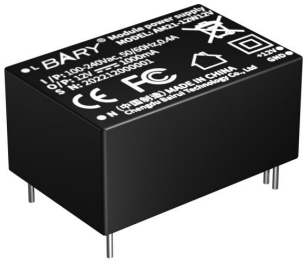
Product characteristics

- ✧ Certification project：CE+FCC_RoHs;
- ✧ Package outline：DIP，lead wire；
- ✧ Temperature range：-40℃ to +85℃；
- ✧ 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、Smart



Selection Guide

Product model	Input Voltage	Output			Efficiency(%) Min./Typ.	Max capacitive load（μF）	certification
		Power（W）	Voltage（VDC）	current（mA） Max./Min			
AM21-12W05V	85~264VAC 120~370VDC	12	5	2400	82	2200	CE+FCC_RoHs EN 62368-1
AM21-12W09V			9	1330	83	2200	
AM21-12W12V			12	1000	85	1500	
AM21-12W15V			15	800	85	1200	
AM21-12W24V			24	500	87	680	

*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	--	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/250VAC, slow-blow, required			

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

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	--	%/℃
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	℃
storage Temperature			-40	25	+85	℃
storage Humidity			--	--	95	%RH
soldering Temperature	Wave-soldering		260 ± 5℃; time：5-10s			
	Manual welding		360 ± 10℃; tim：3-5s			
Switching Frequency			--	65	72	KHz
MTBF			MIL-HDBK-217F@25°C > 200,000 h			

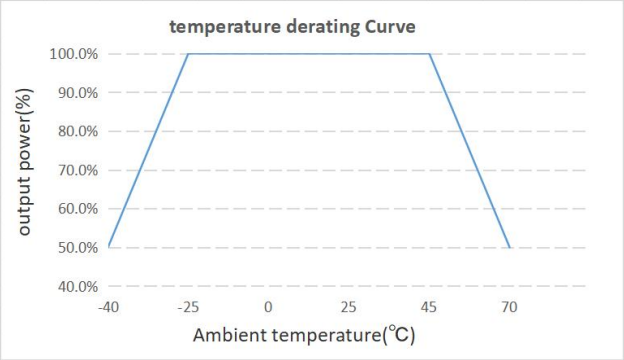
Mechanical Specifications

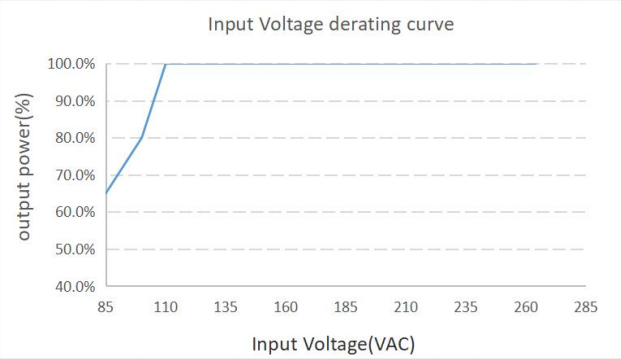
Case Material	flame-retardant and heat-resistant

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

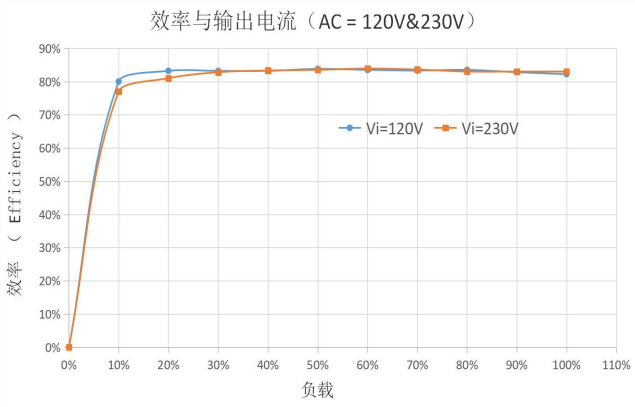
Size	AM21-12W-V	38.2*25.2*23mm
Weight	AM21-12W-V	31g(Typ.)
Cooling method		Free air convection

