

Product characteristics

- ✧ Certification project : CE+FCC_RoHs;
- ✧ Package outline : DIP , lead wire ;
- ✧ Temperature range : -40°Cto +85°C ;
- ✧ Efficiency : 82 ~ 87% ;
- ✧ Isolation Voltage : 3000VDC ;
- ✧ Input range : 85 ~ 264VAC , 120 ~ 370VDC;
- ✧ Output protection : current limit 、 short circuit ;
- ✧ application area : industry 、 Instrumentation 、 RF communication、 track、 traffic、 Smart Street Lamp、



Selection Guide

Product model	Input Voltage (Vac)	Output			Efficiency(%) Min./Typ.	Max capacitive load (μF)	certification
		Power (W)	Voltage (VDC)	current (mA) Max./Min			
AM21-12W05V	85~264	12	5	2400	82	2200	CE+FCC_RoHs
AM21-12W09V			9	1330	83	2200	CE+FCC_RoHs
AM21-12W12V			12	1000	85	1500	CE+FCC_RoHs
AM21-12W15V			15	800	85	1200	CE+FCC_RoHs
AM21-12W24V			24	500	87	680	CE+FCC_RoHs

*Note:CE,FCC Product Certification Input Voltage range : 100~240VAC

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Input Voltage range	AC Input	85	--	264	Vac
	DC Input	119	308	370	Vdc
Input frequency	AC Input	47	--	63	Hz
Input current	220VAC	--	107	--	mA
Start up time		--	800	1500	ms
Inrush Current	220VAC	--	10	--	A
Input filter Typ		LC			
Recommended External Input Fuse		1A/250V, slow-blow, required			

Output Specifications

Item	Operating Conditions		Min.	Typ.	Max.	Unit
Output Voltage Accuracy	--	--	--	±1.0	±1.5	%
Line Regulation	Full load		--	±0.25	±0.5	%
Load Regulation	10%~100% Load(balanced load)	AM21-12W-V	--	±1.0	±2	%
Ripple & Noise	20MHz bandwidth (peak-to-peak value)	AM21-12W-V	--	--	120	mV
Temperature Coefficient			--	±0.05	--	%/°C
Short Circuit Protection			Continuous, self-recovery			
Over current current	AM21-12W-V		110~150% Io self-recovery			
Min. Load			0	--	--	%

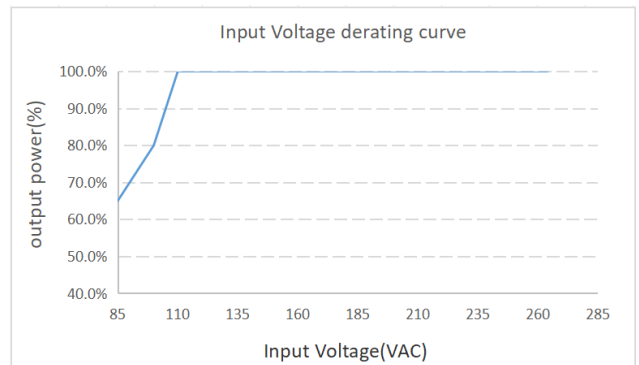
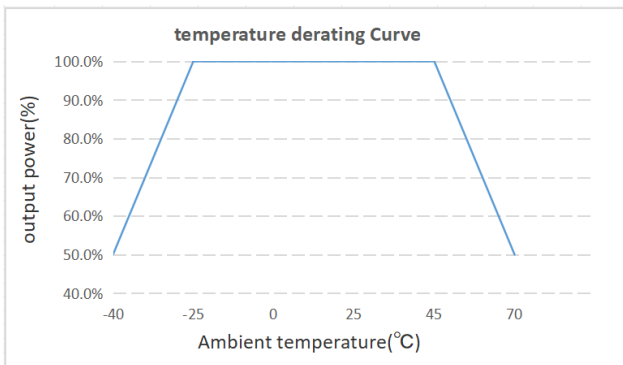
General Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Input - output	3000	--	--	Vac
operating Temperature		-40	25	+55	°C
storage Temperature		-40	25	+85	
storage Humidity		--	--	95	%RH
soldering Temperature	Wave-soldering	260 ± 5°C; time : 5-10s			
	Manual welding	360 ± 10°C; tim : 3-5s			
Switching Frequency		--	65	--	KHz
MTBF		MIL-HDBK-217F@25°C > 200,000 h			

