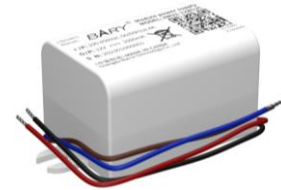


Product characteristics

- ◇ Package outline : DIP , lead wire ;
- ◇ Temperature range : -40°C to +85°C ;
- ◇ Efficiency : 76 ~ 83% ;
- ◇ Isolation Voltage : 3000VAC ;
- ◇ Input range : 85 ~ 264VAC , 120~630VDC;
- ◇ Output protection : current limit 、 short circuit ;
- ◇ application area : industry 、 Instrumentation 、 RF communication、 track、 traffic、 Smart Street Lamp、 Smart Home、 Intelligent switch、 Smart Home.



V
DIP



C
Lead wire

Selection Guide

Product model	Input Voltage (Vac)	Output			Efficiency(%) Min./Typ.	Max capacitive load (μ F)
		Power (W)	Voltage (VDC)	current (mA) Max./Min		
AM31-12W05V	85 ~ 264	12	5	2400	76	2200
AM31-12W05C			5	2400	76	2200
AM31-12W12V			12	1000	79	1500
AM31-12W12C			12	1000	79	1500
AM31-12W15V			15	800	80	1200
AM31-12W15C			15	800	80	1200
AM31-12W24V			24	500	83	680
AM31-12W24C			24	500	83	680

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Input Voltage range	AC Input	85	380	450	Vac
	DC Input	119	532	630	Vdc
Input frequency	AC Input	47	--	63	Hz
Input current	532VDC	--	28	/	mA
Start up time		--	800	1500	ms
Inrush Current	380VAC	--	10	--	A
Input filter Typ		LC			
Recommended External Input Fuse		1A/500V, 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)	AM31-12W(V/C)	--	±1.0	±2	%
Ripple & Noise	20MHz bandwidth (peak-to-peak value)	AM31-12W(V/C)	--	--	120	mV
Temperature Coefficient			--	±0.05	--	%/°C
Short Circuit Protection			Continuous, self-recovery			
Over current current	AM31-12W(V/C)		110~150% I _o self-recovery			
Min. Load			0	--	--	%

General Specifications

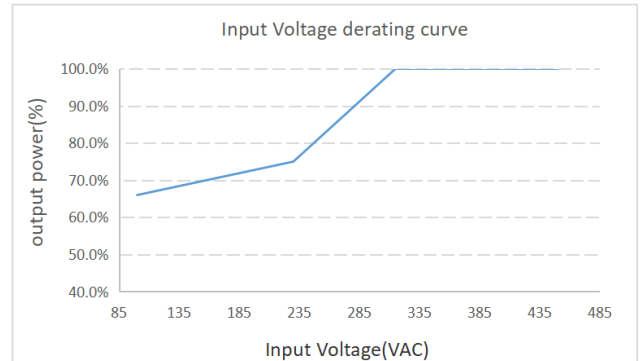
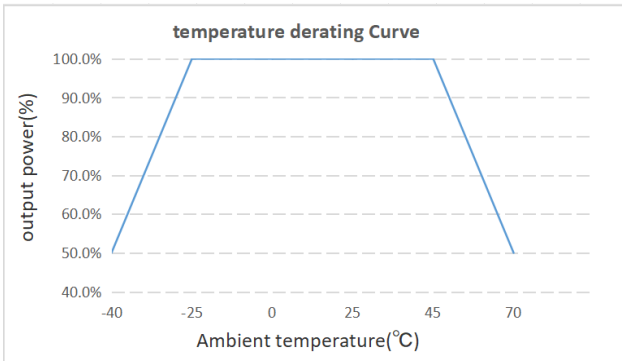
Item	Operating Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Input - output	3000	--	--	Vac
operating Temperature		-40	25	+55	°C
storage Temperature		-40	25	+85	
storage Humidity		--	--	95	%RH
soldering Temperature	Wave-soldering	260 ± 5°C; time : 5-10s			
	Manual welding	360 ± 10°C; tim : 3-5s			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

