

Features

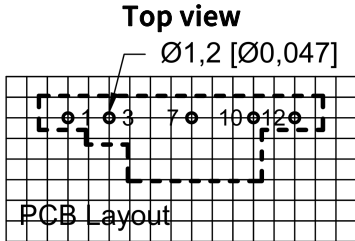
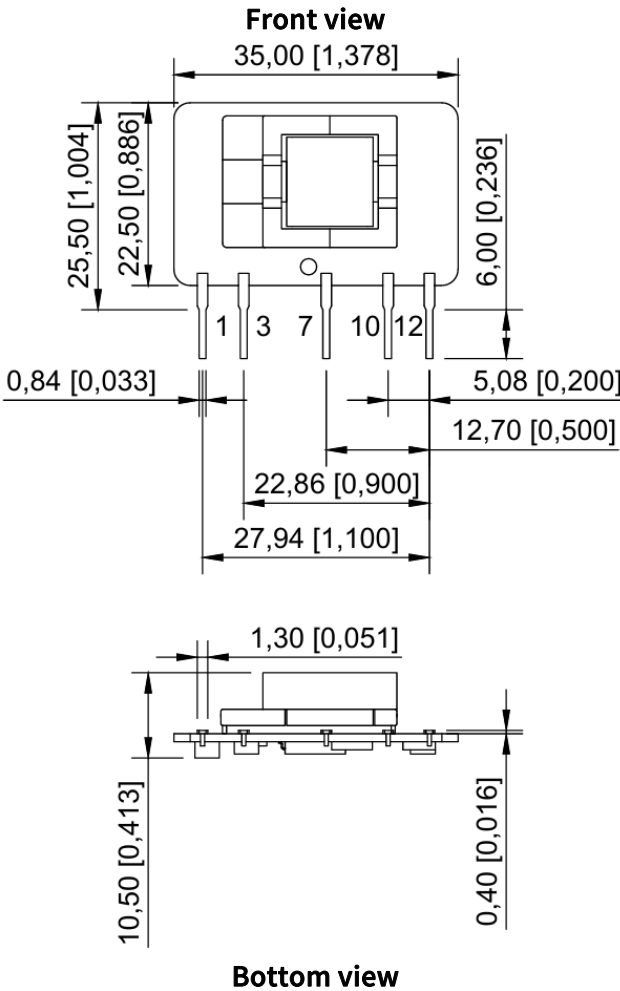
- Wide voltage input 85-305VAC/120-430VDC
- SIP Package
- Operating Temperature: -40°C~+85°C
- Isolation 3600VAC 5mA 1Minute
- Internal SMD design
- Cooling Natural
- Good shielding and anti-interference performance and electromagnetic compatibility, lightning protection, output over current, short circuit protection, overheating protection, self-recovery and other functions

Product Picture



Dimensions

AS220S__L-3W Series Dimensions



Note: The grid distance is 2.54*2.54mm

Pin	Function
1	+XXVDC
3	0V
7	CAP-/AC(N)
10	CAP+
12	AC(L)

1. 24V is between 12-3 pins and an electrolytic capacitor 220uF/35V(high frequency and low resistance), the positive electrode of the capacitor is connected to 1 pin and the negative is connected to 3 pins.
2. 5V is between 1-3 pins and an electrolytic capacitor 470uF/35V(high frequency and low resistance), the positive electrode of the capacitor is connected to 1 pin and the negative is connected to 3 pins.
3. 3V is between 1-3 pins and an electrolytic capacitor 1000uF/16V(high frequency and low resistance), the positive electrode of the capacitor is connected to 1 pin and the negative is connected to 3 pins.
4. Connect an electrolytic capacitor 22uF/450V between pins 7-10. Connect the positive electrode of the capacitor to pin 10 and the negative electrode to pin 7.

Note:
Size unit: mm[inch]
Pin section tolerance: $\pm 0.1[\pm 0.004]$
Unmarked tolerance: $\pm 0.25[\pm 0.01]$
The device layout is for reference only.

Application

Railway communication, display, monitoring equipment, petrochemical, industrial control, remote power supply system, switching system and other communication equipment, digital products, multi-way power supply equipment and instruments.

Selection Guide

Model	Vin (V)	Vout (V±2%)	Full Load Output Current (mA)	Efficiency (%)	Isolation (VAC)	Weight (g±0.5)	Certification
AS220S3.3L-3W	85-305VAC (120-430VDC)	3.3	600	≥67	3600		
AS220S05L-3W		5	600	≥72	3600		
AS220S12L-3W		12	250	≥77	3600		
AS220S15L-3W		15	200	≥78	3600		
AS220S24L-3W		24	125	≥80	3600		

Note: The company for customers to customize any input and output module power supply, if you have special needs, please call our company, unless otherwise specified, input =Vi, the characteristics of the module power supply should meet the requirements of Table 1, and applicable to the full temperature range (-40°C≤Tc≤85°C)

Electrical Characteristics

Characteristic	Symbol	Conditions Vi , -40°C≤Tc≤85 (Unless otherwise specified)	Min	Max	Unit
Output Voltage	Vo	Full Load	Vo-2%	Vo+2%	V
Output Current	Iomax	—	—	P(Power)/U(Output voltage)	A
Output Ripple Voltage	Vp-p	Full Load, Vi, BW=20MHz, Normal Temperature	100	240	mV
Output Noise Voltage	Vp-p	Full Load, Vi, BW=20MHz, Normal Temperature	150	480	mV
Voltage Regulation	Sv	Vimin、Vi、Vimax, Full Load	—	<0.5%	%
Load Regulation	Si	Vi, Io=(10%~100%)Iomax	—	<0.5%	%
Efficiency	η	Vi, Full Load, Normal Temperature	67	—	%
Insulation Resistance	RI	Input/output, test voltage: 500VDC	100	—	MΩ

