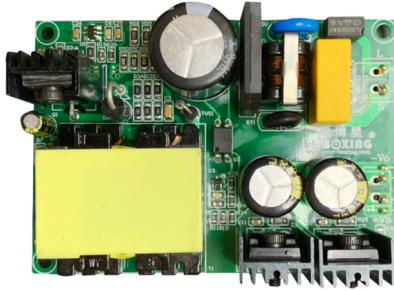
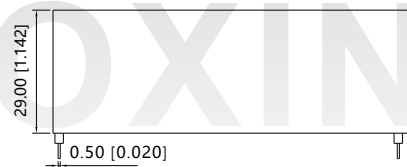
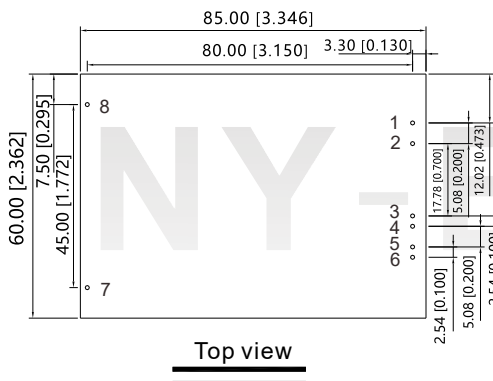


100W AC/DC SMPS
DESCRIPTION


- ★ 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

KQT100AxxPHN 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


PIN	Function
1	L
2	N
3	-Vo
4	-Vo
5	+Vo
6	+Vo
7	NC
8	NC

Note:

Unit: mm[inch]
 Pin diameter tolerances: ±0.20[±0.008]
 General tolerances: ±0.50[±0.020]
 NC: No electrical function, fixed

Selection Guide

Part No.	Output Power	Nominal Output Voltage and Current	Efficiency at 230VAC (%) Typ.	Capacitive Load (μF) Max.	Dimensions (L×W×H)
KQT100A09PHN		9V/8300mA	83%	1000μF	85.0x60.0x29.0mm
KQT100A12PHN		12V/8300mA	86%	1000μF	
KQT100A15PHN	100W	15V/6600mA	87%	820μF	
KQT100A18PHN		18V/5500mA	88%	680μF	
KQT100A24PHN		24V/4200mA	88%	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		--	0.3W	--
Input Current	115VAC	--	1200mA	--
	230VAC	--	600mA	--

Output Specifications

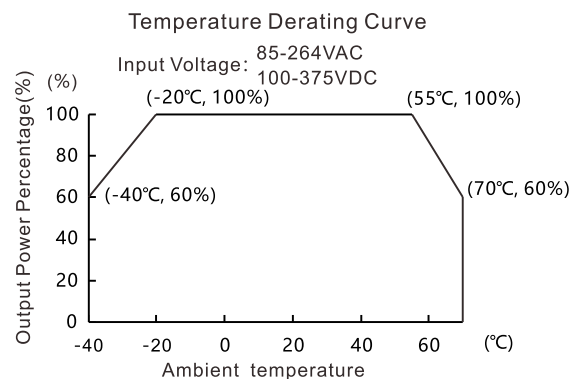
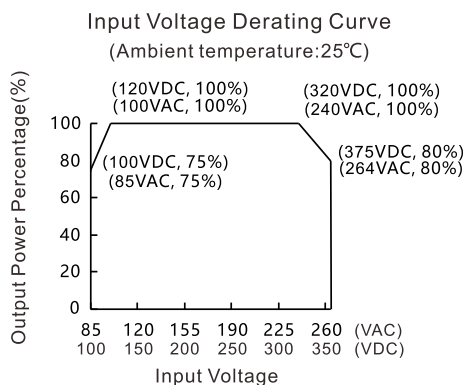
Item	Operating Conditions	Min	Typ	Max
Output Voltage Accuracy		--	±1%	--
Line Regulation	Full load	--	±1.5%	--
Load Regulation	10%~100% Load	--	±2.5%	--
Ripple & Noise*	20MHz bandwidth	--	250mV	--
Minimum Load	(peak-to-peak value)	0	--	--
Start delay time		--	500ms	--
Hold-up Time		--	20ms	--

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	

Product Characteristic Curve



Design Reference

1 Typical application

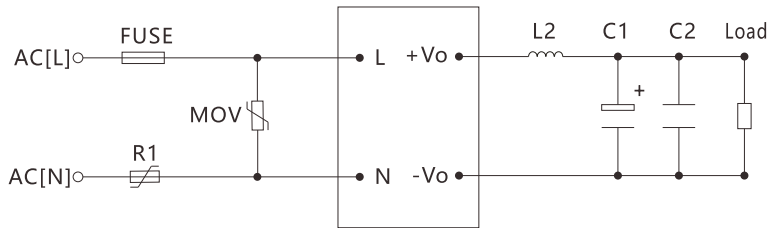


Fig. 1: Typical circuit diagram

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

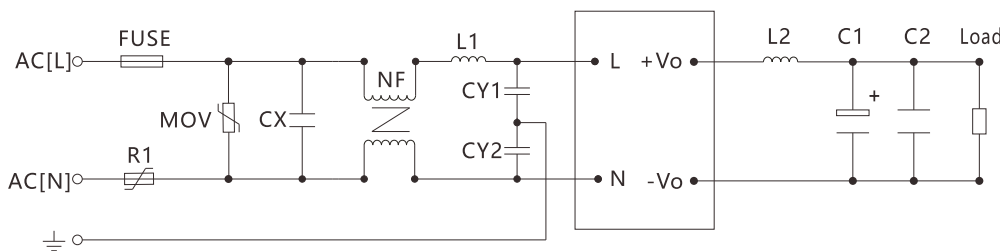


Fig 2: EMC application circuit with higher requirements

3 Input part: parameter recommendation

Component	Recommended value
FUSE	3.15A/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	9V	12V	15V	18V	24V
C1	1000 μ F/10V	1000 μ F/25V	1000 μ F/25V	1000 μ F/25V	1000 μ F/35V
C2	1 μ F/50V				
L2	2.0 μ H				

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).