Mechanical Specifications

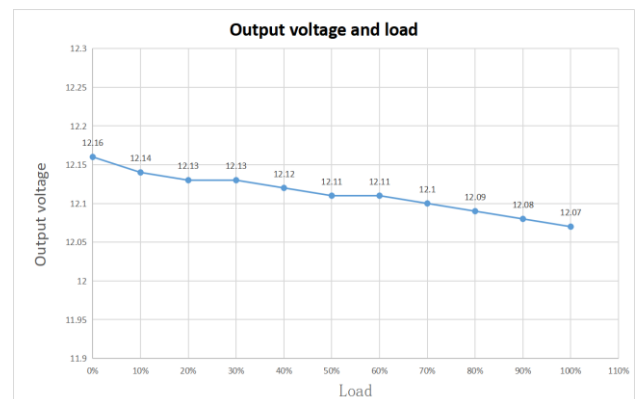
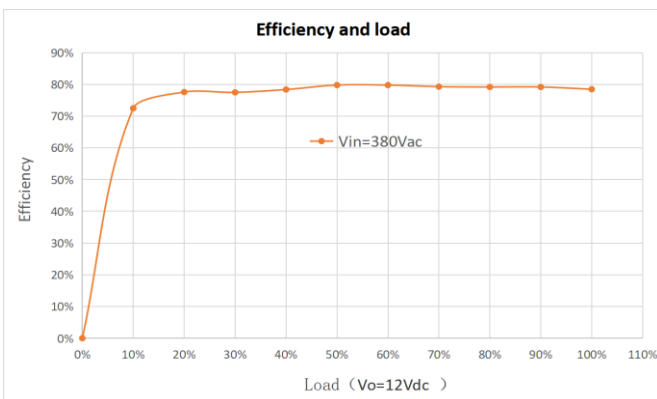
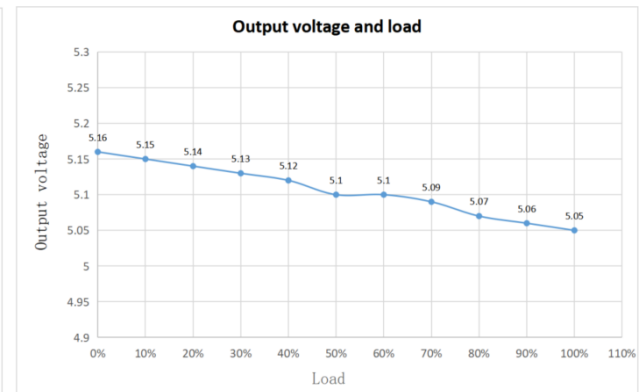
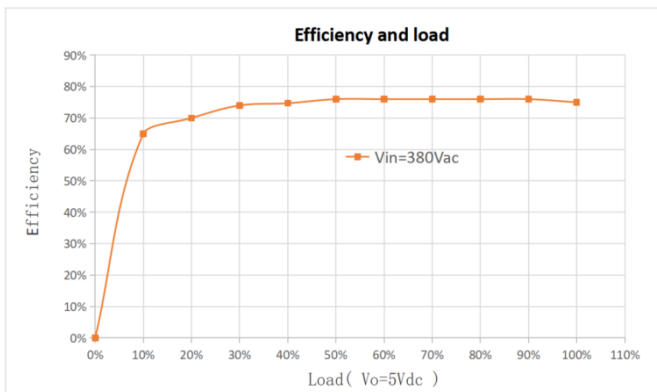
Case Material	flame-retardant and heat-resistant	
size	AM31-12W-V	38.2*25.2*23mm
	AM31-12W-C	38x28x23mm

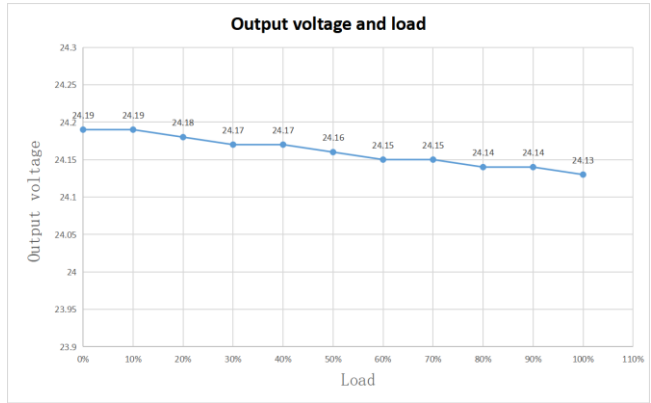
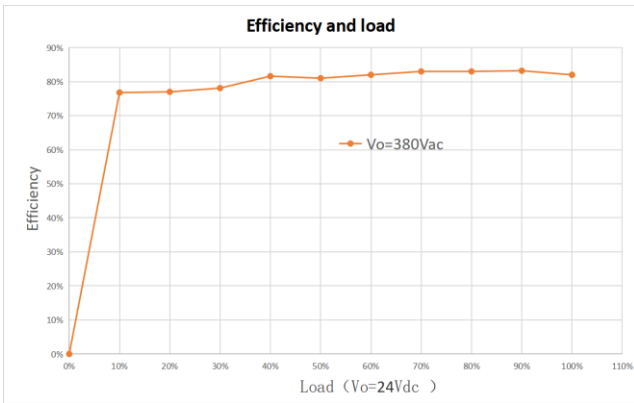
Weight	AM31-12W-V	33g(Typ.)
	AM31-12W-C	28g(Typ.)
Cooling method		Free air convection

