



10 Watt Ultraminiature Modular Switching Power Supplies

ATC series

KEY FEATURES

- Switching Power Module for PCB Mountable
- Fully Encapsulated Plastic Case
- Universal Input Range 90-264VAC, 47-440 Hz
- Regulated Output
- Low Ripple and Noise
- High Efficiency
- CE, cUL, TUV Approvals
- 2-Year Product Warranty



ELECTRICAL SPECIFICATIONS

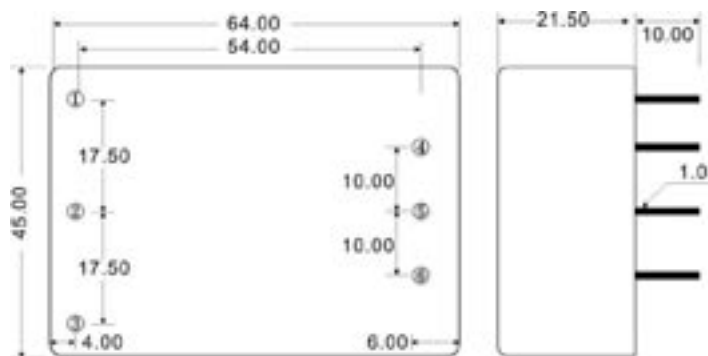
Model No. (Single Output)	ATC-3.3S	ATC-5S	ATC-12S	ATC-15S	ATC-24S
Max Output Wattage (W)	10W	10W	10W	10W	10W
Input	Voltage				
	90-264 VAC or 120-370 VDC				
	Frequency (Hz)				
	47-440 Hz				
	Current (Full load)				
	200 mA max. (115 VAC) / 130 mA max. (230 VAC)				
Output	Inrush Current (<2ms)				
	10 A max. (115 VAC) / 20 A max. (230 VAC)				
	Leakage Current				
	0.75 mA max.				
	External Fuse (recommend)				
	1.5 A slow blow type				
	Voltage (V.DC.)	3.3V	5V	12V	15V
	Voltage Accuracy	±2%			
	Current (mA) max	3000	2000	833	666
	Line Regulation (LL-HL) (typ.)	±0.3%			
	Load Regulation (5-100%) (typ.)	±0.5%			
	Minimum Load	4%	5%	5%	3%
	Maximum Capacitive Load	470-23,000µF depending on model			
	Ripple	<0.2% Vout +40mV max (Vp-p)			
	Noise	<0.5% Vout +50mV max (Vp-p)			
Protection	Efficiency	65%	71%	74%	71%
	Hold-up Time	15 ms min.			
	Switching Frequency	100 kHz			
Isolation	Over Power Protection	Hiccup technique, auto-recovery			
	Over Voltage Protection	Zener diode clamp			
	Short Circuit Protection	Hiccup mode, indefinite (automatic recovery)			
Environment	Input-Output (V.AC)	3000V			
	Input-FG (V.AC)	1500V			
	Output-FG (V.AC)	500V			
Physical	Operating Temperature	-25°C...+70°C (with derating)			
	Storage Temperature	-40°C...+85°C			
	Temperature Coefficient	±0.02%/°C			
	Humidity	95% RH			
Safety	MTBF	>250,000 h @ 25°C (MIL-HDBK-217F)			
	Dimension (L x W x H)	2.52 x 1.77 x 0.85 Inches (64.0 x 45.0 x 21.5 mm) Tolerance ±0.5 mm			
	Case Material	Plastic resin with Fiberglass (flammability to UL 94V-0)			
	Weight	100 g			
EMC	Cooling Method	Free air convection			
	Agency Approvals	UL/cUL, CE, TUV			
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B			
	EMS (Noise Immunity)	EN 50082-1			

