

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 for ITE 90-264 VAC or 120-370 VDC for Household						
	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, indefinite (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)						
	2.53 x 1.78 x 0.85 Inches (64.3 x 45.1 x 21.7 mm) Tolerance ±0.5 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							

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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)

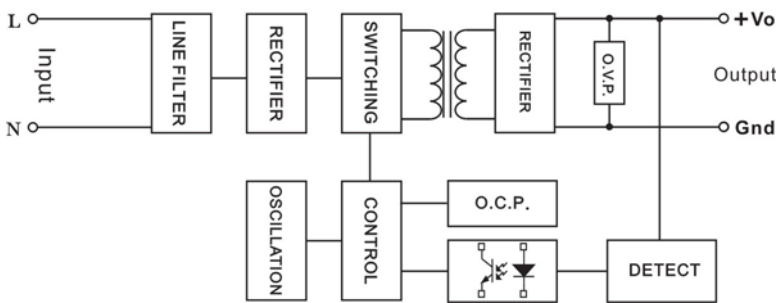


3. **SMPS** (Switching mode power supply unit)

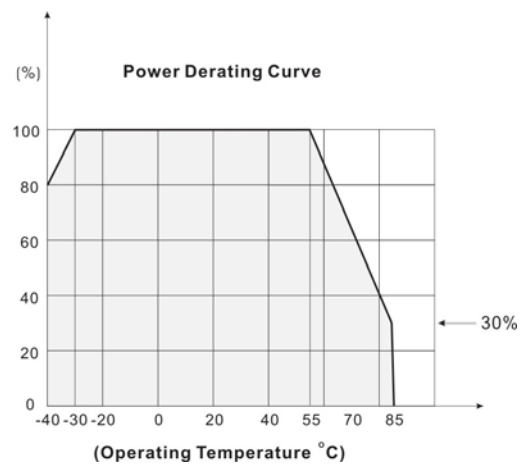
4. Please refer to our PDF file "AC-DC Application" on our website: www.archcorp.com.tw

BLOCK DIAGRAM

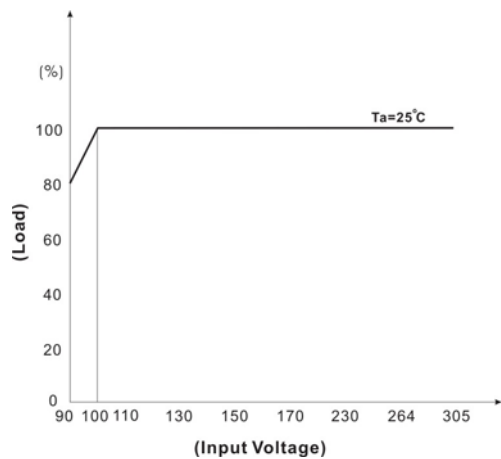
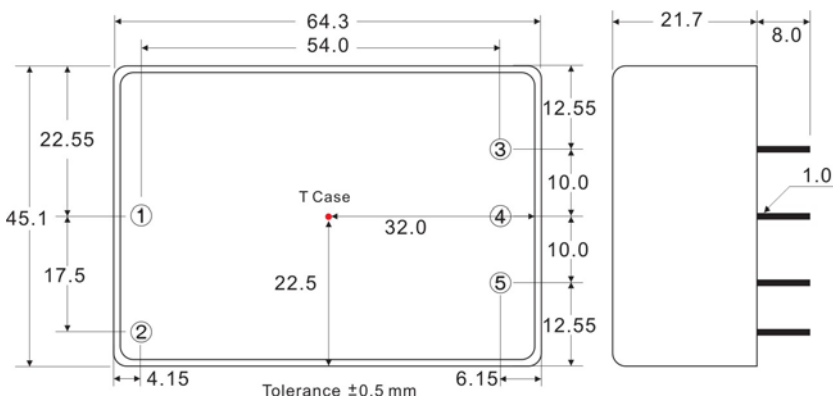
Single Output



DERATING



MECHANICAL DIMENSIONS (Top View)



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

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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

