

## NS-50 Series, Dual Output, 50Watt

### FEATURES:

- ✓ Input voltage range 100-240VAC
- ✓ High reliability
- ✓ Built-in EMI filter
- ✓ Short circuit, over current, over voltage protections
- ✓ Cooling by free air convection
- ✓ 100% burn-in test
- ✓ With LED power indicator
- ✓ 4 year warranty



Model	Input voltage (Vac)	Output voltage (Vdc)	Output current (A)	Efficiency Typ.
NS50-B1	100-240	5, 12	5, 2	72%
NS50-B2		5, 15	5, 1.7	73%
NS50-B3		5, 24	5, 1	72%
NS50-B4		12, 12	2.5, 1.5	76%
NS50-B5		15, 15	2, 1.5	77%

### ELECTRICAL

#### Input

Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Input voltage	$V_{in}$	--	88	--	264	Vac
			125	--	370	Vdc
Input frequency	$F_{line}$	--	47	--	63	Hz
Inrush current	$I_{inrush}$	Cold start, $V_{in} = 115Vac$ , full load	--	20	--	A
		Cold start, $V_{in} = 230Vac$ , full load	--	40	--	A
Input current	$I_{in}$	Full load, $V_{in} = 115Vac$	--	1.2	--	A
		Full load, $V_{in} = 230Vac$	--	0.7	--	A

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**ELECTRICAL**
**Output**

Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Line regulation	$V_{out-line}$	$V_{in}$ from 100 Vac To 240 Vac	--	1	--	%
Load regulation	$V_{out-load}$	$I_{out}$ from min. To max.	--	1	--	%
Hold-on time	$T_{on\_hold}$	Full load, $V_{in}=115Vac$	--	17	--	ms
Turn-on rise time	$T_{on\_rise}$	Cold start, power on	--	--	1000	ms
Ripple & noise	$V_{ripple}$	--	--	120	250	mVp-p

**Protection**

Over current	Type: works at over 105%; it will recover automatically after fault condition is removed
Short circuit	Hiccup mode, it will recover automatically after fault condition is removed
Over voltage	Type: 110-150%; Locked mode, it will recover automatically after turn off the power

**Environment**

Storage	$T_{storage}$	Humidity: 5% RH to 95% RH	-20	--	+75	°C
Ambient operating temperature	$T_a$	Startup at rated voltage (Required Derating)	-10	--	+70	°C
Operating relative humidity	$H_a$	Non condensing	10	--	95	%
MTBF	$T_{MTBF}$	Full load, 230Vac input, 25°C ambient temperature	--	--	200	kHrs
Dimension(LxWxH)	135 x 81.2 x 35.5mm					

**Safety / EMC**

Withstand voltage	I/P-O/P: 3KVac	I/P-FG: 2KVac	O/P-FG: 0.5KVac
Safety standards	CE, CB		
EMC	EN55022 Class B		

**Notes: 1. Rated Load and Rated Input Voltage,  $T_a=25^{\circ}C$ ;**

**2. Ripple & Noise are measured at 20MHZ of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.**

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### MECHANICAL

