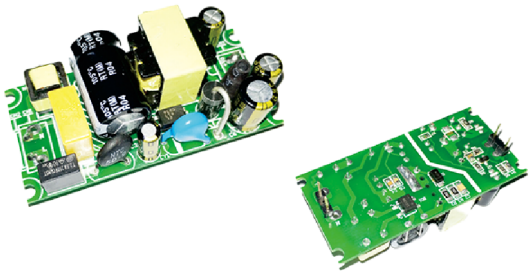
15W AC/DC SMPS

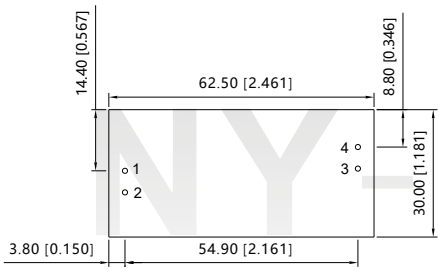


DESCRIPTION

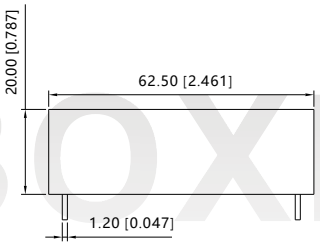
- ★ Wide input AC85~264V & DC100~375V
- ★ Output short circuit, over-current protection
- ★ Compact size, high power density
- ★ I/O isolation test voltage 3k VAC
- ★ Low ripple & noise
- ★ RoHS Compliant
- ★ Industrial grade, high reliability
- ★ Three-year quality assurance

G15Axx 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



Top view



Front view

PIN	Function	
	AC IN	DC IN
1	N	DC
2	L	DC
3	-Vo	-Vo
4	+Vo	+Vo

Note:
Unit: mm[inch]
General tolerances:±0.20[±0.008]
dimensional tolerance:±0.50[±0.020]

Selection Guide

Part No.	Output Power	Nominal Output Voltage and Current	Efficiency at 230VAC (%) Typ.	Capacitive Load (μF) Max.	Dimensions (L×W×H)
G15A03PH	9.9W	3.3V/3000mA	78%	2200μF	62.5x30.0x20.0mm
G15A05PH	15W	5V/3000mA	79%	2200μF	
G15A09PH		9V/1670mA	80%	1000μF	
G15A12PH		12V/1250mA	82%	1000μF	
G15A15PH		15V/1000mA	84%	680μF	
G15A24PH		24V/625mA	86%	470μF	

Input Specifications

Item	Operating Conditions	Min	Typ	Max
Input Voltage Range	AC input	85VAC	--	264VAC
	DC input	100VDC	--	375VDC

Input Frequency		47Hz	--	63Hz
Stand-by Power Consumption			0.2W	--
Input Current	115VAC	--	300mA	--
	230VAC	--	150mA	--

Output Specifications

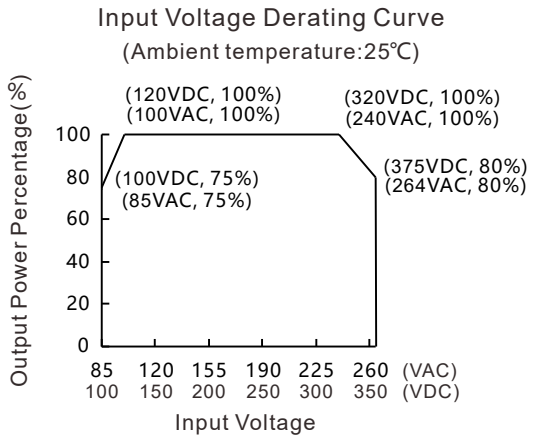
Item	Operating Conditions	Min	Typ	Max
Output Voltage Accuracy		--	±3%	--
Line Regulation	Full load	--	±1.5%	--
Load Regulation	10%~ 100% Load	--	±3%	--
Output ripple noise	20MHz bandwidth	--	280mV	--
Short Circuit Protection	(Peak-to-peak)	Hiccup, continuous, self-recovery		
Over- current Protection		≥115%Io		
Minimum Load		0	--	--
Start delay time		--	500ms	--
Hold-up Time		--	10ms	--

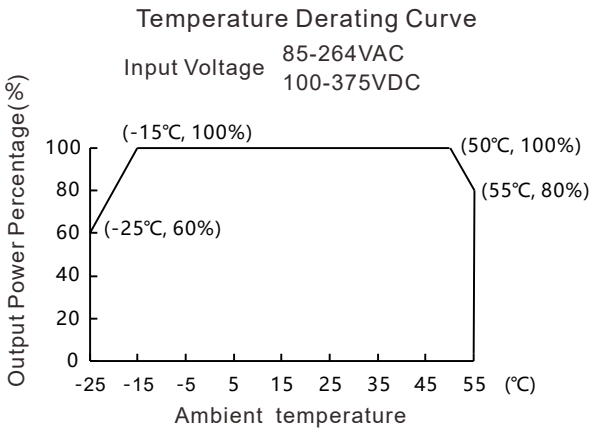
Note: * The “parallel cable” method is used for Ripple and noise test, please refer to AC-DC Converter Application Notes for specific information.

General Specifications

Item	Operating Conditions	Min	Typ	Max
Isolation	Input-Output, Test for 1min	--	3000VAC	--
Operating Temperature		-25℃	--	+55℃
Storage Temperature		-40℃	--	+105℃
Storage Humidity		--	--	85%RH
Working frequency		--	65KHz	--
MTBF	MIL-HDBK-217F, 25°C		215,000h	

Product Characteristic Curve





Design Reference

1 Typical application

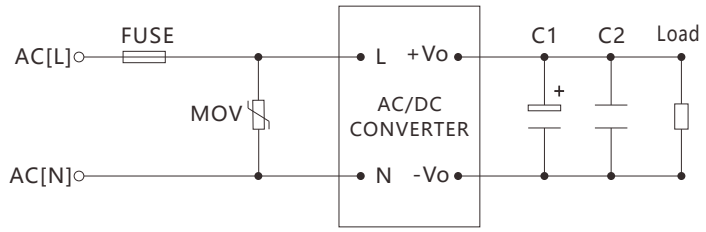


Fig. 1: Typical circuit diagram

Note

We recommend using an electrolytic capacitor with high frequency, and low ESR rating for C1 (refer to manufactur-e'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

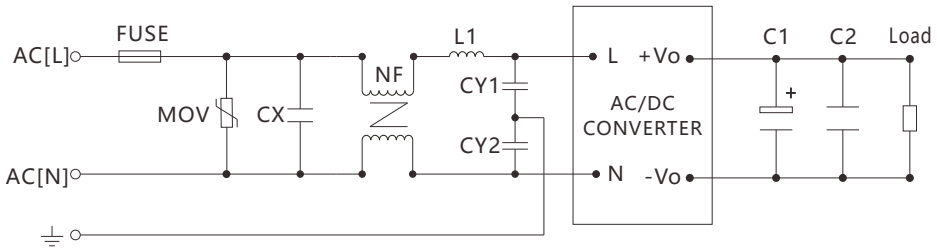


Fig 2: EMC application circuit with higher requirements

3 Input part: parameter recommendation

Component	Recommended value
FUSE	2A/250V slow-blow required
MOV	471KD10
CX	0.1μF/275VAC
L1	470μH
NF	10mH-30mH
CY1,CY2	1000pF/250V

4 Output part: parameter recommendation

Output Voltage	3.3V	5V	9V	12V	15V	24V
C1	220μF/10V		100μF/25V			68μF/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℃, 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) .