

**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 , UL Approval
- 3-Years Product Warranty


**ELECTRICAL SPECIFICATIONS**

Model No. ( Single Output )	AOC-3.3S	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)							
	95 mA max. (115 VAC) / 65 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.)							
	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								
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.								
Switching Frequency								
132±8 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							
	-40°C...+70°C ( with derating )							
	Storage Temperature							
	-40°C...+85°C							
	Temperature Coefficient							
±0.02%/°C								
Humidity								
95% RH								
MTBF								
>350,000 h @ 25°C (MIL-HDBK-217F)								
Physical	Dimension (L x W x H)							
	1.44 x 1.07 x 0.67 Inches ( 36.66 x 27.16 x 17.1 mm ) Tolerance ±0.5 mm							
	Case Material							
	Plastic resin with Fiberglass (flammability to UL 94V-0)							
Weight								
26 g								
Cooling Method								
Free air convection								
Safety	Agency Approvals							
UL , cUL , CE								
EMC	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 &amp; Noise are measured at 20MHz of bandwidth with 0.1uF &amp; 47uF parallel capacitor.

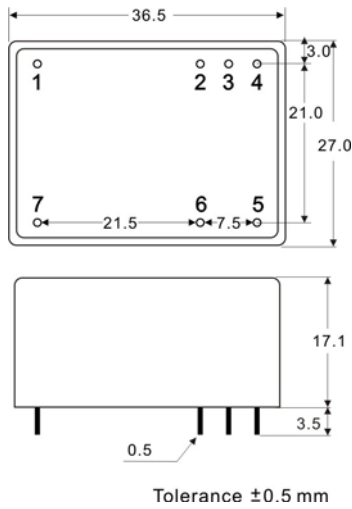
**ELECTRICAL SPECIFICATIONS**

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)	95 mA max. (115 VAC) / 65 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	Vo : 8V Vr : 5V	Vo : 12V Vr : 5V
	Voltage Accuracy	Vo : ±2% Vr : ±5%		
	Current (mA) max	600 / 150	375 / 120	250 / 120
	Line Regulation (LL-HL) (typ.)	Vo : ±0.2% Vr : ±3%		
	Load Regulation (0-100%) (typ.)	Vo : ±0.5% Vr : ±5%		
	Minimum Load	25%		
	Maximum Capacitive Load	Vo : 5600uF Vr : 4700uF	Vo : 1000uF Vr : 4700uF	Vo : 330uF Vr : 4700uF
	Ripple & Noise (Vp-p) max	<200mV	<150mV	<100mV
	Efficiency	72%	74%	75%
	Hold-up Time	15 ms min.		
	Switching Frequency	132±8 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	-40°C...+70°C ( with derating )		
	Storage Temperature	-40°C...+85°C		
	Temperature Coefficient	±0.02%/°C		
	Humidity	95% RH		
	MTBF	>350,000 h @ 25°C (MIL-HDBK-217F)		
Physical	Dimension (L x W x H)	1.44 x 1.07 x 0.67 Inches ( 36.66 x 27.16 x 17.1 mm ) Tolerance ±0.5 mm		
	Case Material	Plastic resin with Fiberglass (flammability to UL 94V-0)		
	Weight	26 g		
	Cooling Method	Free air convection		
Safety	Agency Approvals	UL , cUL , CE		
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B		
	EMS (Noise Immunity)	EN 55024		

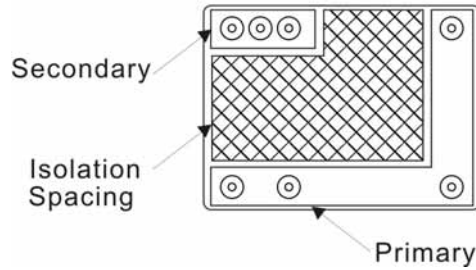
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**MECHANICAL DIMENSION ( Top View )**

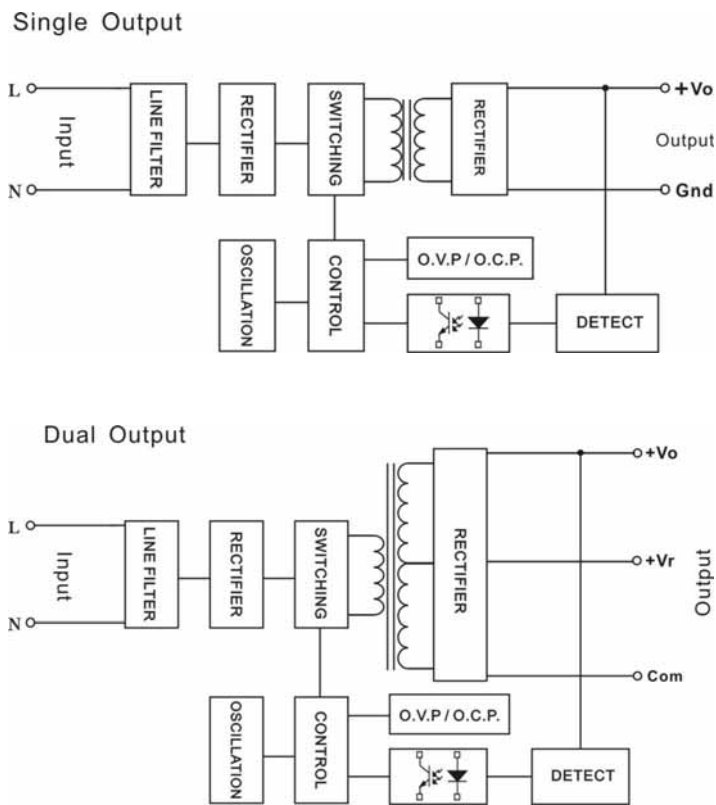


**Isolation Bottom View**



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**



**DERATING**

