AM21-36W24V

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



Chengdu Ebyte Electronic Technology Co.,Ltd.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

1.product introduction

1.1. Brief introduction

AM21-36W24Vis a ultra-small volume switch power supply module, AC / DC dual purpose, input voltage: 85~264Vac/100~370Vdc, ultra-small ripple, ultra low power consumption, high efficiency, safe isolation, high reliability and other advantage; Comply with IEC60950、EN60950、UL60950 certification standard, Users needn't to add EMI related components at peripherals. which greatly reduces the users design threshold.users do not need to worry about stability,when in complex voltage environment ,it also can output steadily.



1.2. Module features

- Super-low ripple: full load ripple< 50mV;
- Super-small volume：65*45*31mm;
- Input voltage：global universal voltage: 85 ~ 264Vac/100~370Vdc;
- Certification standards: comply with IEC60950、EN60950、UL60950 certification standard.
- Users needn't to add EMI related components at peripherals;
- Protection measures: over voltage protection, over current protection, short circuit protection, over temperature protection;
- High quality scheme: greatly improve its work efficiency, with an average efficiency of 85%;

1.3. Application scenarios

- Car charging pile；
- Security alarm；
- Intelligent home；
- Industry, power, instruments and meters；
- MCU；
- Intelligent street lamp, energy saving lamp；
- Smart switch, socket；
- RF communication equipment；

Copyright ©2012–2021, Chengdu Ebyte Electronic Technology Co., Ltd.

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

2.Specification parameters

2.1. Limit parameters

Serial number	Main parameter	Minimum	Maximum	Remarks
1	Input voltage（Vac）	85	264	Vac
2	Input voltage（Vdc）	100	370	Vdc
3	Output power（W）	0	36	W
4	Working temperature（℃）	-40	+85	**ta=40℃,tc=85℃**

2.2. Work parameters

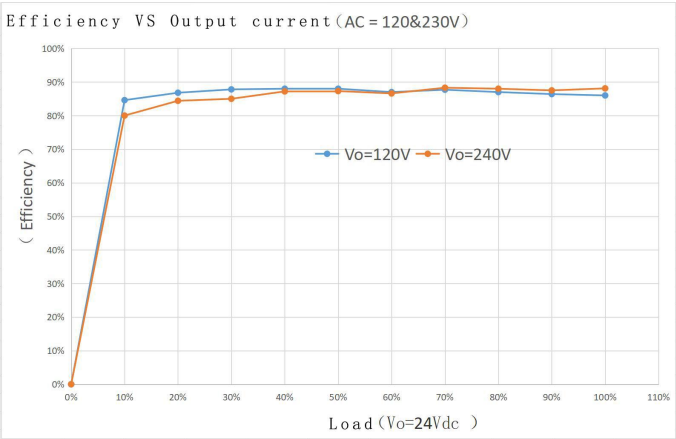
Serial number	Main parameter	Minimum	Typical value	Maximum	Remarks
1	Input voltage（Vac）	100	220	250	Vac
2	Input voltage（Vdc）	120	-	350V	Vdc
3	Working frequency (Hz)	-	50/60	-	Hz
4	Output power(W)	0	-	36	W
5	Working temperature (℃)	-40	+25	85	**ta=40℃,tc=85℃**
6	Power factor	0.4	-	0.55	>0.55 at 120Vac / >0.4 at 230Vac with full load.
7	Static power(mA)	-	-	1.0	< =1 mA / 240Vac
8	Output voltage(Vdc)	24	24.15	24.3	V
9	Persistent current(A)	0	-	1.5	A
10	Ripple noise(mV)	20	-	60	<60mV

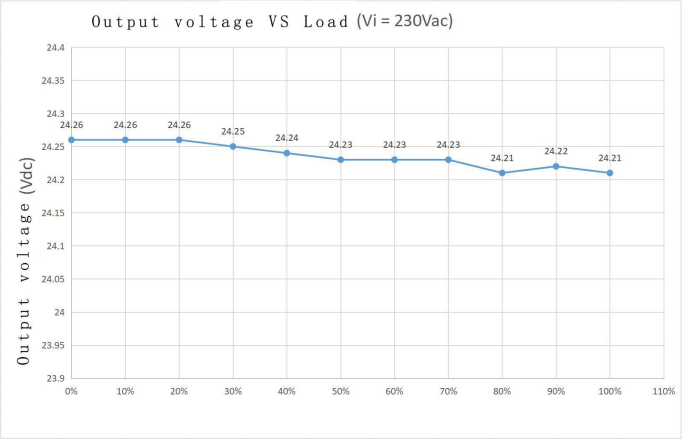
Copyright ©2012–2021, Chengdu Ebyte Electronic Technology Co., Ltd.

