Figure 1. The Physical Photo of ATI100-12VLP

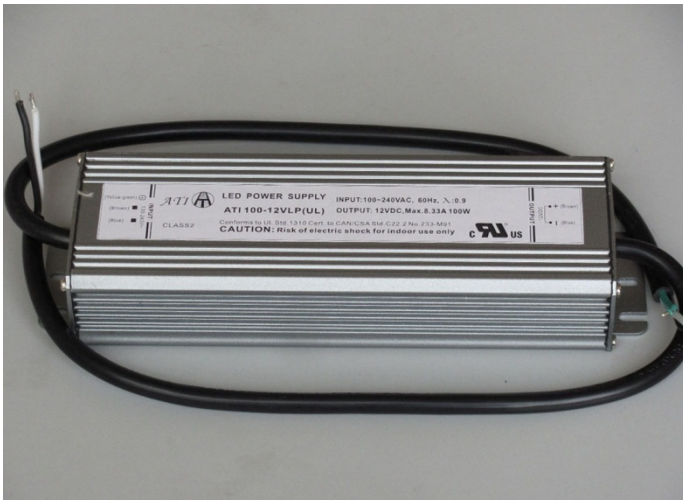

Figure 2. The Physical Photo of ATI100-12VLP

DESCRIPTION

The LED Power Supply ATI100-12VLP (UL) is exclusively designed for the LED (Light Emitting Diode) lamps used indoors. It is a switch mode power supply with 12VDC constant output voltage.

An electronic protection circuit switches off the power supply in case of short circuit or overload in the secondary circuit, overheat as well as open circuit. After the removing of the faults, the LED power supply is resetting automatically for operation again.

APPLICATIONS

This LED power supply is used for providing power to LEDs with constant voltage.

INSTALLATION INSTRUCTIONS

ATI100-12VLP conforms to the UL8750 for safety regulation and FCC PART 15 for electromagnetic compatibility.

- This LED power supply can only be used with the LED lamps
- This LED power supply can be used for outdoor and immerse in the water can be less than 0.15m. Protect the LED power supply against excessive heat (permissible operating temperature range is −20 ºC to +45 ºC).
- The loads indicated on the power supply should not exceed or below the default value, 0-100W.
- Connect the LED lamps to the LED power supply with correct polarity according to the schematic drawing.
- The maximum length of the output cable should be less than 2m in order to meet EMC standard.
- If the LED power supply is used for purposes other than originally intended or it is connected in a wrong way, no liability can be guaranteed.

STABLE VOLTAGE

This power supply has a stable output voltage. The experiment shows that the output voltage remains stable under different ambient temperatures, 20 ºC, -20 ºC, and 45 ºC, as shown in Figure 3 below.

