

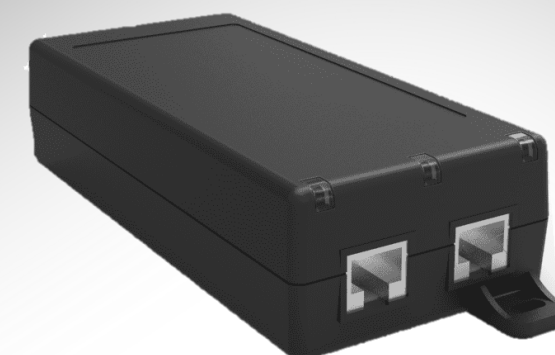
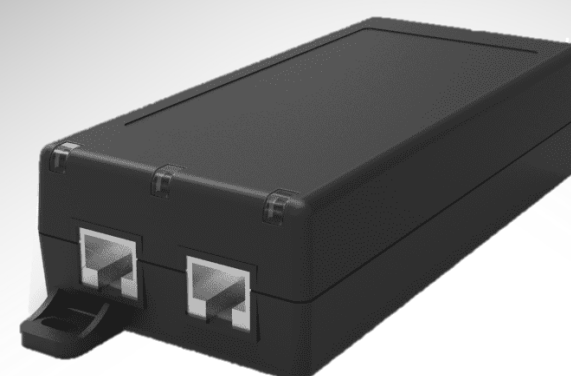
TECHNICAL DATA SHEET

POE60U-1BT



DESCRIPTION

This 60-watt Power-over-Ethernet Power Injector, ideal for high-power devices such as wireless network access points, security cameras, Bluetooth® Access Points and WiMAX® Access Points. Supports IEEE 802.3an/bz, IEEE203.3ab standards to ensure compatibility and efficient performance across your network infrastructure.



FEATURES

- ✓ 4 Pair Powering +3, 4, 5, 6 / -1, 2, 7, 8
- ✓ Multi-Gigabit Data Rates (1G, 2.5G, 5G, 10G) models available
- ✓ DoE Level VI Compliant
- ✓ Full Protection OCP, OVP
- ✓ ErP/Ecodesign Directive 2009/125/EC – Regulation EU 2019/1782 Compliant
- ✓ Limited Power Source (LPS)
- ✓ Non-Vented Case





TECHNICAL DATA

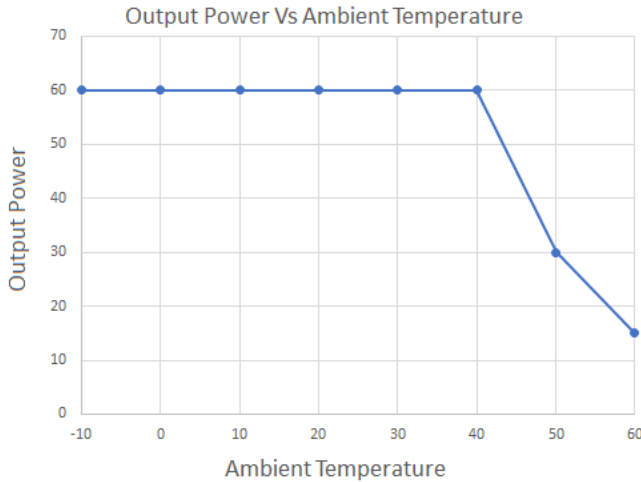
Input

AC input voltage range	100VAC to 240VAC
AC input voltage rating	90VAC to 264VAC
AC input frequency	47Hz to 63Hz
AC input current	2.0A(RMS) 90VAC @ Max Load , 1.2A(RMS) 240VAC at Max Load
AC Inrush current (Max)	40A for 115VAC @ Max Load, 80A for 230VAC @ Max Load (Cold Start @ 25°C)

Output

Output voltage (Vout)	Output #1	+56Vdc (nominal) +1/-3V (57-53Vdc), On data pairs 3,6(+) and 1,2(-) Includes line and load regulation and temperature, Voltage to be measured within 2" of the output RJ45 connector
	Output #2	+56Vdc (nominal) +1/-3V (57-53Vdc), On spare pairs 4,5(+) and 7,8(-) Includes line and load regulation and temperature. Voltage to be measured within 2" of the output RJ45 connector
	Output #1 & #2 Combined	+56Vdc (nominal) +1/-3V (57-53Vdc) On combined pairs 3,4,5,6 (+) & 1,2,7,8 (-) Includes line and load regulation and temperature, Voltage to be measured within 2" of the output RJ45 connector
Min Load Current	10mA	
Max Load Current	Output #1	535mA for IEEE802.3at/bt, 275mA for IEEE802.3af (25K Only)
	Output #2	535mA for IEEE802.3at/bt, 275mA for IEEE802.3af (25K Only)
	Output #1 & #2 Combines	1.07A for IEEE802.3bt & 12.5K
Line Regulation	See [Output voltage (Vout)]	
Load Regulation	See [Output voltage (Vout)]	
Ripple & Noise Voltage (Vp-p)	200mV max @ 25C, 100-240VAC Measured within 2 inches of RJ45 with by-pass capacitors 0.1uf/10uf at output connector terminal & oscilloscope set at 20Mhz (tested by oscilloscope).	
Detection Standards	Output #1 – IEEE802.3af/at/bt , Output #2 – IEEE802.3af/at/bt, Output #1 & #2 – IEEE802.3bt & 12.5K	

