FEATURES

- Fully Encapsulated Plastic Case for PCB Mounting
- Universal Input 85~264VAC, 47~440Hz
- Constant Power Mode, No Output Current Limit
- Protection Class II as per IEC/EN 60536
- Operating Ambient Temp. Range -30°C to +70°C
- Short Circuit Protection
- Designed-in EMI Emission meets EN55011/22 Class B & FCC Level B
- Designed-in EMC Immunity meets EN61000-4-2,3,4,5,6,8,11
- Eco Design, Low No Load Power Consumption < 150mW
- UL/cUL/IEC/EN 60950-1, TUV/IEC/EN 60335-1 Safety Approval & CE Marking



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 addtional 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	Efficiency (typ.)
	Voltage	Current	Voltage	Current		
		Max.		Max.	@Max. Load	@Max. Load
	VDC	mA	VDC	mA	mA(typ.)	%
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

* Io1+Io2≦250mA

** Io1+Io2≦143mA

*** The definition of output power (Po) for dual-output modules : Po=V_{01} x (I_{01} + I_{02})

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}=115VAC, Full Load	---	---	±5.0	%
	Output 2		---	---	±2.0	%
Line Regulation	Output 1	V_{in}=85~264VAC	---	±1.0	---	%
	Output 2		---	±0.3	---	%
Load Regulation	Output 1	Io=10% to 100%	---	±1.0	---	%
	Output 2		---	±0.5	---	%
Ripple & Noise	0-20 MHz Bandwidth	Output 1	---	1	---	V_{P-P}
		Output 2	---	0.1	---	V_{P-P}
Short Circuit Protection	Continuous, Automatic Recovery					

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℃, Ground Benign	500,000			Hours
Safety Approvals	UL/cUL 60950-1 recognition(UL certificate) IEC/EN 60950-1(CB-report) IEC/EN 60335-1 recognition(TUV certificata,CB-report)				

Environmental Specifications

Parameter	Conditions	Min.	Max.	Unit
Operating Ambient Temperature Range	Natural Convection	-30	+70	℃
Storage Temperature Range		-40	+85	℃
Humidity (non condensing)		---	95	% rel. H
Cooling	Natural Convection			
Lead Temperature (1.5mm from case for 10Sec.)		---	260	℃

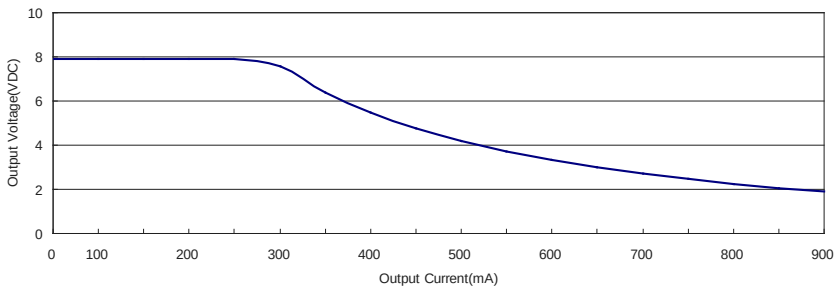
EMC Specifications

Parameter	Standards & Level		Performance
EMI	Conduction and Radiation	EN55014-1, EN55022, FCC part 15	Class B
EMS	EN55014-2 ,EN55024		
	ESD	EN61000-4-2 Air ± 8kV , Contact ± 4kV	A
	Radiated immunity	EN61000-4-3 10V/m	A
	Fast transient	EN61000-4-4 ±2kV	A
	Surge	EN61000-4-5 ±1kV	A
	Conducted immunity	EN61000-4-6 10Vrms	A
	PFMF	EN61000-4-8 30A/M	A
	Dips	EN61000-4-11 30% 10ms	A
	Interruptions	EN61000-4-11 >95% 5000ms	B

Notes

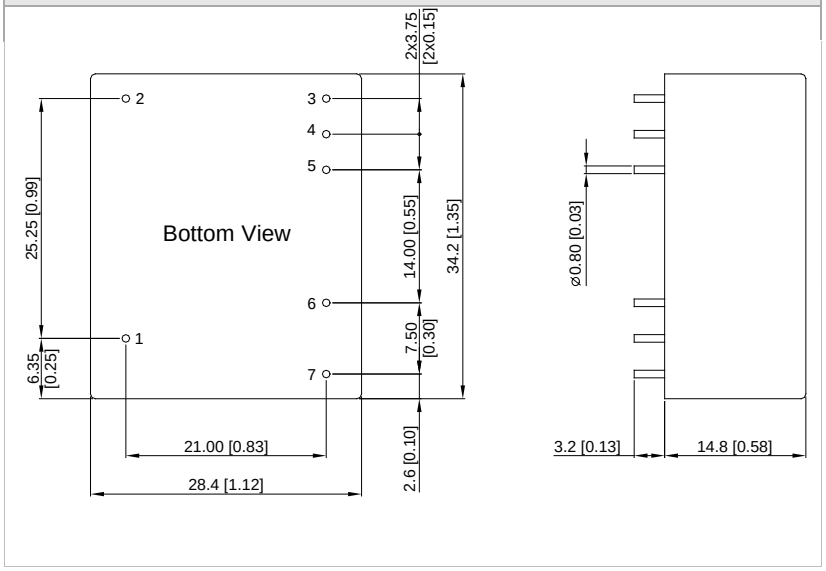
1. All specifications typical at Ta=+25℃, resistive load, 115VAC, 60Hz input voltage and after warm-up time rated output current unless otherwise noted.
2. These power modules require a minimum output loading to maintain specified regulation, operation under no-load conditions will not damage the power supplies however they may not meet all listed specifications.
3. We recommend to protect the converter by a slow blow fuse in the input supply line.
4. Other input and output voltage may be available, please contact factory.
5. Specifications are subject to change without notice.

Typical Constant Power V/I Curve



Package Specifications

Mechanical Dimensions



Pin Connections

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 ∅ 0.8 ±0.1 (0.03±0.004)

Physical Characteristics

Case Size	:	34.2x28.4x14.8mm (1.35x1.12x0.58 inches)
Case Material	:	Plastic resin (flammability to UL 94V-0 rated)
Pin Material	:	Copper Alloy with Gold Plate Over Nickel Subplate
Weight	:	24g