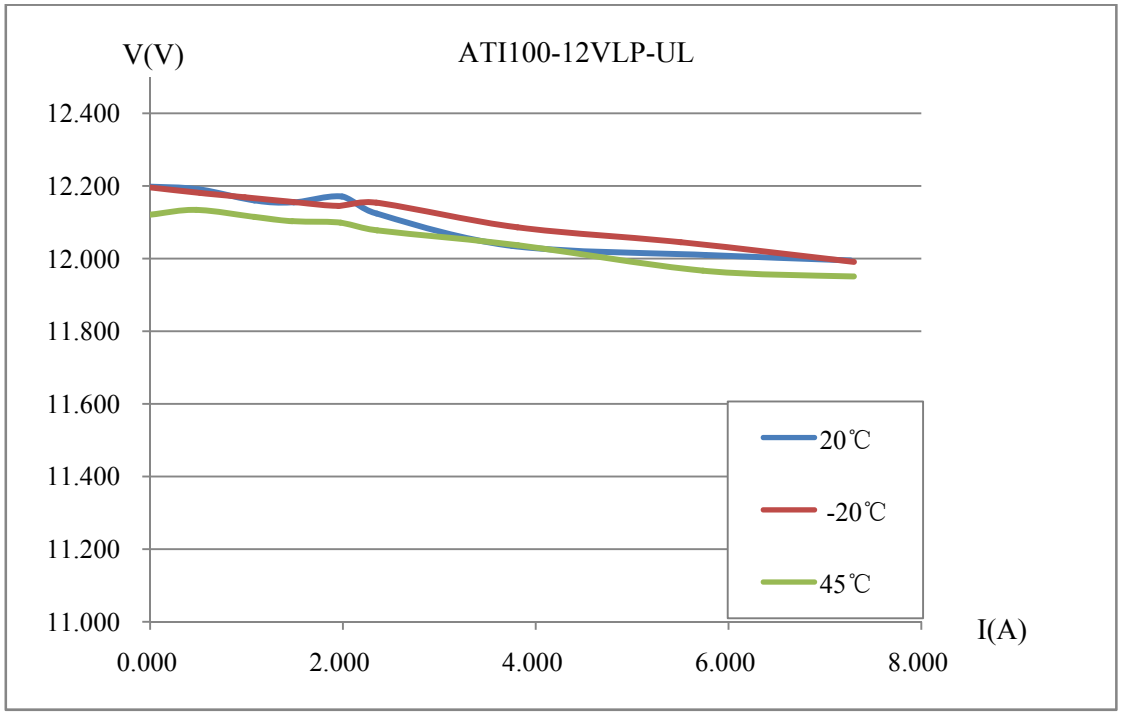

Figure 3. The curve for the output current under different temperatures

SPECIFICATIONS

Table 1. Characteristics

Parameters	Value
Input Voltage	120-240VAC+/-10% 50/60Hz
Input Current	<1.5A
Output Voltage	12VDC+/- 0.5%
Rated Power	100W
Protection Degree	IP67
Ambient Temperature (Ta)	Max. 45ºC
Case Temperature (Tc)	Max. 85 ºC
Primary Cable	3C 18AWG
Secondary Cable	2C 16AWG

Table 2. Spec.

Parameters	Conditions	Request	Note
Input			
Rated input voltage	Ta	AC120V	
Input voltage scope	Ta	AC90-132V	
Input voltage frequency	Ta	60Hz	
Input current	25℃, input rated voltage, output max rated load	<1.5A	
Input power	25℃, input rated voltage, output max rated load	<115W	
Efficiency	25℃, input rated voltage, output max rated load	≥88%	
Power consumption without load	25℃, input rated voltage， output without load	<0.5W	Average
Power factor	25℃, input rated voltage, output max rated load	≥0.9	
Input surge current	25℃, input rated voltage, output max rated load	<50A	Pk-Pk
Output			
Startup time	25℃, input rated voltage, output max rated load	<1000mS	
Constant output current and precision	Ta ， input rated voltage, output rated load		
Rated output power/led lights quantity	Ta, input rated voltage	-	
Output current ripple wave	25℃, input rated voltage, output max rated load	-	Ip-p
Overshoot	25℃, input rated voltage， output for 2 lights connection	-	
Rated output voltage and precision	Ta, input rated voltage, output rated load	12V±5%	
Output voltage ripple wave	25℃, input rated voltage, output max rated load	<240mV	Vp-p
Output open circuit voltage	Ta, input rated voltage, output without load	12V±5%	
Dimmable mode			
Dimmable scope		-	
Protection			
Open circuit protection	Ta, input rated voltage, output without load	yes	
Overload protection	Ta, input 0.94-1.06 times rated voltage, output 1.3 times rated load	yes	
Short circuit protection	Ta, input 0.94-1.06 times rated voltage, output short circuit for 1 hour	yes	
Over heat protection	Detected by IC itself	yes	
Automatically re-start	Ta, overload, short circuit, over heat protection retreated	yes	
Temperature and others			
Working temperature		-10℃~45℃	

Relative humidity		10%~95%	
Max cover temperature			
Life span	Under max Ta, input rated voltage and output max rated load	30000hrs	
Working noise	25℃, input rated voltage, output rated load, background noise<30dB, pickup is 10cm far away from product	-	
Mechanical structure, mounting and connection way			
Cover material and sizes	Metal, 185mm×68mm×35mm		
Mounting mode	External		
Anti-electric shock	Class Ⅰ		
Protection grade	IP67		
Input connection way	3C 18AWG		
Output connection way	2C 14AWG		
Output wires length			
Standard request			
Safety			
Harmonic	25℃, input rated voltage, MAX rated load		
EMC--interference	25℃, input rated voltage, load is typical lights	FCC PART15	
EMC--ANTI interference	25℃, input rated voltage, load is lights		
Mark			
Made by		**Version**	
Audit			
Approved			

ORDERING INFORMATION

Table 2. Unit Price

Quantity	1 — 9	10 —49	50 —199	200—499	500—999	≥1000
ATI100-12VLP	$68	$64	$61	$57	$53	$49

NOTICE

1. ATI reserves the right to make changes to its products or to discontinue any product or service without notice, and advise customers to obtain the latest version of relevant information to verify, before placing orders, that information being relied on is current and complete.
2. All products are sold subject to the terms and conditions of sale supplied at the time of order acknowledgment, including those pertaining to warranty, patent infringement, and limitation of liability. Testing and other quality control techniques are utilized to the extent ATI deems necessary to support this warranty. Specific testing of all parameters of each device is not necessarily performed, except those mandated by government requirements.

3. Customers are responsible for their applications using ATI products. In order to minimize risks associated with the customers' applications, adequate designs and operating safeguards must be provided by the customers to minimize inherent or procedural hazards. ATI assumes no liability for applications assistance or customer product design.
4. ATI does not warrant or represent that any license, either express or implied, is granted under any patent right, copyright, mask work right, or other intellectual property right of ATI covering or relating to any combination, machine, or process in which such products or services might be or are used. ATI's publication of information regarding any third party's products or services does not constitute ATI's approval, warranty or endorsement thereof.
5. IP (Intellectual Property) Ownership: ATI retains the ownership of full rights for special technologies and/or techniques embedded in its products, the designs for mechanics, optics, plus all modifications, improvements, and inventions made by ATI for its products and/or projects.