

KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-305VAC, 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)	AOCH -3.3S	AOCH -5S	AOCH -8S	AOCH -9S	AOCH -12S	AOCH -14S	AOCH -15S	AOCH -24S	
Max Output Wattage (W)	3.96W	4W	4W	4W	4W	4W	4W	4W	
Input	Voltage								
	90-305 VAC or 120-430 VDC								
	Frequency (Hz)								
	47-440 Hz								
	Current (Full load)								
	75 mA max. (115 VAC) / 55 mA max. (230 VAC)								
Inrush Current (<500us)									
15 A max. (115 VAC) / 25 A max. (230 VAC)									
Leakage Current									
0.3 mA max.									
External Fuse (recommend)									
1 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.)								
	±0.5%		±0.2%						
	Load Regulation (0-100%) (typ.)								
	±1.5%		±0.5%						
	Minimum Load								
0%									
Maximum Capacitive Load									
14000uF	8000uF	2700uF	2400uF	1000uF	750uF	700uF	220uF		
Ripple & Noise									
3.3S~5S : <150mV max (Vp-p)				8S~24S : <100mV max (Vp-p)					
Efficiency									
70%	72%	74%	75%	76%	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									

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

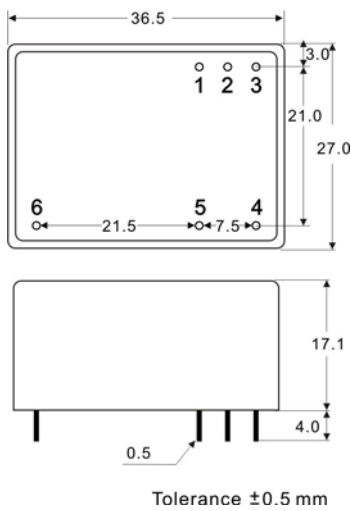
Vo : Measured with 47µF/25V Ceramic Cap. Cross to output.

ELECTRICAL SPECIFICATIONS

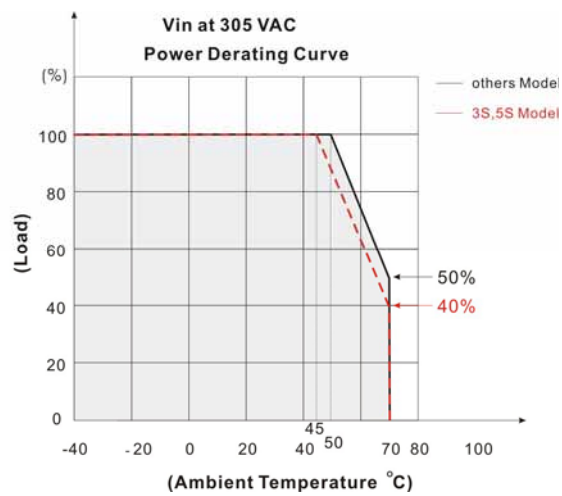
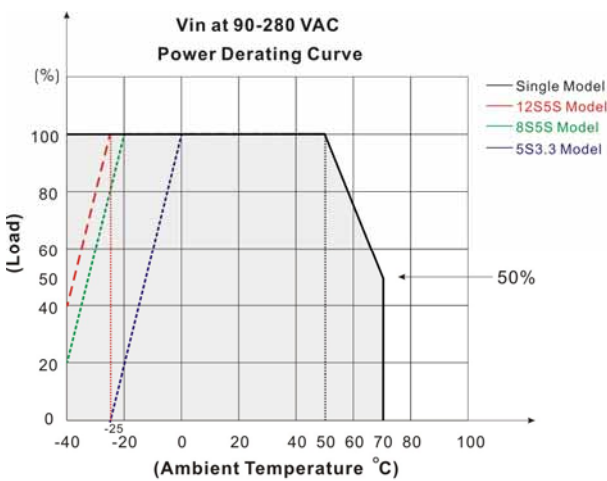
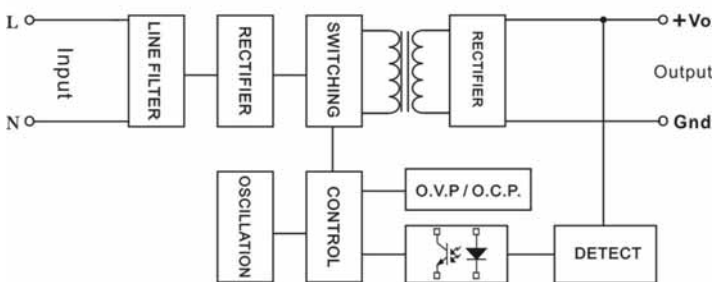
Model No. (Dual Output)	AOCH-5S3.3S	AOCH-8S5S	AOCH-12S5S
Max Output Wattage (W)	3.5W	3.6W	3.6W
Input	Voltage		
	90-305 VAC or 120-430 VDC		
	Frequency (Hz)		
	47-440 Hz		
	Current (Full load)		
	85 mA max. (115 VAC) / 65 mA max. (230 VAC)		
Inrush Current (<500us)			
15 A max. (115 VAC) / 25 A max. (230 VAC)			
Leakage Current			
0.3 mA max.			
External Fuse (recommend)			
1 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 (0-100%) (typ.)		Vo : ±0.5% Vr : ±5%
	Minimum Load		0%
	Maximum Capacitive Load		Vo : 5600uF Vr : 4700uF
	Ripple & Noise		<100mV max (Vp-p)
	Efficiency		72%
	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		
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EN 55024			

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MECHANICAL DIMENSION (Top View)


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

DERATING

BLOCK DIAGRAM
Single Output

Dual Output