Overall Performance

Total Output Power	60W @ 40C, 30W @ 50C, 15W @ 60C
	
Efficiency	DOE LEVEL 6 / COC lot 7
Hold Up Time	10m Sec. Min. at Max. load, and 120VAC 60Hz. The time starts when the ac power is removed and when the output voltage reaches 44Vdc.
Transient OVP	60V max at switch on and off at any AC line
Turn on Delay Time	7 sec Max @ Full Load Include Detection@ 120VAC 60 Hz

Features

Overall Current Protection	Output #1 < 650mA , For 12.5K, Output #1 & #2 < 1500mA	Output #2 < 650mA,	Output #1 & #2 < 1300mA,
Over Voltage Protection	120V for less than (<) 0.2 Seconds		
Leakage Current	3.5mA Max for 264VAC 50Hz		
Short Circuit Protection	The output can be shorted permanently without damage.		
Indicators	Solid Green	Detection/Connection Valid & Output "ON"	
	Blink Amber (short, slow)	Waiting for Valid Connection/Detection	
	Blink Amber (long, fast)	Fault Condition (Over Current or Shorted)	
	Blink Amber & Green	Detection is Invalid	

Environment

Altitude	Operation: 10,000 Feet Max ;	Non-Operation: 40,000 Feet Max
Temperature	Operation: -10°C to 60°C;	Non-Operation: -20°C to 65 °C
Temperature Coefficient	0.04% /°C max over entire operating temp	
Relative Humidity	Operation: 5% to 90%;	Non-Operation: 5% to 90%
Vibration	Frequency Range: 10-55Hz; Amplitude 2G over entire Frequency Range; Sweep 1 Minute for X, Y, Z axis, each cycle 20	



POE60U-1BT
60-watt Power Over Ethernet Midspan

TECHNICAL DATA

EMI	EN55022/EN55032 & FCC Part 15 Class B	
EMC Immunities	IEC61000-4-2 (ESD)	6KV Contact/8KV Air
	IEC61000-4-3(RS)	3V/m
	IEC61000-4-4(EFT)	1KV Input 0.5KV Output
	IEC61000-4-5(Surge)	L-L 1KV ; L-PE 2KV
	IEC61000-4-3(CS)	3V
	IEC61000-4-11(DIPS)	Class 3
	IEC61000-3-2(Harmonic)	Class A

Safety Requirements

UL : UL 62368-1 2nd	
CUL CAN/CSA C22.2 No.62368-1-14	
IEC/EN: IEC 60950-1: 2005 + A1 + A2 / EN 60950-1:2006 + A11 + A1 + A12 + A2 / IEC 62368-1: 2014 /EN 62368-1: 2014 + A11	
CE:EN 55032, EN 55024, EN 55035	
Korea: KC, KCC, KMEPS	
Australia: RCM	
UK: UKCA	

Dielectric Withstand (HI-POT)

Primary to Secondary	4242VDC for 1-minute 10mA
Primary to Earth Ground	2121VDC for 1-minute 10mA
Secondary to Earth Ground	Not Required

MTBF

For 25 °C Ambient Temperature Operation >150KHRS Min @ Max Load @ 115VAC
--

Mechanical

Mechanical	Length:	6.5 inches (163 mm)
	Width:	2.55 inches (65 mm)
	Height:	1.42 inches (36 mm)
Weight	0.3 Kg	

Input Connection

IEC320 Inlet 3 Pin

Output Connection

FEMALE RJ45		
POE60U-1BT6-R & POE60U-1BTE-R Only	Data Input:	Right
	Power/Data Output:	Left
POE60U-1BT-2-R, POE60U-1BT-5-R, & POE60U-1BT-X-R ONLY	Data Input:	Left
	Power/Data Output:	Right