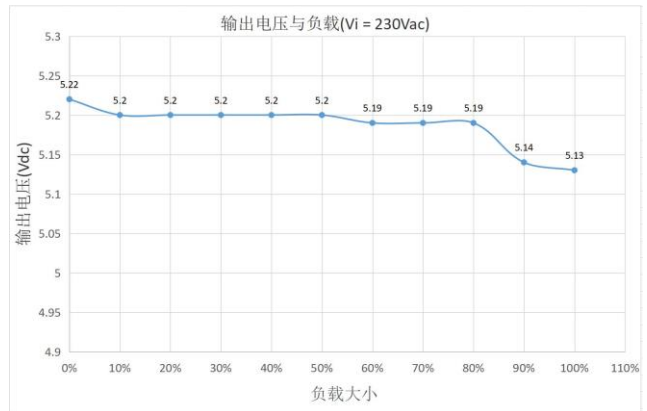
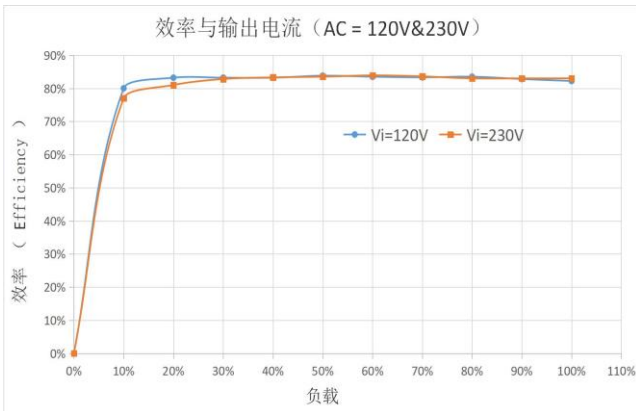
Mechanical Specifications

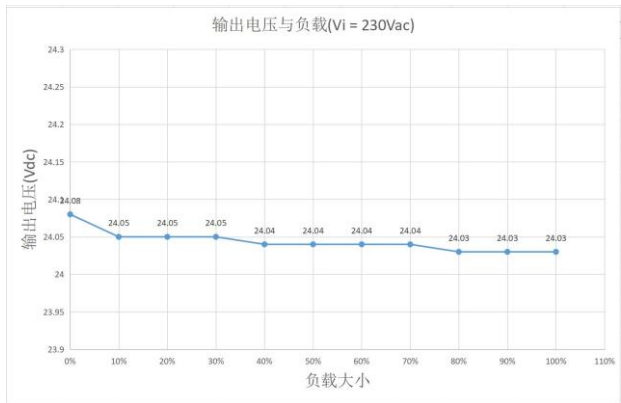
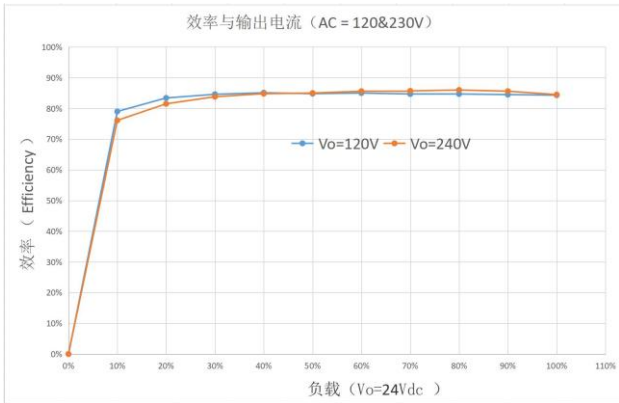
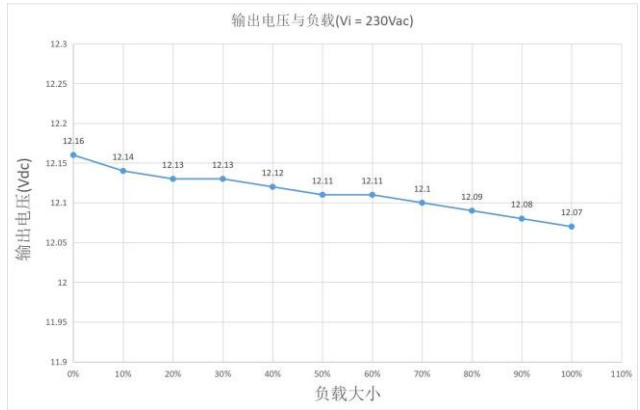
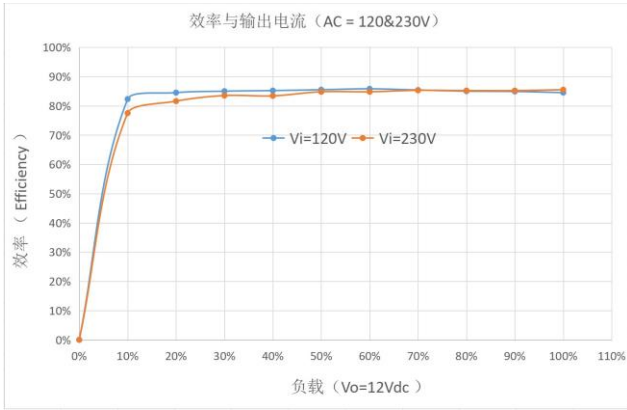
Case Material	flame-retardant and heat-resistant	
Size	AM21-12W-V	38.2*25.2*23mm
Weight	AM21-12W-V	31g(Typ.)
Cooling method	Free air convection	

