



AM22-6W1205V Product Specification

6W Dual-output AC-DC Buck Power Supply Module



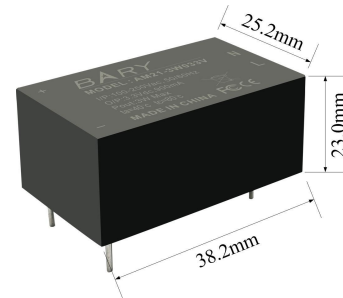
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1.product introduction

1.1. Brief introduction

AM22-6W1205V is a AC-DC 6W low-power buck module, dual-output 12V+5V, wide voltage input range:85 ~ 264V, the max input can up to 264V, dual-output max total Output is 6W; module internal design strictly complies with UL60950 safety design specification, and conforms to FCC Part 15B:2016 ; EN55035: 2017; EN61000-3-2:2014 , EN61000-3-3:2013,EN 55032:2015. Users needn't to add extra EMC EMI components in module peripherals, greatly reduces the user design threshold.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

Ultra-small volume: module size: 38*25*23mm.

Plastic package: safe, stability and beautiful appearance.

Ultra-low ripple: full load<50mV, 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 76%.

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

Certification standards: comply with FCC,CE design standard, user needn't to add related EMI components in the peripherals.

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

IP/OP Isolation Voltage: I/P - O/P: 3000 KV/AC.

1.3. Application scenarios

- vehicle charging pile ;
- Security alarm ;
- Smart home ;
- Industrial sensors ;
- Industrial control ;
- MCU motherboard,toys ;
- Intelligent street lamps ;
- Intelligent switch, socket ;

2.Specification parameter

2.1. Limit parameter

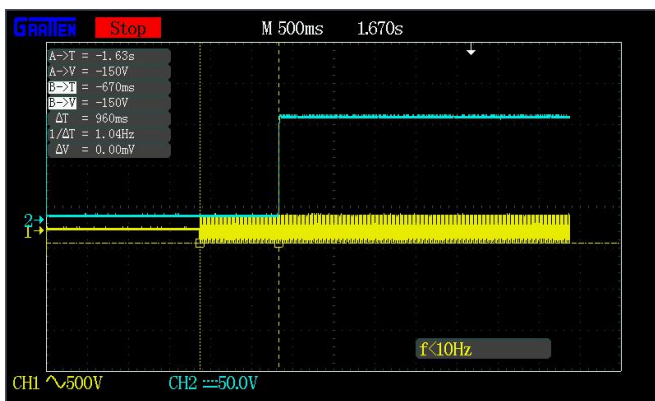
Order number	main parameter	minimum	Maximum	Remarks
1	Input voltage (Vac)	85	264	Work voltage should not exceed 264 Vac, otherwise it may be permanently damaged.
2	output power (W)	0	6	Dual maximum total output power is 6W
3	working temperature (°C)	-40	+85	ta=40°C, tc=85°C

2.2. Working parameters

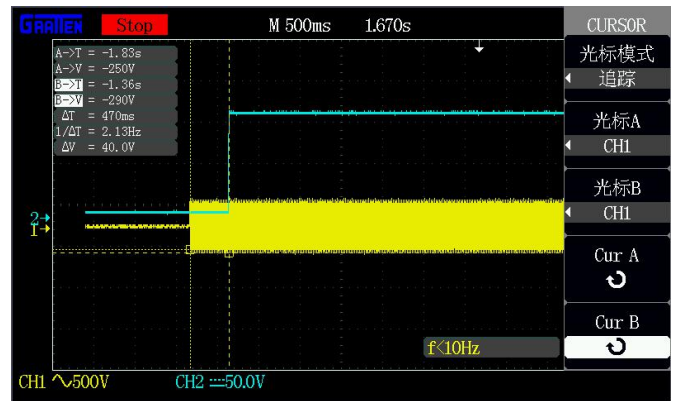
Order number	Main parameter	minimum	Typical value	Maximum	Remarks
1	Input voltage	100	220	250	Vac(recommend work voltage range:100 ~ 250V.)
2	work frequency(Hz)	-	50/60	-	AC/50/60Hz
3	Output voltage 1	11.9	12	12.2	Vdc
4	Output current 1	0	-	420	mA
5	Output voltage 2	5.0	5.1	5.2	Vdc
6	Output current 2	0	-	200	mA
7	Output power	0	-	6	W(Dual max continuously output total power is 6W.)
8	Ripple noise	10	-	50	mV(full load)
9	entire efficiency	-	-	76	%
10	static power	-	-	1.0	< =1 mA / 240Vac
11	Over-current protection	110	-	150	% (it can automatically recover for has constant current limitation.)
12	Short circuit protection	-	-	-	hiccup mode, automatic recovery after elimination of failure state.
13	Power factors	0.4	-	0.55	>0.55 at 120Vac / >0.4 at 230Vac with full load.
14	Work temperature	-40	+25	85	°C (ta=40°C, tc=85°C)
15	Storage temperature	-40	+25	+85	°C (Dry storage at normal temperature)
16	Storage humidity	10	-	90	RH%(Dry storage at normal

