



2019-V1.0-0319

Specifications

AC-DC Switching Mode Power Supply

NK-150 Series, 150W

PAIRUI ELECTRONICS

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2019

AC-DC Switching Mode Power Supply

NK-150 SERIES, SINGLE OUTPUT, 150W

Features

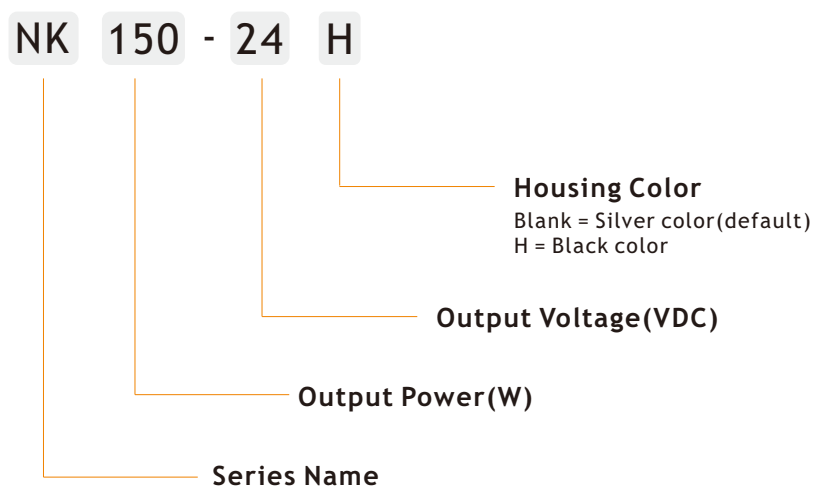
- 3 Year Warranty
- AC Input Range Selected by Switch(90-132/180-264Vac)
- 100% Full Load Burn-in Test
- Cooling by Free Air Convection
- Ultra-Slim Size
- Built-in EMI Filter
- LED Indicator for Power On
- All Round Protections: Short Circuit, Over Voltage, Over Load, and Over Temperature



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
NK150-5	100-240VAC	5V	22A	120mV	85%	CE, UL
NK150-12	100-240VAC	12V	12.5A	120mV	86%	CE, UL
NK150-15	100-240VAC	15V	10A	120mV	87%	CE, UL
NK150-24	100-240VAC	24V	6.5A	120mV	88%	CE, UL
NK150-36	100-240VAC	36V	4.3A	200mV	89%	CE, UL
NK150-48	100-240VAC	48V	3.3A	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			1		%
Rise time	Full load, Vin=115Vac Full load, Vin=230Vac		30 30		ms ms
Hold up time	Full load, Vin=115Vac Full load, Vin=230Vac		15 10		ms 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%, shut-off output voltage, the power supply will recover after the power is turned-on again
Over temperature	Shut-off output voltage, the power supply will recover after the power is turned-on again

