

Product characteristics

- ◇ Package outline : DIP , lead wire ;
- ◇ Temperature range : -40°C to +85°C ;
- ◇ Efficiency : 75 ~ 83% ;
- ◇ Isolation Voltage : 1500VDC ;
- ◇ Input range : 85 ~ 264VAC , 120 ~ 370VDC ;
- ◇ Output protection : current limit 、 short circuit ;
- ◇ application area : industry 、 Instrumentation 、 RF communication、 track、 traffic、 Smart Street Lamp、 Smart Home、 Intelligent switch、 Smart Home.



Selection Guide

Product model	Input Voltage (Vac)	Output			Efficiency(%) Min./Typ.	Max capacitive load (μ F)
		Power (W)	Voltage (VDC)	current (mA) Max./Min		
AM21-5W05V	85 ~ 264	5	5	1000	75	1000
AM21-5W09V			9	550	78	820
AM21-5W12V			12	420	78.5	680
AM21-5W15V			15	333	80	560
AM21-5W24V			24	208	80.5	470

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	--	52	--	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)	AM21-5W-V	--	±1.0	±2	%
Ripple & Noise	20MHz bandwidth (peak-to-peak value)	AM21-5W-V	--	--	120	mV
Temperature Coefficient			--	±0.05	--	%/°C
Short Circuit Protection			Continuous, self-recovery			
Over current current	AM21-5W-V		110~150% Io self-recovery			
Min. Load			0	--	--	%

General Specifications

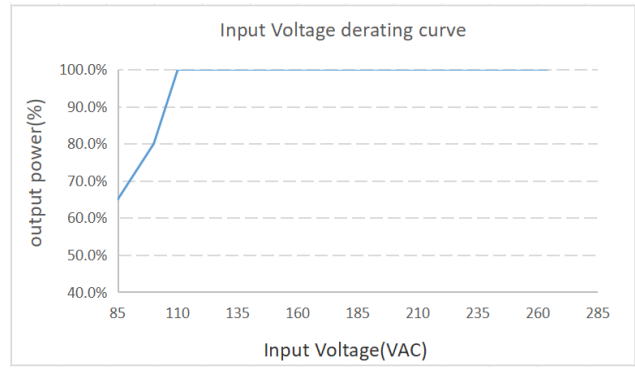
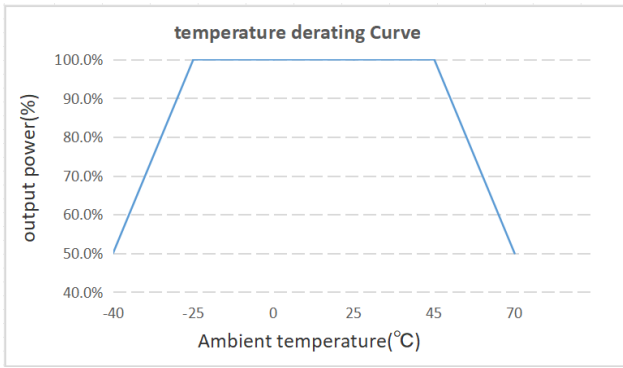
Item	Operating Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Input - output	1500	--	--	Vac
operating Temperature		-40	25	+55	°C
storage Temperature		-40	25	+85	
storage Humidity		--	--	95	%RH
soldering Temperature	Wave-soldering	260 ± 5°C; time : 5-10s			
	Manual welding	360 ± 10°C; tim : 3-5s			
Switching Frequency		--	65	--	KHz
MTBF		MIL-HDBK-217F@25°C > 200,000 h			