Drop Test

Height for drop test is 61cm

Data Communication Speeds

Model Name	Data Speed Maximums	Max	Standard
POE60U-1BT-R	10/100/1000 Mbps	1G	IEEE203.3ab
POE60U-1BT E-R	10/100/1000 Mbps	1G	IEEE203.3ab
POE60U-1BT-2-R	10/100/1000/2500 Mbps	2.5G	IEEE802.3bz
POE60U-1BT -2W-R	10/100/1000/2500 Mbps	2.5G	IEEE802.3bz
POE60U-1BT -5-R	10/100/1000/2500/5000 Mbps	5G	IEEE802.3bz
POE60U-1BT -5GL-R	10/100/1000/2500/5000 Mbps	5G	IEEE802.3bz
POE60U-1BT -X-R	10/100/1000/2500/5000/10000 Mbps	10G	IEEE802.3bz IEEE802.3an
POE60U-1BT -XM-R	10/100/1000/2500/5000/10000 Mbps	10G	IEEE802.3bz IEEE802.3an
POE60U-1BT-EP-R	10/100/1000 Mbps	1G	IEEE203.3ab

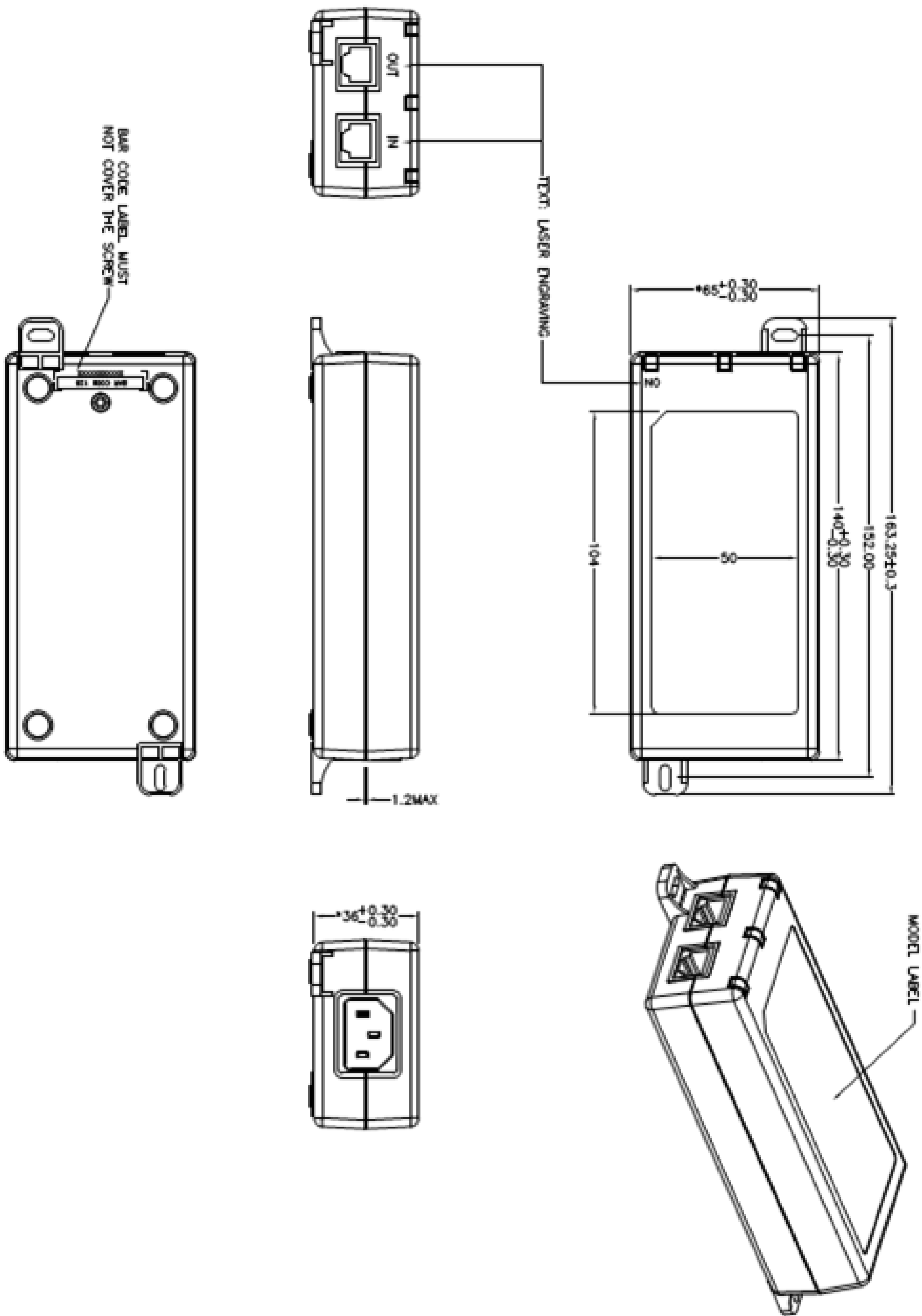




TECHNICAL DATA

Outline Drawing

[POE60U-1BT6-R & POE60U-1BTE-R & POE60U-1BTEP-R]



