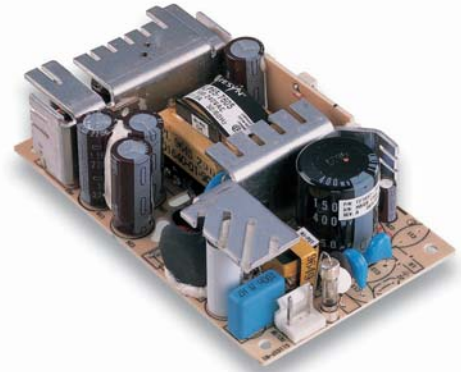


NLP65-3334J

Single output (adjustable)

- 5.0 x 3.0 inch card and 1.26 inch package (1U applications)
- Smallest industry standard package
- EN61000-3-2 compliance (HCC)
- Overvoltage and short circuit protection
- 50W with free air convection cooling
- EN55022, EN55011 conducted emissions level B
- EN61000-4-2,-3,-4, -5, -6 immunity compliant
- Adjustable output between 4.5 V and 5.5 V
- Available RoHS compliant



The NLP65-3334J is a 50 W universal input ac-dc power supply on a 5 x 3 inch card with a maximum component height of 1.26 inches for use in 1U applications. This model has input harmonic current correction making the series ideal for product designs that will need to comply with EN61000-3-2 legislation. The NLP65-3334J provides 50 W of output power with free air convection cooling which can be boosted to 55 W with 20 CFM of air. The NLP65, with full international safety approval, meets conducted emissions EN55022 level B and has immunity compliance to EN61000-4-2,-3,-4, -5, -6. The NLP65 series is designed for use in low power data networking, computer and telecom applications such as hubs, routers, POS terminals, internet servers, cable modems and PABX's. This list is not exclusive as the generic feature set of the NLP65 series with industry standard output configurations provides a solution for most low power applications including many industrial applications.

2 YEAR WARRANTY

All specifications are typical at nominal input, full load at 25 °C unless otherwise stated

SPECIFICATIONS

OUTPUT SPECIFICATIONS

Total regulation	Line and load	±100 mV
Rise time	At turn-on	1.0 s, max.
Transient response	Main output	5.0% or 250 mV
	25% step at 0.1 A/μs	max. dev., 1 ms max. recovery to 1%
Temperature coefficient		±0.02%/°C
Overvoltage protection		6.25 V ±0.5 V
Short circuit protection	Cyclic operation	Yes, indefinite
Minimum output current	Single	(See Note 6)

INPUT SPECIFICATIONS

Input voltage range (See Note 1)	Universal input	85-264 Vac 120-370 Vdc
Input frequency range		47-63 Hz
Input surge current (cold start)	110 Vac	17 A max.
	230 Vac	32 A max.
Safety ground leakage current	110 Vac, 60 Hz	0.7 mA
	230 Vac, 50 Hz	1.4 mA
Inrush current	230 Vac	32 A max.
Input current	110 Vac, with PFC	1.05 A rms
	230 Vac, with PFC	0.51 A rms
	110 Vac, without PFC	1.40 A rms
	230 Vac, without PFC	0.80 A rms
Input fuse	UL/IEC127	250 Vac S 3.15 A

EMC CHARACTERISTICS (11,12)

Conducted emissions	EN55022, FCC part 15 (Note 11)	Level B
Radiated emissions	EN55022, FCC part 15 (Note 11)	Level A
ESD air	EN61000-4-2, level 3	Perf. criteria 1
ESD contact	EN61000-4-2, level 4	Perf. criteria 1
Surge	EN61000-4-5, level 3	Perf. criteria 3
Fast transients	EN61000-4-4, level 3	Perf. criteria 1

EMC CHARACTERISTICS (continued) (11,12)

Radiated immunity	EN61000-4-3, level 3	Perf. criteria 2
Conducted immunity	EN61000-4-6, level 3	Perf. criteria 2
Surge	EN61000-4-5, level 2	Perf. criteria 1
Fast transients	EN61000-4-4, level 3	Perf. criteria 1
Radiated immunity	EN61000-4-3, level 3	Perf. criteria 2
Conducted immunity	EN61000-4-6, level 3	Perf. criteria 2

GENERAL SPECIFICATIONS

Hold-up time	230 Vac, 50 Hz	78 ms @ 50 W
Efficiency		72% typical
Isolation voltage	Input/output	3000 Vac
	Input/chassis	1500 Vac
Switching frequency	Fixed	100 kHz, ±5 kHz
Approvals and standards (See Notes 9 and 12)		EN60950, UL1950, cUL equivalent of CSA C22.2 No. 950
Weight		283 g (10 oz)
MTBF	MIL-HDBK-217F	150,000 hours min.

