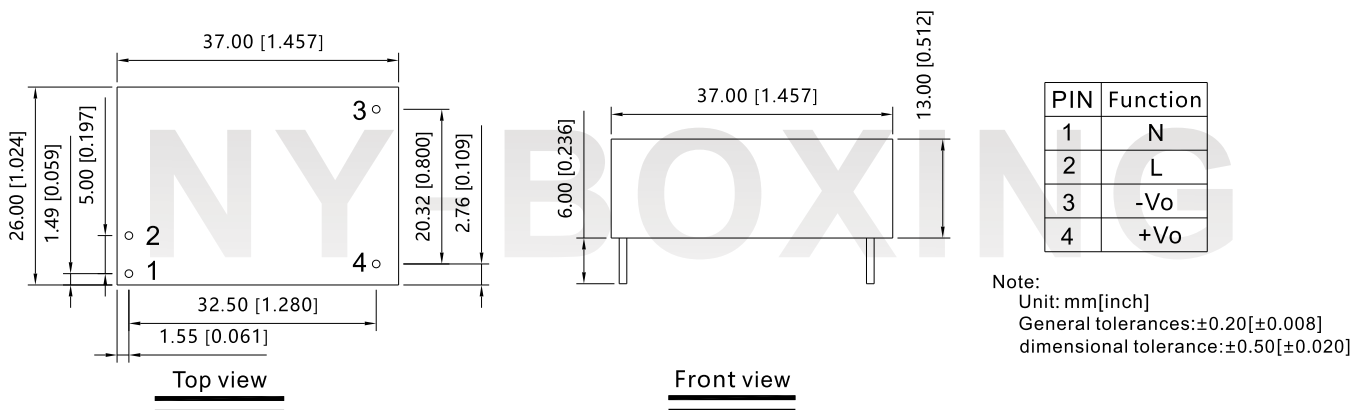


6W AC/DC SMPS
DESCRIPTION


- ★ Wide input : AC18~30V & DC18~45V
- ★ Output short circuit, over-current protection
- ★ Compact size, high power density
- ★ I/O isolation test voltage 1.5k VAC
- ★ Low ripple & noise
- ★ RoHS Compliant
- ★ Industrial grade, high reliability
- ★ Three-year quality assurance

AC24BW06-Axx series is one of Nyboxing's highly efficient green power AC-DC Converter series. They feature ultra-wide wide input range accepting either AC or DC voltage, high efficiency, low power consumption and Class II reinforced insulation.

Dimensions

Selection Guide

Part No.	Output Power	Nominal Output Voltage and Current	Efficiency at 24 VAC (%) Typ.	Capacitive Load (μF) Max.	Dimensions (L×W×H)
AC24BW06-A03		3.3V/1800mA	70%	1500μF	37.0×26.0×13.0mm
AC24BW06-A05		5V/1200mA	72%	1000μF	
AC24BW06-A06		6V/1000mA	73%	820μF	
AC24BW06-A09	6W	9V/670mA	75%	680μF	
AC24BW06-A12		12V/500mA	79%	500μF	
AC24BW06-A15		15V/400mA	81%	500μF	
AC24BW06-A24		24V/250mA	81%	220μF	

Input Specifications

Item	Operating Conditions	Min	Typ	Max
Input Voltage Range	AC input	18VAC	--	30VAC
	DC input	18VDC	--	45VDC

Input Frequency		47Hz	--	63Hz
Stand-by Power Consumption		--	0.1W	--
Input Current	24VAC	--	620mA	--
	30VAC	--	350mA	--

