

PPL-40 Series V3.0

Mini. Size, High efficiency, No flicker, Constant current LED driver



Product family features

- Drive Mode: No Flicker Constant Current
- Technology: Boost + Flyback Technology
- Input Voltage: 220 to 240Vac (Max. Range: 198~264Vac)
- Output Frequency: 47-63Hz
- Output Power: 40Watt Max
- Output Voltage: 24V-40Vdc, 24V-42Vdc, 57V-95Vdc, 46V-76Vdc, 33-55Vdc
- Output Voltage: 300mA to 1000mA
- Efficiency: 86%-90%
- Warranty: 3years
- No flicker constant current
- A rated lifetime of 30,000 hours @ Tc = 80 °C
- Primary side and secondary side are isolated safely, AC input DC output
- Surge: AC Power Line: line to line 1KV/2Ω 8/20uS
- Accord to RoHS Standard
- IP40, Suitable for use in dry environment
- Suitable for Class II luminaries
- Programmed aging at 45 °C



Areas of application

- Education lighting
- Office lighting



Product datasheet

Technical data

Electrical Parameter

Product Modle	Max. output Power (W)	Output Voltage Range (Vdc)	Maximum constant current output(mA)	Current Accuracy (typ.)	Max Eff
PPL-40-C0650-IP	26	24-40	650	±5%	87%
PPL-40-C0700-IP	28	24-40	700	±5%	87%
PPL-40-C0750-IP	30	24-40	750	±5%	88%
PPL-40-C0800-IP	32	24-40	800	±5%	88%
PPL-40-C0850-IP	34	24-40	850	±5%	89%
PPL-40-C0900-IP	36	24-40	900	±5%	89%
PPL-40-C0950-IP	38	24-40	950	±5%	90%
PPL-40-C1000-IP	40	24-40	1000	±5%	90%
PPL-42-C0950-IP	40	24-42	950	±5%	90%
PPL-42-C0900-IP	38	24-42	900	±5%	89%
PPL-42-C0850-IP	36	24-42	850	±5%	89%
PPL-42-C0800-IP	34	24-42	800	±5%	88%
PPL-42-C0750-IP	32	24-42	750	±5%	88%
PPL-42-C0700-IP	29	24-42	700	±5%	86%
PPL-42-C0650-IP	27	24-42	650	±5%	86%
PPL-95-C0300-IP	29	57-95	300	±5%	86%
PPL-95-C0350-IP	33	57-95	350	±5%	87%
PPL-95-C0400-IP	38	57-95	400	±5%	87%
PPL-76-C0350-IP	27	46-76	350	±5%	86%
PPL-76-C0400-IP	30	46-76	400	±5%	87%
PPL-76-C0450-IP	34	46-76	450	±5%	87%
PPL-76-C0500-IP	38	46-76	500	±5%	87%
PPL-55-C0500-IP	28	33-55	500	±5%	86%
PPL-55-C0550-IP	30	33-55	550	±5%	87%
PPL-55-C0600-IP	33	33-55	600	±5%	87.5%
PPL-55-C0650-IP	36	33-55	650	±5%	88%
PPL-55-C0700-IP	39	33-55	700	±5%	89.5%
PPL-55-C0750-IP	40	33-55	730	±5%	89.5%

* Represents our conventional stock model

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Electrical Specifications

Parameter		Min	Typ	Max	Notes / Conditions
Input Voltage		198V		264V	
Input Frequency		47Hz	50/60Hz	63Hz	
No-load power				0.5W	No-load
Input	Input Current	PPL-40-C0650-IP	0.15A		Measured at full load output and 230Vac / 50Hz input. Output Full Load
		PPL-40-C0700-IP	0.16A		
		PPL-40-C0750-IP	0.17A		
		PPL-40-C0800-IP	0.18A		
		PPL-40-C0850-IP	0.20A		
		PPL-40-C0900-IP	0.21A		
		PPL-40-C0950-IP	0.23A		
		PPL-40-C1000-IP	0.25A		
		PPL-42-C0950-IP	0.25A		
		PPL-42-C0900-IP	0.23A		
		PPL-42-C0850-IP	0.21A		
		PPL-42-C0800-IP	0.20A		
		PPL-42-C0750-IP	0.18A		
		PPL-42-C0700-IP	0.17A		
		PPL-42-C0650-IP	0.16A		
		PPL-95-C0300-IP	0.17A		
		PPL-95-C0350-IP	0.19A		
		PPL-95-C0400-IP	0.23A		
		PPL-76-C0350-IP	0.16A		
		PPL-76-C0400-IP	0.17A		
		PPL-76-C0450-IP	0.20A		
		PPL-76-C0500-IP	0.23A		
		PPL-55-C0500-IP	0.15A		
		PPL-55-C0550-IP	0.17A		
		PPL-55-C0600-IP	0.19A		
		PPL-55-C0650-IP	0.21A		
		PPL-55-C0700-IP	0.24A		
		PPL-55-C0750-IP	0.25A		

