## 40Watts Single Output LED Driver







## Features:

- Constant Current Design
- Dimming Control
- Universal AC input/ Full Range
- Built-in Active PFC function, PF 0.95 Typical
- High Efficiency (Up to 88%)
- Output Protections: OVP/SCP/OTP
- Lightning Protection
- Class 2 Power Unit (See Note)
- Waterproof (IP65)
- 3 Year Warranty



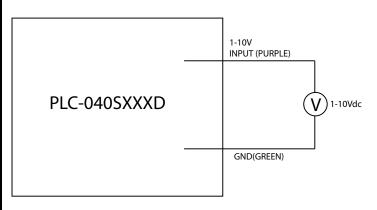


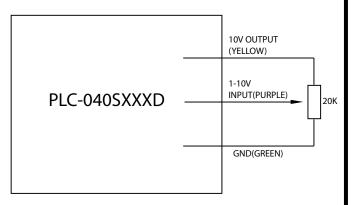
			• 3 Year Warranty							C TUS Compliant	
Model		PLC-040S035D	PLC-040S045D	PLC-040S070D	PLC-040S105D	PLC-040S128D	PLC-040S140D	PLC-040S166D	PLC-040S222D	PLC-040S333D	
Output Ch	aracteristic	s									
Rated Current	See Note	0.35A (1)	0.45A (1)	0.70A (2)	1.05A (3)	1.28A (3)	1.40A (3)	1.66A (3)	2.22A (3)	3.33A (3)	
Voltage Range		38~114V	30~89V	18~54V	12~36V	10~29V	10~25V	8~23V	6~16V	4~11V	
Ripple and Nois	se (max) Note 1	±10% Vo									
Voltage Accuracy		±5% Vo									
Line Regulation		±1% Vo									
Load Regulation		±5% Vo									
Rise Time		20mS Max @ Rated Load									
Hold-up Time (Typ.)		8.5mS Min (110VAC input, full load), 10mS Min (220VAC input, full load)									
Input Char	acteristics										
Voltage Range		90VAC~305VAC									
Frequency Range		47Hz-63Hz									
Power Factor	110VAC	>0.95	>0.95	>0.95	>0.95	>0.95	>0.95	>0.95	>0.95	>0.95	
(Typical)	220VAC	>0.90	>0.90	>0.90	>0.90	>0.90	>0.90	>0.90	>0.90	>0.90	
Efficiency (Typi	cal)	88%	88%	87%	87%	87%	87%	86%	85%	84%	
AC Current (max)		0.6A @ 100-	277VAC Input	Full Load				•			
Inrush Current (max)		65A @ 230VAC, 25°C									
Leakage Current		0.5mA max @ 277VAC									
Protection											
Over Temperature (OTP)		110°C (Temperature of internal components); shut down, auto recover after the temperature decreases									
Over Voltage (OVP) Note 2		1.2~1.7Vo									
Short Circuit (SCP)		Long-term mode, auto recovery									
Environme	ental Chara	cteristics									
Operating Temperature		-35°C~70°C									
Operating Relative Humidity		5% RH to 95% RH									
Storage Temperature		-40°C~85°C, 5% to 100% RH non-condensing									
Vibration		10 to 300Hz sweep at constant acceleration of 1.0G(Breadth: 3.5mm) for 1 Hour for each of the perpendicular axes X, Y, Z									
Waterproof Rating		IP65									
Safety Standards		UL8750, Compliance to UL1012 UL935, IEC61347									
Withstand Voltage		L/N-GND: 4kV, L-N: 2kV									
Isolation Resistance		I/P-O/P: >100M Ohms / 500VDC / 25°C / 70% RH									
<b>EMC Emission</b>		Compliance to EN55022(CISPR22) Class B, EN61000-3-2 Class A, EN61000-3-3									
EMC Immunity		Compliance to EN61000-3-2, 3 EN61000-4-2, 3, 4, 5, 6, 8, 11, EN61547									
Character	stics										
Life Time		More than 78,000Hrs (25°C, 80% Load)									
MTBF (MIL-HD	BK-217F)	More than 492,000Hrs (25°C, 80% Load)									
Dimension (LxV	VxH)	95x70x32mm									
Note		1. Ripple & Noise: Measured by 20 MHz bandwidth oscilloscope and the output paralleled with a 0.1 uF ceramic capacitor and a 10 uF electrolytic capacitor.									
		2. Latch Mode: The power supply shall return to normal operation only after the power is turned on again									
		(1) Non-Class 2 output (USR & CNR) (2) Class 2 output (USR); Non-Class 2 output (CNR) (3) Class 2 output (USR & CNR)									



## **DIMMING CONTROL**

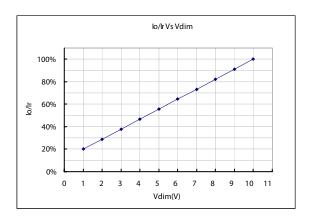
The dimmer control may be operated from either a potentiometer or from an input signal of 1 – 10 Vdc. Two recommended implementations are provided below.





Implementation 1: DC Input

Implementation 2: Potentiometer Control



## Notes:

- 1. lo is actual output current and Ir is rated current.
- 2. If the dimming function is not used, please short 10 V output pin (yellow) and 1-10 V input pin(purple). The output current is about 92% Ir when the 1-10V input pin is floating.
- 3. For the driver to operate properly, the load voltage must be maintained above the minimum voltage threshold (approx. 50% of the max. output voltage for any given model).
- 4. The dimming voltage can be tuned down to less than 1V, and the output current will be decreased to about 10% Ir; but the connected LEDs may flicker. Keeping dimming voltage greater than 1V is strongly recommended.
- 5. Do not connect the GND of dimming to the output; otherwise, the LED driver will not work normally.

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