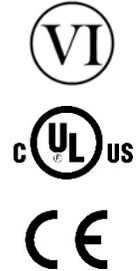




# 36W Desktop C8 Adapter Series



## **Features**

- DOE Level VI Efficiency Compliant
- ErP/Ecodesign Directive 2009/125/EC – Regulation EU 2019/1782 Compliant
- EU CoC Tier 2 Compliant (except 12V model)
- Over Voltage, Short Circuit and Over Current Protection
- Non-Vented/Spill-Proof Case
- Class B EMI

## **Applications**

- Networking
- Peripherals
- Consumer Electronics



# PPL36W Series Specifications<sup>1</sup>

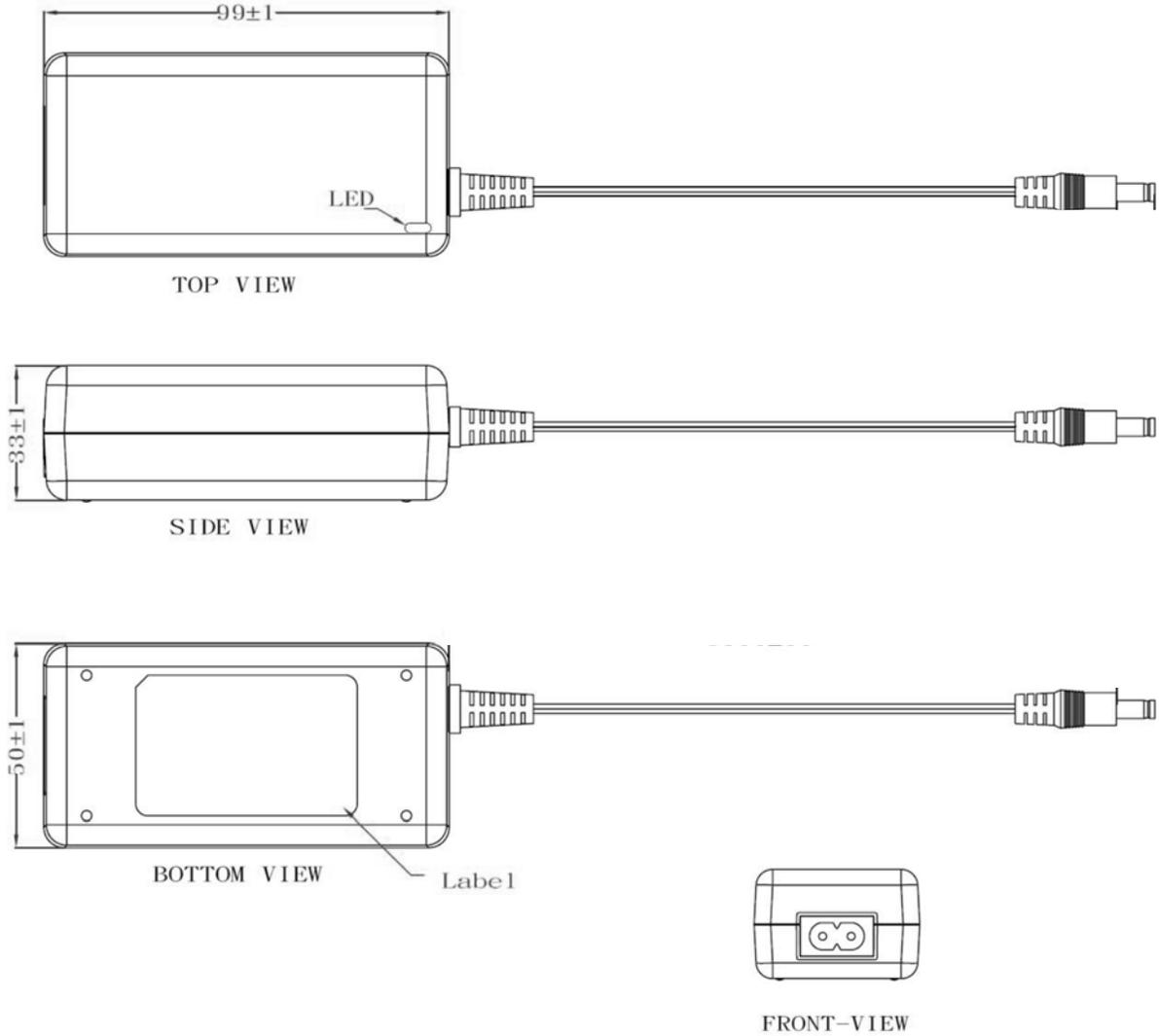
Model		PPL36W-050	PPL36W-075	PPL36W-085	PPL36W-090
Output	DC Output Voltage	5.0V	7.5V	8.5V	9.0V
	Max Current	5.0A	4.0A	3.52A	3.34A
	Output Power	25.0W	30.0W	29.92W	30.06W
	Regulation	± 6%	± 5%	± 5%	± 5%
	Ripple & Noise P-P(max) <sup>2</sup>	80mV	75mV	85mV	90mV
Input	AC Input Voltage Range	90 to 264VAC			
	AC Input Frequency	47 to 63Hz			
	Input Current	1.0A max			
	Inrush Current	70A max., 230VAC (Cold Start at ambient 25°C)			
	No Load Power Consumption at 115VAC Input	0.056W	0.035W	0.058W	0.042W
	No Load Power Consumption at 230VAC Input	0.076W	0.062W	0.08W	0.059W
	115VAC Average Efficiency <sup>3</sup>	86.5%	89.1%	88.6%	89.1%
	230VAC Average Efficiency <sup>3</sup>	86.4%	89.0%	88.7%	89.1%
	230VAC 10% Load Efficiency <sup>3</sup>	80.1%	85.0%	84.8%	82.9%
	Leakage Current	<0.25mA			
Protection	Over-Voltage	180% max	180% max	180% max	180% max
	Short Circuit	Auto-recover after short-circuit fault is removed			
	Over-Current	200% max	200% max	200% max	200% 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 55024/CISPR 24: 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)	99mm (3.90in) x 50mm (1.97in) x 33mm (1.30in)			
	Weight	170g			
	Cable Length	1000mm	1500mm		
	DC Cable Type	16 AWG	16 AWG	18 AWG	18 AWG
	DC Output Connector	2.1mm x 5.5mm x 10.0mm			
	DC Plug Pin Assignment	Inner (V+) / Outer GND (V-)			
	Input Connector	IEC 60320 C8			

