AM21-24W24V Product Specifications

24W Low Power AC-DC Step-down Power Supply



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1.product introduction

1.1. brief introduction

AM21-24W24V is a low-power AC-DC step-down power supply module. module internal design strictly comply with UL60950 safety design specifications, and conform to FCC Part 15B:2016; EN55035:2017; EN61000-3-2:2014, EN61000 3-3:2013, EN 55032:2015. Users do not need 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 supply output steadily.



1.2. Characteristic

Ultra-small volume: plug-in installation, special A.B glue sealing.
Over-current protection: The module can be automatically restored by preset constant current limitation internal Module.
High-quality scheme: improving its work efficiency, the average efficiency of 87%。
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.
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1.3. Application scenarios

- Power Supply System of Charging Pile ;
- Intelligent home and Industrial sensors, etc. ;
- Internal power supply system of security alarm ;
- Industrial control ;
- MCU motherboard, toys ;
- Supply LED driving Lamp belt with Power ;
- Intelligent street lamp ;
- Intelligent switch, socket ;

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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	24	Load power should not exceed 100%. It is recommended that the load power should be less than 90%.
3	working temperature（℃）	-40	+80	Full load limit operating temperature 60℃.

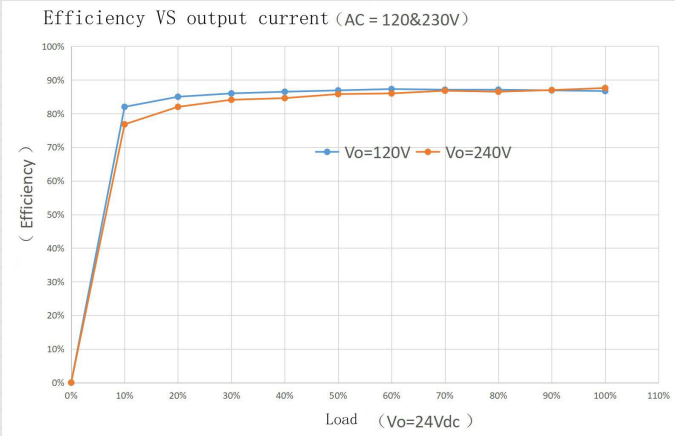
2.2.Working parameters

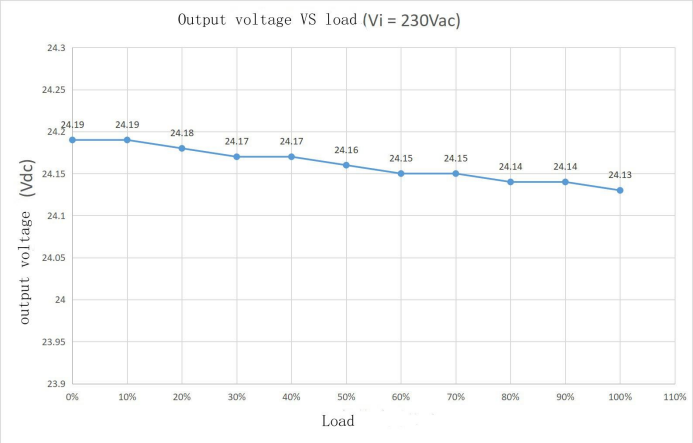
Order number	Main parameter	mini mum	Typical value	Maximum	Remarks
1	Input voltage(Vac)	100	220	250	Recommended operating voltage : 110 ~ 250V
2	working frequency(Hz)	-	50/60	-	AC/50/60Hz
3	output power(W)	0	-	24	Maximum continuous output power 24 watts
4	working temperature(℃)	-40	+25	80	Full load operation
5	Power factor	0.4	-	0.55	>0.55 at 120Vac / >0.4 at 230Vac Full load
6	Static power(mA)	-	-	1.0	< =1 mA / 240Vac
7	output voltage(Vdc)	24.0	24	24.2	Vo=24V
8	Persistent current(mA)	0	-	1	Vo=24V
9	ripple noise(mV)	100	-	120	Full load<=120mV
10	Average efficiency(n%)	-	87	-	Vo=24V
11	Over current protection(%)	110	-	150	Constant current limit, automatic recovery
12	Short circuit protection	-	-	-	Hiccup mode, automatic recovery after elimination of failure state
13	Working humidity(RH%)	20	-	90	Non-condensing
14	Storage	-20	+25	+80	Dry storage at normal temperature;

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	temperature(℃)				
15	Storage humidity(RH%)	10	-	90	Dry storage at normal temperature;
16	withstand voltage test	-	-	1500	I/P - O/P: 1500 KVAC
17	Insulation impedance	-	-	100	I/P - O/P: 100M ohms / 500VDC at 25 ℃

