



Features

- DOE Level VI Efficiency Compliant
- ErP/Ecodesign Directive 2009/125/EC Regulation EU 2019/1782 Compliant
- EU CoC Tier 2 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



PPL65M Series Specifications¹

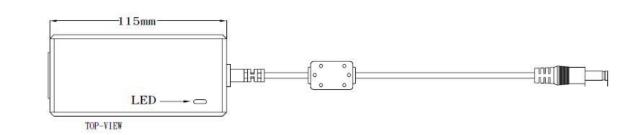
	Model	PPL65M-120	PPL65M-135	PPL65M-150	PPL65M-160
Output	DC Output Voltage	12.0V	13.5V	15.0V	16.0V
	Max Current	5.0A	4.82A	4.34A	4.07A
	Output Power	60.0W	65.1W	65.1W	65.12W
	Regulation	± 5%	± 5%	± 5%	± 5%
	Ripple & Noise P-P(max) ²	120mV	135mV	150mV	160mV
	AC Input Voltage Range	90 to 264VAC			
	AC Input Frequency	47 to 63Hz			
	Input Current	1.4A max			
	Inrush Current	80A max., 240VAC (Cold Start at ambient 25°C, full load)			
Innut	No Load Power Consumption at 115VAC Input	0.031W	0.04W	0.037W	0.05W
Input	No Load Power Consumption at 230VAC Input	0.034W	0.06W	0.031W	0.06W
	115VAC Average Efficiency ³	88.4%	89.1%	89.5%	89.4%
	230VAC Average Efficiency ³	89.1%	90.0%	90.3%	89.8%
	230VAC 10% Load Efficiency ³	87.4%	86.6%	87.7%	86.8%
	Leakage Current	<3.5mA			
	Over-Voltage	150% max	150% max	150% max	150% max
Protection	Short Circuit	Auto-recover after short-circuit fault is removed			
	Over-Current	180% max	180% max	180% max	180% max
	Operating Temperature	0°C to +40°C			
Environmental	Non-Operating Temperature	-20º to +80ºC			
	Operating Humidity	20 to +80%			
	Dielectric Withstand (HI-POT)	Primary to Secondary: 3000VAC for 1min, 10mA			
	Insulation Resistance	Primary to Secondary: 10M ohm for 500VDC			
Safety Approvals and EMC	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)	115mm (4.53in) x 53mm (2.09in) x 38mm (1.50in)			
	Weight	310g			
	Cable Length	1500mm			
	DC Cable Type	16 AWG	16 AWG	16 AWG	16 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 C6			

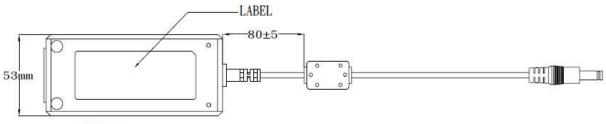
Model		PPL65M-180	PPL65M-190	PPL65M-200	PPL65M-240
Output	DC Output Voltage	18.0V	19.0V	20.0V	24.0V
	Max Current	3.62A	3.43A	3.25A	2.71A
	Output Power	65.2W	65.2W	65.0W	65.04W
	Regulation	± 5%	± 5%	± 5%	± 5%
	Ripple & Noise P-P(max) ²	180mV	190mV	200mV	240mV
	AC Input Voltage Range	90 to 264VAC			
	AC Input Frequency	47 to 63Hz			
	Input Current	1.4A max			
	Inrush Current	80A max., 240VAC (Cold Start at ambient 25°C, full load)			
	No Load Power Consumption at 115VAC Input	0.033W	0.035W	0.05W	0.044W
Input	No Load Power Consumption at 230VAC Input	0.033W	0.034W	0.07W	0.043W
	115VAC Average Efficiency ³	88.7%	88.5%	88.9%	89.7%
	230VAC Average Efficiency ³	89.6%	89.4%	89.4%	90.3%
	230VAC 10% Load Efficiency ³	87.6%	87.4%	87.4%	87.4%
	Leakage Current	<3.5mA			
	Over-Voltage	150% max	150% max	150% max	150% max
Protection	Short Circuit	Auto-recover after short-circuit fault is removed			ved
	Over-Current	180% max	180% max	180% max	180% max
	Operating Temperature	0°C to +40°C			
Environmental	Non-Operating Temperature	-20º to +80ºC			
	Operating Humidity	20 to +80%			
	Dielectric Withstand (HI-POT)	Primary to Secondary: 3000VAC for 1min, 10mA			
	Insulation Resistance	Primary to Secondary: 10M ohm for 500VDC			
Cofety	Standards	cULus 62368-1, IEC 62368-1			
Safety Approvals and	EMI Emissions	FCC Part 15 Class B, CAN ICES-003(B)/NMB-003(B), EN 55032/CISPR 32 Class B Conducted and Radiated			
EMC	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)	115mm (4.53in) x 53mm (2.09in) x 38mm (1.50in)			
	Weight	310g			
	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 C6			