Model		PPL36W-120L6	PPL36W-135	PPL36W-150	PPL36W-160
Output	DC Output Voltage	12.0V	13.5V	15.0V	16.0V
	Max Current	3.0A	2.66A	2.4A	2.25A
	Output Power	36.0W	35.91W	36.0W	36.0W
	Regulation	± 5%	± 5%	± 5%	± 5%
	Ripple & Noise P-P(max) <sup>2</sup>	120mV	135mV	150mV	160mV
Input	AC Input Voltage Range	90 to 264VAC			
	AC Input Frequency	47 to 63Hz			
	Input Current	1.0A max			
	Inrush Current	70A max., 230VAC (Cold Start at ambient 25°C)			
	No Load Power Consumption at 115VAC Input	0.032W	0.038W	0.045W	0.043W
	No Load Power Consumption at 230VAC Input	0.054W	0.064W	0.066W	0.07W
	115VAC Average Efficiency <sup>3</sup>	87.6%	88.4%	88.5%	88.1%
	230VAC Average Efficiency <sup>3</sup>	87.9%	88.4%	88.6%	88.4%
	230VAC 10% Load Efficiency <sup>3</sup>	84.9%	84.7%	84.4%	84.6%
	Leakage Current	<0.25mA			
Protection	Over-Voltage	180% max	180% max	180% max	180% max
	Short Circuit	Auto-recover after short-circuit fault is removed			
	Over-Current	170% max	200% max	200% max	200% 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 55024/CISPR 24: 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)	99mm (3.90in) x 50mm (1.97in) x 33mm (1.3in)			
	Weight	170g			
	Cable Length	1500mm			
	DC Cable Type	18 AWG	18 AWG	18 AWG	18 AWG
	DC Output Connector	2.1mm x 5.5mm x 10.0mm			
	DC Plug Pin Assignment	Inner (V+) / Outer GND (V-)			
	Input Connector	IEC 60320 C8			