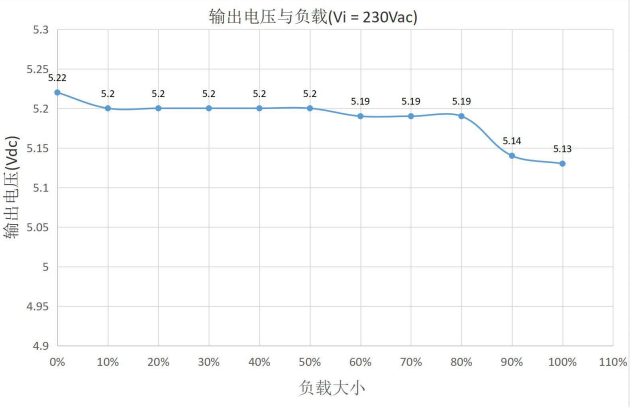
Product Characteristic Curve

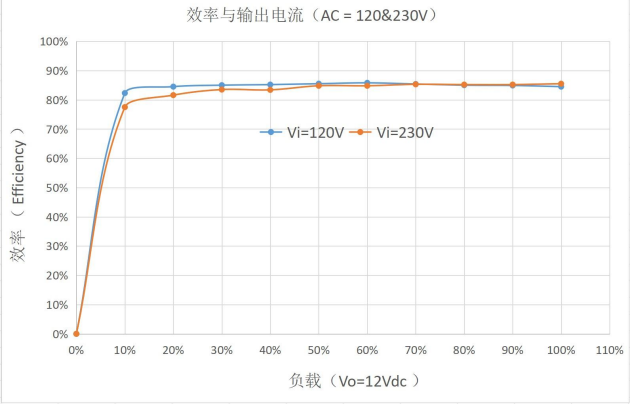


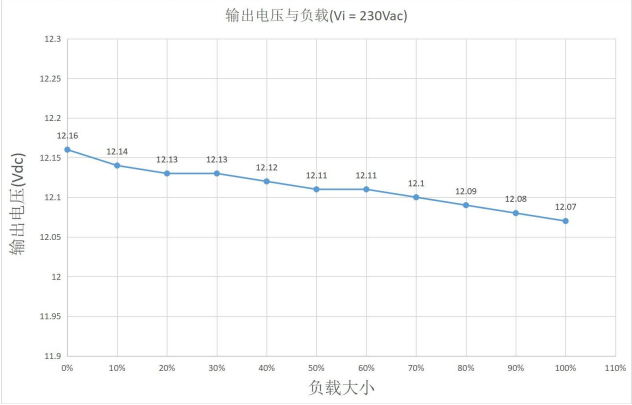


Efficiency vs load

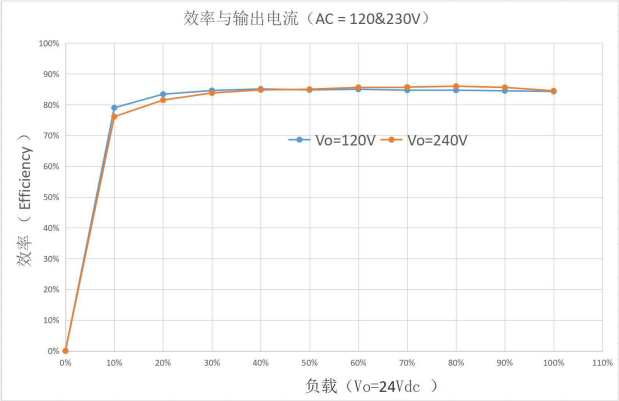


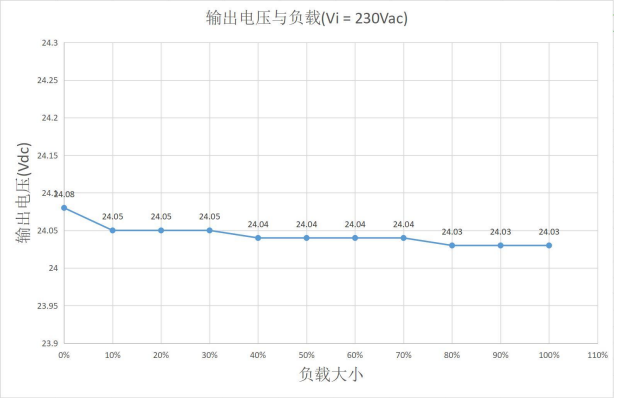






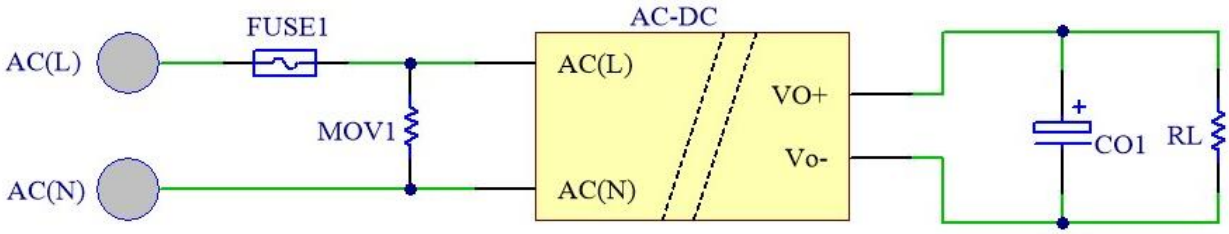
LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000





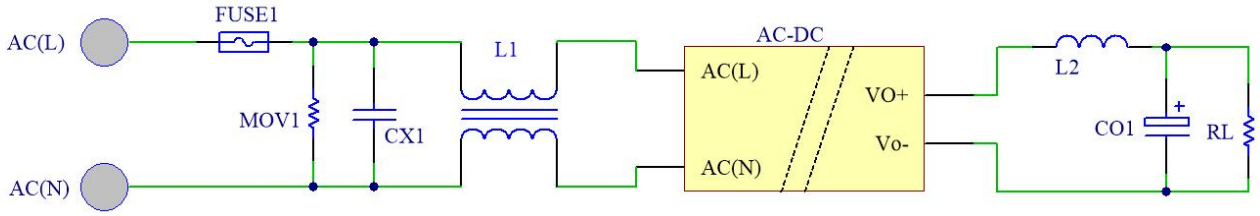
Design Reference

Typical application circuit



FUSE1	CO1	MOV1
