

PD Charger

Wall Mount Series

Single Output 45W Data Sheet

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Description

This specification defines the performance characteristics of 45watt, compatible USB-PD 3.0, single output power supply. And it applicable for worldwide safety and electromagnetic compatibility requirements for the power supply.

Features

- * Ultra slim case dimension (L*W*H) : 35*31*31mm
- * 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

		PA-1450-45MV				
Output						
Rated power		45W				
Rated voltage	5V	9V	12V	15V	20V	
Rated current	3A	3A	3A	3A	2.25A	
Ripple & Noise(max.) (note #1)	300mV			500mV		
Line & load regulation	±5%					
Hold-up time(min.)	3ms at 115Vac					
Timing: AC ON delay / rising (max.)	3 sec / 40ms					
Input Specification						
Rated voltage range	100V~240VAC					
Operated voltage range	90V~264VAC					
Current range (max.)	1.6A					
Inrush current (typ.)	129A, fullfill 22% I ² t derating of fuse and bridge rectifier					

Frequency range	50-60Hz
Leakage current (max.)	100uA at 240Vac
Efficiency (typ.)	89.8% for 45W, 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, latch protection.
Others	
MTBF (min.) (note#2)	50K hours @ rated load
Environment	
Temperature (note #3)	(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	31(L)*31(W)*35.05mm(H)
Temperature rise of case (note #2)	ΔT less than 52°C
Weight (typ.)	60g
Safety	
Standard	CB/IEC62368-1,UL62368-1, BSMI CNS15598-1
Withstand voltage	Input-Output: 4242VDC
Isolation resistance(min.)	Input-Output: 100Mohm @ 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 1m length, twisted wires with Output added 0.1uF MLCC and 10uF tantalum

capacitor.

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

#3: Refer label input voltage or derating curve(Figure 1).

Typical Performance Characteristics

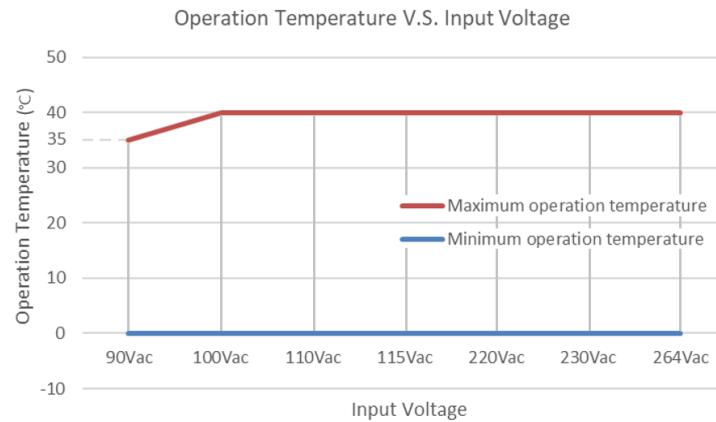


Figure.1

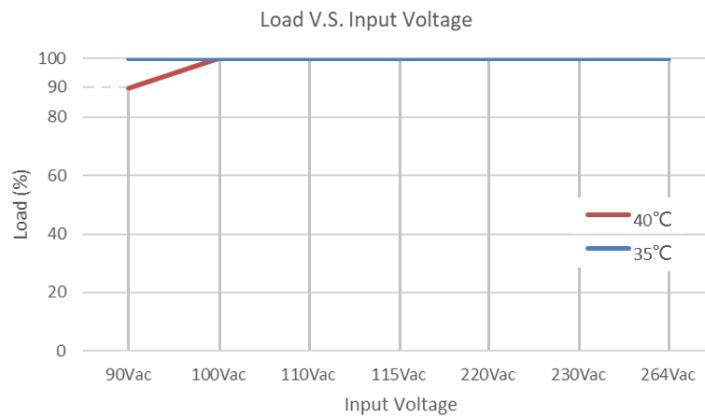


Figure.2

Mechanical Specification

