



AM21-36W24V Product Specification

36W Low-power AC-DC Buck Power Supply Module



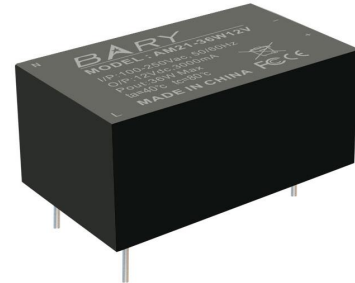
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1.product introduction

1.1. Brief introduction

AM21-36W24V is a AC-DC low-power power adapter, module internal design strictly complies with UL60950 safety design specification, and comply with FCC Part 15B:2016 ; EN55035: 2017; EN61000-3-2:2014 , EN 61000-3-3:2013, EN 55032:2015. User needn't to add additional costs in the module peripherals, which greatly reduces the user design threshold. Wide voltage 85 - 264V input, maximum input up to 264V, all components come from a regular purchasing channel. users do not need to worry about stability, when in complex voltage environment ,it also can output steadily.



1.2. Characteristic

Module size: 45*65*31mm

Ultra-low ripple: Industrial grade design to meet various power supply system requirements.

Over-current protection: It can be automatically restored by module internal preset constant current limitation .

High-quality scheme: improving its work efficiency, the average efficiency of 88%.

Over-temperature protection: Module internal preset maximum operating temperature, can be automatically restored.

Short-circuit protection: the module is equipped with short-circuit protection measures, belching mode, automatic recovery after the elimination of fault status.

Safety Specification: Module design conforms to UL60950, users do not need to add security authentication components in the module peripherals.

1.3. Application scenarios

- Smart home ;
- industrial internet of things ;
- intelligent security ;
- medical care ;
- Industrial sensors ;
- smart building ;
- Home power amplifier ;
- Various household and industrial electronic equipment ;

2.Specification parameter

2.1. Limit parameter

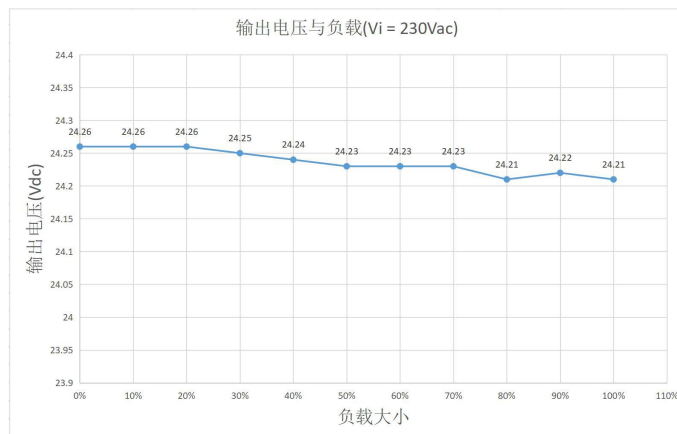
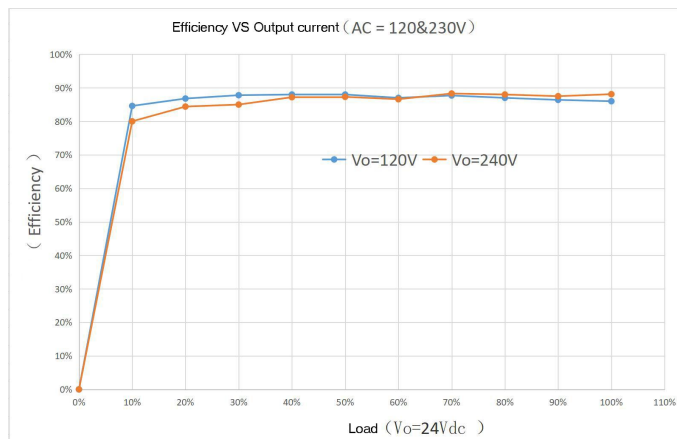
Order number	main parameter	minimum	Maximum	Remarks
1	Input voltage (Vac)	85	264	Work voltage should not exceed 264 Vac, otherwise it may be permanently damaged.
2	output power (W)	0	36	Load power should not exceed 100%. It is recommended that the load power should be less than 90%.
3	working temperature (°C)	-20	+85	Full load limit operating temperature is 40 °C.

