

AOC SERIES

4 Watts

KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Single and Dual Output
- Low Ripple and Noise
- Isolation Class II
- Maximum No-Load Watts < 0.3W
- 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. (Single Output)	AOC-33S	AOC-5S	AOC-8S	AOC-9S	AOC-12S	AOC-14S	AOC-15S	AOC-24S	
Max Output Wattage (W)	3.96W	4W	4W	4W	4W	4W	4W	4W	
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 (<500us)								
	15 A max. (115 VAC) / 25 A max. (230 VAC)								
	Leakage Current								
	0.25 mA max.								
	External Fuse (recommend)								
	3.15 A slow blow type								
Output	Voltage (V.DC.)								
	3.3V	5V	8V	9V	12V	14V	15V	24V	
	Voltage Accuracy								
	±2%								
	Current (mA) max								
	1200	800	500	444	333	286	267	167	
	Line Regulation (LL-HL) (typ.)								
	±0.2%								
	Load Regulation (0-100%) (typ.)								
	±1%					±0.5%			
Minimum Load									
0%									
Maximum Capacitive Load (at 230VAC)									
14000uF	8000uF	2700uF	2400uF	1000uF	750uF	700uF	220uF		
Ripple & Noise (Vp-p) max									
<250mV			<200mV		<150mV		<100mV		
Efficiency									
68%	72%	74%	75%	76%	76%	76%	77%		
Hold-up Time									
15 ms min.									
Protection	Over Power Protection								
	Hiccup technique, auto-recovery								
Isolation	Short Circuit Protection								
	Hiccup mode, indefinite (automatic recovery)								
Environment	Input-Output (V.AC)								
	3000V								
	Operating Temperature								
	-40°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)								
	1.46 x 1.08 x 0.69 Inches (37.0 x 27.5 x 17.5 mm) Tolerance ±0.5 mm								
	Case Material								
	Plastic resin (flammability to UL 94V-0)								
Safety	Weight								
	26 g								
EMC	Cooling Method								
	Free air convection								
Agency Approvals									
IEC / EN 60950, UL / IEC / EN 62368-1									
EMI (Conducted & Radiated Emission)									
EN 55032 class B									
EMS (Noise Immunity)									
EN 55024									

ELECTRICAL SPECIFICATIONS

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

Model No. (Dual Output)	AOC-5S3.3S	AOC-8S5S	AOC-12S5S
Max Output Wattage (W)	3.5W	3.6W	3.6W
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 (<500us)			
15 A max. (115 VAC) / 25 A max. (230 VAC)			
Leakage Current			
0.25 mA max.			
External Fuse (recommend)			
3.15 A slow blow type			
Output	Voltage (V.DC.)		Vo : 5V Vr : 3.3V
	Voltage Accuracy		Vo : ±2% Vr : ±5%
	Current (mA) max		600 / 150
	Line Regulation (LL-HL) (typ.)		Vo : ±0.2% Vr : ±3%
	Load Regulation (25-100%) (typ.)		Vo : ±0.5% Vr : ±5%
	Minimum Load		25%
	Maximum Capacitive Load (at 230VAC)		Vo : 5600uF Vr : 4700uF
	Ripple & Noise (Vp-p) max		<200mV
	Efficiency		72%
	Hold-up Time		15 ms min.
Protection	Over Power Protection		
	Hiccup technique, auto-recovery		
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		
±0.02%/°C			
Humidity			
95% RH			
MTBF			
>450,000 h @ 25°C (MIL-HDBK-217F)			
Physical	Dimensions (L x W x H)		
	1.46 x 1.08 x 0.69 Inches (37.0 x 27.5 x 17.5 mm) Tolerance ±0.5 mm		
	Case Material		
	Plastic resin (flammability to UL 94V-0)		
Weight			
26 g			
Cooling Method			
Free air convection			
Safety	Agency Approvals		
IEC / EN 60950, UL / IEC / EN 62368-1			
EMC	EMI (Conducted & Radiated Emission)		
	EN 55032 class B		
EMS (Noise Immunity)			
EN 55024			

NOTE

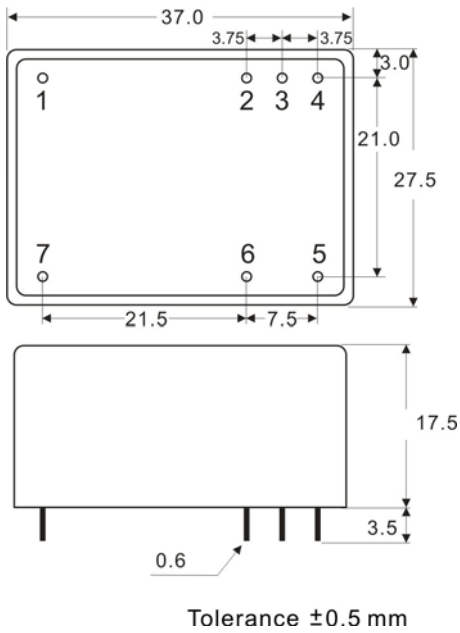
1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.
2. It's necessary Varistor 14S471K at L / N input side in parallel.
3. It's necessary 10R / 15φ thermistor at L input side in series connection.
4. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw



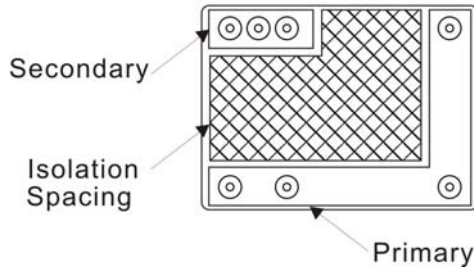
AOC SERIES

4 Watts

MECHANICAL DIMENSIONS (Top View)



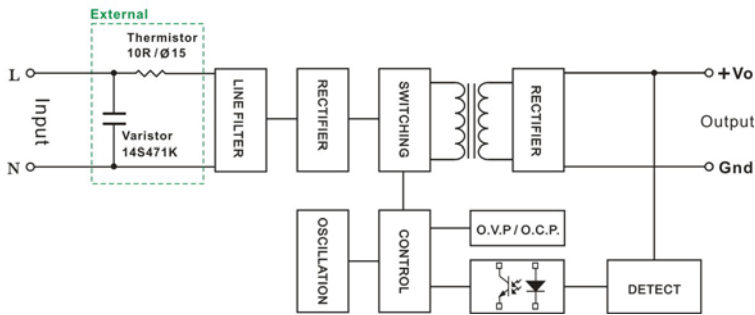
Isolation Bottom View



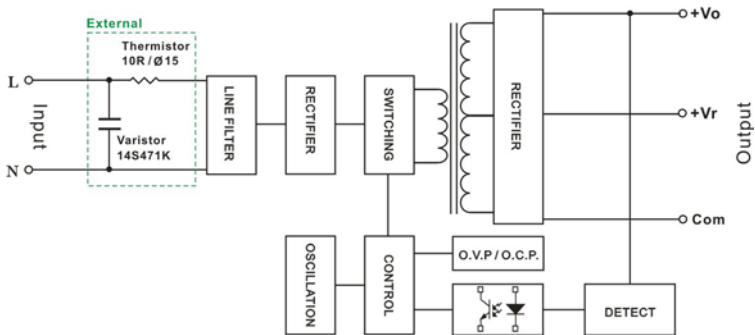
PIN#	Single	Dual
1	NC	NC
2	+Vo	+Vo
3	GND	COM
4	NC	+Vr
5	AC IN (L)	AC IN (L)
6	AC IN (N)	AC IN (N)
7	NC	NC

BLOCK DIAGRAM

Single Output



Dual Output



DERATING