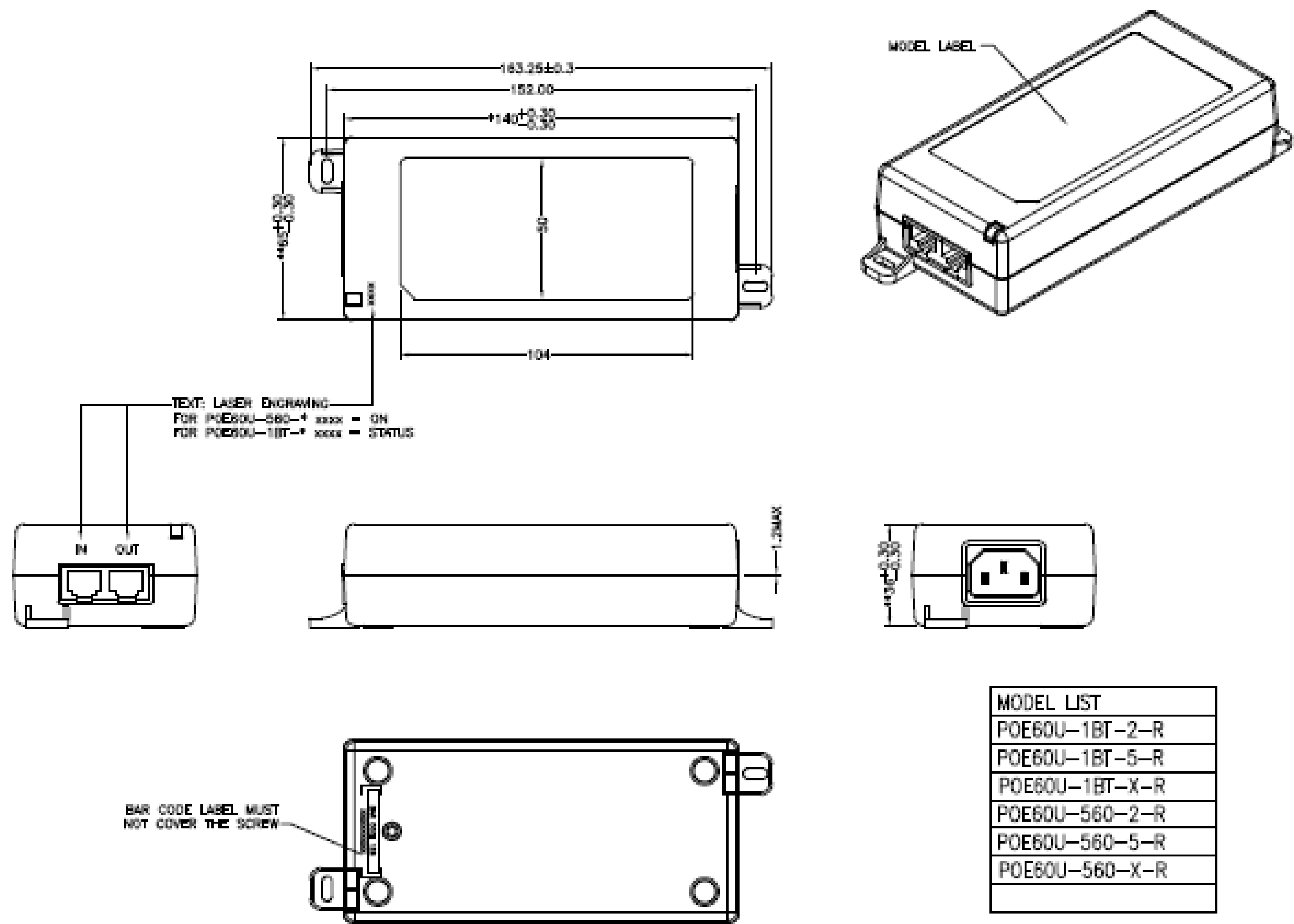


POE60U-1BT
60-watt Power Over Ethernet Midspan

TECHNICAL DATA

Outline Drawing

[POE60U-1BT-2-R, POE60U-1BT-5-R, POE60U-1BT-X-R POE60U-1BT-5GL-R]



PHIHONG 50 YEARS OF HISTORY IN THE POWER SUPPLIES INDUSTRY

Since its founding in 1972, Phihong has emerged as a prominent power supply company, serving as a key supplier of solutions for consumer, mobile/portable, enterprise, telecom, datacom, and industrial applications.