2.2. Working parameters

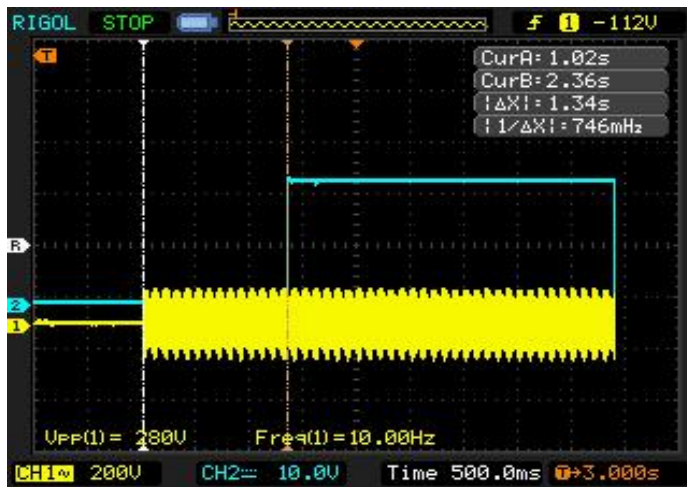
Order number	Main parameter	minimum	Typical value	Maximum	Remarks
1	Input voltage(Vac)	100	220	250	V
2	working frequency(Hz)	-	50/60	-	Hz
3	output power(W)	0	-	36	W
4	working temperature(°C)	-40	+25	80	°C
5	Power factor	0.4	-	0.55	>0.55 at 120Vac / >0.4 at 230Vac with full load.
6	Static power (mA)	-	-	1.0	<=1 mA / 240Vac
7	Output voltage (Vdc)	24	24.15	24.3	V
8	Persistent current (mA)	0	-	1.5	A
9	Ripple noise(mV)	20	-	60	<60mV
10	Start-up time	1.5	-	3	S
11	Average efficiency(n%)	80	-	88	%

12	Over current protection(%)	1.65	-	2.2	A
13	Short circuit protection	-	-	-	hiccup mode, automatic recovery after elimination of failure state.
14	Working humidity(RH%)	10	-	90	non-condensing
15	Storage temperature(°C)	-10	+25	+80	Dry storage at normal temperature;
16	Storage humidity(RH%)	10	-	90	Dry storage at normal temperature;
17	withstand voltage test	-	-	3KV	I/P - O/P: 3KVac/5mA/60S
18	Insulation impedance	-	-	100	I/P - O/P: 50MΩ/500Vdc at 25 °C
19	Ex-factory aging test	-	2	-	H
20	Normal service life	-	50000	-	H