Output Specifications

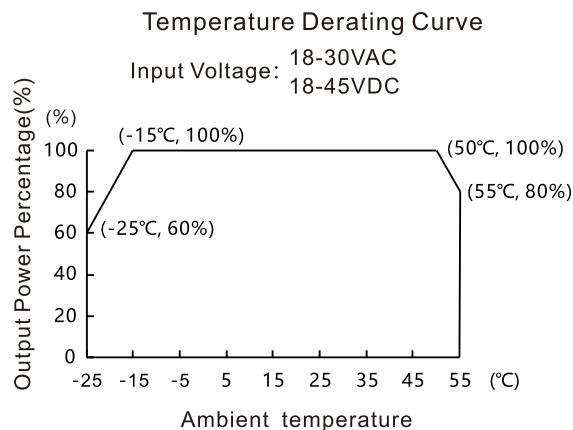
Item	Operating Conditions	Min	Typ	Max	
Output Voltage Accuracy		--	±1%	--	
Line Regulation	Full load	--	±3%	--	
Load Regulation	10%~100% Load	--	±3%	--	
Output ripple noise	20MHz bandwidth (Peak-to-peak)	3.3V,5V,6V output	--	150mV	--
		9V,12V,15V output	--	100mV	--
Short Circuit Protection		Hiccup, continuous, self-recovery			
Over-current Protection		≥110%Io			
Minimum Load		0	--	--	
Start delay time		--	500ms	--	
Hold-up Time		--	10ms	--	

Note: * The "parallel cable" method is used for Ripple and noise test, please refer to AC-DC Converter Application Notes for specific information.

General Specifications

Item	Operating Conditions	Min	Typ	Max
Isolation	Input-Output, Test for 1min	--	1500VAC	--
Operating Temperature		-25℃	--	+55℃
Storage Temperature		-40℃		+105℃
Storage Humidity		--	--	95%RH
Working frequency		--	350KHz	--
MTBF	MIL-HDBK-217F, 25℃		300,000h	
Module shell material		Metal aluminum shell		

Product Characteristic Curve



Design Reference

1 Typical application

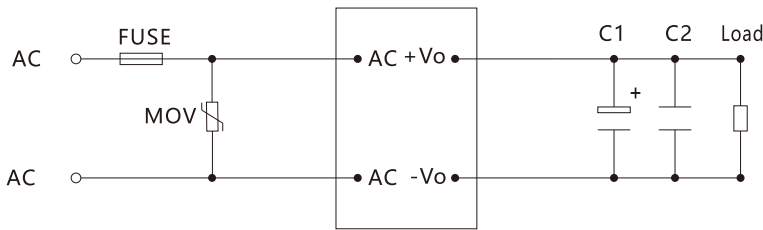


Fig. 1: Typical circuit diagram

Note

We recommend using an electrolytic capacitor with high frequency, and low ESR rating for C1 (refer to manufacturer's datasheet). Choose a Capacitor voltage rating with at least 20% margin, in other words not exceeding 80%. C2 is a ceramic capacitor used for filtering high-frequency noise.

2 EMC compliance recommended circuit

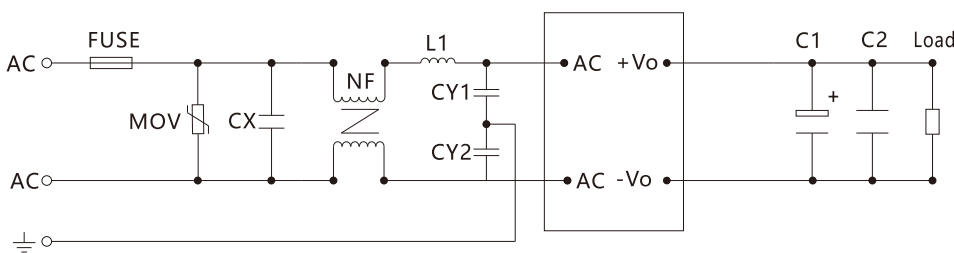


Fig 2: EMC application circuit with higher requirements

3 Input part: parameter recommendation

Component	Recommended value
FUSE	1Ω/2W Safety Resistance
MOV	560KD10
CX	0.1μF/275VAC
L1	330μH
NF	10mH-30mH
CY1,CY2	1000pF/250V

4 Output part: parameter recommendation

Output Voltage	3.3V	5V	6V	9V	12V	15V	24V
C1	220μF/10V			100μF/25V			33μF/35V
C2	1μF/50V						

Safety precautions

1. If the product is not operated within the required load range, the product performance cannot be guaranteed to comply with all parameters in the datasheet;
2. Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25°C, humidity<75% with nominal input voltage and rated output load;
3. All index testing methods in this datasheet are based on our Company's corporate standards;
4. We can provide product customization service, please contact our technicians directly for specific information;
5. For more product information, please visit our official website (www.gzny-boxing.com) or email us (sales@gzny-boxing.com).