

ATCH30 SERIES

30 Watts

KEY FEATURES

- Ultra Compact Size: 2.53" x 1.78"
- Universal Input Range 90-305VAC, 47-440Hz
- I/O Isolation 4000VAC
- Operating Ambient Temperature Range -40°C to +85°C
- No Load Power Consumption < 0.1W
- High Efficiency up to 88%
- Operating altitude 5000m (UL / IEC / EN 62368-1)
- Screw Terminal for Option
- EMC Compliant without External Components
- Safety Approval to UL / IEC / EN 62368-1, IEC / EN 60950-1, IEC / EN 60335-1, IEC / EN 61558-2-16
- 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.		ATCH30-5.1S	ATCH30-12S	ATCH30-15S	ATCH30-24S
Max Output Wattage (W)		23.46W	30W	30W	30W
Input	Voltage	90-305 VAC or 120-430 VDC			
	Frequency (Hz)	47-440 Hz			
	Current (Full load)	600 mA max. (115 VAC) / 400 mA max. (230 VAC)			
	Inrush Current (<2ms,Cold Start)	30 A max. (115 VAC) / 60 A max. (230 VAC)			
	Leakage Current	0.25 mA max. (230 VAC)			
Output	Voltage (V.DC.)	5.1V	12V	15V	24V
	Voltage Accuracy	±2%			
	Current (mA) max	4600	2500	2000	1250
	Maximum Capacitive Load	6800uF	1600uF	1200uF	470uF
	Minimum Load	0%			
	Line Regulation (LL-HL) (typ.)	±1%			
	Load Regulation (0-100%) (typ.)	±3%	±2%		
	Ripple & Noise (Vp-p) (max.)	120mV	150mV	150mV	240mV
	Efficiency (at 230 VAC)	84%	88%	87%	86%
	Hold-up Time (typ)	36 ms (at 230VAC)			
Protection	Over Power Protection	Hiccup technique, auto-recovery			
	Over Voltage Protection	Zener diode clamp			
	Short Circuit Protection	Hiccup mode (automatic recovery)			
Isolation	Input-Output (V.AC)	4000V			
Environment	Operating Temperature	-40°C...+85°C (with derating)			
	Storage Temperature	-40°C...+85°C			
	Temperature Coefficient	±0.02%/°C			
	Altitude During Operation (UL / IEC / EN 62368-1)	5000m			
	Humidity	95% RH			
	MTBF	>400,000 h @ 25°C (MIL-HDBK-217F)			
	Vibration	IEC60068-2-6 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes)			
	Shock	IEC60068-2-27			
Physical	Dimensions (L x W x H)	2.54 x 1.79 x 0.87 Inches (64.6 x 45.4 x 22.0 mm) Tolerance ±0.5 mm, Height Tolerance ±1 mm			
	Case Material	Plastic resin (flammability to UL 94V-0)			
	Weight	106 g			
	Cooling Method	Free air convection			
Safety	Agency Approvals	UL / IEC / EN 62368-1, IEC / EN 60950-1, IEC / EN 60335-1(A2 Series N/A), IEC / EN 61558-2-16(A2 Series N/A)			
EMC	EMI (Conducted & Radiated Emission)	EN 55032 class B			
	EMS (Noise Immunity)	EN 55035			

ATCH30 SERIES

30 Watts

NOTE

1. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF & 47uF parallel capacitor.



2. **SMPS** incorporating a short-circuit-proof safety isolating transformer (non-inherently)

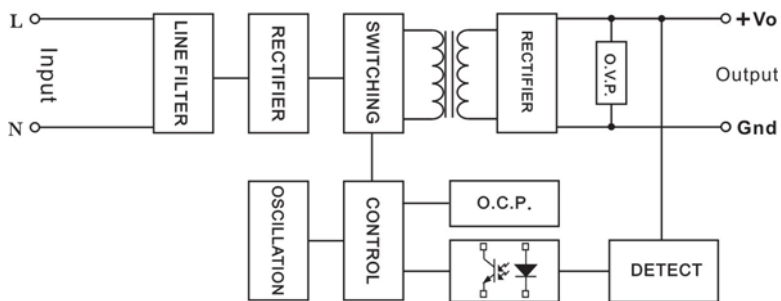


3. **SMPS** (Switching mode power supply unit)

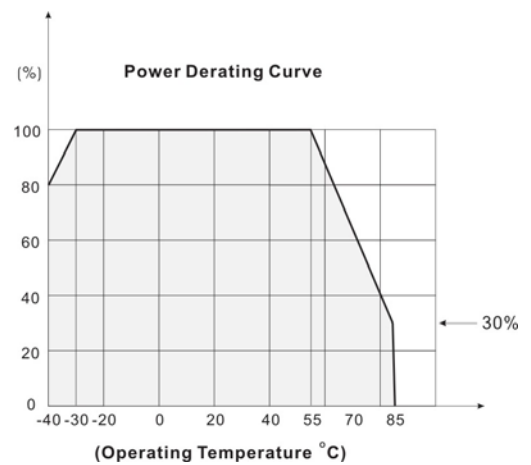
4. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

BLOCK DIAGRAM

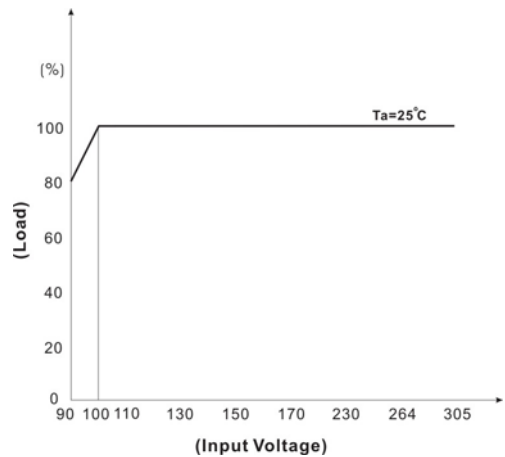
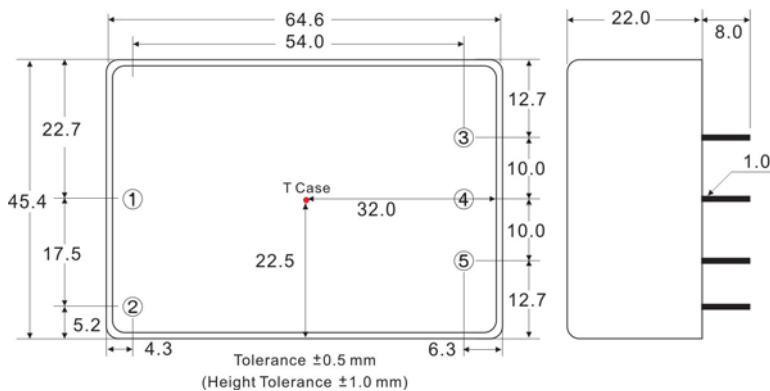
Single Output



DERATING



MECHANICAL DIMENSIONS (Top View)



PIN#	Single
1	AC IN (N)
2	AC IN (L)
3	-DC OUT
4	NO PIN
5	+DC OUT

ATCH30 SERIES

30 Watts

SCREW TERMINAL

ATCH30-A2



PIN#	Single
1	NO CONNECT
2	AC IN (N)
3	AC IN (L)
4	NO CONNECT
5	-DC OUT
6	NO CONNECT
7	+DC OUT
8	NO CONNECT

