

FEATURES

- ▶ Small,encapsulated Module for PCB Mounting
- ▶ Universal Input 85-264VAC,47-440Hz
- ▶ Constant Power Mode
- ▶ Regulated Output Voltage 8,14 or 24VDC
- ▶ Models with additional 3.3 or 5VDC Output
- ▶ Operating Temp.Range -30°C to 70°C
- ▶ EMI meets EN55022,class B, FCC part15,Class B and EN55014-1/2
- ▶ Low no-load Input Power, meets ErP Directive 2009/124/EC
- ▶ Safety Approval to UL/cUL/IEC/EN 60950-1,EN60335-1
- ▶ 3 Years Product Warranty


PRODUCT OVERVIEW

The ABW-02 series is a new range of small, fully encapsulated AC/DC power supply modules.They are designed for direct PCB mounting with solder pins.They feature regulated output voltages which have a constant output power mode instead of a conventional current limit characteristics,which makes the power modules suitable to drive relays,solenoids,capacitive loads and LED's.To power logic circuits for standby functions models with an additional second, voltage regulated 3.3 or 5VDC output are available.

The ABW-02 power supply modules provide a cost-effective new solution for standby power applications in appliances and consumer electronics equipment. Universal input voltage 85-264VAC and International safety approvals including IEC/EN60335-1 qualifies the product for worldwide markets.

Model Selection Guide

Model Number	Output 1		Output 2		Input Current @Max. Load mA(typ.)	Efficiency (typ.) @Max. Load %
	Voltage	Current	Voltage	Current		
	VDC	Max. mA	VDC	Max. mA		
ABW-02S08	8	250	---	---	42	72
ABW-02S14	14	143	---	---	40	74
ABW-02S24	24	83	---	---	39	76
ABW-02D83	8	*	3.3	160	43	69
ABW-02D85	8	*	5	250	43	69
ABW-02D143	14	**	3.3	70	43	70
ABW-02D145	14	**	5	83	43	70

* $I_{o1}+I_{o2} \leq 250\text{mA}$

** $I_{o1}+I_{o2} \leq 143\text{mA}$

Input Specifications

Parameter	Model	Min.	Typ.	Max.	Unit
Input Voltage Range	All Models	85	---	264	VAC
Input Frequency Range		47	---	440	Hz
Input Voltage Range		120	---	370	VDC
No-Load Power Consumption		---	30	---	mW
Input Surge Voltage		---	---	308	VAC

Output Specifications

Parameter	Conditions		Min.	Typ.	Max.	Unit
Output Voltage Accuracy	Output 1	$V_{in}=115\text{VAC}$, Full Load	---	---	± 5.0	%
	Output 2		---	---	± 2.0	%
Line Regulation	Output 1	$V_{in}=85\text{--}264\text{VAC}$	---	± 1.0	---	%
	Output 2		---	± 0.3	---	%
Load Regulation	Output 1	$I_o=10\%$ to 100%	---	± 1.0	---	%
	Output 2		---	± 0.5	---	%
Ripple & Noise (20MHz)	Output 1		---	1	---	V_{P-P}
	Output 2		---	0.1	---	V_{P-P}
Short Circuit Protection	Continuous					

General Specifications

Parameter	Conditions	Min.	Typ.	Max.	Unit
I/O Isolation Voltage	Input to Output, 60 Seconds	3000	---	---	VAC
Switching Frequency		---	45	---	KHz
MTBF (calculated)	MIL-HDBK-217F@25°C, Ground Benign	500,000	---	---	Hours
EMC Emission	Conducted and radiated	EN 55022 class B, FCC part 15 class B, EN55014-1			
EMC Immunity according	Standard	Specification Requirement			
	EN61000-4-2	Air ±8KV Cont. ±4KV			
	EN61000-4-3	80~1000MHz, 10V/m 80% AM, 1KHz modulation			
	EN61000-4-4	AC port ±2KV DC, SL, TL ±2KV not less than 1 min.			
	EN61000-4-5	1.2/50µS(8/20µS) AC dif. ±1KV DC ±0.5KV			
	EN61000-4-6	0.15~80MHz, 10Vrms (functional earth ports included) 80% AM, 1KHz modulation			
	EN61000-4-11	30%, 10ms 60%, 100ms, 95%, 5000ms			
Safety (Approvals pending)		cUL/UL 60950-1, IEC/EN 60950-1, EN 60335-1			

