



2019-V1.0-0319

# Specifications

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**AC-DC Switching Mode Power Supply**

**NK-200 Series, 200W**

**PAIRUI ELECTRONICS**

No. 545 Museum Road  
Yangzhou, Jiangsu  
China 225009

Tel: 86 (514) 8279 1592

Fax: 86 (514) 8769 3159

**2019**

# AC-DC Switching Mode Power Supply

## NK-200 SERIES, SINGLE OUTPUT, 200W

### Features

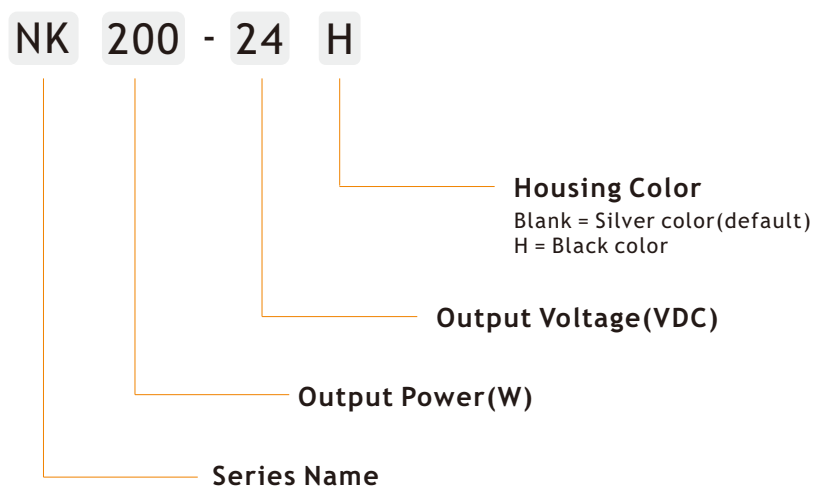
- 3 Year Warranty
- AC Input Range Selected by Switch(90-132/180-264Vac)
- 100% Full Load Burn-in Test
- Cooling by Free Air Convection
- Ultra-Slim Size
- Built-in EMI Filter
- LED Indicator for Power On
- All Round Protections: Short Circuit, Over Voltage, Over Load, and Over Temperature



### Applications

- ✓ Process Control
- ✓ Home Appliance
- ✓ Factory Automation
- ✓ Other Industrial Applications

### Electrical



## Electrical

Part Number	Nominal Input Voltage	Output Voltage	Output Current	Ripple (Typ.)	Efficiency (Typ.)	Certificate
NK200-5	100-240VAC	5V	40A	100mV	87%	CE, UL
NK200-12	100-240VAC	12V	17A	120mV	87%	CE, UL
NK200-15	100-240VAC	15V	14A	120mV	88%	CE, UL
NK200-24	100-240VAC	24V	8.8A	120mV	89%	CE, UL
NK200-36	100-240VAC	36V	5.9A	200mV	89%	CE, UL
NK200-48	100-240VAC	48V	4.4A	200mV	90%	CE, UL

**NOTE:**

1. The ripple values are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with 0.1uF & 47uF parallel capacitor under ambient temperature 25°C at rated input voltage and rated load;
2. The efficiency values are measured under ambient temperature 25°C at rated input voltage and rated load.

## INPUT

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Input voltage	Selected by switch	90 176		132 264	Vac Vac
Input frequency		47		63	Hz
Inrush current	Cold start, Vin=230Vac		60		A
Leakage current	Vin=240Vac			1	mA

## OUTPUT

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Output voltage adjustable range			±10		%
Minimum load		0			A
Line regulation	Vin from 100Vac to 240Vac			±0.5	%
Load regulation	Vout=5V Vout=12-48V		2		%
			1		%
Rise time	Full load, Vin=115Vac Full load, Vin=230Vac		50		ms
			50		ms
Hold up time	Full load, Vin=115Vac Full load, Vin=230Vac		15		ms
			10		ms

## Protection

Short circuit	Hiccup mode, it will recover automatically after fault condition is removed
Overload	105-150%, hiccup mode, it will recover automatically after fault condition is removed
Over voltage	115-150%, hiccup mode, it will recover automatically after fault condition is removed
Over temperature	Hiccup mode, it will recover automatically after fault condition is removed

