100Watts Single Output LED Driver

Qualtek Electronics Corporation

PLV-100 Series



Features:

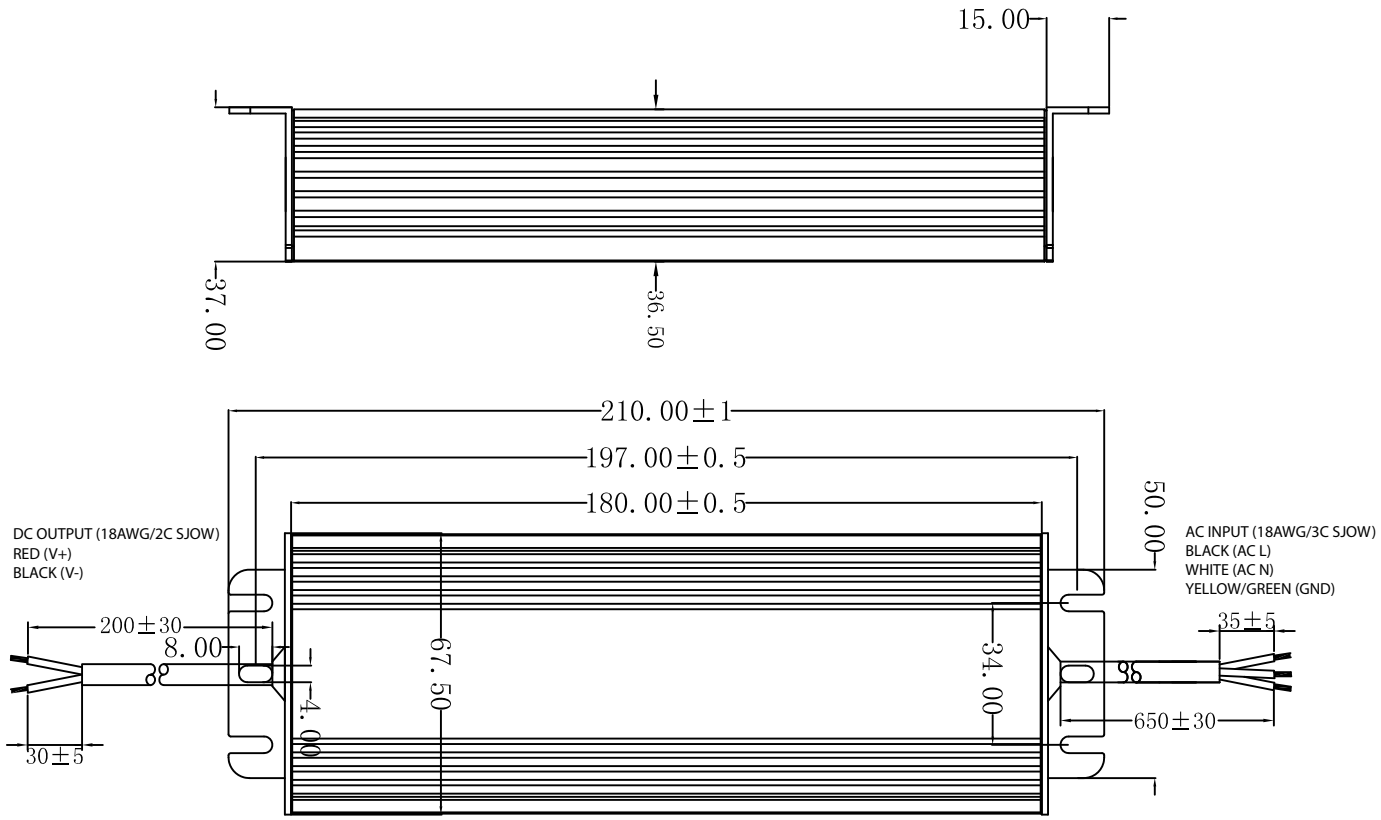
- Constant Voltage Design
- Universal AC input/ Full Range
- Built-in Active PFC function, PF 0.99 Typical
- High Efficiency (Up to 93%)
- Output Protections: OLP/OVP/SCP/OTP
- Lightning Protection
- Waterproof (IP67)
- 5 Year Warranty

c UL us RoHS Compliant

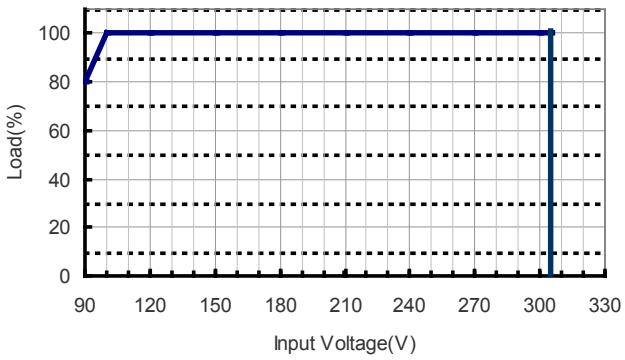
Model	PLV-100S012	PLV-100S024	PLV-100S036	PLV-100S042	PLV-100S048	PLV-100S054	PLV-100S081	PLV-100S105
Output Characteristics								
DC Output	12V	24V	36V	42V	48V	54V	81V	105V
Rated Current	8.33A	4.16A	2.77A	2.38A	2.08A	1.85A	1.23A	0.95A
Current Range	0~8.33A	0~4.16A	0~2.77A	0~2.38A	0~2.08A	0~1.85A	0~1.23A	0~0.95A
Ripple and Noise (max) Note 1	±10% Vo							
Voltage Accuracy	±5% Vo							
Line Regulation	±1% Vo							
Load Regulation	±2% Vo							
Rise Time	20mS Max @ Rated Load							
Hold-up Time (Typ.)	10mS Min (110VAC input, full load), 20mS Min (220VAC input, full load)							
Input Characteristics								
Voltage Range	90VAC~305VAC							
Frequency Range	47Hz-63Hz							
Power Factor (Typical) 110VAC	>0.99	>0.99	>0.99	>0.99	>0.99	>0.99	>0.99	>0.99
Power Factor (Typical) 220VAC	>0.95	>0.95	>0.95	>0.95	>0.95	>0.95	>0.95	>0.95
Efficiency (Typical)	93%	91%	92%	92%	92%	93%	93%	93%
AC Current (max)	1.5A @ 100-277VAC Input Full Load							
Inrush Current (max)	70A @ 230VAC, 25°C							
Leakage Current	0.75mA 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	1.2~1.4Vo							
Short Circuit (SCP)	Long-term mode, auto recovery							
Environmental Characteristics								
Operating Temperature	-35°C~70°C							
Operating Relative Humidity	10% RH to 100% 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	IP67							
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							
EMC Emission	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							
Characteristics								
Life Time	More than 50,000Hrs (25°C, 80% Load)							
MTBF (MIL-HDBK-217F)	More than 450,000Hrs (25°C, 80% Load)							
Dimension (LxWxH)	210.5x67.5x37mm							
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							

MECHANICAL SPECIFICATIONS

UNIT: mm



Derating Curve



Ambient Temperature vs.Load

