

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-1300-10MV | | |
|--------------------------------------|--|----|------|
| 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% I ² t 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,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: ±4KV contact discharge / ±8KV air 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 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

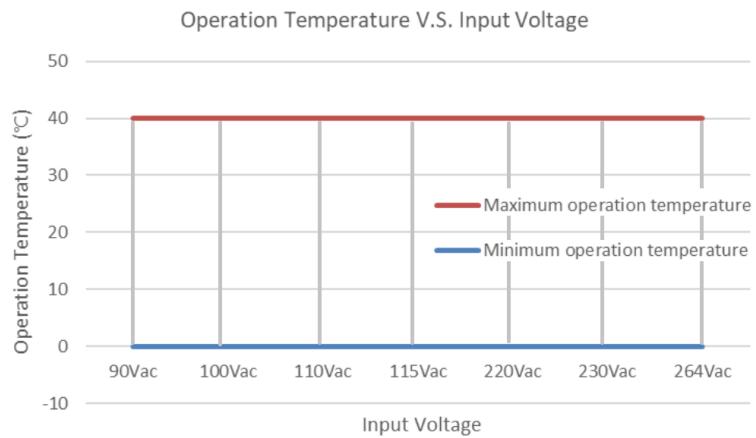


Figure 1.

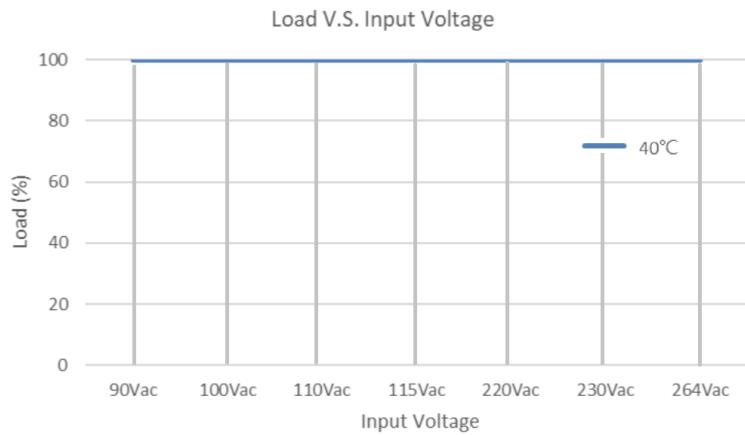


Figure 2.

Mechanical Specification

