

Features

- Wide input 85-305VAC/120-430VDC
- DIP Package
- Working Temperature: -40°C~+85°C
- Isolation 3000/4000VAC 5mA 1Minute
- Internal SMD Design
- Metal Shell Packaging
- Cooling Nature
- Good shielding and anti-interference performance, electromagnetic compatibility, lightning protection, output over current, short circuit protection, overheating protection, self recovery and other functions.

Product Picture

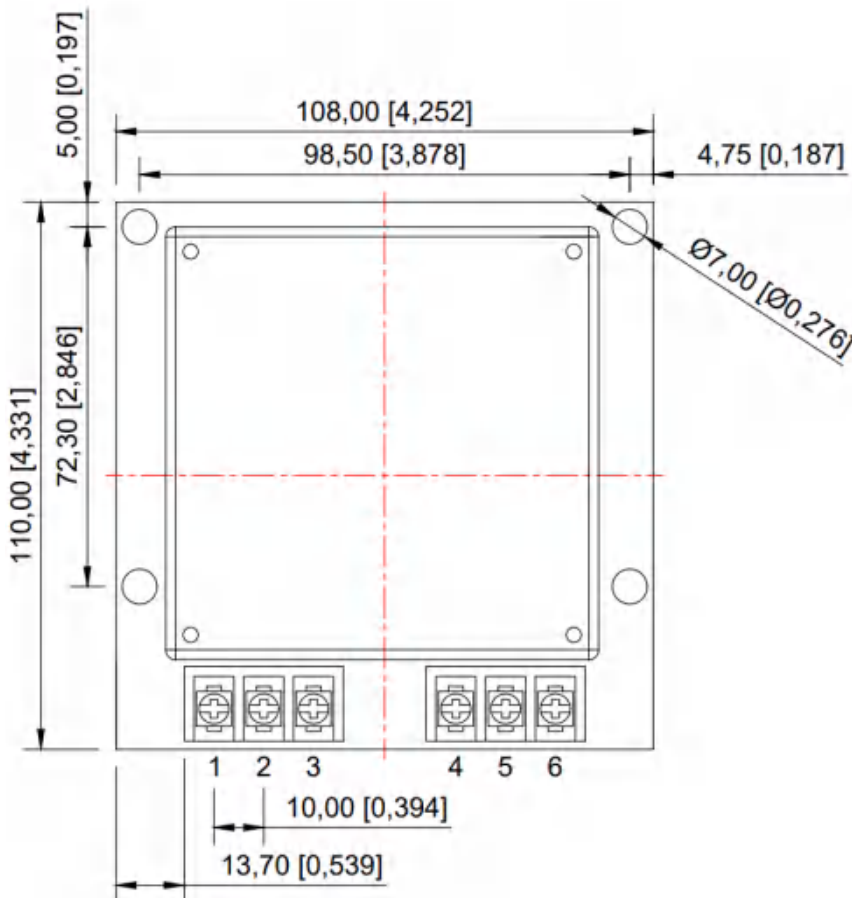


EMC-EN55032
EN55035
LVD-EN62368

Dimensions

AC220S__ZB-150WPFC Series Dimensions

Top View



Pin	Function
1	AC(L)
2	AC(N)
3	FG
4	TRIM
5	+XXVDC
6	0V

Note:

Size unit: mm[inch]

Wiring diameter: 22-12AWG

Connector torque size: M3.5, 0.8N·m

Unmarked tolerance: ± 1.00 [± 0.039]

The device layout is for reference only.

Application

Industrial control and remote DC power supply system, switching system, AC/DC(5V products), railway communication, communication interface converter, cellular telephone, semiconductor laser, display screen, monitoring equipment, petrochemical, portable instrument, medical instrument, automatic control device, burglar alarm, handheld instrument, digital circuit, IC card meter, air conditioning computer controller, LED production Products, digital products, power adapters, etc.

Selection Guide

Model	Vin (V)	Vout (V±2%)	Current (mA)	Efficiency (%)	Isolation (VAC)	Weight (g±0.5)	Certification
AC220S12ZB-150WPFC	85-305VAC (120-430VDC)	12	10000	90	3000/4000		
AC220S15ZB-150WPFC		15	8000	91	3000/4000		
AC220S24ZB-150WPFC		24	5000	91	3000/4000		
AC220S48ZB-150WPFC		48	2500	92	3000/4000		

Note: Our company can customize any input and output module power supply for customers. If you have special needs, please call our company. Unless otherwise specified, input = Vi. The Specifications of the module power supply should comply with the provisions of Table 1 and be applicable to the full temperature range (-40°C ≤ Tc ≤ 85°C)

Electrical Specifications

Specifications	Symbol	Condition 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	80	250	mV
Output Noise Voltage	Vp-p	Full Load, Vi, BW=20MHz, Normal Temperature	100	350	mV
Voltage Regulation	Sv	Vimin, Vi, Vimax, Full Load	—	≤ ±1	%
Load Regulation	Si	Vi, Io=(10%~100%)Iomax	—	≤ ±1.5	%
Insulation Resistance	RI	Input and output, Test Voltage: 500VDC	100	—	MΩ