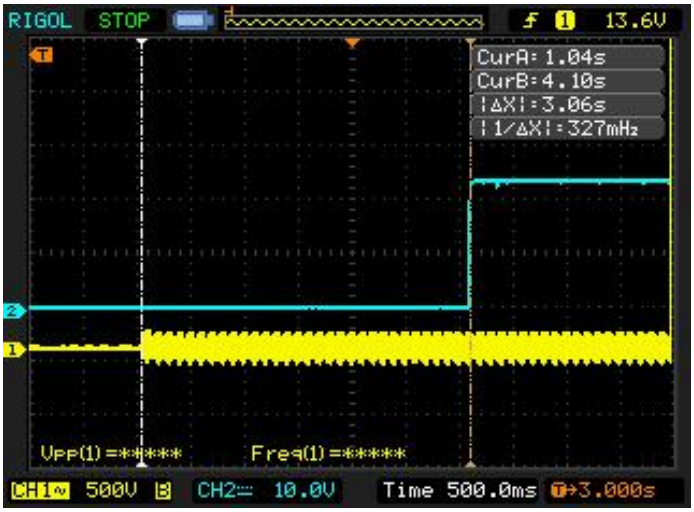
2.3.Work efficiency and load



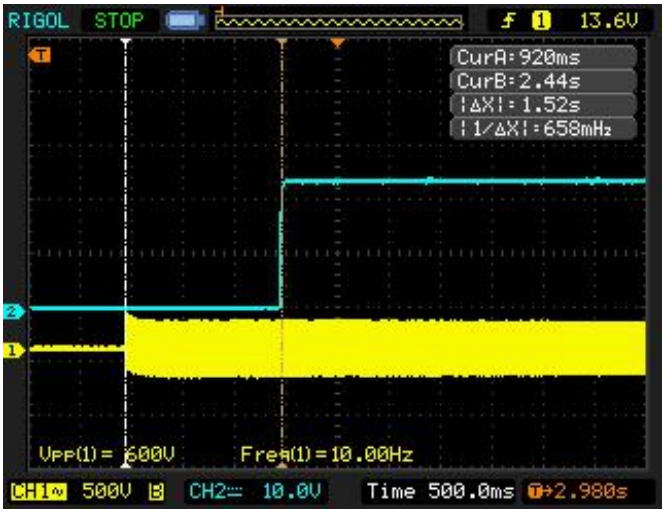


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2.4.Start-up time



INPUT:AC 120V OUTPUT:24V 1A

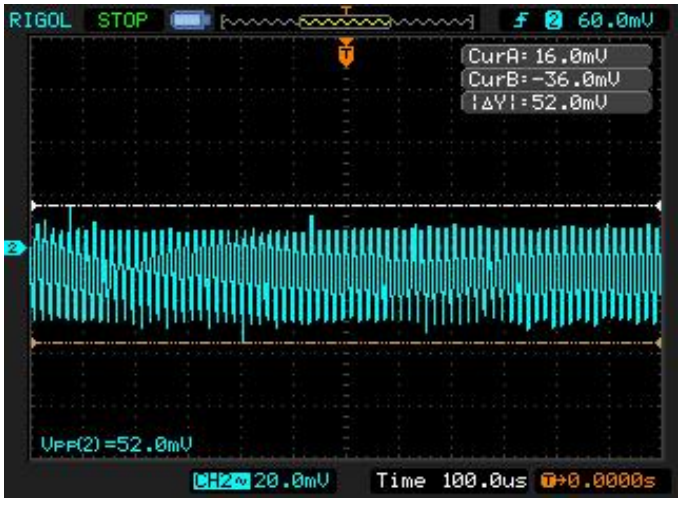


INPUT:AC 230V OUTPUT:24V 1A

2.5.Full-load ripple



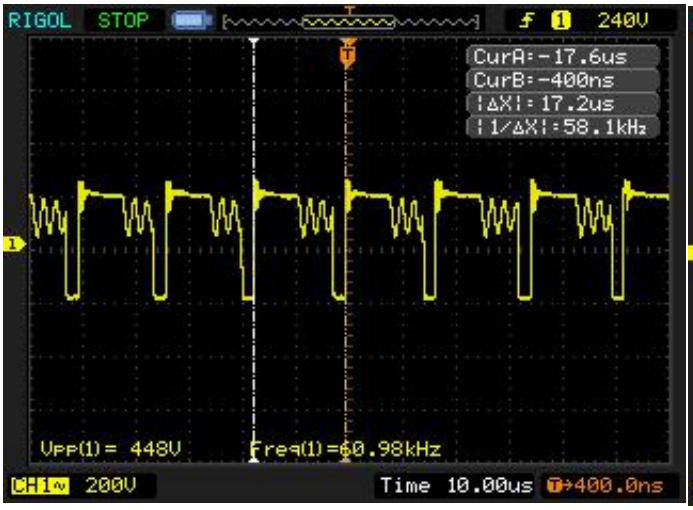
INPUT:AC 120V OUTPUT:24V 1A



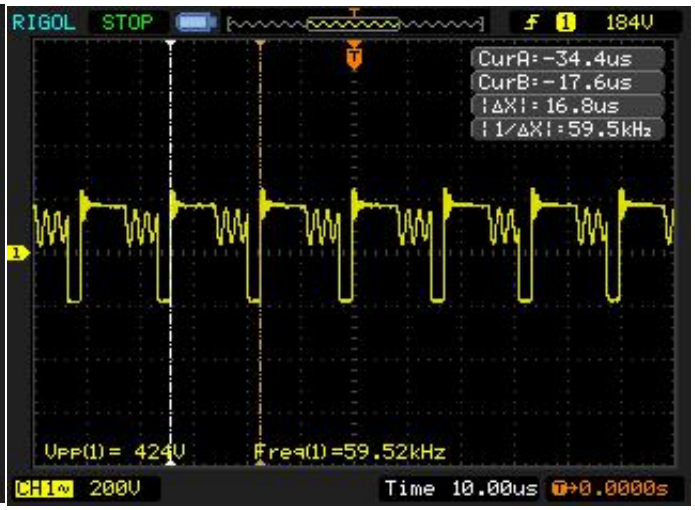
INPUT:AC 230V OUTPUT:24V 1A

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2.6.Working frequency



OUTPUT:24V 1A



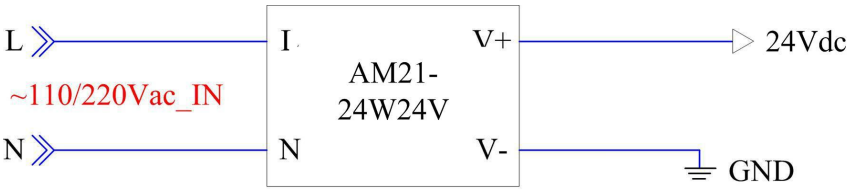
OUTPUT:24V 1A

3.basic operation

3.1.Notes

- Operating this module requires certain professional skills, prohibit non-professionals operate on it!
- Before using it, you must study Knowledge of safe use。
- 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.

3.2.Typical application

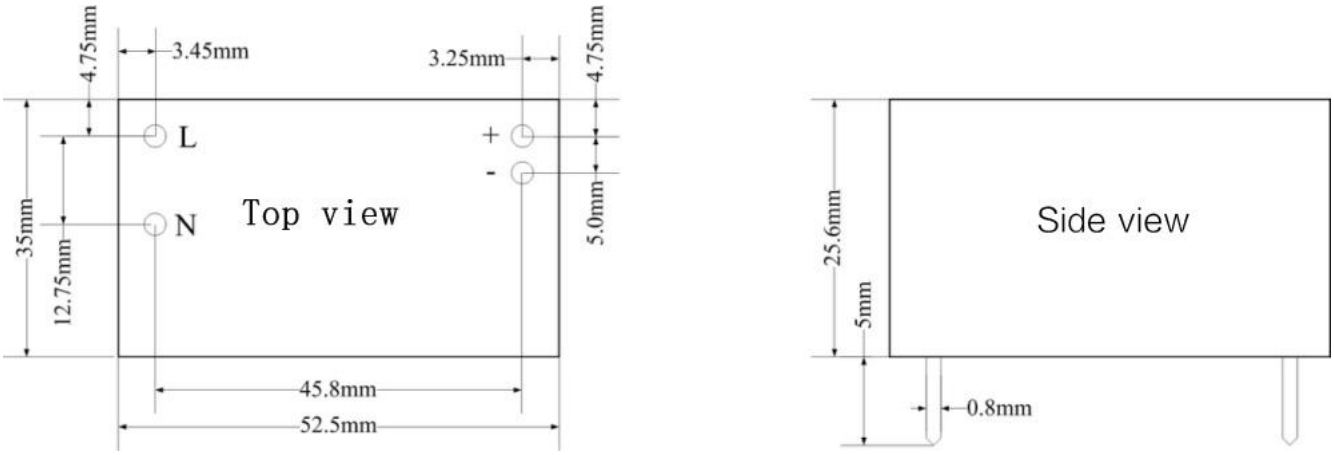


*Note: Input and output need not add any components to meet the requirements of security certification.

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4.Mechanical characteristics and pin definition

4.1.Product size



4.2.Pin definition

Order number	Pin name	orientation	use
1	L	input	AC power input: 100-250V
2	N	input	AC power input: 100-250V
3	-	output	direct-current output，power ground
4	+	output	direct-current output, positive power supply

5.Product selection

Product model	input voltage	Output voltage	Output current	efficiency	Installation mode
AM21-24W05V	100 ~ 250Vac	5Vdc	4A	76%	Plastic package plug-ins
AM21-24W12V	100 ~ 250Vac	12Vdc	2A	85%	Plastic package plug-ins
AM21-24W24V	100 ~ 250Vac	24Vdc	1A	87%	Plastic package plug-ins

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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

About us

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