

NLP65-3300

Single output

- 5.0 x 3.0 inch card and 1.26 inch package (1U applications)
- EN61000-3-2 compliance option (HCC)
- Overvoltage and short circuit protection
- EN55022, EN55011 conducted emissions level B
- EN61000-4-2,-3,-4, -5, -6 immunity compliant
- Enclosure and cover kit options



The NLP65-3300 is a 33W 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 the option of input harmonic current correction in the same package size making the series ideal for product designs that will need to comply with EN61000-3-2 legislation. The NLP65-3300 provides 33W of output power with free air convection cooling. The NLP65, with full international safety approval and the CE mark, meets conducted emissions EN55022 level B and has immunity compliance to EN61000-4-2,-3,-4, -5, -6. The series is available in a factory installed enclosure with an IEC connector and output connector on flying leads plus a cover kit for self-installation is also available as an accessory. 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.

CE (LVD)

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	±3.0% max.
Rise time	At turn-on	1.0s, max. @ 230VAC
Transient response	Main output	5.0% or 165mV
	25% step at 0.1A/μs	max. dev., 1ms max. recovery to 1%
Temperature coefficient		±0.02%/°C
Overvoltage protection		125%, ±10%
Short circuit protection	Cyclic operation	Yes, indefinite
Minimum output current	Single	(See Note 6)

INPUT SPECIFICATIONS

Input voltage range (See Note 1)	Nominal	85 to 264VAC 120 to 370VDC
		47Hz to 63Hz
Input surge current (cold start)	120VAC	17A max.
	230VAC	32A max.
Safety ground leakage current	120VAC, 60Hz	0.7mA
	230VAC, 50Hz	1.4mA
Inrush current	230VAC	32A max.
Input current	120VAC, with PFC	0.5A rms
	230VAC, with PFC	0.25A rms
	120VAC, without PFC	0.7A rms
	230VAC, without PFC	0.4A rms
Input fuse	UL/IEC127	250VAC S 3.15A

EMC CHARACTERISTICS (4, 10)

Conducted emissions	EN55022, FCC part 15, (Note 3) Level B
Radiated emissions	EN55022, FCC part 15 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 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	230VAC, 50Hz	78ms @ 33W
Efficiency		64% typical
Isolation voltage	Input/output	3000VAC
	Input/chassis	1500VAC
Switching frequency	Fixed	100kHz, ±5kHz
Approvals and standards (See Notes 9 and 11)		EN60950, VDE0805, IEC950 UL1950, CSA C22.2 No. 950 EN41003 (BABT)
Weight		283g (10 oz)
MTBF	MIL-HDBK-217F	150,000 hours min.

ENVIRONMENTAL SPECIFICATIONS

Thermal performance (See Notes 1 and 2)	Operating temperature	0°C to +50°C
	Non-operating	-40°C to +85°C
	50°C to 70°C ambient, convection cooled	0.65W/°C
	Peak (0°C to +50°C, 60s)	See table
Relative humidity	Non-condensing	5% to 95% RH
Altitude	Operating	10,000 feet max.
	Non-operating	30,000 feet max.
Vibration (See Note 5)	5Hz to 500Hz	2.4G rms peak
Shock	per MIL-STD-810E	516.4 Part IV