Mechanical Specifications

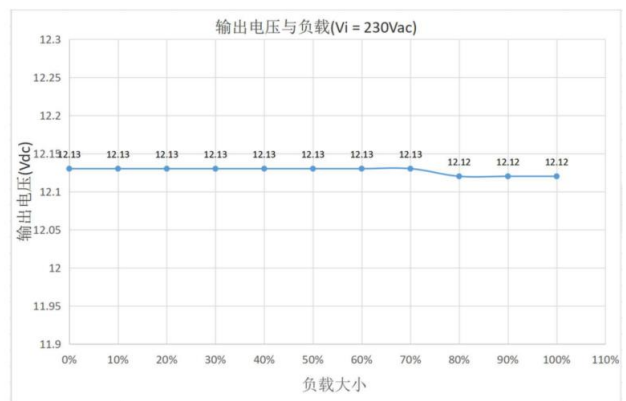
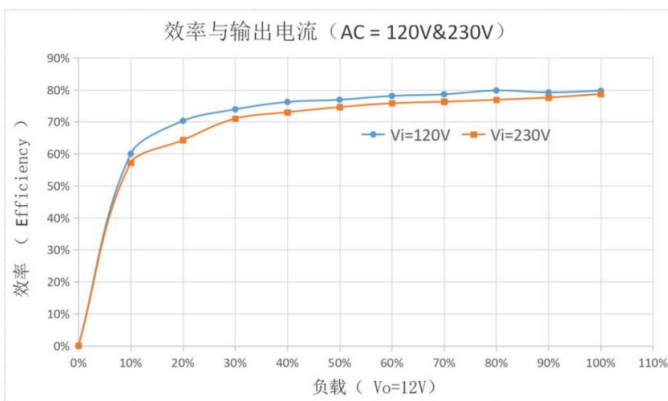
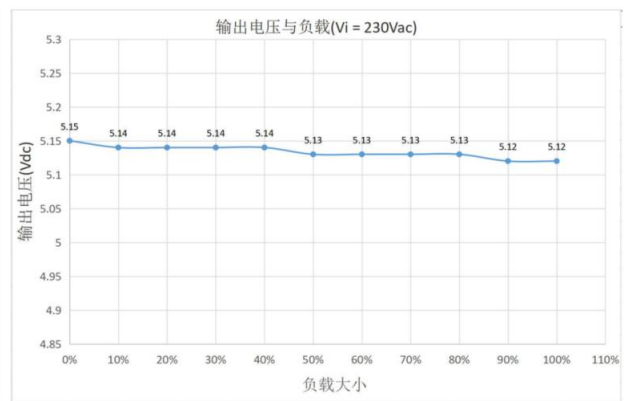
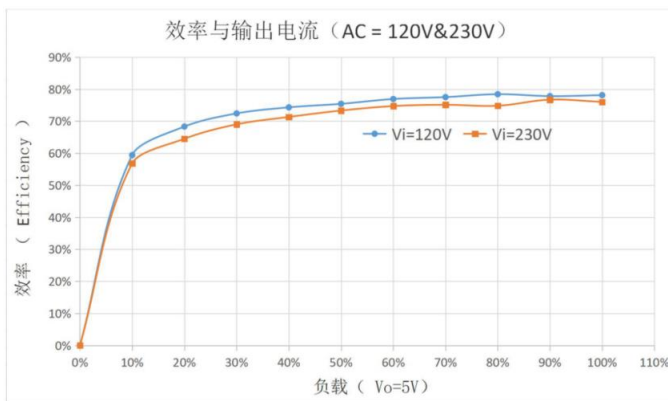
Case Material	flame-retardant and heat-resistant	
Size	AM21-5W-V	34.7*20.6*15.5mm
Weight	AM21-5W-V	18g(Typ.)

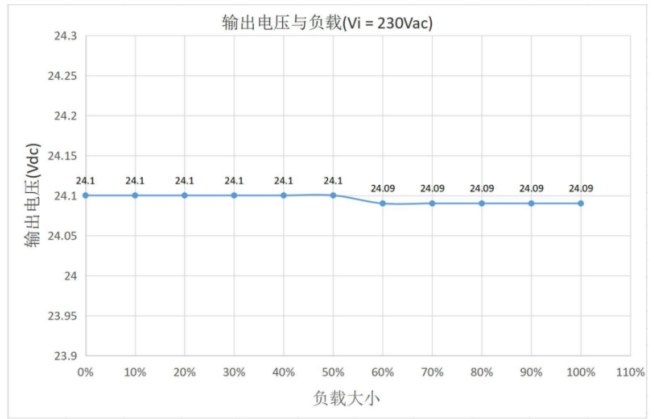
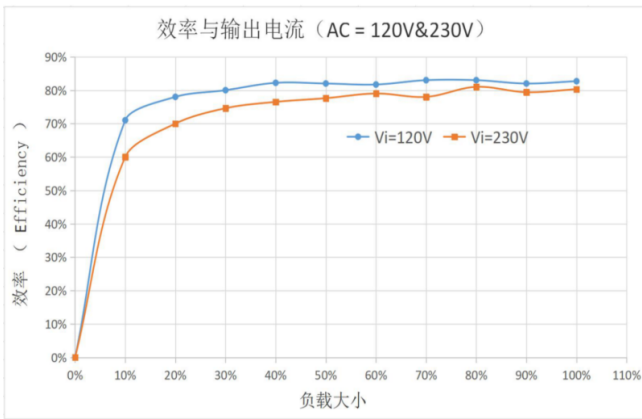
Cooling method	Free air convection
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Product Characteristic Curve