Product datasheet

Technical data

Electrical Specifications

Inrush Current (Peak)	PPL-40-C0650-IP	25A / 350uS	Measured at 50% Ipeak& 240Vac / 50Hz Input, Output Full Load
	PPL-40-C0700-IP	26A / 350uS	
	PPL-40-C0750-IP	28A / 350uS	
	PPL-40-C0800-IP	30A / 350uS	
	PPL-40-C0850-IP	32A / 350uS	
	PPL-40-C0900-IP	35A / 350uS	
	PPL-40-C0950-IP	38A / 350uS	
	PPL-40-C1000-IP	40A / 350uS	
	PPL-42-C0950-IP	40A / 350uS	
	PPL-42-C0900-IP	40A / 350uS	
	PPL-42-C0850-IP	35A / 350uS	
	PPL-42-C0800-IP	32A / 350uS	
	PPL-42-C0750-IP	30A / 350uS	
	PPL-42-C0700-IP	28A / 350uS	
	PPL-42-C0650-IP	26A / 350uS	
	PPL-95-C0300-IP	26A / 350uS	
	PPL-95-C0350-IP	32A / 350uS	
	PPL-95-C0400-IP	38A / 350uS	
	PPL-76-C0350-IP	25A / 350uS	
	PPL-76-C0400-IP	28A / 350uS	
	PPL-76-C0450-IP	32A / 350uS	
	PPL-76-C0500-IP	38A / 350uS	
	PPL-55-C0500-IP	26A / 350uS	
	PPL-55-C0550-IP	28A / 350uS	
	PPL-55-C0600-IP	31A / 350uS	
	PPL-55-C0650-IP	35A / 350uS	
	PPL-55-C0700-IP	38A / 350uS	
	PPL-55-C0750-IP	40A / 350uS	
Leakage Current		2mA	Measured at full load output and 230Vac / 50Hz input
THD		20%	Measured at 230Vac Input, Output Full Load
Power Factor (PF)		0.9	Measured at 230Vac Input, Output Full Load

Product datasheet

Technical data

Electrical Specifications

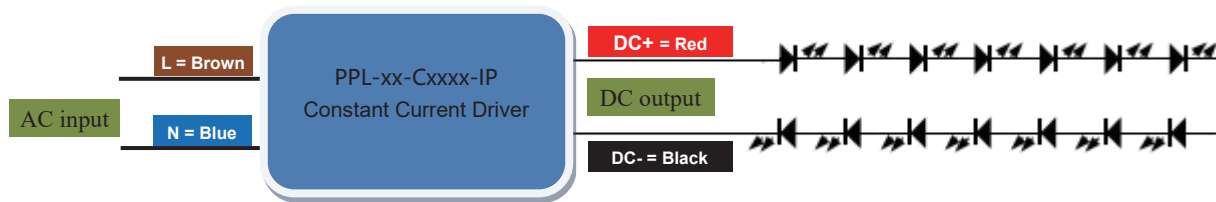
Output	Output constant Current	-5%	Per Table	+5%	Per Tables on Page 1
	Ripple wave(<120Hz)		5%	10%	20MHz BW, 0.1uF & 10uF capacitor in parallel at test end The ripple is defined as [(Ymax-Ymin)/Yavg] * 100%. Y or V or I
	Flickering Index		PstLM<1, SVM<0.4		
	Line Regulation	-3%		+3%	Measured at 220, 230, 240Vac / 50Hz Input, Output Full Load
	Load Regulation	-4%		+4%	Measured at 220, 230, 240Vac / 50Hz Input, Output Full Load
	Start-up Time		420ms	500ms	Measured at 220, 230, 240Vac / 50Hz Input, Output Full Load
	Output Overshoot	-2%		+10%	Measured at 220, 230, 240 Vac Input, When power on or off
Protection	Output Short Circuit (SCP)				No Damage. Auto recovery after short is removed
	Output Over Current (OCP)				+10% Io Constant Current Limiting circuit
	Output Over Voltage (OVP)				120% Vo No Damage. Auto recovery after the abnormal disappearance
General	Cooling		Convection		
	MTBF		410,000 hours		Measured at 220Vac input, 100% Load and Ta=25°C(MIL-HDBK-217F)
	Life Time		30,000 hours		Measured at 220Vac input, 100% Load and TC=80°C
	Noise		< 24dBA		Class A, no more than one meter away
Environmental	Operating Temperature (Ta)	-20°C		+45°C	@230Vac. This is a reference range. Tc controls temperature range
	Case Temperature (Tc)	-20°C		+80°C	Case temperature
	Storage Temperature (Ts)	-25°C		+85°C	Non operating temperature range
	Operating Humidity	5% RH		95% RH	Relative Humidity. Non-condensing
	Vibration	5Hz		55Hz	2G, 10 minutes / 1 cycle, period 30 minutes, each along X, Y, Z axis