Environment

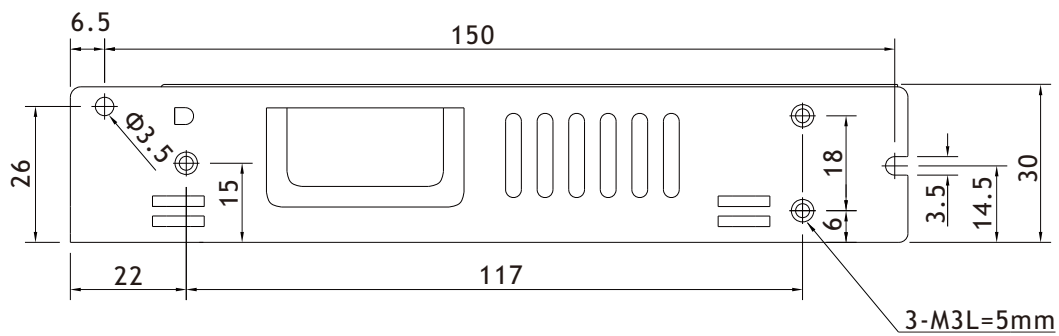
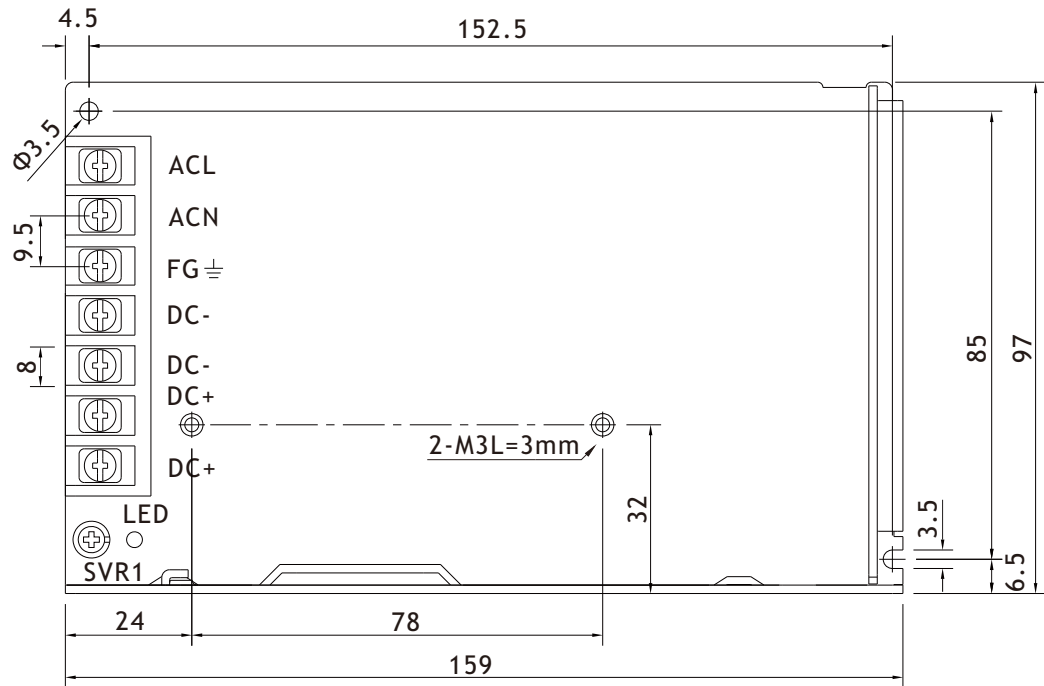
PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Ambient operating temperature	Startup at rated voltage (Derating required)	-30		+70	°C
Operating relative humidity	Non condensing	20		95	%
Storage temperature	Humidity 10 ~ 95% RH	-40		+85	°C
MTBF	Full load, 220Vac input, 25°C ambient temperature	200			Khrs
Cooling	Free air convection				
Dimension(W x H x D)	159.0 x 97.0 x 30.0mm (6.26 x 3.82 x 1.18inch)				
Weight	480g				
Packing	30pcs/16kg/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

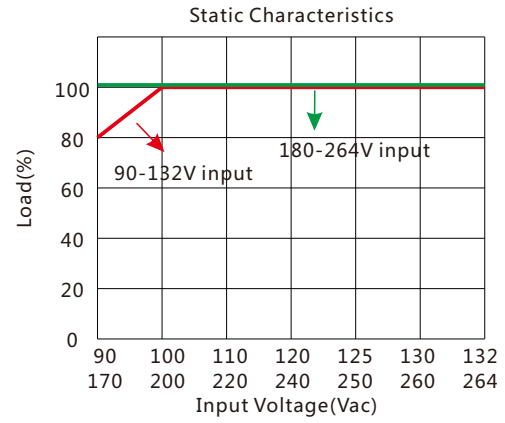
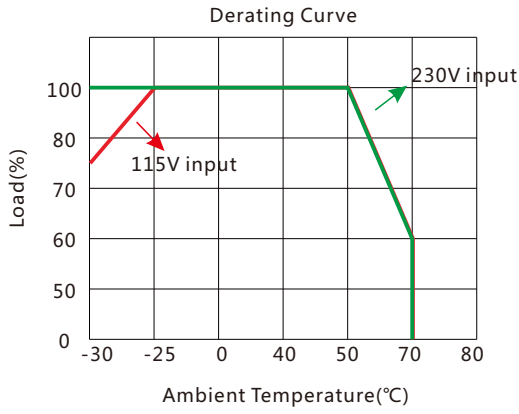
NOTE: Unless otherwise specified, all the above parameters are measured at ambient temperature of 25°C and Vin=100Vac to 240Vac.

Mechanical



Unit: mm
Tolerance: ± 1.0

Electrical Curve



Block Diagram