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

11	Start up time	1.5	-	3	S
12	Average efficiency (n%)	80	-	88	%
13	Over current protection(%)	1.65	-	2.2	A
14	Short circuit protection	-	-	-	Hiccup mode, can be automatic Recover after eliminating the fault state.
15	Working humidity (RH%)	10	-	90	No condensation
16	Storage temperature (℃)	-10	+25	+80	Dry storage in normal temperature.
17	Storage humidity (RH%)	10	-	90	Dry storage in normal temperature.
18	Withstand voltage	-	-	3KV	I/P - O/P: 3KVac/5mA/60S
19	Insulation impedance	-	-	100	I/P - O/P: 50MΩ/500Vdc at 25 ℃
20	Leave factory aging test	-	2	-	H
21	Normal service time	-	50000	-	H

2.3. Work efficiency VS load

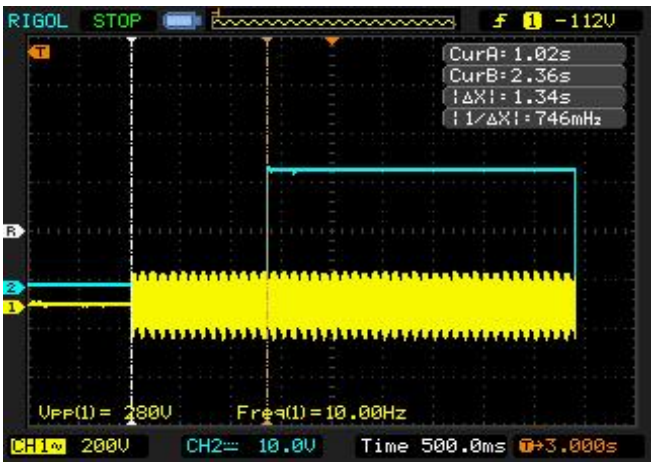




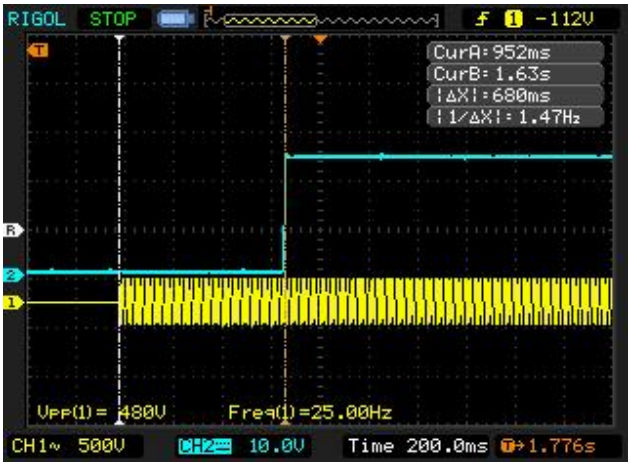
Copyright ©2012–2021, Chengdu Ebyte Electronic Technology Co., Ltd.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

