

# ARCH AHC AC-DC Power Datasheet

<http://www.manuallib.com/arch/ahc-ac-dc-power-datasheet.html>

## KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Regulated Output and Low Ripple and Low Noise
- Isolation Class II
- Low Standby <0.5W
- Small Size as AFC 10Watt with 20Watt Higher Power
- Screw Terminal For Optional
- CE, CB and UL Approval
- 3-Years Product Warranty

ManualLib.com collects and classifies the global product instruction manuals to help users access anytime and anywhere, helping users make better use of products.

<http://www.manuallib.com>

## KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Regulated Output and Low Ripple and Low Noise
- Isolation Class II
- Small Size: 2.0 x 1.0 x 0.597 Inches
- Screw Terminal For Optional
- CE, CB and UL Approval
- 3-Years Product Warranty



## ELECTRICAL SPECIFICATIONS

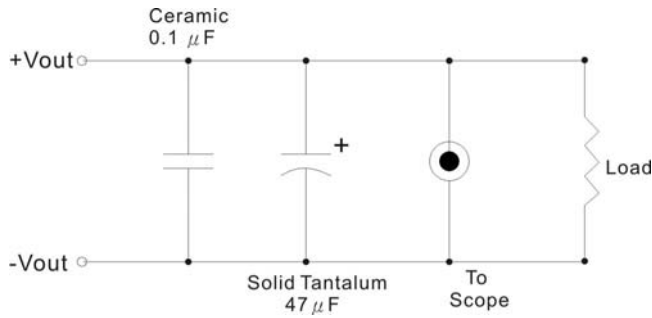
Model No.	AHC-3.3S	AHC-5S	AHC-12S	AHC-15S	AHC-24S
Max Output Wattage (W)	4W	5W	5W	5W	5.5W
Input	Voltage				
	90-264 VAC or 120-370 VDC				
	Frequency (Hz)				
	47-440 Hz				
	Current (Full load)				
	110 mA max. (115 VAC) / 70 mA max. (230 VAC)				
Output	Inrush Current (<2ms)				
	10 A max. (115 VAC) / 20 A max. (230 VAC)				
	Leakage Current				
	0.75 mA max.				
	External Fuse (recommend)				
	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%				
Protection	Maximum Capacitive Load				
	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.				
	Switching Frequency				
	132 kHz				
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					
Physical	Humidity				
	95% RH				
	MTBF				
	>360,000 h @ 25°C (MIL-HDBK-217F)				
	Dimension (L x W x H)				
2.0 x 1.0 x 0.597 Inches ( 50.8 x 25.4 x 15.16 mm ) Tolerance ±0.5 mm					
Physical	Case Material				
	Plastic resin with Fiberglass (flammability to UL 94V-0)				
	Weight				
30 g					
Safety	Cooling Method				
	Free air convection				
EMC	Agency Approvals				
	CE, UL/cUL, CB				
	EMI (Conducted & Radiated Emission)				
EN 55022 class B					
EMS (Noise Immunity)					
EN 55024					

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

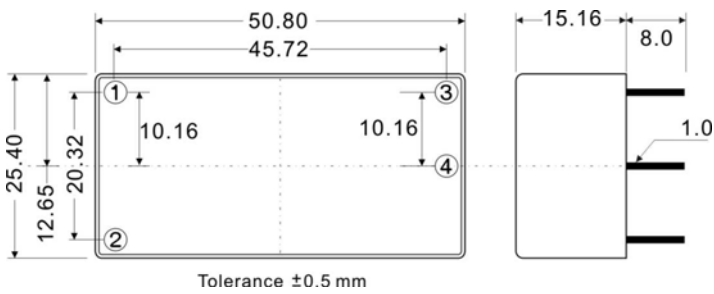
2.Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.

### OUTPUT NOISE

The output noise is measured with 47 $\mu$ F tantalum capacitor and 0.1 $\mu$ F ceramic capacitor across output.

