

PD Charger Wall Mount Series

Single Output 30W Data Sheet



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Description

This specification defines the performance characteristics of single phase, 30watt, compatible USB-PD 3.0, 1 outputs 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

- * Ultra slim case dimension (L*W*H) : 30*27.3*27.3mm
- * Support worldwide AC input voltage
- * High Power Density : 21.92W/inch³ (1.34W/c.c.)
- * Meet CoC tier 2 and DoE VI efficiency requirement
- * Integrated 3rd generation semi-conductor GaN
- * Full Protections: OVP / OCP / OTP / SCP / OPP
- * No load power saving < 75mW
- * Support PD 3.0 / PPS / QC 3.0 / QC 4+
- * Compliance with IEC60950 / IEC62368
- * Operating altitude : 0~5000 meters



Electrical Specification

Model Name	PA-1300-10VN		
Output			
Rated power	30W		
Rated voltage	5V	9V	12V
Rated current	3A	3A	2.5A
Ripple & Noise(max.) (note #1)	250mV		
Line & load regulation	±5%		
Hold-up time(typ.)	5ms/115Vac		
Timing: AC ON delay / rising (max.)	2.5 sec / 30ms		
Input Specification			
Rated voltage range	100V~240VAC		
Operated voltage range	90V~264VAC		
Current range (max.)	0.7A		
Inrush current (typ.)	120A, fullill 22% I²t derating of fuse and bridge rectifier		
Frequency range	50-60Hz		

Leakage current (max.)	100uA at 240Vac
Efficiency (typ.)	90% at 30W, compliance with DoE VI and CoC Tier2
Protection Function	
Over voltage (max.)	120% of rated voltage, latch protection
Over current (max.)	120% of rated current, auto-recovery protection.
Short circuit at O/P	No damage, auto-recovery protection.
Over temperature	No damage, auto-recovery protection
Others	
MTBF (min.) (note #2)	50K hours @ rated load
Environment	
Temperature	(operating) 0~40°C/ (storage) -20~85°C
Humidity	(operating) 10~95% RH non-condensing / (storage) 5~95% RH
Altitude (max.)	5000 meters
Mechanical	
Dimension	27.3(L)*27.3(W)*30mm(H)
Temperature rise of case (note #2)	ΔT less than 52°C
Weight (typ.)	42g
Safety	
Standard	CB/IEC62368-1,UL62368-1,PSE J62368-1, BSMI CNS15598-1
Withstand voltage	Input-Output: 4242VDC
Isolation resistance(min.)	Input-Output: 30Mohm @ 500VDC, 25°C, 70%RH
EMC	
EN55032	Conducted EMI: class B / Radiated EMI: class B
FCC	Conducted EMI: class B / Radiated EMI: class B
EN61000-3-2	Harmonic distortion: Class A (Pin < 75W)
EN61000-4-2	ESD: ± 4 KV contact discharge / ± 8 KV air discharge
EN61000-4-3	Radiated RF immunity: 3V/m
EN61000-4-4	EFT: ± 1 KV (AC port)
EN61000-4-5	Surge: ± 1 KV DM / ± 2 KV 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 by a 20cm length and 50mohm, twisted wires with 0.1uF MLCC & 10uF Tantalum capacitor.

#2: Input voltage is 115Vac and 230Vac, output is rated load at 25°C.

Typical Performance Characteristics

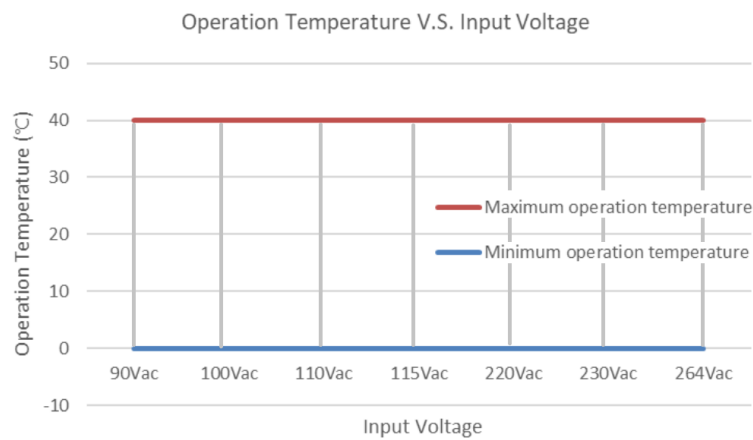


Figure 1.

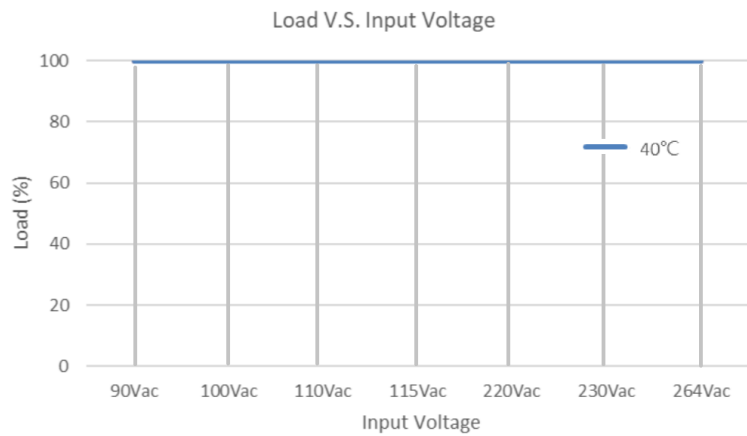


Figure 2.

Mechanical Specification