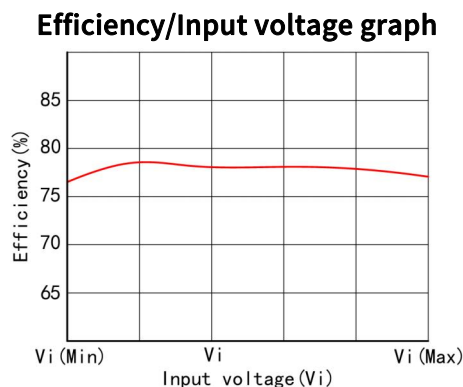
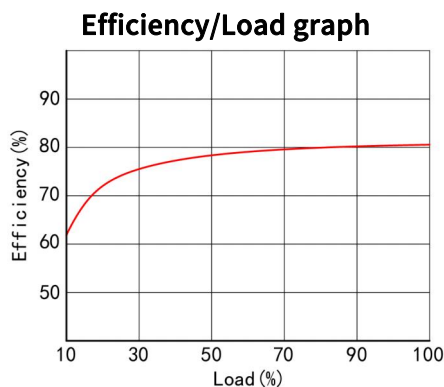
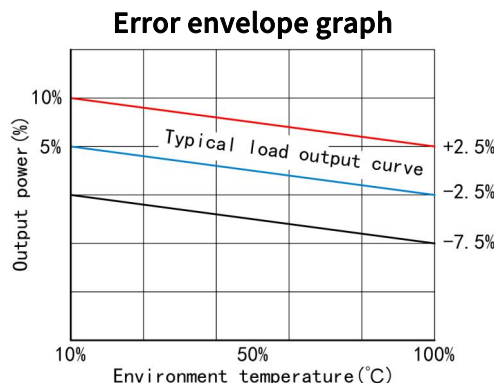
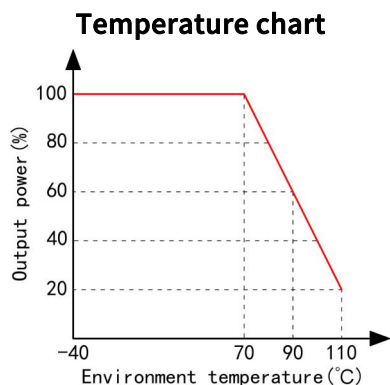
General Characteristics

EMC Specifications	Magnetic Field Sensitivity Test	GB-4943
	Electrostatic Discharge Sensitivity Test	GB-4943
	Radiation Sensitivity Test	GB-4943
	Conduction Sensitivity Test	GB-4943
Temperature Excursion	<0.03%/°C	
Storage Temperature	-40°C~125°C	
Input Frequency	47Hz~63Hz	
Humidity	20%~95%RH	
Leakage Current	No	
MTBF	>500000H	

Mechanical Specifications

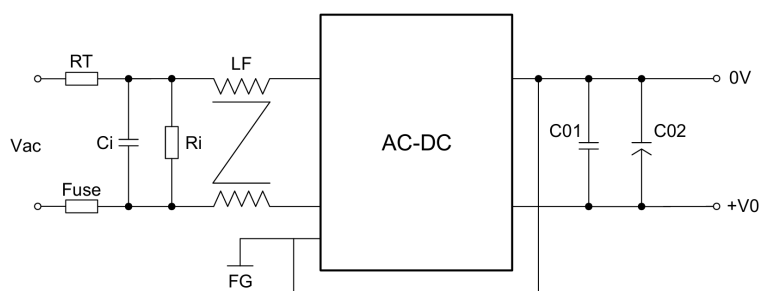
Size	35.00 x 22.50 x 10.50 mm
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Typical Characteristic Curves



Typical Application

Design Reference



Recommendation Test

Filter: In some circuits that are sensitive to noise and ripple, the AC/DC input and output terminals can be connected with external filter capacitors to reduce the impact of ripple on the system, but the value of the filter capacitor should be appropriate, if the capacitor is too large, it is likely to cause startup problems, for each output, under the condition of ensuring safe and reliable operation, the maximum capacitance of the filter capacitor can be referred to the external capacitance table. In order to obtain very low ripple, an "LC" filter network can be connected to the input and output end of the AC/DC converter, so that the filtering effect will be better, and it should be noted that the size of the inductance value and the frequency of the "LC" filter network

should be staggered from the frequency of the AC/DC module power supply to avoid mutual interference. For each output, under safe and reliable working conditions, the recommended capacitive load value is shown in Table 1.

Input voltage(Vin+)	C01	C02	RT	Ci(UF)	Ri(KR)	LF(mH)
85-305V	104M/50V	1000uF/16V	8D-7	0.1/275V	560	8-10

Recommended capacitive load values Table (Table 1)

Note: Please note that the main grounding of the output and the grounding of the load are connected to the ground, so that even if the product has problems, it will not cause harm to the human body. The ground requirements for the auxiliary roads are isolated and can be grounded without grounding.

Notice

Package

This series of modules are packed in shockproof and anti-static foam.



Transport

The package containing the module is allowed to be transported by any means of transport, which should avoid direct rain and snow and mechanical damage.

Storage

The module should be stored in a warehouse where the ambient temperature is -40 °C ~ 125°C, the relative humidity is 20%~95%, and the surrounding environment is free from acidic, alkaline and other harmful gases.

Note: The above are the performance indicators of the product series listed in this manual. Some indicators of non-standard products may exceed the above requirements, so if there is any inconsistency between the manual and the product specification documents, please refer to the specification documents. If you have special needs, please contact us directly.