TECHNICAL
DATA SHEET

PYA48T240200

PHIHONG

DESCRIPTION

This 48-watt wall mount power adapter features interchangeable AC plugs and a barrel connector, making it a versatile solution for global use. Designed for reliability and efficiency, ideal for powering smart home devices, telecommunication equipment, office equipment, audio devices, and other electronic devices.

Features

Class B EMI
US DoE Level VII Efficiency compliance Over-Voltage, Over-Current,
Short Circuit Protection
EU Ecodesign 2019/1782 Compliance
Load Regulation: +/-5%

Applications

Smart Home Devices|
Telecommunication| Office Equipment |Audio Devices
Electronic Devices

Certifications & compliance

FCC Part 15 Class B
CAN ICES-003(B)/NMB-003(B) Issue 7
EN 55032:2015 Class B

Technical Summary

Parameters	Value
Input Voltage	100~240V
Output voltage regulation	24.0VDC
Output power	48 Watts
Efficiency	> 88.97%
Dimensions	92.2(L) x 47.8(W) x31.9(H) ±1mm

*Clips are sold separately

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Input

Input voltage	Minimum :90Vac	Nominal:100-240Vac	Maximum: 264Vac
Input Frequency	Minimum :47Hz	Nominal:60Hz/50Hz	Maximum: 63Hz
Input AC Current	1.2A max. @ input 100-240Vac & Full load.		
Inrush Current (cold start)	40A max. @ input 240Vac		
Average Efficiency (Normal)	DoE Level VII requires Active Efficiency of 88.97% minimum, 20 +/-5C, after 30 min warm up @Nominal input:115V/60Hz and 230V/50Hz, output current from 100%, 75%, 50%, 25%. *Efficiency Standards: US DoE Level VI, US DoE Level VII as proposed by the US DoE as of June 2024, Ecodesign EU 2019/1782, Greenhouse and Energy Minimum Standards Act 2012 (GEMS Act) and Minimum Energy Performance Standards (MEPS).*		
Energy Consumption	The No-load power consumption shall be less than 0.075w maximum at 115-230VAC		

Output

Static Output Characteristics <Vo & R+N>	*Output Rate*	*Rated Load*	*Output Range*	*R+N*
	+24.0V	Min. Load-0A Max. Load-2.0 A	22.8V-25.2V	180mVp-pmax
	Ripple & Noise: At 20 MHz, and output parallel with 0.1uF & 10uF capacitors to ground Temperature at 25 ℃, At nominal input voltage			
	Line/ Load Regulation			
	Output Rate	*Load Condition*	*Line Regulation*	*Load Regulation*
	+24.0V	Min. Load-0A Max. Load- 2.0 A	±1%	±5%
Turn - on Delay Time	3.0S max. @ input 100 – 240 Vac & Full load			
Hold up time	10mS min. @ Full load &115Vac/60Hz input turn off 115Vac/60Hz 20mS min. @ Full load &230Vac/50Hz input turn off 230Vac/50Hz			
Output voltage Overshoot	10% max. When the power on or off			
Output Load Transient Response	output voltage within 22.8V ~25.2V for load step from 25% to 75%, R/S: 0.1A/uS, frequency: 100Hz			

Protection Requirements

Over Current Protection OCP	120%-200%(at100-240Vac 50/60Hz) *The output shall hiccup when the over currents applied to the output rail, and shall be self-recovery when the fault condition is removed.*
Short Circuit Protection	The input power shall decrease when the output rail short, the power supply shall no damage, and shall be self-recovery when the fault condition is removed.
Over Voltage Protection	Output shall be clamped at 48.0 V maximum in case of an internal fault condition.

Environment Requirements

Operating Temperature and Relative Humidity	-0℃ to +40℃ 10%RH to 95%RH
Storage Temperature and Relative Humidity	-20℃ to +70℃ 5% to 95%RH non-condensing @ Sea level shall be low 10,000 feet
Vibration	10 to 300Hz sweep at a constant acceleration of 1.0G(Breadth: 3.5mm) for 1Hour for each of the perpendicular axes X, Y, Z.
Drop in	Height: 1m; the product should be fell off on the hardwood with the thickness of 20mm, and the hardwood should be put on the base of the cement or on the ground without flexibility. once on Each surface, no damage.

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Reliability Requirements

Burn-in	The power supply shall be burn-in for 2 Hours under normal input and 100% rated load at 45℃±5℃
MTBF	The design and construction of this power supply shall exhibit a minimun mean time between failure of 50000 Hours full rated load operation at 20--25℃.