ELECTRICAL SPECIFICATIONS

Model No. (Dual Output)		ATC-5D	ATC-12D	ATC-15D
Max Output Wattage (W)		8W	10W	10W
Input	Voltage	90-264 VAC or 120-370 VDC		
	Frequency (Hz)	47-440 Hz		
	Current (Full load)	200 mA max. (115 VAC) / 130 mA max. (230 VAC)		
	Inrush Current (<2ms)	10 A max. (115 VAC) / 20 A max. (230 VAC)		
	Leakage Current	0.75 mA max.		
	External Fuse (recommend)	1.5 A slow blow type		
Output	Voltage (V.DC.)	±5V	±12V	±15V
	Voltage Accuracy	±2%		
	Current (mA) max	±800	±380	±300
	Line Regulation (LL-HL) (typ.)	±0.3%		
	Load Regulation (5-100%) (typ.)	±0.5%		
	Minimum Load	1%	3%	1%
	Maximum Capacitive Load	470-23,000µF depending on model		
	Ripple	<0.2% Vout +40mV max (Vp-p)		
	Noise	<0.5% Vout +50mV max (Vp-p)		
	Efficiency	71%	75%	72%
	Hold-up Time	15 ms min.		
	Switching Frequency	100 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		
	Input-FG (V.AC)	1500V		
	Output-FG (V.AC)	500V		
Environment	Operating Temperature	-25°C...+70°C (with derating)		
	Storage Temperature	-40°C...+85°C		
	Temperature Coefficient	±0.02%/°C		
	Humidity	95% RH		
	MTBF	>250,000 h @ 25°C (MIL-HDBK-217F)		
Physical	Dimension (L x W x H)	2.52 x 1.77 x 0.85 Inches (64.0 x 45.0 x 21.5 mm) Tolerance ±0.5 mm		
	Case Material	Plastic resin with Fiberglass (flammability to UL 94V-0)		
	Weight	100 g		
	Cooling Method	Free air convection		
Safety	Agency Approvals	UL/cUL, CE, TUV		
EMC	EMI (Conducted & Radiated Emission)	EN 55022 class B		
	EMS (Noise Immunity)	EN 50082-1		

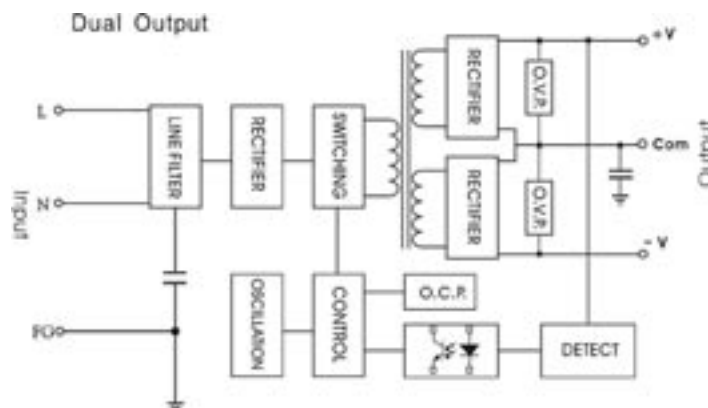
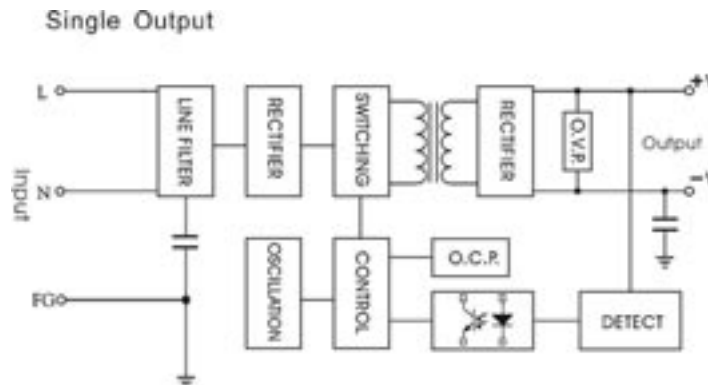
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

MECHANICAL DIMENSION (Top View)



PIN#	SINGLE	Dual
1	FG	FG
2	AC IN (N)	AC IN (N)
3	AC IN (L)	AC IN (L)
4	-DC OUT	-DC OUT
5	NO PIN	COMMON
6	+DC OUT	+DC OUT

BLOCK DIAGRAM



DERATING