ENVIRONMENTAL SPECIFICATIONS

Thermal performance (See Notes 1, 4 and 10)	Operating temperature	0 °C to +50 °C
	Non-operating	-40 °C to +85 °C
	50 °C to 70 °C ambient, convection cooled	1.65 W/°C
	Peak (0 °C to +50 °C, 60 s)	See table
Relative humidity	Non-condensing	5% to 95% RH
Altitude	Operating	10,000 m max.
	Non-operating	30,000 m max.
Vibration (See Note 5)	5-500 Hz	2.4 G rms peak
Shock	per MIL-STD-810E	516.4 Part IV

NLP65-3334J

Single output (adjustable)

For the most current data and application support visit www.artesyn.com/powergroup/products.htm

OUTPUT VOLTAGE	OUTPUT CURRENT			RIPPLE (3)	TOTAL REGULATION (6)	OVP	MODEL NUMBER (13,14)
	MAX (4)	PEAK (2)	FAN (10)				
4.5-5.5 V	10 A	12 A	11 A	50 mV	±100 mV	6.25 V ± 0.5 V	NLP65-3334J

Notes

- When the input voltage is less than 90 Vac the operating temperature range is 0 °C to +40 °C. The ripple and regulation specifications may not be met.
- Peak output current lasting less than 60 seconds with duty cycle less than 5%. During peak loading, output voltage may exceed total regulation limits.
- Figure is peak-to-peak for convection power rating. Output noise measurements are made across a 20 MHz bandwidth using a 6 inch twisted pair, terminated with a 10 µF electrolytic capacitor and a 0.1 µF ceramic capacitor.
- Maximum continuous output power must not exceed 50 W.
- Three orthogonal axes, random vibration 10 minutes for each axes, 2.4 G rms 5 Hz to 500 Hz.
- Minimum load: 1 A.
- For optimum reliability, no part of the heatsink should exceed 120 °C, and no semiconductor case temperature should exceed 130 °C.
- CAUTION: Allow a minimum of 1 second after disconnecting line power when making thermal measurements.
- This product is only for inclusion by professional installers within other equipment and must not be operated as a stand alone product.
- Maximum continuous output power for this model must not exceed 55 Watts with 20 CFM forced air cooling.
- For system EMI compliance the unit must be mounted within a metal chassis.
- All models require a minimum mounting stand-off of 0.25 inches (6.35 mm) in the end use product.
- The 'J' suffix indicates that these parts are Pb-free (RoHS 6/6) compliant. TSE RoHS 5/6 (non Pb-free) compliant versions may be available on special request, please contact your local sales representative for details.
- NOTICE: Some models do not support all options. Please contact your local Artesyn representative or use the on-line model number search tool at <http://www.artesyn.com/powergroup/products.htm> to find a suitable alternative.

INPUT PIN CONNECTIONS	
J1	
Pin 1	AC Line
Pin 2	No Pin
Pin 3	AC Neutral
J2	
Pin 1	Safety Ground

OUTPUT PIN CONNECTIONS	
J3	TRIPLE
Pin 1	+5V
Pin 2	+5V
Pin 3	+5V
Pin 4	Return
Pin 5	Return
Pin 6	Return