EMI/EMS Standards

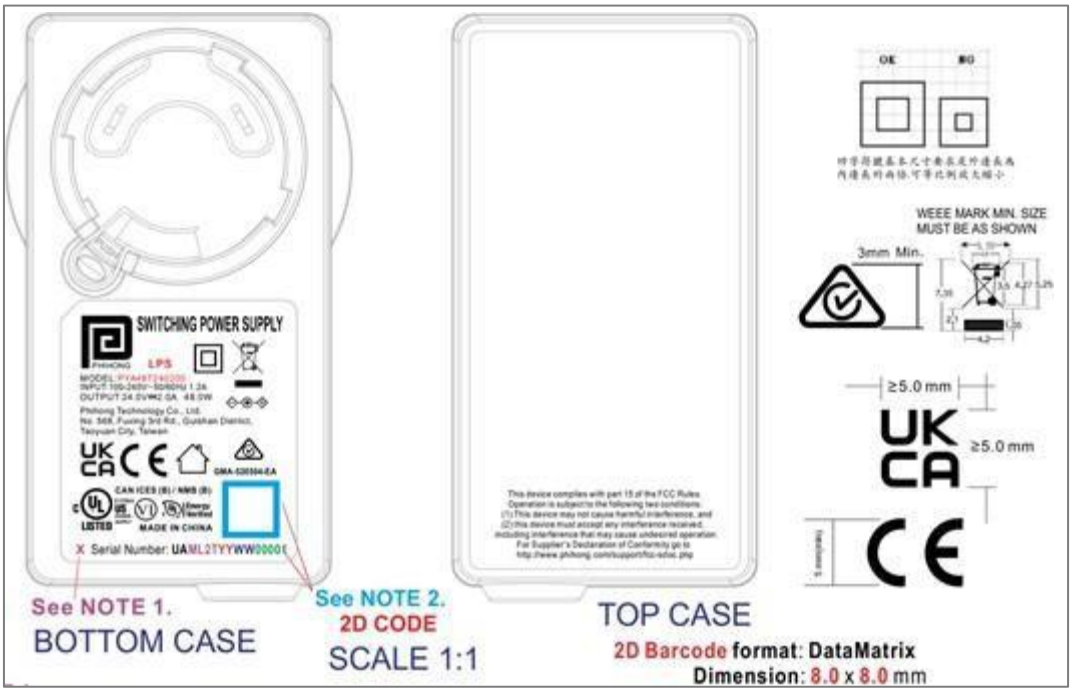
EMI Standards	FCC Part 15 Class B CAN ICES-003(B)/NMB-003(B) Issue 7 EN 55032:2015 Class B
EMS Standards	EN 55035:2017 EN 61000-3-2 Harmonic current emissions ,class c. EN 61000-3-3 Voltage fluctuations & flicker EN 61000-4-2 Electrostatic Discharge(ESD): 8kV air discharge, 4kV contact discharge EN 61000-4-3 Radio-Frequency Electromagnetic Field Susceptibility Test-RS EN 61000-4-5 Lightning Surge Immunity (Differential mode surge immunity: 1KV Common-mode Surge Immunity: 2KV) EN 61000-4-8 Power Frequency Magnetic Field Test EN 61000-4-11 Voltage Dips EN 61000-6-1 Electromagnetic compatibility (EMC)—Part6-1:Generic standards-Emission standard for residential, commercial and light-industrial environments EN 61000-6-3 Electromagnetic compatibility (EMC)—Part6-3:Generic standards-Emission standard for residential, commercial and light-industrial environments