	Category		Standards / Notes	
Safety Compliance	Withstand Voltage		Input to Output 3750Vac	
	Case – Output		1.5KVac	
	Case - Input		1.5KVac	
	Isolation Resistance		Input to Output >10MΩ, 500Vdc @25°C, 70% RH	
EMC Compliance	EMI	CCC	GB19510.14-2009, GB19510.1-2009	
		CE	EN55015:2013+A1:2015, EN 61000-3-2:2014, EN 61000-3-3:2013. RED 2014/53/EU	
	EMS	EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS	
		EN 61000-4-4	Electrical Fast Transient / Burst-EFT	
		EN 61000-4-5	Surge Immunity Test: AC Power Line: line to line 1.0 KV/2Ω	
		EN 61000-4-6	Conducted Radio Frequency Disturbances Test-CS	
		EN 61547	Electromagnetic Immunity Requirements Applies to Lighting Equipment	

Note: the above test data are in the condition of 25 C ambient temperature, except for the marked temperature

Product datasheet

Typical Applications



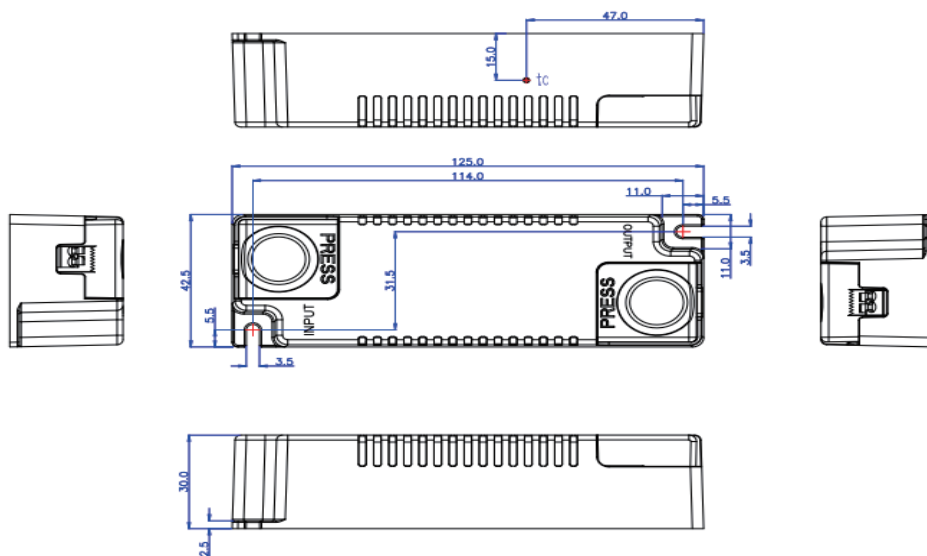
Order ID

P/N: PPL-xx-Cxxxx-IP

Description: Maximum 95Vdc, xxxx for constant current value in 300mA -1000mA, constant current mode

