



# 250W Desktop C14 Adapter Series



## Features

- DOE Level VI Efficiency Compliant
- ErP/Ecodesign Directive 2009/125/EC – Regulation EU 2019/1782 Compliant
- Over Voltage, Short Circuit and Over Current Protection
- Non-Vented/Spill-Proof Case
- Class B EMI
- Isolated Output (Earth ground & DC Return Connect Through Isolation Capacitor).  
*Consult Phihong for Earth Ground tied to DC Return Version*

## Applications

- Networking
- Peripherals
- Consumer Electronics

\*NRCan approval for PPL250U-120L6, PPL250U-190L6, PPL250U-240L6, PPL250U-480L6 models only.

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Phihong USA - 47800 Fremont Blvd. Fremont, CA 94538, USA

Phihong Europe - Wattstraat 50, 2171 TR Sassenheim, The Netherlands



# PPL250U Series Specifications<sup>1</sup>

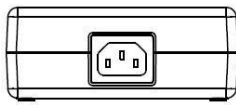
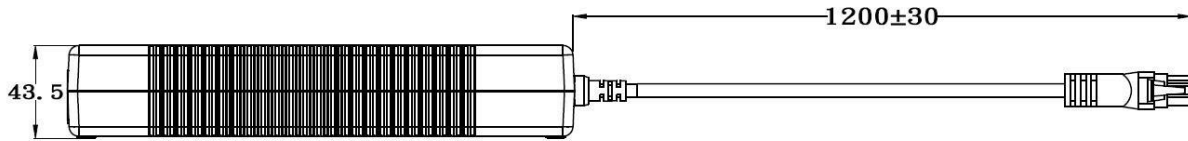
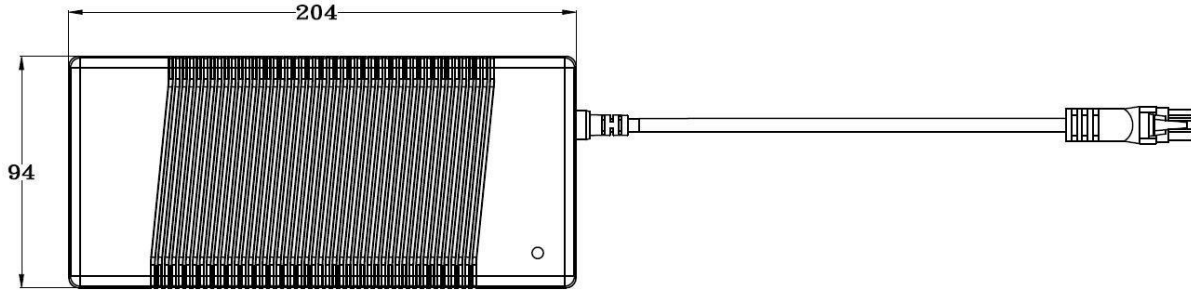
Model		PPL250U-120L6*	PPL250U-190L6*	PPL250U-240L6*
Output	DC Output Voltage	12.0V	19.0V	24.0V
	Max Current	20.0A	13.2A	10.4A
	Output Power	240.0W	250.8W	249.6W
	Regulation	± 5%	± 5%	± 5%
	Ripple & Noise P-P(max) <sup>2</sup>	150mV	190mV	240mV
Input	AC Input Voltage Range	90 to 264VAC		
	AC Input Frequency	47 to 63Hz		
	Input Current	3.3A max		
	Inrush Current	120A max., 230VAC (Cold start at ambient 25°C, full load)		
	No Load Power Consumption at 115VAC Input	≤ .21W	≥ .05W	≥ .21W
	No Load Power Consumption at 230VAC Input	≤ .21W	≥ .05W	≥ .21W
	115VAC Average Efficiency <sup>3</sup>	≥ 88%	≥ 87.5%	≥ 88%
	230VAC Average Efficiency <sup>3</sup>	≥ 88%	≥ 88%	≤ 92.2%
	230VAC 10% Load Efficiency <sup>3</sup>	≥ 86.9%	≥ 79%	≤ 86.9%
Leakage Current	<3.5mA			
Protection	Over-Voltage	150% max		
	Short Circuit	Shutdown		
	Over-Temperature	Latch		
	Over-Current	150% max		
Environmental	Operating Temperature	0°C to +40°C		
	Non-Operating Temperature	-20° to +80°C		
	Operating Humidity	20 to +80%		
Safety Approvals and EMC	Dielectric Withstand (HI-POT)	Primary to Secondary: 3000VAC for 1min, 10mA		
	Insulation Resistance	Primary to Secondary: 10M ohm for 500VDC		
	Standards	cULus 62368-1, IEC 62368-1		
	EMI Emissions	FCC Part 15 Class B, CAN ICES-003(B)/NMB-003(B), EN 55032/CISPR 32 Class B Conducted and Radiated		
	Harmonic Current Emissions	IEC 61000-3-2		
	Voltage Fluctuations & Flicker	IEC 61000-3-3		
	Immunity	EN 55035/CISPR 35: IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11		
Mechanical	Dimensions (L x W x H)	204mm (8.03in) x 94mm (3.70in) x 43.5mm (1.71in)		
	Weight	1040g		
	Cable Length	1200mm		
	DC Cable Type	16AWG*6C	16AWG*4C	16AWG*4C
	DC Output Connector	6-Position Molex housing 39-01-2060 with terminals 39-00-077 Mates with Molex housing 39-01-2061 with terminals 39-00-0081		
	DC Plug Pin Assignment	P1(+); P2(+); P3(+); P4(-); P5(-); P6(-)	P1(+); P3(+); P4(-); P6(-)	
	Input Connector	IEC 60320 C14		

