ARCH ELECTRONICS CORP.

AC-DC ITE Power Module

AYC SERIES 2 Watts

KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-305VAC, 47-63 Hz
- Isolation Class II
- Maximum No-Load Watts < 0.3W
- CE, CB 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. (Single Output)		AYC-3.3S	AYC-5S	AYC-9S	AYC-12S	AYC-15S	AYC-24S
Max Output Wattage (W)		2W					
Input	Voltage	90-305 VAC or 120-430 VDC					
	Frequency (Hz)	47-63 Hz					
	Current (Full load)	75 mA max. (115 VAC) / 55 mA max. (230 VAC)					
	Inrush Current (<2ms)	30 A max. (115 VAC) / 50 A max. (230 VAC)					
	Leakage Current (<240 VAC)	0.25 mA max.					
	External Fuse (mandatory)	3.15 A slow blow type					
	External Varistor	14S561K					
Output	Voltage (V.DC.)	3.3V	5V	9V	12V	15V	24V
	Voltage Accuracy	±6%					
	Current (mA) max	600	400	222	167	133	83
	Line Regulation (LL-HL) (typ.)	±5%					
	Load Regulation (10-100%) (typ.)	±6%					
	Minimum Load	0%					
	Maximum Capacitive Load	7000uF	4000uF	1200uF	500uF	350uF	110uF
	Ripple & Noise (Vp-p)	300mV					
	Efficiency (at 115 VAC)	66%	70%	73%	73%	73%	75%
	Hold-up Time (at 230 VAC)	15 ms min.					
Protection	Over Power Protection	Hiccup technique, auto-recovery					
	Short Circuit Protection	Hiccup mode (automatic recovery)					
Isolation	Input-Output (V.AC)	3000V					
Environment	Operating Temperature (Note 5)	-40°C…+80°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)	1.33 x 0.87 x 0.67 Inches (33.7 x 22.2 x 17.0 mm) Tolerance ±0.5 mm					
	Case Material	Plastic resin (flammability to UL 94V-0)					
	Weight	20.1 g					
	Cooling Method	Free air convection					
Safety	Agency Approvals	UL / IEC / EN 60950-1, IEC / EN 62368-1					
EMC	EMI (Conducted & Radiated Emission)	EN 55032 class B					
	EMS (Noise Immunity)	EN 55024					

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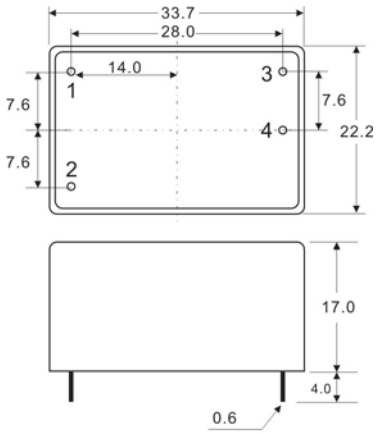
NOTE

1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. Hold-up Time measured at 90% Vout.
3. It's necessary Varistor 14S561K at L / N input side in parallel.
4. It's necessary 10R / 15φ thermistor at L input side in series connection.
5. 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.
6. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

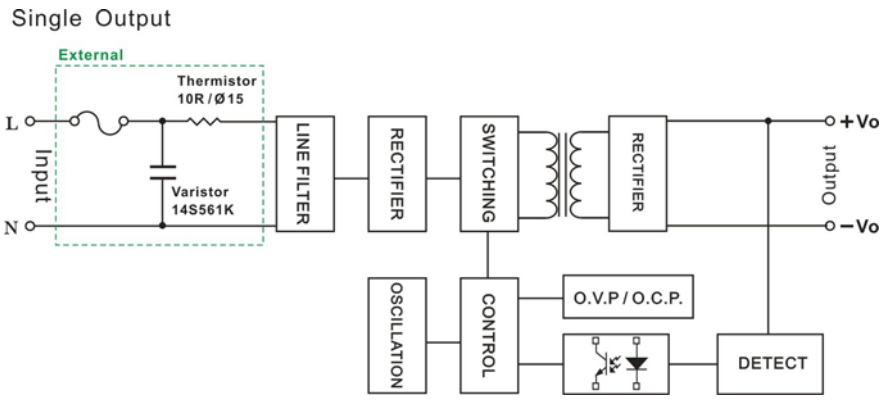
MECHANICAL DIMENSIONS (Top View)



Tolerance ±0.5 mm

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

BLOCK DIAGRAM



DERATING