Appearance information

Product Size



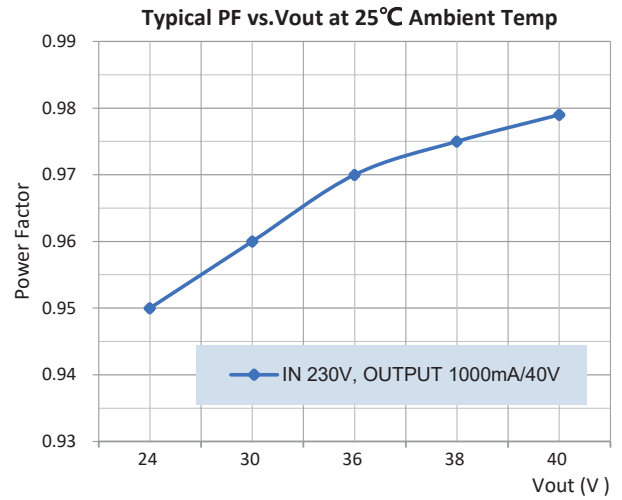
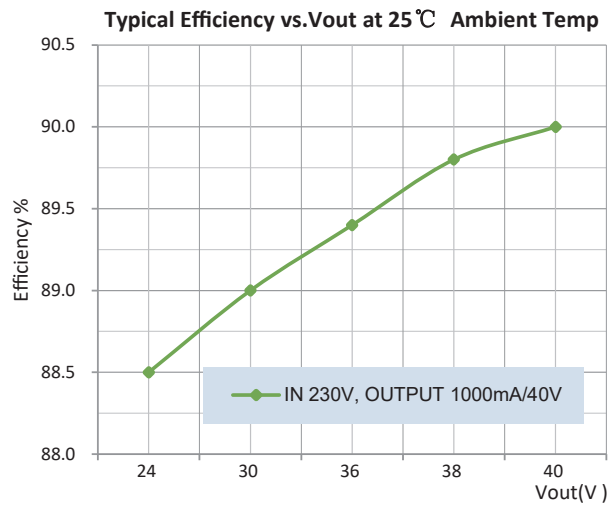
Note:

The independent LED drive conforms to the EMC standard. But it is not guaranteed to be qualified, when the drive is mounted in the LED fixture

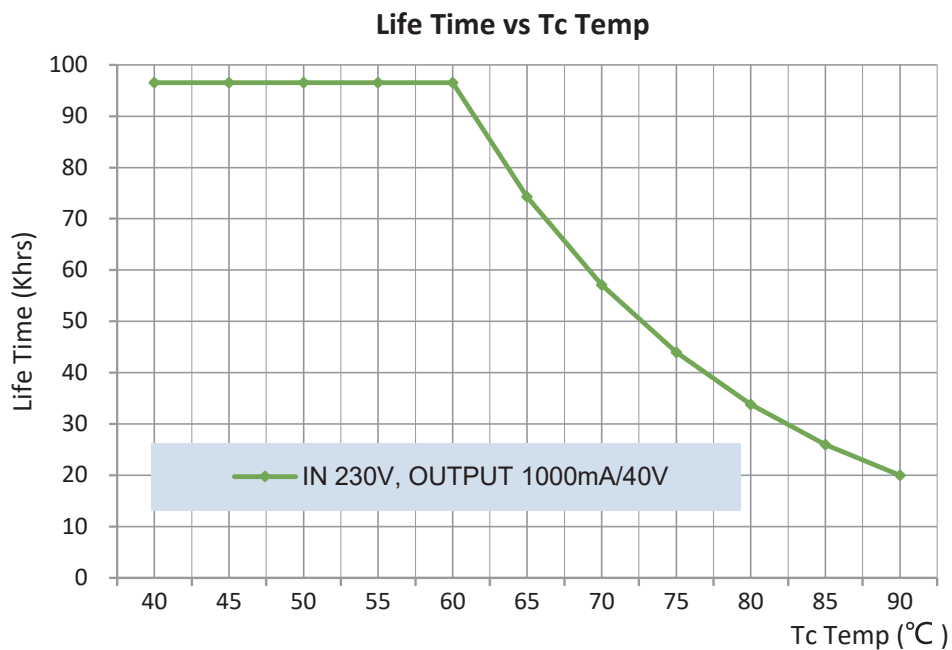
Please forgive us for any discrepancy due to the update of the specifications or the upgrade of the product. If you need the latest information, please contact our marketing department

Product datasheet

Characteristic Curve



Lifetime Curve



Installation

Ac input 2PIN connector is connected : 0.75-1.52

Dc output 2PIN connector connection : 0.50-1.52

This product for indoor use only, it can be installed and fixed in the luminaires, connected with the wire. The max length of output line should be less than 2m.

Note: Since the DC output line is permanently connected and shorter than 3 m, therefore the disturbance voltage of local wired port shall not be required.