Model		PPL250U-480L6*	PPL250U-560L6
Output	DC Output Voltage	48.0V	56.0V
	Max Current	5.2A	4.48A
	Output Power	249.6W	250.9W
	Regulation	± 5%	± 5%
	Ripple & Noise P-P(max) <sup>2</sup>	480mV	560mV
Input	AC Input Voltage Range	90 to 264VAC	
	AC Input Frequency	47 to 63Hz	
	Input Current	3.3A max	
	Inrush Current	120A max., 230VAC (Cold start at ambient 25°C, full load)	
	No Load Power Consumption at 115VAC Input	≤ .21W	≥ .05W
	No Load Power Consumption at 230VAC Input	≤ .21W	≥ .05W
	115VAC Average Efficiency <sup>3</sup>	≥ 88%	≥ 87.5%
	230VAC Average Efficiency <sup>3</sup>	≥ 88%	≥ 88%
	230VAC 10% Load Efficiency <sup>3</sup>	≥ 86.9%	≥ 79%
Leakage Current	<3.5mA		
Protection	Over-Voltage	150% max	
	Short Circuit	Shutdown	
	Over-Temperature	Latch	
	Over-Current	150% max	
Environmental	Operating Temperature	0°C to +40°C	
	Non-Operating Temperature	-20° to +80°C	
	Operating Humidity	20 to +80%	
Safety Approvals and EMC	Dielectric Withstand (HI-POT)	Primary to Secondary: 3000VAC for 1min, 10mA	
	Insulation Resistance	Primary to Secondary: 10M ohm for 500VDC	
	Standards	cULus 62368-1, IEC 62368-1	
	EMI Emissions	FCC Part 15 Class B, CAN ICES-003(B)/NMB-003(B), EN 55032/CISPR 32 Class B Conducted and Radiated	
	Harmonic Current Emissions	IEC 61000-3-2	
	Voltage Fluctuations & Flicker	IEC 61000-3-3	
	Immunity	EN 55035/CISPR 35: IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11	
Mechanical	Dimensions (L x W x H)	204mm (8.03in) x 94mm (3.70in) x 43.5mm (1.71in)	
	Weight	1040g	
	Cable Length	1200mm	
	DC Cable Type	18AWG*4C	
	DC Output Connector	6-Position Molex housing 39-01-2060 with terminals 39-00-077 Mates with Molex housing 39-01-2061 with terminals 39-00-0081	
	DC Plug Pin Assignment	P1(+); P3(+); P4(-); P6(-)	
	Input Connector	IEC 60320 C14	
Notes	<ol style="list-style-type: none"> <li>The specifications defined are at ambient temperature of 25°C, unless otherwise specified.</li> <li>20MHz bandwidth frequency oscilloscope, add a 0.1µF multilayer Cap. and Low ESR Electrolytic Cap. (10µF) at output connector terminals (nominal line voltage, full load).</li> <li>Efficiency is measured after 30 minutes burn-in.</li> </ol>		