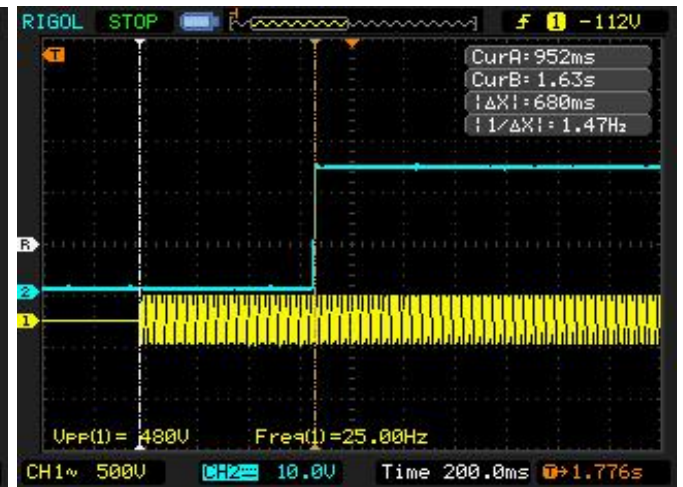
2.3. Work efficiency and load



2.4. Start-up time

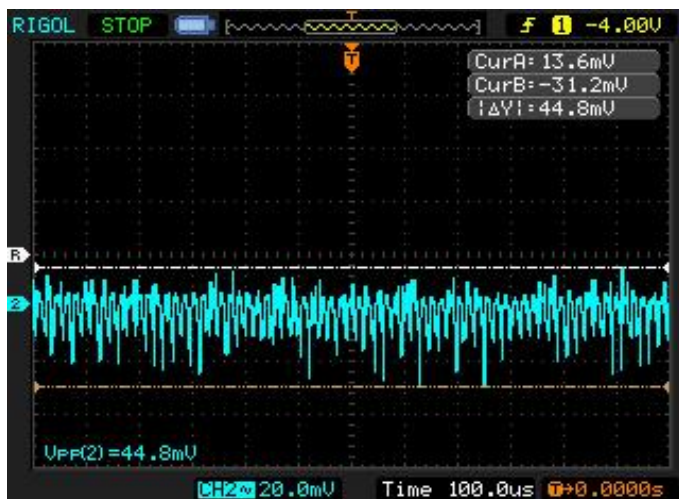


INPUT:AC 120V OUTPUT:12V 3A

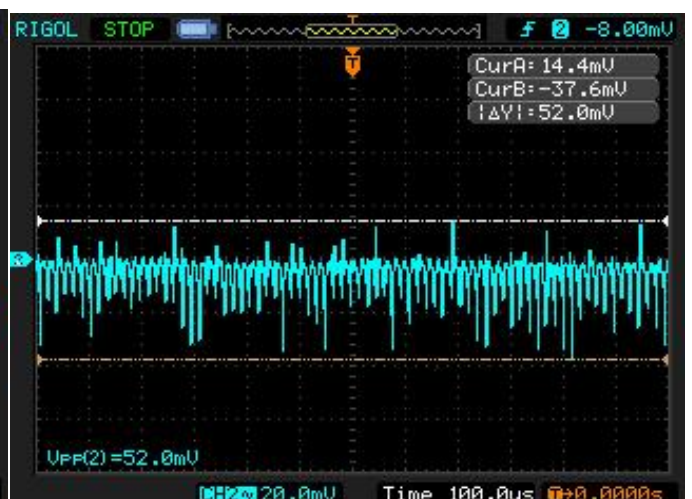


INPUT:AC 230V OUTPUT:12V 3A

2.5. Full-load ripple

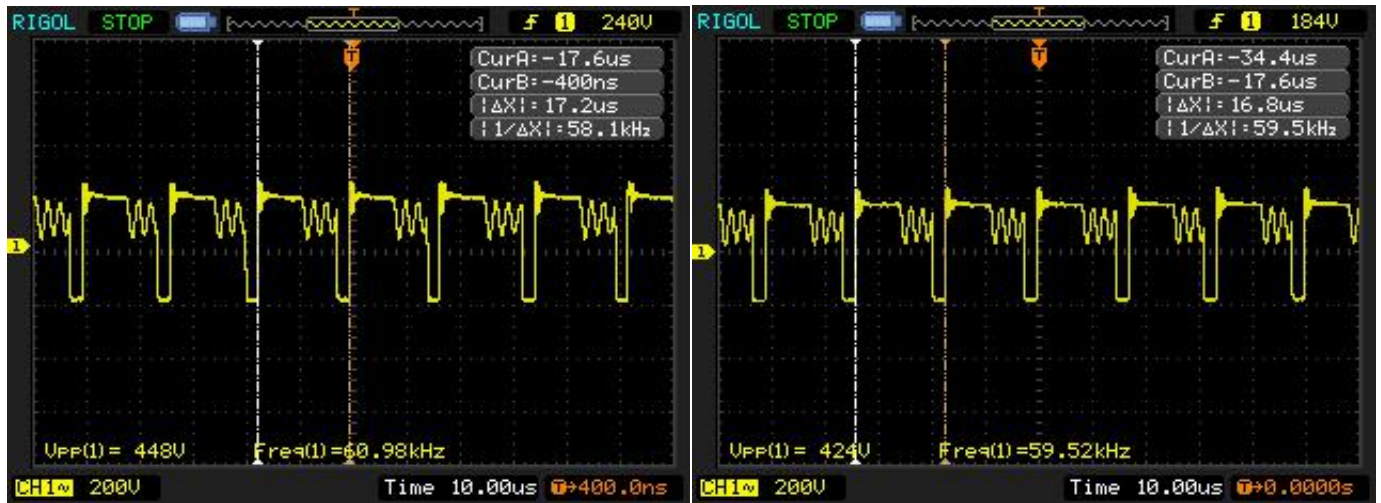


INPUT:AC 120V OUTPUT:12V 3A



INPUT:AC 230V OUTPUT:12V 3A

2.6. working frequency



INPUT:AC 120V OUTPUT:12V 3A

INPUT:AC 230V OUTPUT:12V 3A

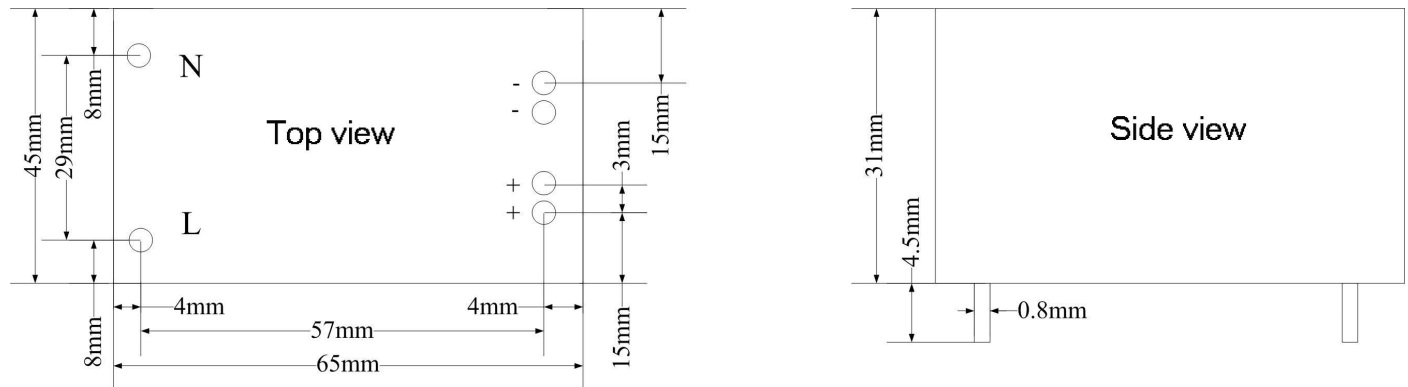
3.basic operation

3.1. Points for attention

- Operating this module requires certain professional skills, prohibit non-professionals operate on it!
- Before using it, you must study Knowledge of safe use carefully.
- prohibit human body contact with L and N power lines after electrification to prevent accidents caused by electric shock.Recommend input front-end to Increase isolation
- The maximum input voltage shall not exceed 264 Vac, otherwise may occur permanent damage .
- In daily maintenance, the input power should be disconnected to prevent from electric shock accidents.

4. Mechanical characteristics and pin definition

4.1. Product size



4.2. Pin definition

Order number	Pin name	orientation	use
1	N	input	AC power input: 100~250V
2	L	input	AC power input: 100~250V
3	+	output	DC output, positive power supply
4	+	output	
5	-	output	DC output, negative power supply
6	-	output	

5. product selection

Product model	input voltage	Output voltage	Output current	efficiency	Installation mode
AM21-36W12V	100 ~ 250Vac	12Vdc	3A	85%	Plastic-packaged plug-in
AM21-36W24V	100 ~ 250Vac	24Vdc	1.5A	88%	Plastic-packaged plug-in

Revision history

Order number	vision	modification date	Revision notes	Maintain person
1	V1.0	20190301	First edition, first public release	Deng
2	V1.1	20190916	Modify parameter	li

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