Product Characteristic Curve



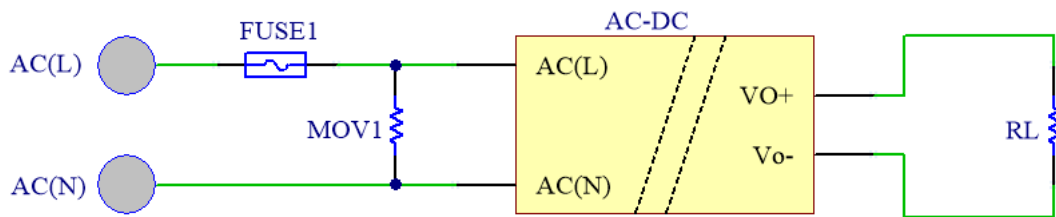
Efficiency vs load





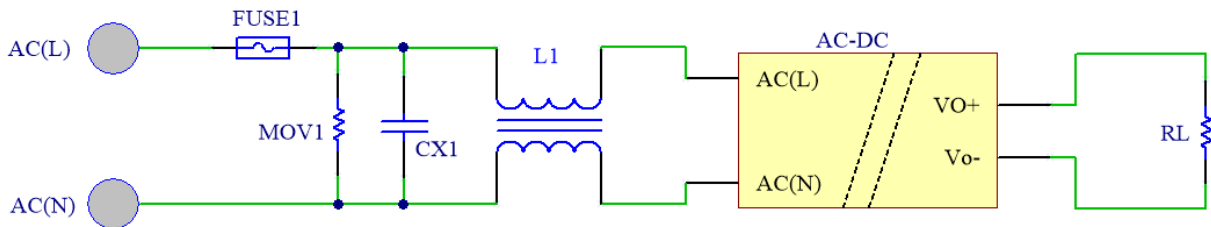
Design Reference

Typical application circuit



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

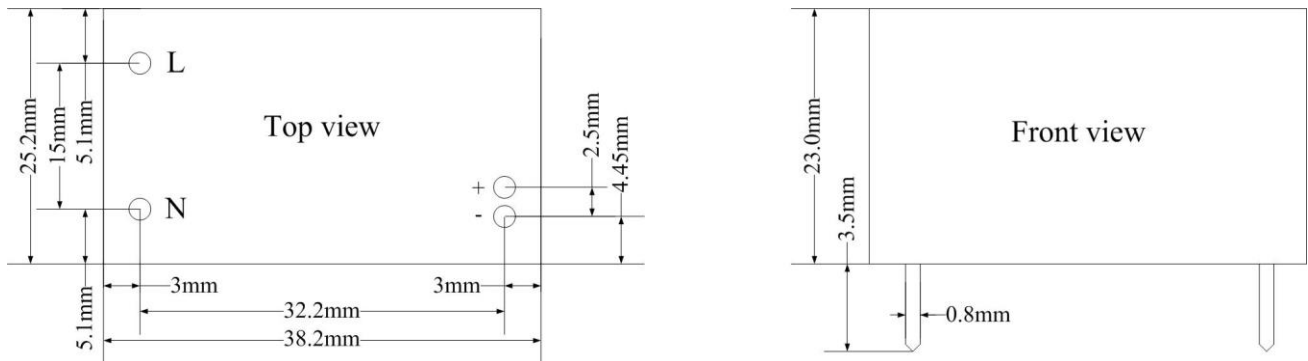
EMC compliance recommended circuit



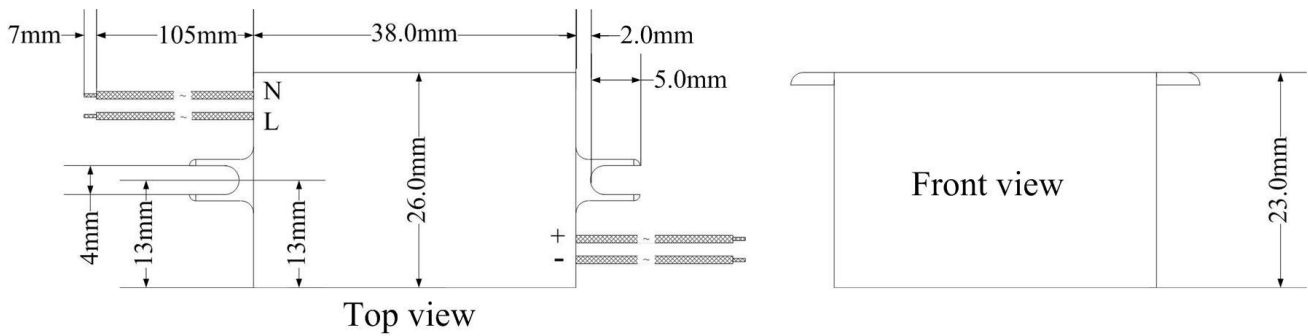
FUSE1	MOV1	CX1	L1
1A/500V Slow-blow, required	10D 821K	0.1uF/500V	UU9.8-10mH

Dimensions and Recommended Layout

AM31-12W-V



AM31-12W-C



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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