General Specifications

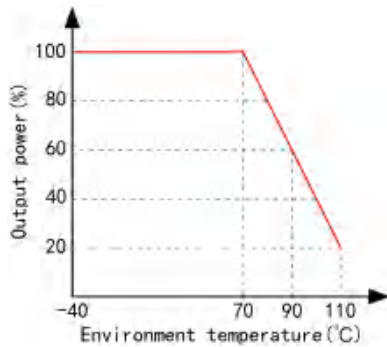
EMC Specifications	Magnetic Field Sensitivity Test Electrostatic	GB6833.2-87
	Discharge Sensitivity Test Radiation	GB6833.3-87
	Sensitivity Test	GB6833.5-87
	Conduction Sensitivity Test	GB6833.6-87
Temperature Excursion	≤ ±0.03%/°C	
Storage Temperature	-40°C~125°C	
Input Grid Frequency	47Hz~63Hz	
Humidity	20%~95%RH	
Leak Current	5mA(max)	
MTBF	>500000H	

Mechanical Specifications

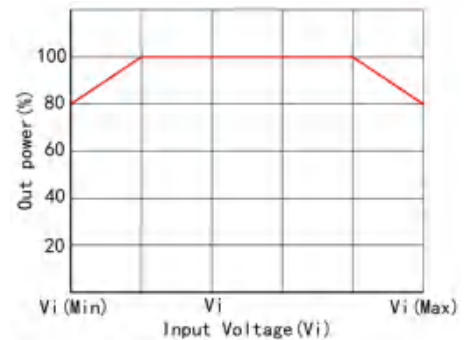
Size	96.00 x 98.50 mm
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Typical Specifications Curves

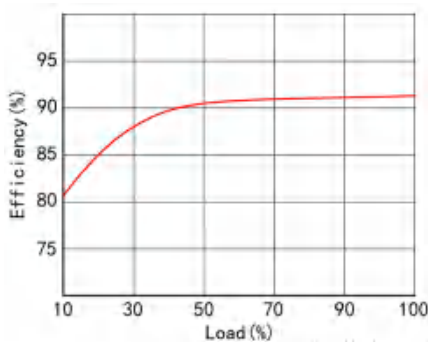
Temperature Chart



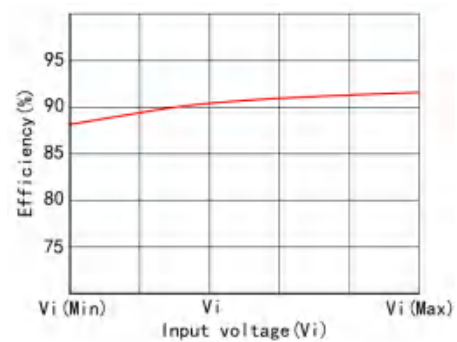
Input Voltage Derating Curve



Efficiency/Load Graph

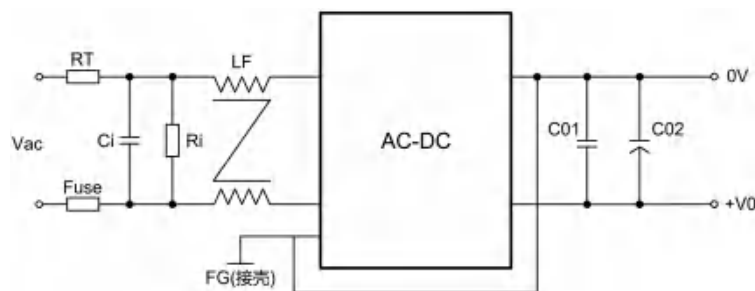


Efficiency/Input Voltage Graph



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

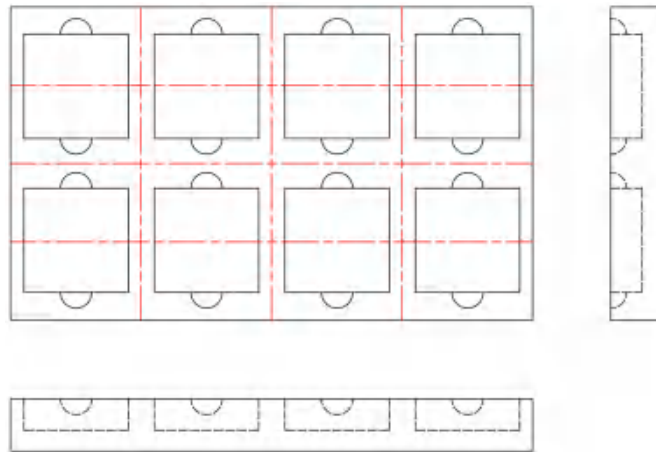
Recommended capacitive load values Table (Table 1)

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.

Precautions

Package

This series module adopts shock-proof electrostatic foam packaging.



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 degrees ~ 125 degrees, 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.