Product Characteristic Curve



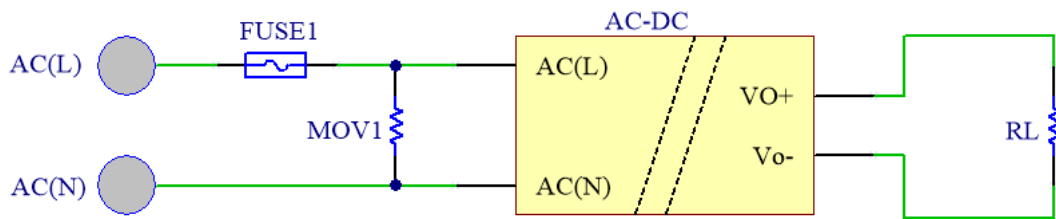
Efficiency vs load





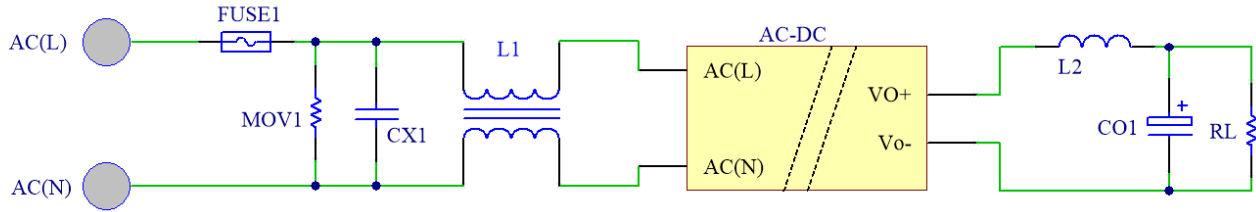
Design Reference

Typical application circuit



FUSE1	MOV1
1A/500V Slow-blow, required	10D 821K

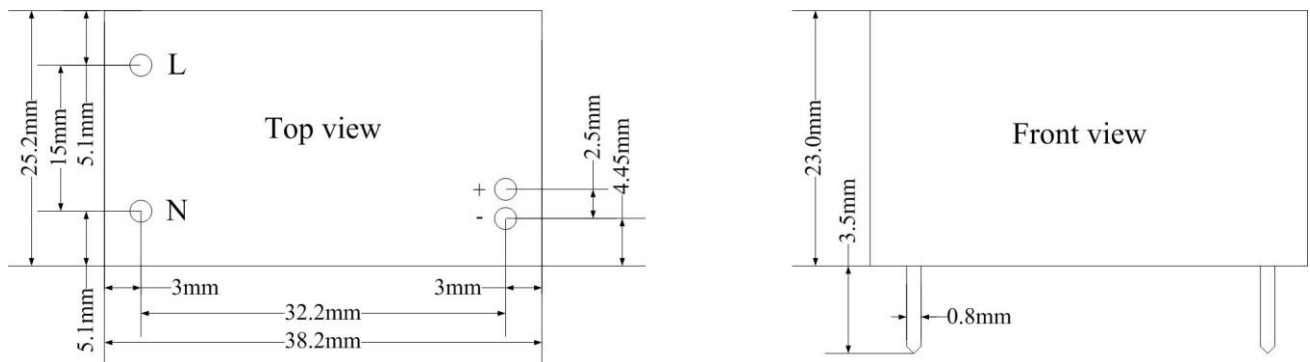
EMC compliance recommended circuit



FUSE1	MOV1	CX1	L1	L2	CO1
1A/250V Slow-blow, required	10D 471K	0.1uF/250V	UU9.8 - 10mH	0.47uH SLO0420HR47MTT	220uF

Dimensions and Recommended Layout

AM21-12W-V



Note:

Pin diameter tolerances:±0.1mm

General tolerances:±0.5mm

PIN	Note
L	AC_L Input Voltage
N	AC_N Input Voltage
+	+DC Output Voltage
-	-DC Output Voltage GND

Chengdu Bairui Technology Co., Ltd.

No.6nd floor,building 17# TIAN-CHEN road,high-techdistrict(west),chengdu

Marketing Department : Miss Hu : TEL/WeChat : +86-18782919117

Mailbox : bary_sales01@163.com

Online mall : <https://www.aliexpress.com/store>