

**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
- 2-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...+125°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 nominal 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.

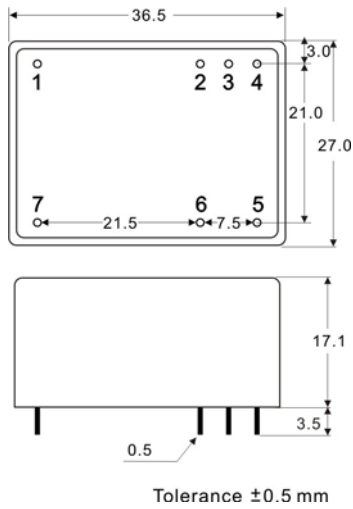
**ELECTRICAL SPECIFICATIONS**

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...+125°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		

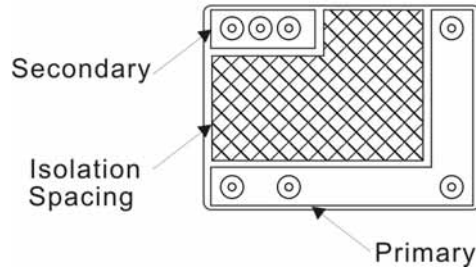
1. All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

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**MECHANICAL DIMENSION ( Top View )**

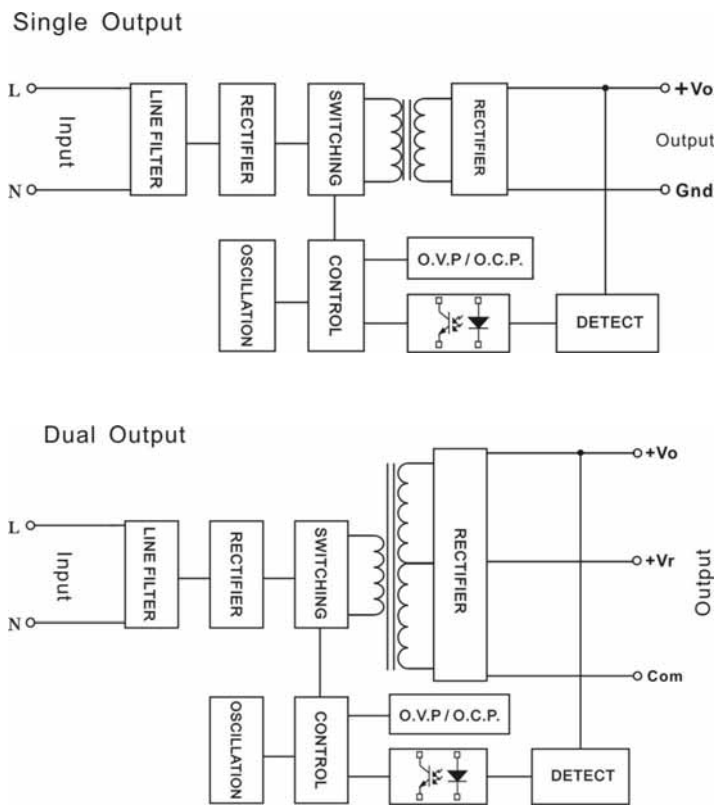


**Isolation Bottom View**



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**

