

# PENB1020A

Universal 19.2W

Gigabit PoE Adapter



3 Year Warranty

- 10/100/1000 (MbPS) Data Rates
- Self-contained Injector
- 100-240Vac Universal Input
- Green DC Power LED
- Overload and Short Circuit Protection
- Regulated Output with Low Ripple
- Compliant to UL/IEC/EN60950-1
- LPS (Limited Power Source) Compliant
- RoHS Compliant



## Description

The PENB1020A Series of Power-over-Ethernet (PoE) adapters operate from a 90 to 264Vac input range, and provide up to 19.2W of output power at an output voltage of 48Vdc. These models are capable of operating with Gigabit Data rates, and include features include diagnostic LED, and overvoltage, overload, and short circuit protection. This non-compliant adapter does not require a “handshake” signal to enable the output voltage.

## Specifications

All specifications are typical at nominal input, full load at 25°C unless otherwise stated			
AC Input	100-240Vac +/- 10%, 47-63 Hz single phase	MTBF	>60,000 hours, calculated (7 years)
Input Current	0.5A @ 90Vac 0.25A @ 180Vac	Hold-Up Time	18mS min. @ 115Vac, 60Hz 60mS min. @ 230Vac, 60Hz
Input Inrush Current	60A peak, cold start	Efficiency	65% minimum
Input Protection	Internal Primary Current Fuse provided, 250Vac/3.15A	Turn-on Time	2.0 seconds max., at 115v230Vac, 60Hz
Dielectric Withstand	4242Vdc Primary – Secondary, 2,150Vdc Primary–GND, 500Vdc Secondary - GND	Rise Time	100mS max.@ 115/230Vac, 60Hz
Earth Leakage Current	<250µA @ 264Vac, 60Hz	Short Circuit Protection	10 minutes max. @ 265Vac, 60Hz
Output Power	19.2W continuous, convection cooled	Operating Temperature	0° to +40°C
Ripple and Noise	See Chart below	Storage Temperature	-30° to +85°C
Output Voltage	48Vdc Typical	Relative Humidity	5% to 95%, non-condensing
Transient Response	0.5msec for 50% load change typical	Altitude	0 to 10,000 ft
Regulation	See chart below	Safety Standards	UL/IEC/EN60950-1, CE, CB
Case Material	94V-0 Black Polycarbonate	Dimensions	W: 1.9" x L: 4.44" x H: 1.3". Weight: 120g

## Models

Model Number	Output Voltage	Output Current	Ripple & Noise <sup>1</sup>	Max. Power	Regulation Line	Regulation Load	IEEE802.3af Compliant?	AC Input Receptacle
PENB1020A4800F01	48Vdc	0.4A	480mV pk-pk	15.4W	±2%	±5%	No	IEC60320, C14
PENB1020A4800N01	48Vdc	0.4A	480mV pk-pk	15.4W	±2%	±5%	No	IEC60320, C8

Note: 1. Measured at 20MHz bandwidth, with noise probe as close to output RJ-45 connector as possible, and load terminated with 0.1µF ceramic and 10µF low ESR electrolytic capacitors.

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PoE Gigabit

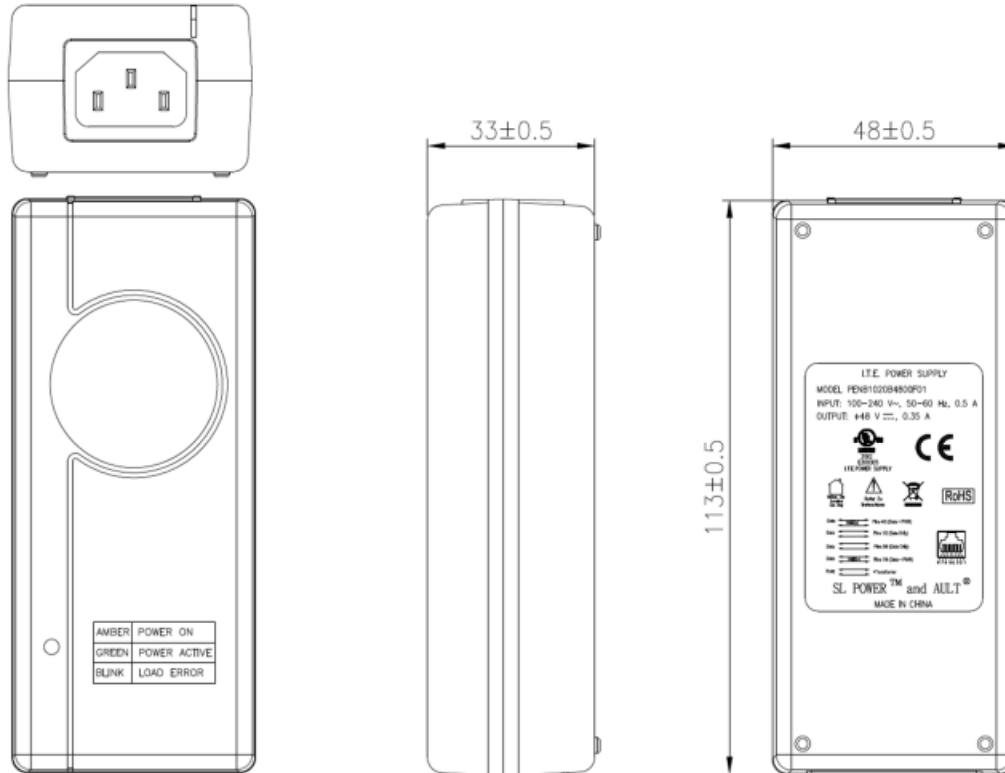
3 Year Warranty

## EMI/EMC Compliance

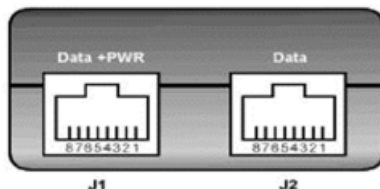
Conducted Emissions	EN55022: 2006+ A1:2007 (Class B)
Radiated Emissions	EN55022: 2006+ A1:2007 (Class B)
Static Discharge Immunity	EN55024/IEC61000-4-2, 6kV/8kV, Criteria A
Radiated RF Immunity	EN55024/IEC 61000-4-3, 3V/m, Criteria A
EFT/Burst Immunity	EN55024/IEC 61000-4-4, 2kV, 5kHz, Criteria A
Line Surge Immunity	EN55024/IEC 61000-4-5, 1kV/2kV, Criteria A
Conducted RF Immunity	EN55024/IEC 61000-4-6, 3V (AM 80%, 1kHz), Criteria A
Power Frequency Magnetic Field Immunity	EN55024/IEC 61000-4-8, 3A/m, Criteria A
Voltage Dip Immunity	EN55024/IEC 61000-4-11, 100%, 10mS; 60%, 100mS; 30%, 500mS Criteria A. 100\$, 5000mS, Criteria B
Line Harmonic Emissions	EN61000-3-2: 2006
Flicker Test	EN61000-3-3: 2008

## Outline Drawing

- IEC320 C14 input receptacle shown. Other options available. Consult factory for details and availability.



## PSA pinout Alternative B (IEEE 802.3af 33.2.2):



J1 Pins		J2 Pins
1 Data Pair 1	←→	1 Data Pair 1
2 Data Pair 1	←→	2 Data Pair 1
3 Data Pair 2	←→	3 Data Pair 2
4 +VDC	←→	4 No Connection
5 +VDC	←→	5 No Connection
6 Data Pair 2	←→	6 Data Pair 2
7 -VDC	←→	7 No Connection
8 -VDC	←→	8 No Connection