## Environment

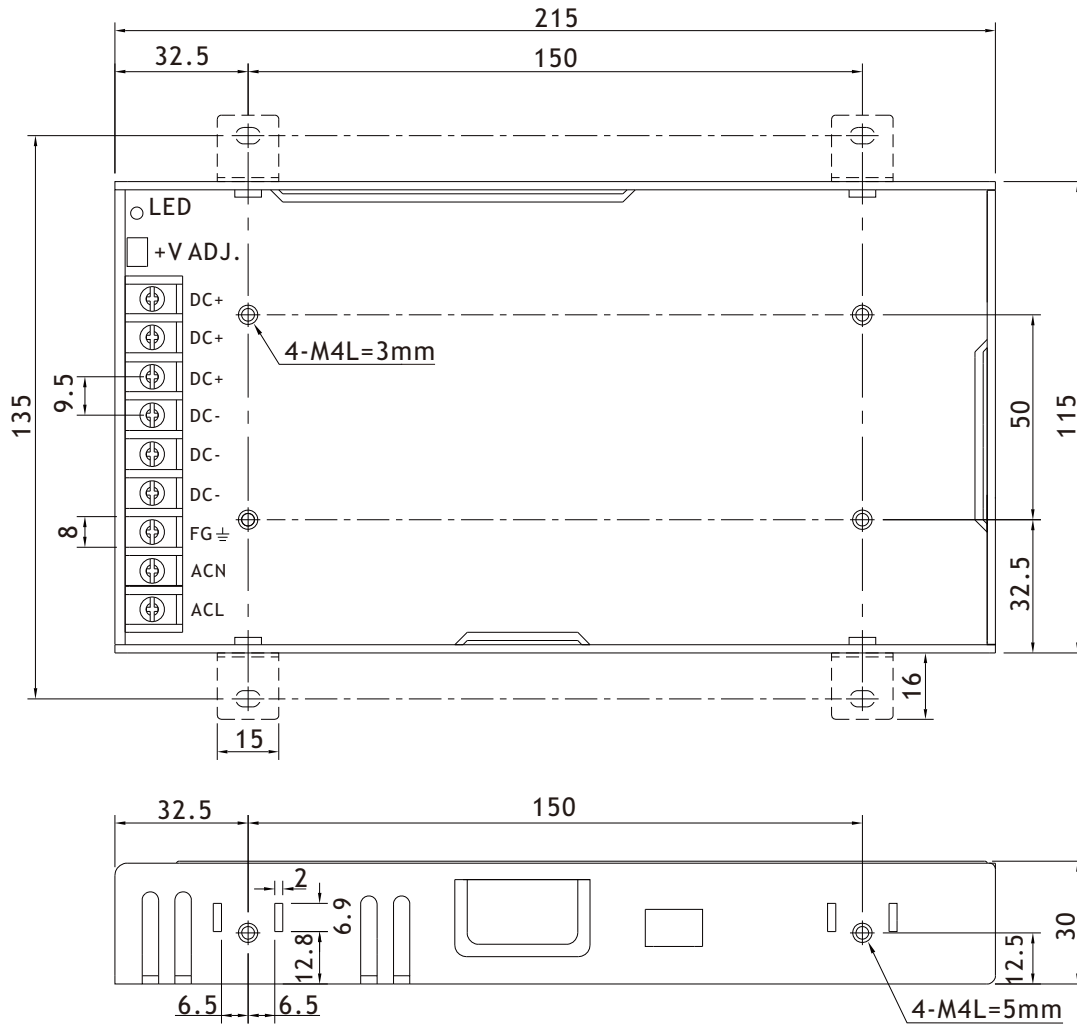
PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Ambient operating temperature	Startup at rated voltage (Derating required)	-25		+70	°C
Operating relative humidity	Non condensing	20		95	%
Storage temperature	Humidity 10 ~ 95% RH	-40		+85	°C
MTBF	Full load, 220Vac input, 25°C ambient temperature	200			Khrs
Cooling	Free air convection				
Dimension(W x H x D)	215.0 x 115.0 x 30.0mm (8.46 x 4.53 x 1.18inch)				
Weight	700g				
Packing	15pcs/12kg/0.7cuft/carton Carton size 620 x 260 x 175mm(LxWxH)				

## Safety/EMC

Isolation voltage	I/P-O/P: 3KVac, I/P-FG: 1.5KVac, O/P-FG: 0.5KVac
Safety	Design refer to UL60950-1
EMC	Design refer to EN55022

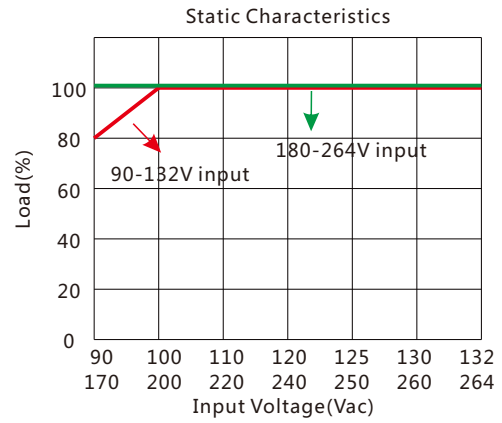
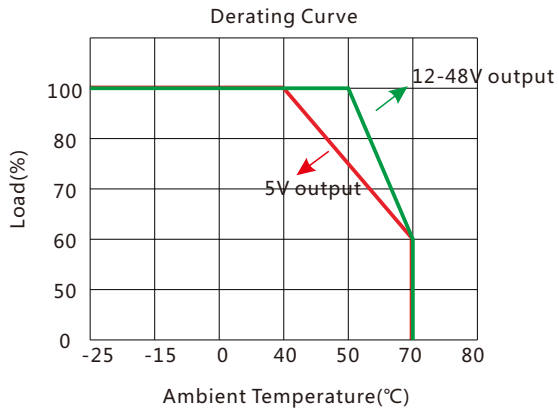
NOTE: Unless otherwise specified, all the above parameters are measured at ambient temperature of 25°C and Vin=100Vac to 240Vac.

Mechanical



Unit: mm  
Tolerance: ±1.0

## Electrical Curve



## Block Diagram

