ARCH ELECTRONICS CORP.

AC-DC Power Module

AHCN SERIES 5 Watts

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
- CE and UL Approval
- 3-Year Product Warranty



E199779 LEVEL3

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)				
	Inrush Current (Cold Start)	10 A max. (115 VAC) / 20 A max. (230 VAC)				
	Leakage Current	0.25 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	4000 uF	4000 uF	1000 uF	680 uF	120 uF
	Ripple& Noise(typ)	80mV (Vp-p)		120mV (Vp-p)		
	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	-40°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				
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B				
	EMS (Noise Immunity)	EN 55024				

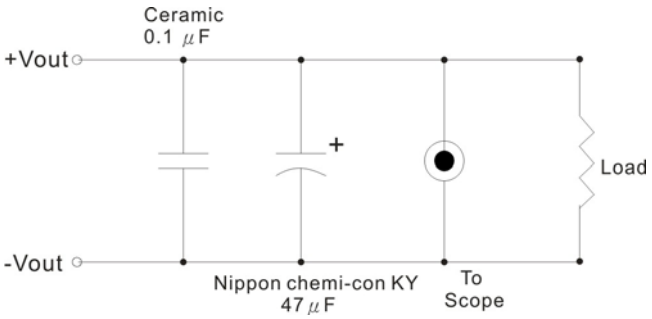
AHCN SERIES 5 Watts

NOTE

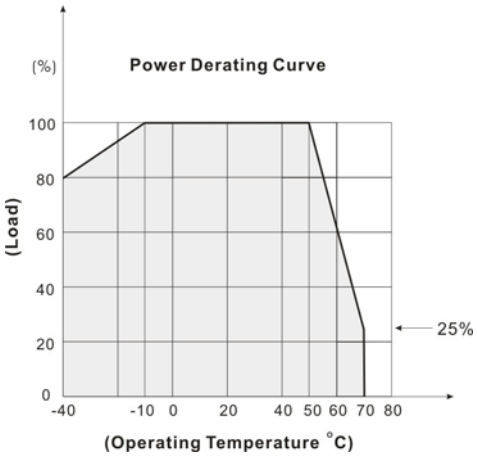
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. It's necessary Varistor 14S471K at L / N input side in parallel.
3. Safety approvals cover frequency 47-63 Hz.
4. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

OUTPUT NOISE

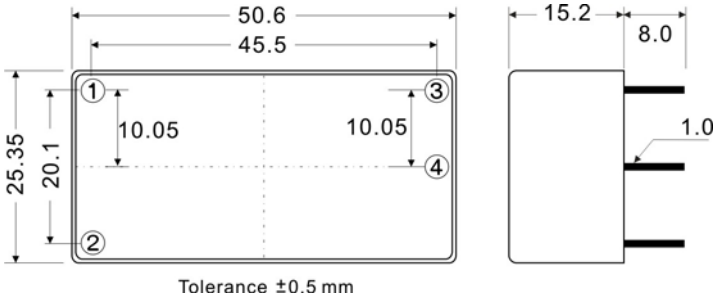
The output noise is measured with Nippon chemi-con KY 47uF capacitor and 0.1uF ceramic capacitor across output.

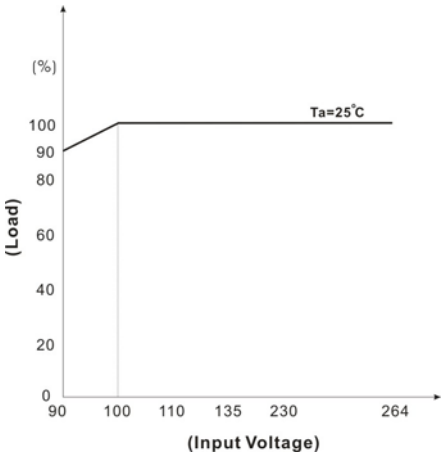


DERATING



MECHANICAL DIMENSION (Top View)





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

BLOCK DIAGRAM

Single Output

