

## KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- <0.2W No Load Input Power
- Regulated Output and Low Ripple and Low Noise
- Isolation Class II
- Small Size: 2.0 x 1.0 x 0.6 Inches
- Screw Terminal For Optional
- 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.

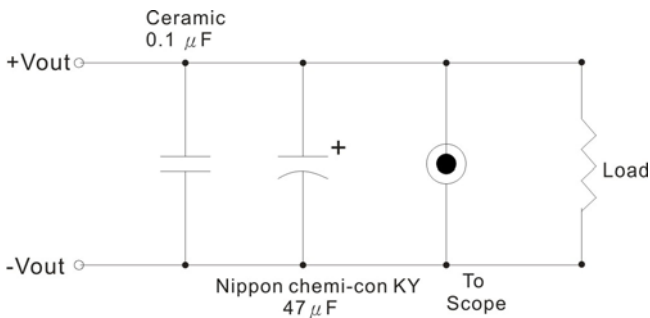
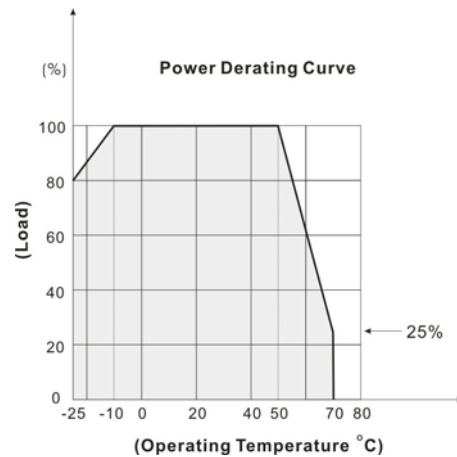
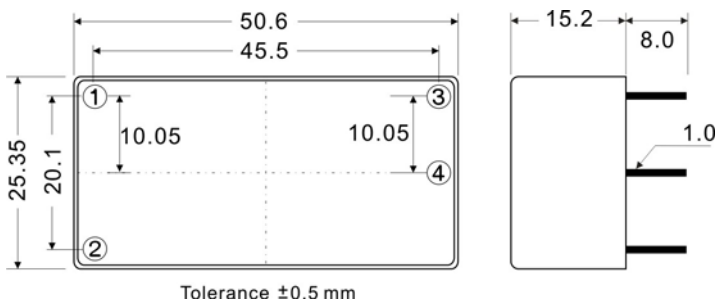
Model No.	AHCN-3.3S	AHCN-5S	AHCN-12S	AHCN-15S	AHCN-24S
Max Output Wattage (W)	4W	5W	5W	5W	5.5W
Input	Voltage				
	90-264 VAC or 120-370 VDC, " N " to DC " + " ; " L " to DC " - "				
	Frequency (Hz)				
	47-440 Hz				
	Current (Full load)				
	120 mA max. (115 VAC) / 80 mA max. (230 VAC)				
Output	Inrush Current (Cold Start)				
	10 A max. (115 VAC) / 20 A max. (230 VAC)				
	Leakage Current				
	0.25 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%					
Maximum Capacitive Load					
4000 uF	4000 uF	1000 uF	680 uF	120 uF	
Ripple & Noise (typ)					
80mV			120mV		
Efficiency (at 115VAC)					
67%	70%	75%	75%	77%	
Hold-up Time					
14 ms (at 115VAC) / 70 ms (at 230VAC)					
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				
±0.05%/°C					
Humidity					
95% RH					
MTBF					
>450,000 h @ 25°C (MIL-HDBK-217F)					
Physical	Dimension (L x W x H)				
	2.0 x 1.0 x 0.6 Inches ( 50.6 x 25.35 x 15.2 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				
CE, UL/cUL, CB (Pendibg)					
EMC	EMI (Conducted & Radiated Emission)				
	EN 55022 class B (Pendibg)				
EMS (Noise Immunity)					
EN 55024 (Pendibg)					

**NOTE**

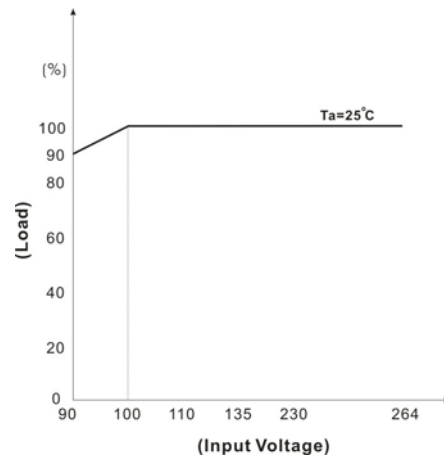
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. It's necessary Varistor 14S471K at L / N input side in parallel.
3. Safety approvals cover frequency 47-63 Hz.
4. Please refer to our PDF file "AC-DC Application" on our website: [www.archcorp.com.tw](http://www.archcorp.com.tw)

**OUTPUT NOISE**

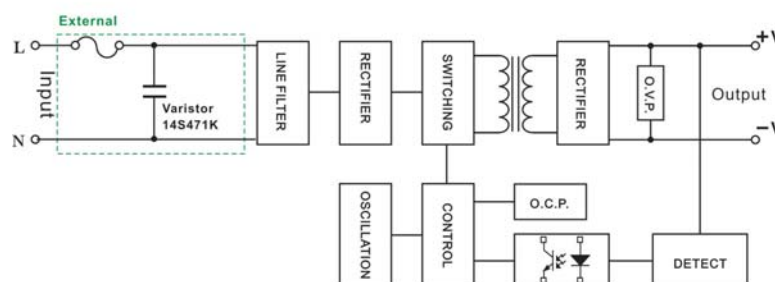
The output noise is measured with Nippon chemi-con KY 47uF capacitor and 0.1uF ceramic capacitor across output.


**DERATING**

**MECHANICAL DIMENSION ( Top View )**


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

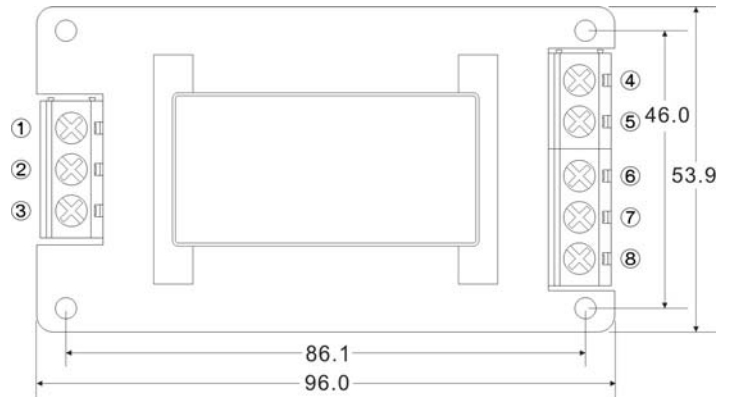

**BLOCK DIAGRAM**

Single Output



**SCREW TERMINAL**
**AHCN-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


**AHCN-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