					temperature)
17	withstand voltage test	-	-	3000	Kv (I/P - O/P: 3000 KVAC)
18	Insulation impedance	-	-	100	I/P - O/P: 100M ohms / 500VDC at 25 °C
19	Work humidity	20	-	90	RH%(no-condensing)
20	Average service life	-	50000	-	hours

2.3. Start-up time

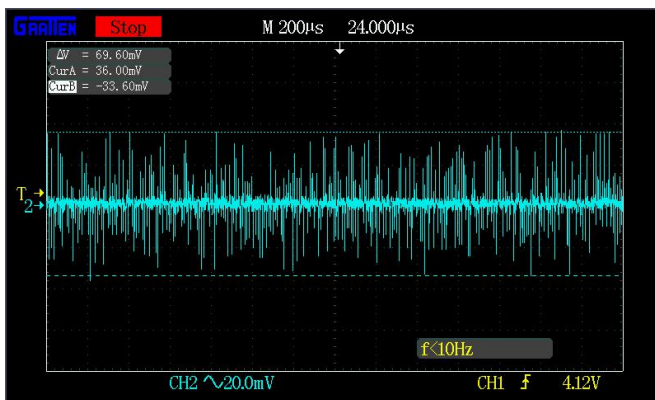


INPUT:AC 120V

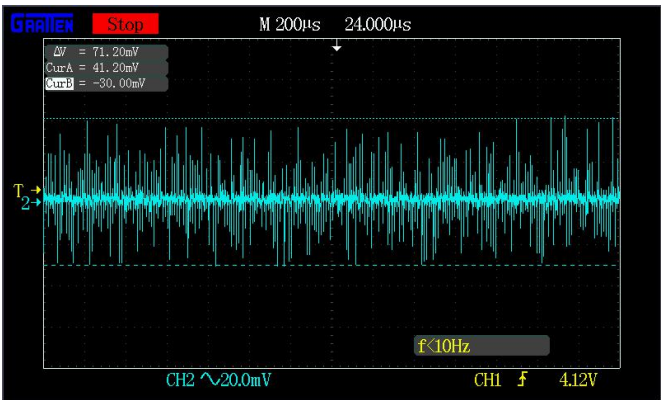


INPUT:AC 230V

2.4. Full-load working ripple

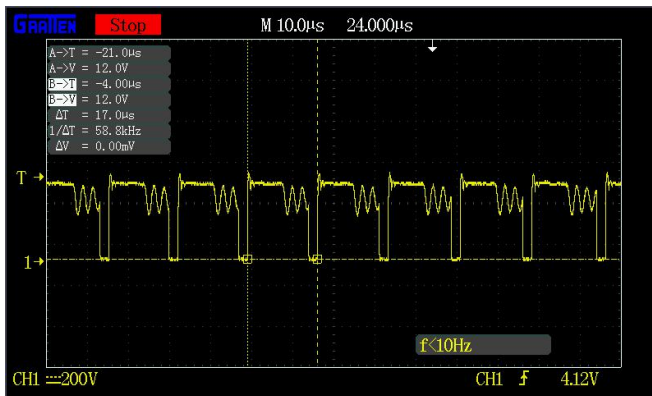


INPUT:AC 120V

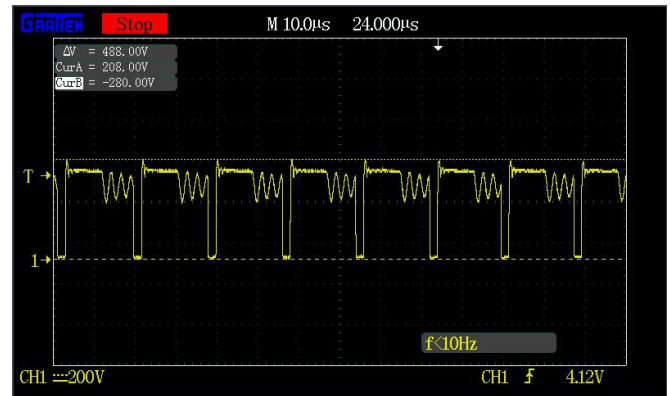


INPUT:AC 230V

2.5. Work frequency and voltage



INPUT:AC 230V Work frequency



INPUT:AC 264V Limit Voltage Input, MOS Peak

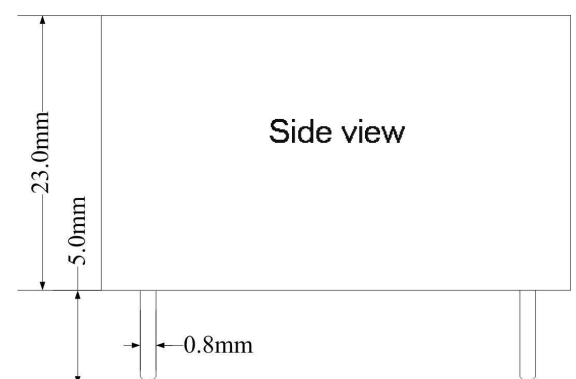
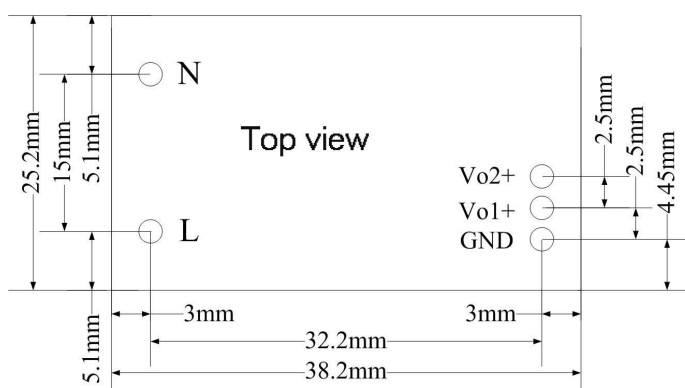
3.basic operation

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