1A/500VAC Slow-blow, required	470uF (High frequency low resistance)	10D 821K

EMC compliance recommended circuit



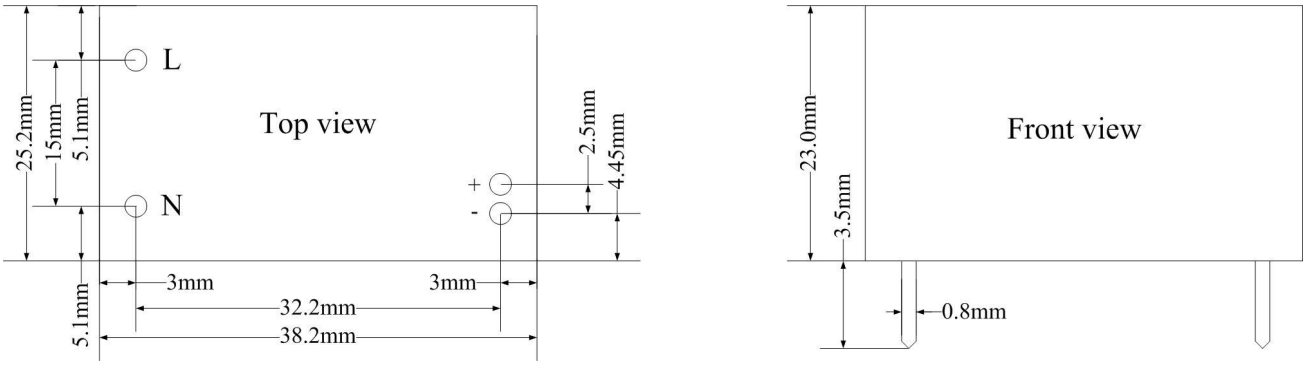
FUSE1	MOV1	CX1	L1	L2	CO1
1A/500V 慢断，必接	10D 821K	0.1uF/500V	UU9.8 - 10mH	0.47uH SLO0420HR47MTT	470uF

Notes: co1 select High frequency low resistance Electrolytic capacitor

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

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

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