2.4. Start-up time

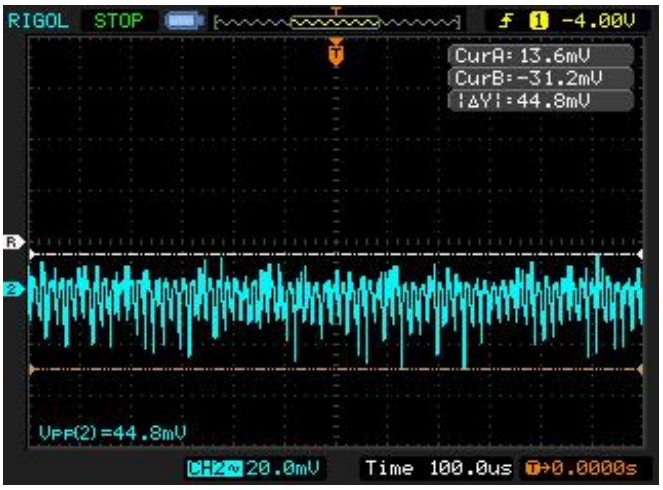


INPUT:AC 120V OUTPUT:12V 3A

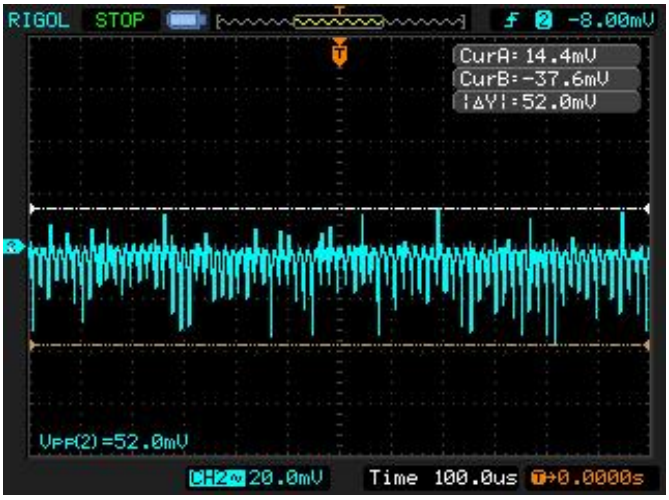


INPUT:AC 230V OUTPUT:12V 3A

2.5. Full-load ripple

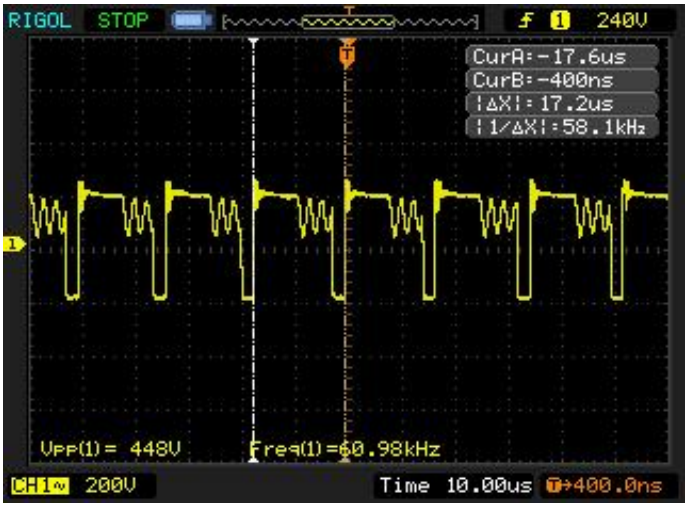


INPUT:AC 120V OUTPUT:12V 3A

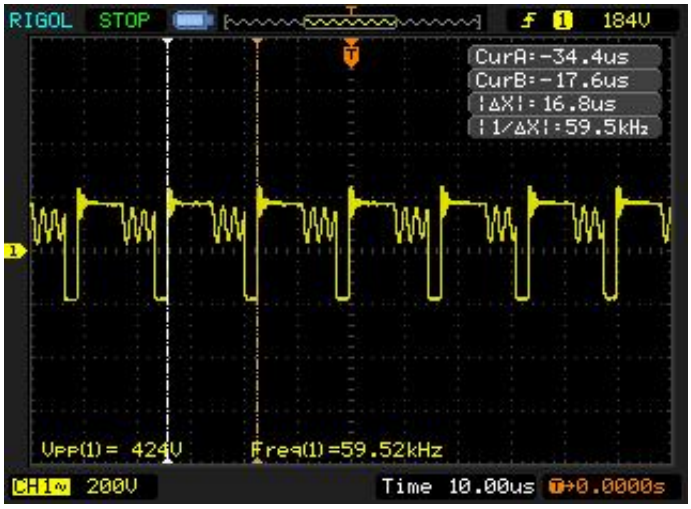


INPUT:AC 230V OUTPUT:12V 3A

2.6. Work frequency



INPUT:AC 120V OUTPUT:12V 3A



INPUT:AC 230V OUTPUT:12V 3A

Copyright ©2012–2021, Chengdu Ebyte Electronic Technology Co., Ltd.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

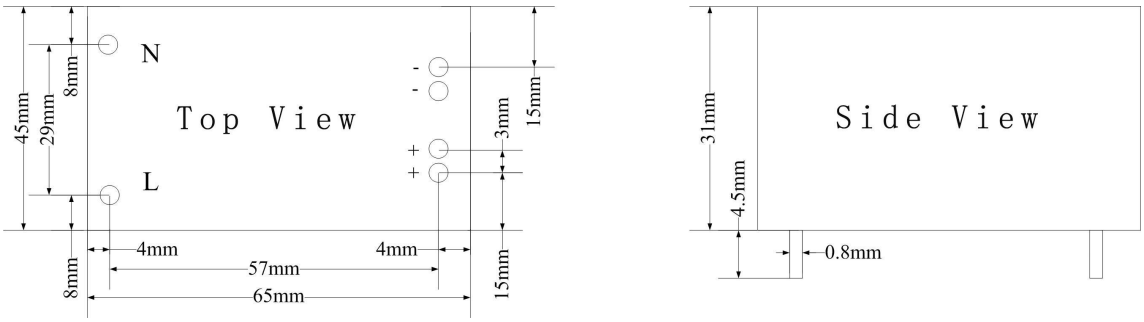
3.Basic operation

3.1. Matters need attentions

- 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 250 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

Serial number	Pin name	Direction	Use
1	N	Input	AC power input.
2	L	Input	AC power input.
3	+	Output	AC output, positive power supply.
4	+	Output	
5	-	Output	AC output, negative power supply.
6	-	Output	

Copyright ©2012–2021, Chengdu Ebyte Electronic Technology Co., Ltd.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

5.Product selection

Product model	Input voltage	Output voltage	Output current	Efficiency	Installation mode
AM21-36W12V	100 ~ 250Vac	12Vdc	3A	85%	Plastic package plug-ins
AM21-36W24V	100 ~ 250Vac	24Vdc	1.5A	88%	Plastic package plug-ins

Revision history

Serial number	vision	modification date	Revision notes	Maintain person
1	V1.01	20190301	First edition, first public release.	Deng

About us

Sales hotline : 4000-330-990 Phone number: +86 028-61399028
Technical support: support@cdebyte.com Official website: www.ebyte.com
Address: B5 Mould Park,199# Xiqu Ave,High-tech West District,Chengdu,
Sichuan,China

Chengdu Ebyte Electronic Technology Co.,Ltd.

Copyright ©2012–2021, Chengdu Ebyte Electronic Technology Co., Ltd.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000