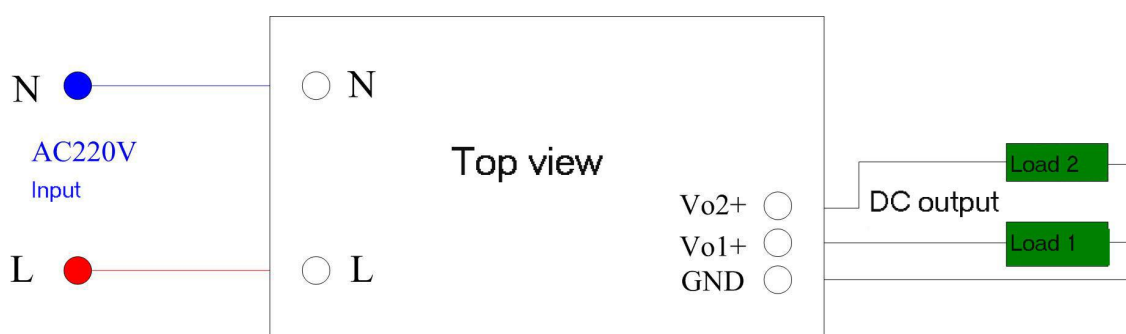
4.1. Product size



4.2. Pin definition

Order number	Pin name	orientation	use
1	L	Input	AC power input: 100~250V
2	N	Input	AC power input: 100~250V
3	GND	Output	DC output , power reference GND
4	Vo1+	Output	12V DC output, positive power supply
5	Vo2+	Output	5V DC output, positive power supply

4.3. Typical application



5. product selection

Product model	input voltage	Output 1	Output 2	efficiency	Installation method
AM21-6W1205V	100 ~ 250Vac	12Vdc/420mA	5Vdc/200mA	76%	Plastic-package plug-ins
AM21-6W2405V	100 ~ 250Vac	24Vdc/210mA	5Vdc/200mA	80%	Plastic-package plug-ins
AM21-6W2412V	100 ~ 250Vac	24Vdc/200mA	12Vdc/100mA	83%	Plastic-package plug-ins

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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