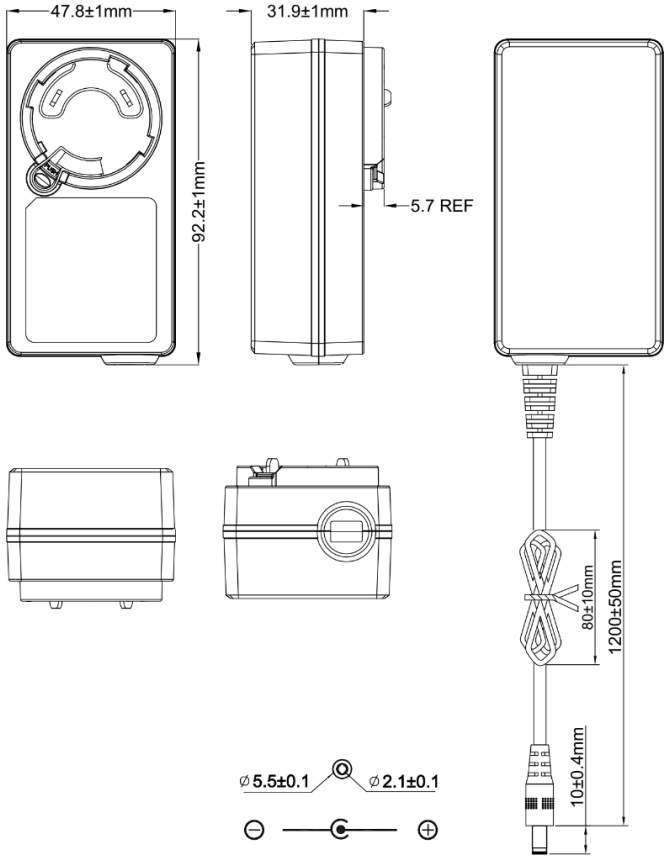
Safety

Dielectric Strength (Hi-pot)	Primary to Secondary: 3000Vac 10mAMax / 60second (3second for production)	
Insulation Resistance	50MΩ min. at primary to secondary add 500Vdc test voltage.	
Leakage Current	700uA maximum, at nominal AC input voltage and frequency	
Regulatory Standards& Certificate	*Safety Standard*	*Certificate*
	EN/IEC62368	■UL/CSA ■CE □GS ■UKCA ■SAA □PSE □CCC4943
	EN/IEC61558	□ETL1310 □CE □GS □UKCA □SAA □CQC4706
	EN/IEC60950	□KC
	EN/IEC60601	□UL/CSA □TUV
Environmental Protection Requirements	■ROHS ■REACH ■Prop 65 ■TSCA	

TECHNICAL DATA

Drawing





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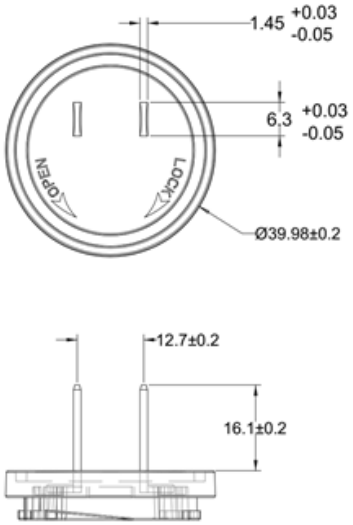
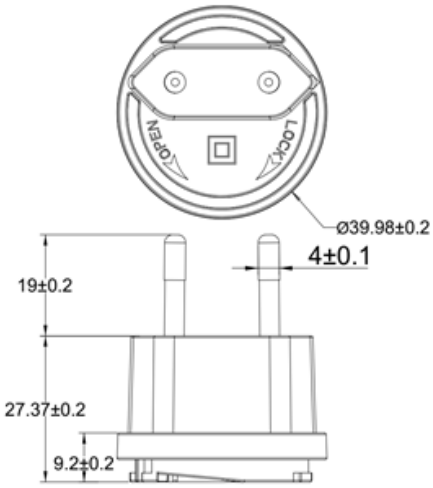
Outline

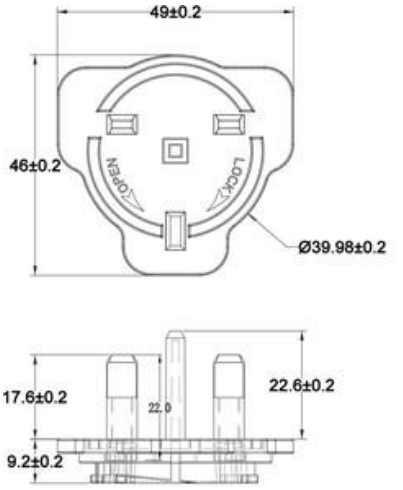
Clips are sold separately



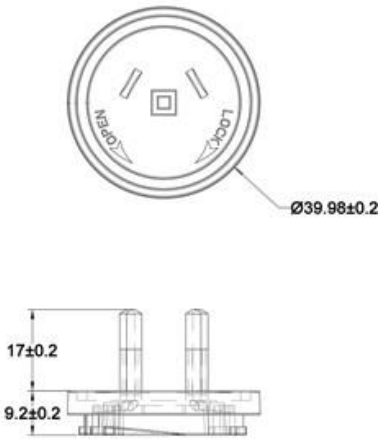
TPA



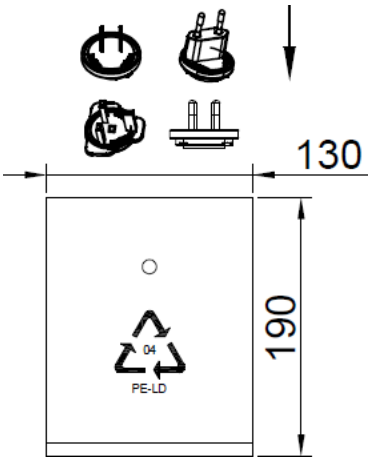
TPE



TPK



TPS



TPBAG

Contains a set of all four clips (TPA, TPE, TPK, and TPS)

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.