PD Charger
Brick Type Series

Single Output 100W Data Sheet

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Description

This specification defines the performance characteristics of single phase, 100-WATT, compatible USB-C PD3.0 and Quick Charge 2.0/3.0, 1-output power supply. This specification also defines worldwide safety and electromagnetic compatibility requirements for the power supply which is intended for use in IA products.

Features

* Full AC input voltage range design.
* Support for QC2.0, QC3.0 / PD3.0.
* Full Protections: Short-circuit/ Over-voltage/ Over-current/ Over temperature.
* Very low standby power, less than 150mW.
* Very low leakage current.
* IEC/EN 62368-1 design compliance.
* Up to 5000 meters operating altitude.
* Built-in 1.8m type C cable.



Electrical Specification

Model Name	PA-1101-66LT			
Output				
Rated power	100W			
Rated voltage	5V	9V	15V	20V
Rated current	3A	3A	3A	5A
Ripple & Noise(max.) (note #1)	350mV			
Line & load regulation	±5%			
Hold-up time(min.)	5ms at 115Vac			
Timing: AC ON delay / rising (max.)	3 sec / 175ms			
Input				
Rated voltage range	100~240Vac			
Operated voltage range	90~264Vac			
Current range (max.)	1.6A			
Inrush current (typ.)	limited to a 22% margin of the I2t rating of fuse and bridge rectifier			
Frequency range	50-60Hz			

Leakage current (max.)	100uA at 264Vac
Efficiency (min.) (note#2)	89.0%
Protection Function	
Over voltage (max.)	140% of rated voltage, latch-off protection
Over current (max.)	7.5A, auto-restart protection
Short circuit at O/P	No damage, auto-restart protection
Over temperature	No damage, latch-off protection
Others	
MTBF (min.) (note#3)	100K hours @ rated load
Environment	
Temperature	(operating) 0~40℃ / (storage) -30~60℃
Humidity	(operating) 10~95% RH non-condensing / (storage) 5~95% RH
Altitude (max.)	5000 meters
Mechanical	
Dimension	108(L)*56(W)*27mm(H)
Temperature rise of case (note #4)	ΔT less than 50℃
Weight (typ.)	300g
Safety	
Standard	CB/IEC62368-1,UL62368-1,EN62368-1, PSE J62368-1,BSMI CNS15598-1
Withstand voltage	Input-Output: 4242VDC
Isolation resistance(min.)	Input-Output: 30Mohm @ 500VDC, 25℃, 70%RH
EMC	
EN55032 (CISPR32)	Conducted EMI: class B / Radiated EMI: class B
FCC	Conducted EMI: class B / Radiated EMI: class B
EN61000-3-2	Harmonic distortion: Class D
EN61000-4-2	ESD: ±8KV contact discharge / ±15KV contact discharge
EN61000-4-3	Radiated RF immunity: 3V/m
EN61000-4-4	EFT: ±1KV (AC port)
EN61000-4-5	Surge: ±1KV DM / ±2KV CM
EN61000-4-6	Conducted RF immunity: 3V/m
EN61000-4-8	Magnetic field immunity: 1A/m
EN61000-4-11	Voltage dip immunity: Criteria B

Notes

#1: Ripple noise is measured with 0.47uF MLCC & 47uF low ESR capacitor at 20MHz bandwidth.

#2: It is average efficiency of 25%, 50%, 75% and 100% of rated load with Vo=20V, Vin=115/230Vac.

#3: Input voltage is 115Vac and 230Vac, output is rated load at 25℃.

#4: 100Vac and rated load at 40℃ ambient temperature.

Mechanical Specification