Model		PPL36W-180	PPL36W-240	PPL36W-480
Output	DC Output Voltage	18.0V	24.0V	48.0V
	Max Current	2.0A	1.5A	0.75A
	Output Power	36.0W	36.0W	36.0W
	Regulation	± 5%	± 5%	± 5%
	Ripple & Noise P-P(max) <sup>2</sup>	180mV	240mV	480mV
Input	AC Input Voltage Range	90 to 264VAC		
	AC Input Frequency	47 to 63Hz		
	Input Current	1.0A max		
	Inrush Current	70A max., 230VAC (Cold Start at ambient 25°C)		
	No Load Power Consumption at 115VAC Input	0.039W	0.046W	0.058W
	No Load Power Consumption at 230VAC Input	0.057W	0.064W	0.074W
	115VAC Average Efficiency <sup>3</sup>	88.6%	89.2%	90.2%
	230VAC Average Efficiency <sup>3</sup>	88.5%	89.3%	89.8%
	230VAC 10% Load Efficiency <sup>3</sup>	83.5%	83.6%	83.5%
	Leakage Current	<0.25mA		
Protection	Over-Voltage	180% max	180% max	180% max
	Short Circuit	Auto-recover after short-circuit fault is removed		
	Over-Current	200% max	200% max	200% 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 55024/CISPR 24: 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)	99mm (3.90in) x 50mm (1.97in) x 33mm (1.3in)		
	Weight	170g		
	Cable Length	1500mm		
	DC Cable Type	18 AWG	20 AWG	22 AWG
	DC Output Connector	2.1mm x 5.5mm x 10.0mm		
	DC Plug Pin Assignment	Inner (V+) / Outer GND (V-)		
	Input Connector	IEC 60320 C8		
Notes	<ol style="list-style-type: none"> <li>The specifications defined are at ambient temperature of 25C, 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>			



# PPL36W Outline Drawing



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

**PPL36W-050  
PPL36W-075  
PPL36W-085  
PPL36W-090  
PPL36W-120L6  
PPL36W-135  
PPL36W-150  
PPL36W-160  
PPL36W-180  
PPL36W-240  
PPL36W-480**

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Fremont, CA 94538  
Telephone: (510) 445-0100  
[www.phihong.com](http://www.phihong.com)

NOTE: This model has/The models in this product series have been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to equipment not expressly approved by PHIHONG could void the user's authority to operate the equipment.



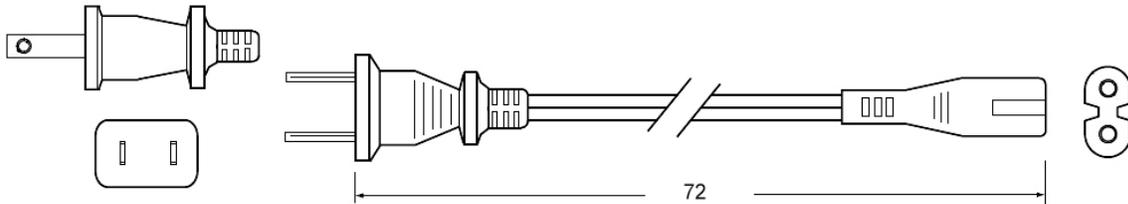
# PPL36W Line Cords Sold Separately

Model		AC15WNA-R	AC15WEU-R	AC15WUK-R
Specifications	Plug Type	North America NEMA 1-15P	Continental Europe CEE 7XVI	United Kingdom BS 1363
	Connector	IEC320 C7	IEC320 C7	IEC320 C7
	Wire Size	18 AWG	0.75mm	0.75mm
	Temperature	60°C	70°C	70 °C
	Amperage Rating	10A	2.5A	5A
	Voltage Rating	125V	250V	250V
	Cable Length	72mm	1830mm	1830mm
Safety Approvals		CSA; UL	CEBEC; DEMKO; DVE; FIMKO; GOST; IMQ; KEMA; NEMKO; NF; OVE; SEMKO; SEV	BSI; Safety Mark
Photos				

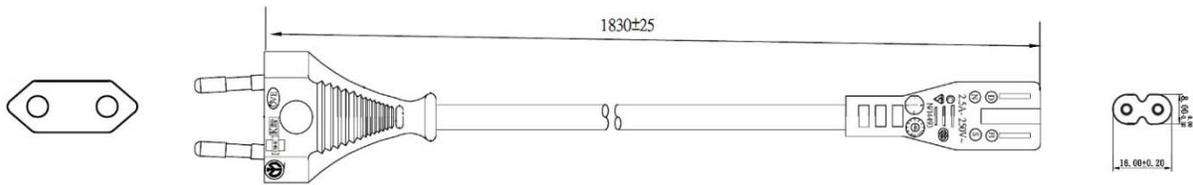


# PPL36W Line Cords Outline Drawings

## AC15WNA-R



## AC15WEU-R



## AC15WUK-R

