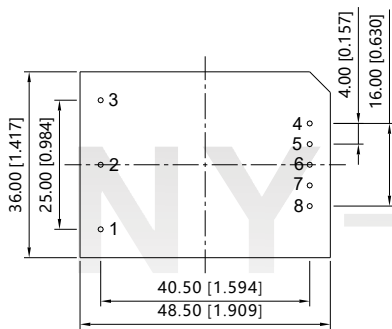
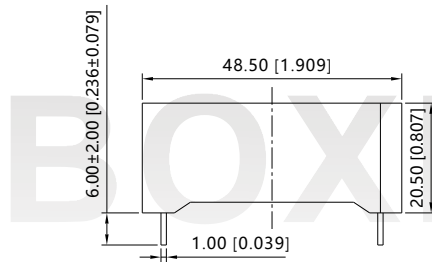


10W AC/DC SMPS

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

NE10-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

Top view

Front view

PIN	Function	
	AC IN	DC IN
1	NP	NP
2	N	DC
3	L	DC
4	+Vo	+Vo
5	NP	NP
6	NP	NP
7	NP	NP
8	-Vo	-Vo

Note:
 Unit: mm[inch]
 General tolerances:±0.20[±0.008]
 dimensional tolerance:±0.50[±0.020]
 NP: no pins

Selection Guide

Part No.	Output Power	Nominal Output Voltage and Current	Efficiency at 230VAC (%) Typ.	Capacitive Load (μF) Max.	Dimensions (L×W×H)
NE10-A05		5V/2000mA	73%	2000μF	48.5x36.0x20.5mm
NE10-A09		9V/1100mA	75%	1000μF	
NE10-A12	10W	12V/830mA	78%	820μF	
NE10-A15		15V/670mA	79%	680μF	
NE10-A24		24V/420mA	82%	560μF	

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	--	220mA	--
	230VAC	--	110mA	--

Output Specifications

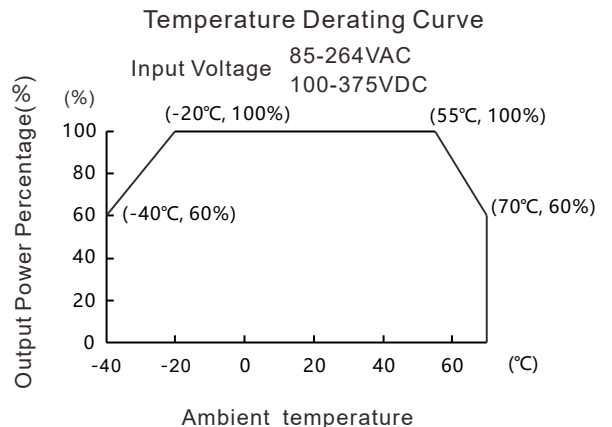
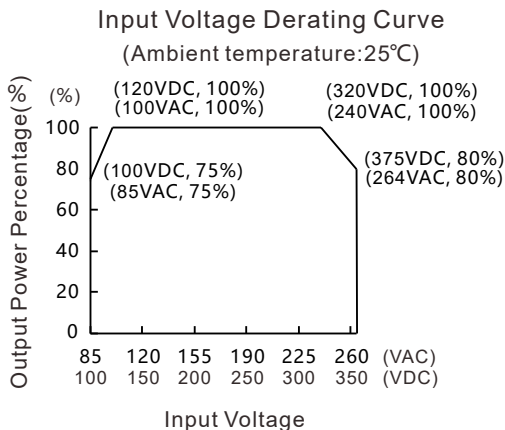
Item	Operating Conditions	Min	Typ	Max
Output Voltage Accuracy		--	±1%	--
Line Regulation	Full load	--	±1%	--
Load Regulation	10%~100% Load	--	±3%	--
Output ripple noise	20MHz bandwidth	--	100mV	--
Short Circuit Protection	(Peak-to-peak)	Hiccup, continuous, self-recovery		
Over-current Protection		≥110%Io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

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		-40°C	--	+70°C
Storage Temperature		-40°C	--	+105°C
Storage Humidity		--	--	95%RH
Working frequency		--	65KHz	--
MTBF	MIL-HDBK-217F, 25°C		215,000h	
Casing Material	Black flame-retardant and heat-resistant plastic (UL94-V0)			

Product Characteristic Curve



Design Reference

1 Typical application

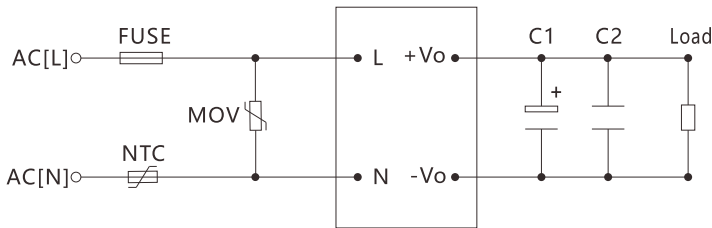


Fig. 1: Typical circuit diagram

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

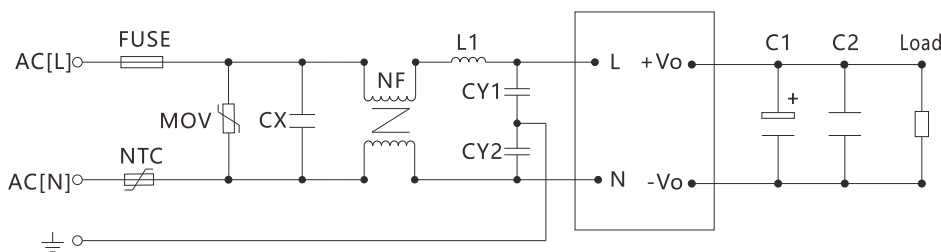


Fig 2: EMC application circuit with higher requirements

3 Input part: parameter recommendation

Component	Recommended value
FUSE	2A/250V slow-blow required
NTC	5D-9
MOV	471KD10
CX	0.33 μ F/275VAC
L1	330 μ H
NF	10mH-30mH
CY1,CY2	1000pF/250V

4 Output part: parameter recommendation

Output Voltage	5V	9V	12V	15V	24V
C1	470 μ F/10V	330 μ F/25V	220 μ F/25V		100 μ F/35V
C2	1 μ F/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).