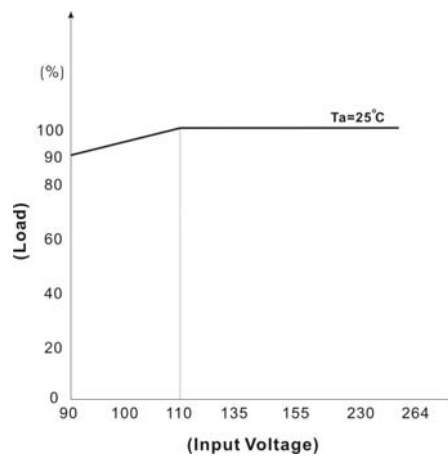
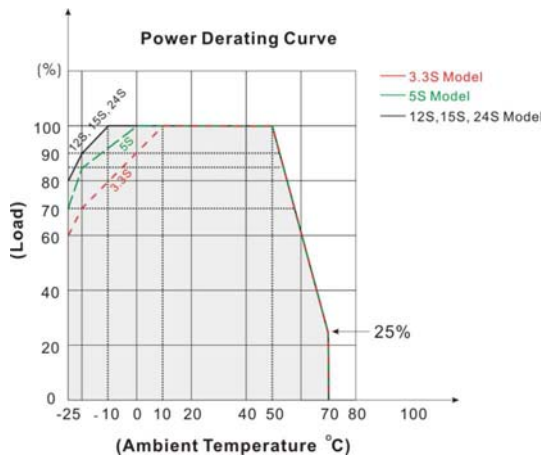


### MECHANICAL DIMENSION ( Top View )

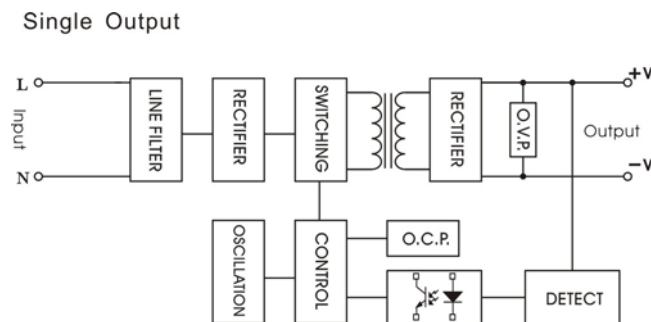


PIN#	SINGLE
1	AC IN (N)
2	AC IN (L)
3	+DC OUT
4	-DC OUT

### DERATING

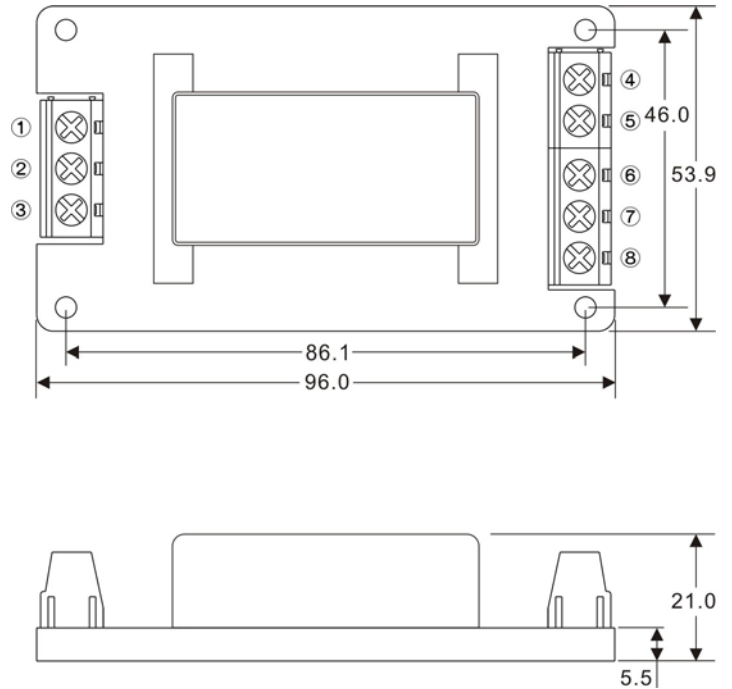


### BLOCK DIAGRAM



**SCREW TERMINAL**
**AHC-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


**AHC-A5**


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