Input and output connectors

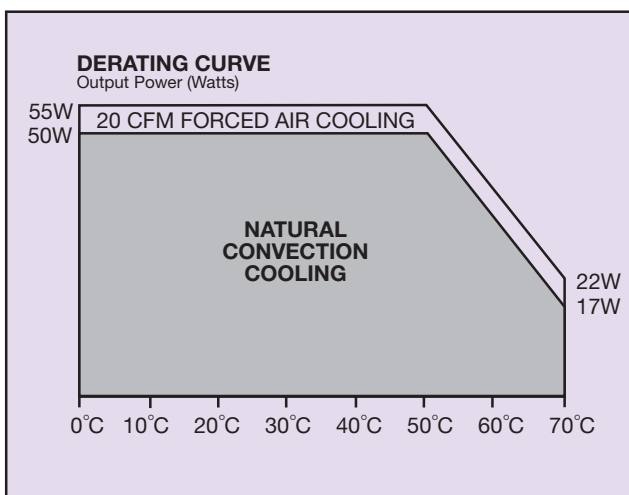
AC (J1) connector type
Molex 26-60-4030 type.

DC (J3) connector type
Molex 26-60-4060 type.

Mating connectors

AC (J1) mating connector type
Molex 09-50-3031 or equivalent with Molex 08-50-0105 or equivalent crimp terminals.

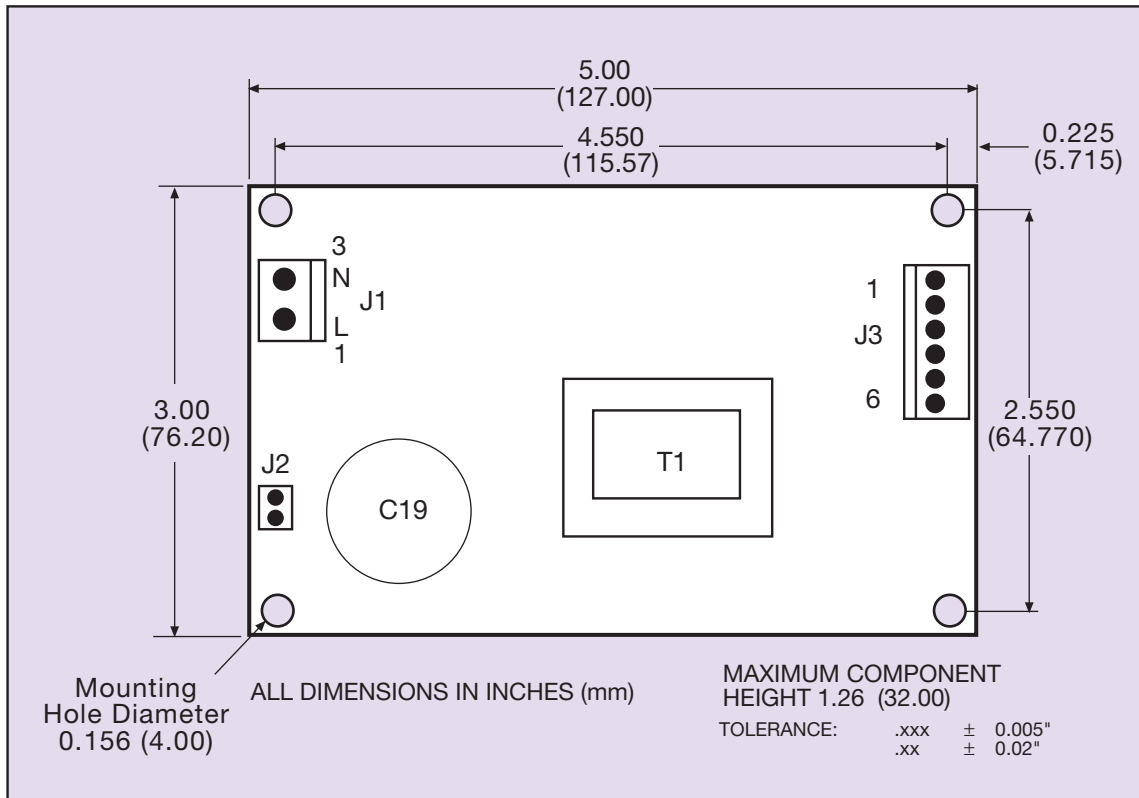
DC (J3) mating connector type
Molex 09-50-3061 with Triurcon 6838 or equivalent crimp terminals.




NLP65-3334J

Single output (adjustable)

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International Safety Standard Approvals

 VDE0805/EN60950/IEC950 File No. 1040100-3336-0096
Licence No. 114404

 cUL, UL1950 File No. E136005

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