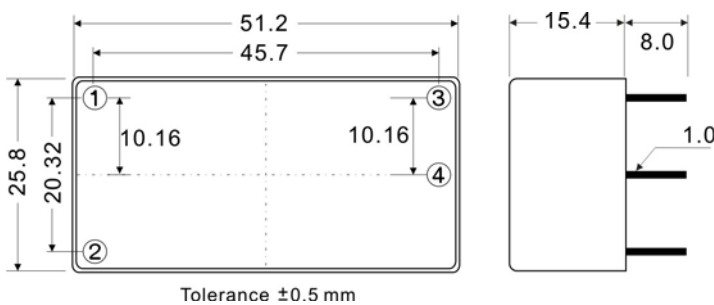
The output noise is measured with 47μF tantalum capacitor and 0.1μF ceramic capacitor across output.



**DERATING**



**MECHANICAL DIMENSIONS ( Top View )**



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

**BLOCK DIAGRAM**

Single Output