Input Fuse

All Models	
External Fuse (Recommended)	1A Slow – Blow Type

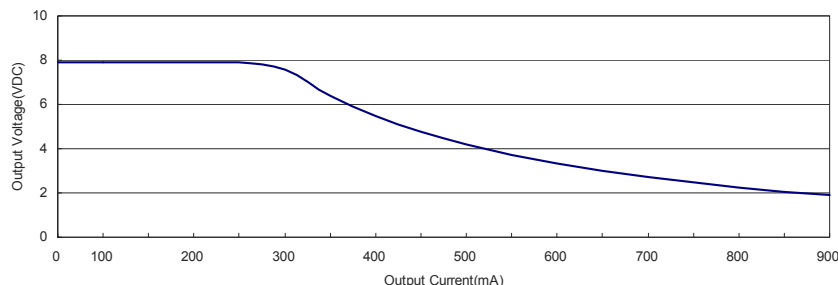
Environmental Specifications

Parameter	Conditions	Min.	Max.
Temperature Range (operational)	Ambient	-30°C	+70°C
Storage Temperature Range		-40°C	+85°C
Cooling	Free-Air convection		
Humidity (non condensing)		---	95 % rel. H

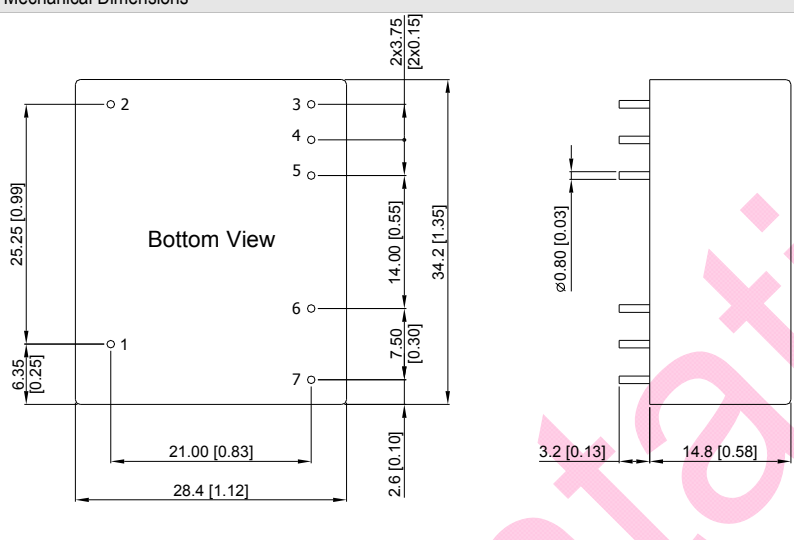
Notes

- All specifications typical at Ta=+25°C, resistive load, 115VAC, 60Hz input voltage and after warm-up time rated output current unless otherwise noted.
- Ripple & Noise measurement bandwidth is 0~20 MHz
- These power modules require a minimum output loading to maintain specified regulation, operation under no-load conditions will not damage the power supplies however they may not meet all listed specifications.
- All AC/DC modules should be externally fused at the front end for protection.
- Other input and output voltage may be available, please contact factory
- Specifications are subject to change without notice

Typical Constant Power V/I Curve



Package Specifications

Mechanical Dimensions		Pin Connections		
 <p>Bottom View</p> <p>Dimensions (mm [inches]):</p> <ul style="list-style-type: none"> Overall width: 28.4 [1.12] Distance from left edge to pin 1: 6.35 [0.25] Distance from left edge to pin 2: 25.25 [0.99] Distance from left edge to pin 3: 21.00 [0.83] Distance from left edge to pin 4: 28.4 [1.12] Distance from left edge to pin 5: 28.4 [1.12] Distance from left edge to pin 6: 28.4 [1.12] Distance from left edge to pin 7: 28.4 [1.12] Distance between pins 3 and 4: 14.00 [0.55] Distance between pins 4 and 5: 7.50 [0.30] Distance between pins 5 and 6: 14.00 [0.55] Distance between pins 6 and 7: 7.50 [0.30] Distance between pins 3 and 7: 34.2 [1.35] Pin diameter: $\varnothing 0.80$ [0.03] Pin length: 3.2 [0.13] Pin spacing: 14.8 [0.58] 		Pin	Single Output	Dual Output
		1		NC
		2		NC
		3	+Vout	+Vout1
		4	-Vout	Common
		5	NP	+Vout2
		6		AC(N)
7		AC(L)		

- ▶ All dimensions in mm (inches)
- ▶ Tolerance: ± 0.5 (± 0.01)
- ▶ Pin diameter $\varnothing 0.8 \pm 0.1$ (0.03 ± 0.004)

Physical Characteristics

Case Size	: 34.2x28.4x14.8mm (1.35x1.12x0.58 inches)
Case Material	: Plastic resin + Fiberglass (flammability to UL 94V-0 rated)
Pin Material	: Copper Alloy with Gold Plate Over Nickel Subplate
Weight	: TBD