	Model	PPL65M-300	PPL65M-320	PPL65M-480	PPL65M-560
Output	DC Output Voltage	30.0V	32.0V	48.0V	56.0V
	Max Current	2.17A	2.04A	1.36A	1.17A
	Output Power	65.1W	65.3W	65.3W	65.1W
	Regulation	± 5%	± 5%	± 5%	± 5%
	Ripple & Noise P-P(max) ²	300mV	320mV	480mV	560mV
	AC Input Voltage Range	90 to 264VAC			
	AC Input Frequency	47 to 63Hz			
	Input Current	1.4A max			
	Inrush Current	80A max., 240VAC (Cold Start at ambient 25°C, full load)			
	No Load Power Consumption at 115VAC Input	0.07W	0.07W	0.075W	0.091W
Input	No Load Power Consumption at 230VAC Input	0.08W	0.08W	0.071W	0.089W
	115VAC Average Efficiency ³	88.9%	89.2%	90.4%	90.7%
	230VAC Average Efficiency ³	89.5%	89.9%	91.1%	91.3%
	230VAC 10% Load Efficiency ³	87.2%	87.8%	87.4%	87.0%
	Leakage Current	<3.5mA			
	Over-Voltage	150% max	150% max	150% max	150% max
Protection	Short Circuit	Auto-recover after short-circuit fault is removed			
	Over-Current	180% max	180% max	180% max	180% max
	Operating Temperature	0°C to +40°C			
Environmental	Non-Operating Temperature	-20° to +80°C			
	Operating Humidity	20 to +80%			
	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			
Safety Approvals and	EMI Emissions	FCC Part 15 Class B, CAN ICES-003(B)/NMB-003(B), EN 55032/CISPR 32 Class B Conducted and Radiated			
EMC	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)	115mm (4.53in) x 53mm (2.09in) x 38mm (1.50in)			
	Weight	310g			
	Cable Length	1500mm			
	DC Cable Type	18 AWG	18 AWG	22 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 C6			
Notes	 20MHz bandwidth frequency oscillo terminals (nominal line voltage, full I 	 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). 			

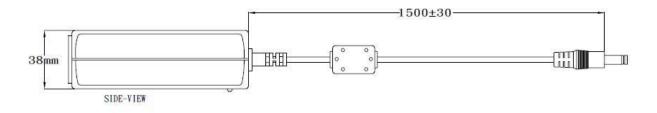


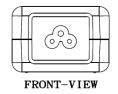
PPL65M Outline Drawing





BOTTOM-VIEW







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

Phihong USA Corporation 47800 Fremont Boulevard Fremont, CA 94538 Telephone: (510) 445-0100 www.phihong.com

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.



PPL65M Line Cords Sold Separately

Model		AC30MNA-R	
	Plug Type	North America NEMA 5-15P	
	Connector	IEC320 C5	
	Wire Size	18 AWG	
Specifications	Temperature	60°C	
	Amperage Rating	7A	
	Voltage Rating	125V	
	Cable Length	1829mm	
Safety Approvals		CSA; UL	
Photos			



PPL65M Line Cords Outline Drawings

AC30MNA-R