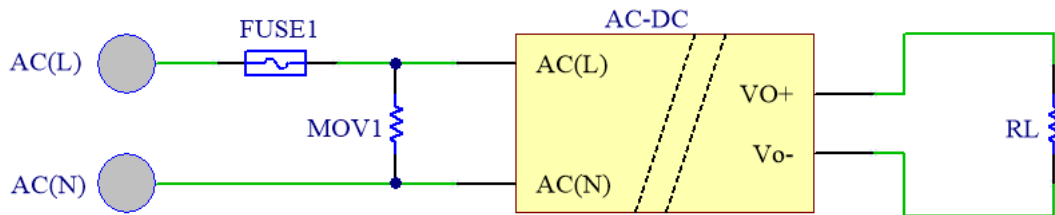
Efficiency vs load





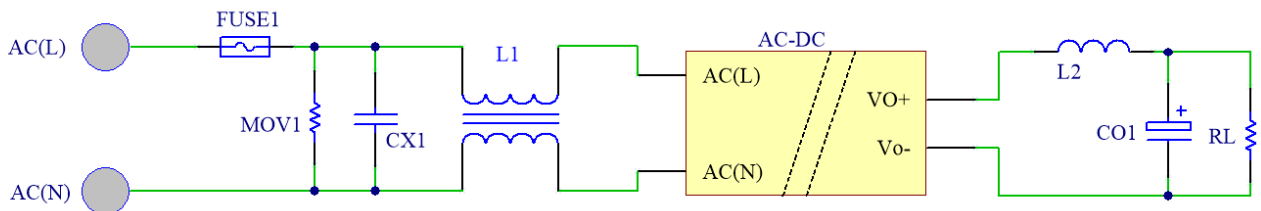
Design Reference

Typical application circuit



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

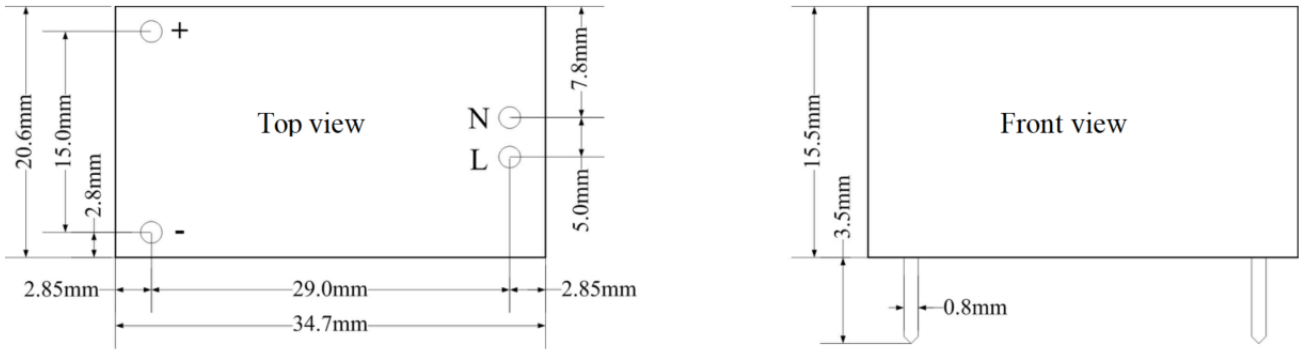
EMC compliance recommended circuit



FUSE1	MOV1	CX1	L1	L2	CO1
1A/250V Slow-blow, required	10D 821K	0.1uF/250V	UU9.8 - 10mH	0.47uH SLO0420HR47MTT	220uF

Dimensions and Recommended Layout

AM21-5W-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

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