NLP65-3300

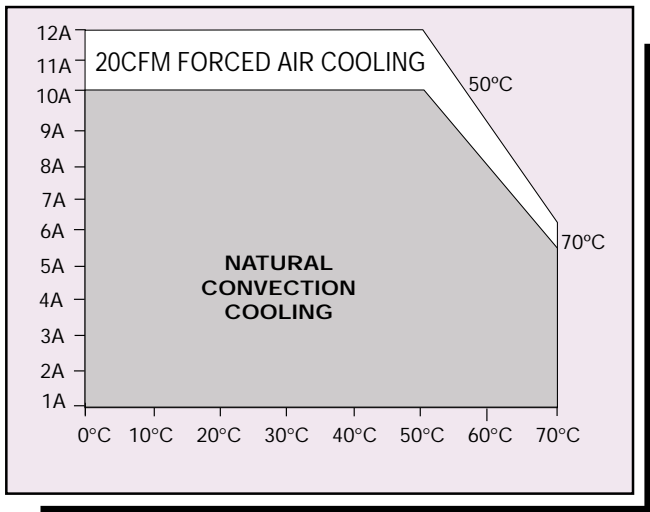
Single output

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

OUTPUT VOLTAGE	OUTPUT CURRENT		RIPPLE (3)	TOTAL REGULATION	OVP	MODEL NUMBER
	MAX	PEAK (2)				
+3.3V	10A	13A	50mV	±99mV	125%, ±10%	NLP65-3300

Notes

- When the input voltage is less than 90VAC 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 20MHz bandwidth using a 6 inch twisted pair, terminated with a 10µF electrolytic capacitor and a 0.1µF ceramic capacitor.
- For EMI compliance, the unit must be used in a system application where the earth pads are connected to a metal chassis.
- Three orthogonal axes, random vibration 10 minutes for each axes, 2.4G rms 5Hz to 500Hz.
- To maintain stated regulation then:
I ≥ 1.0A
- 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.
- For system EMI compliance, a ground choke may be required before connecting the ground wire to the chassis. It is recommended that, when used, this ground choke be placed as close as possible to the systems AC inlet to eliminate noise pick-up in the system.
- Require a minimum mounting stand-off of 0.25 inches (6.35mm) in the end use product.



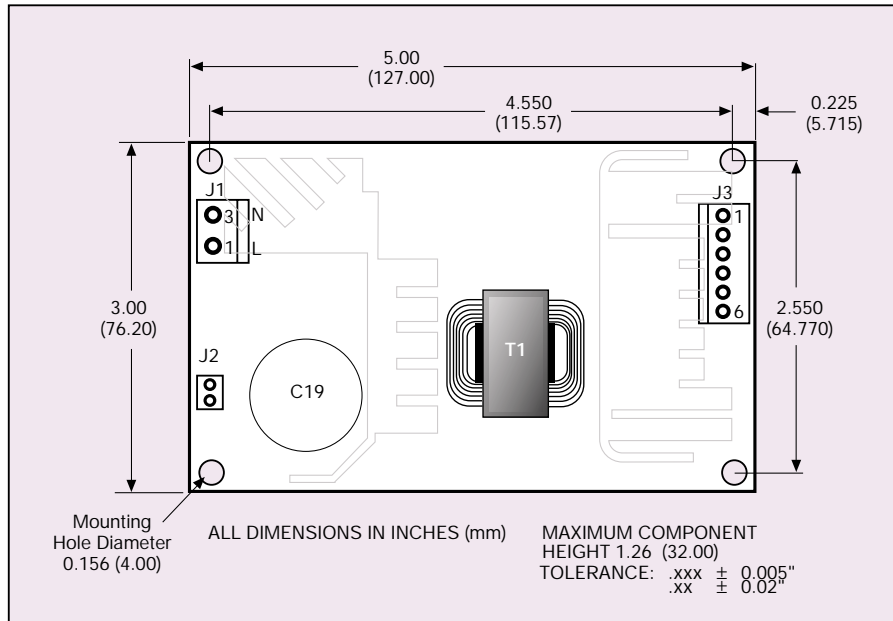
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Mechanical Notes

A All dimensions are in inches (mm).



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	SINGLE
Pin 1	Vout
Pin 2	Vout
Pin 3	Vout
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.

International Safety Standard Approvals

 VDE0805/EN60950/IEC950 File No. 10401-3336-1096
Licence No. 93678

 UL1950 File No. E136005

 CSA C22.2 No. 950 File No. LR41062C

 Designed to meet, approval pending

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