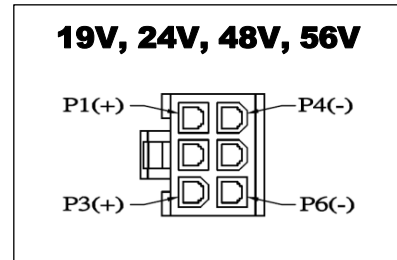
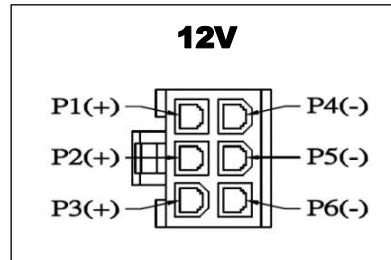
\*NRCan approval for PPL250U-120L6, PPL250U-190L6, PPL250U-240L6, PPL250U-480L6 models only.



# PPL250U Outline Drawing



FRONT-VIEW








**Supplier's Declaration of Conformity**  
**47 CFR § 2.1077 Compliance Information**

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*This device complies with/The devices in this product series comply with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.*



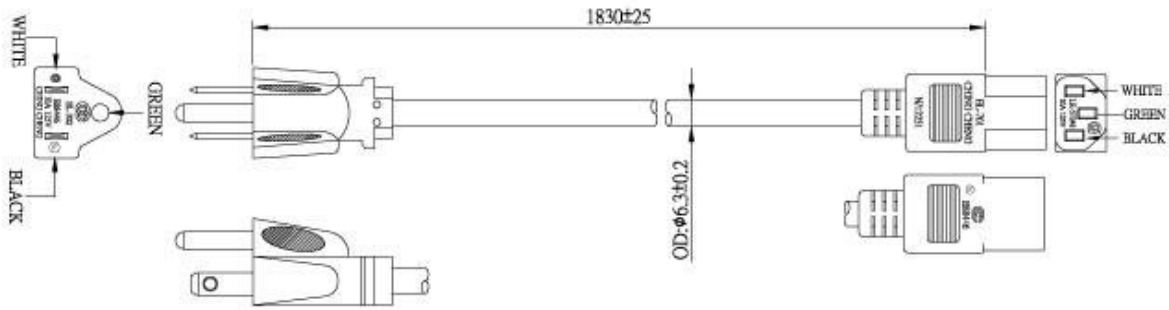
# Line Cords - Sold Separately

Model		AC30UNA-R	AC30UEU-R	AC30UUK-R
Specifications	Plug Type	North America NEMA 5-15P	Continental Europe CEE 7VIII	United Kingdom BS 1363
	Connector	IEC320 C13	IEC320 C13	IEC320 C13
	Wire Size	18 AWG	0.75mm	1.0mm
	Temperature	60°C	70°C	70 °C
	Amperage Rating	10A	6A	10A
	Voltage Rating	125V	250V	250V
	Cable Length	1830mm	1830mm	2500mm
Safety Approvals		CSA; UL	CEBEC; DEMKO; DVE; FIMKO; GOST; IMQ; KEMA; NEMKO; NF; OVE; SEMKO	BSI; Safety Mark
Photos				

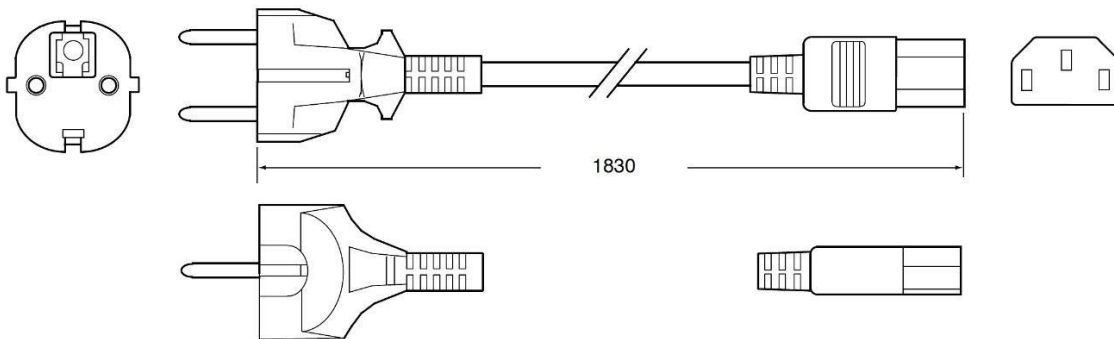


# Line Cords - Outline Drawings

**AC30UNA-R**



**AC30UEU-R**



**AC30UUK-R**

