

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 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)	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)									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.)			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			5000uF	4200uF	1470uF	1330uF	680uF	470uF	330uF	120uF										
	Ripple & Noise (Vp-p) max									<250mV			<200mV			<150mV			<100mV		
	Efficiency			68%	72%	74%	75%	76%	76%	76%	76%	77%									
	Hold-up Time									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 4)									-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 55035											

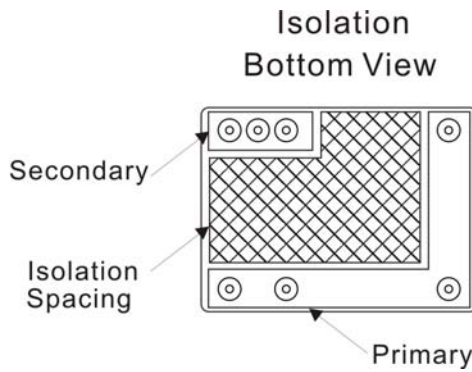
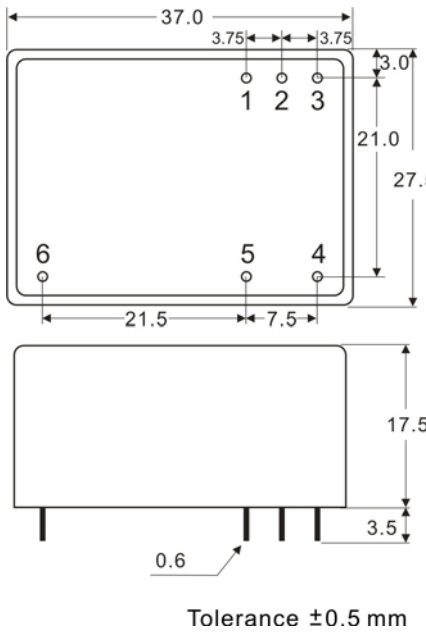
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All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

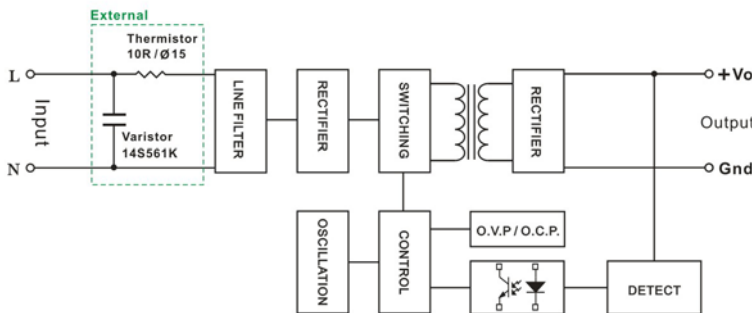
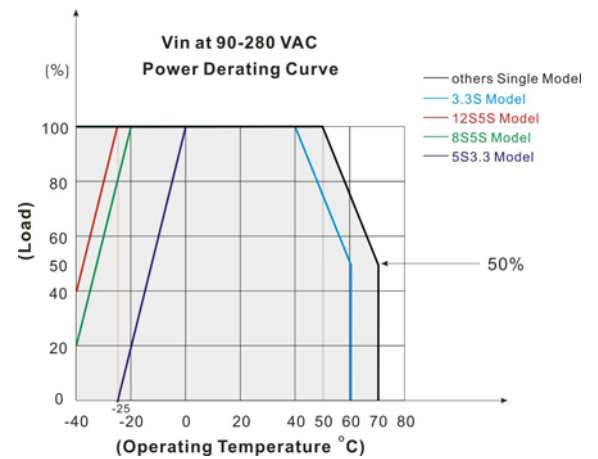
Model No. (Dual Output)	AOCH-5S3.3S	AOCH-8S5S	AOCH-12S5S
Max Output Wattage (W)	3.5W	3.6W	3.6W
Input	Voltage		
	90-305 VAC or 120-430 VDC		
	Frequency (Hz)		
	47-440 Hz		
	Current (Full load)		
	110 mA max. (115 VAC) / 70 mA max. (230 VAC)		
Inrush Current (<500us)			
15 A max. (115 VAC) / 25 A max. (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		Vo : 2500uF Vr : 1800uF
	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 (automatic recovery)			
Isolation	Input-Output (V.AC)		
3000V			
Environment	Operating Temperature (Note 4)		
	-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		
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EMC	EMI (Conducted & Radiated Emission)		
	EN 55032 class B		
EMS (Noise Immunity)			
EN 55035			

NOTE

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

MECHANICAL DIMENSIONS (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

BLOCK DIAGRAM
Single Output

DERATING

Dual Output
