

Medical Grade Quick Charger

APD-0045

Fast charger for medical devices



Highlights:

- Charger for medical devices
- Desktop type-C14 inlet
- Output up to 45W,output 5V@3A, 9V@3A, 12V@3A, 15V@3A, 20@2.25A
- Type C output connector
- PD 2.0
- DOE Level VI
- Universal 90VAC~264VAC input
- OCP,OVP,OTP
- >200kHour MTBF
- IEC60601-1 certification



2MOPP



RoHS



Green Power



LEVEL VI EFFICIENCY

Key Specification

Part number	APD-0045
Output	5V@3A, 9V@3A, 12V@3A, 15V@3A, 20@2.25A
Rated Output Power	45W
Output Voltage Regulation	±5%
Ripple & Noise	<2%
Input Type	C14 inlet
Input Voltage	90VAC~264VAC
Input Current	<1.2A
Average Efficiency	> 80%
Inrush Current	<60A
Touch Current	<100uA @ Normal Condition, <300uA @ Single Fault Condition
Operation Temperature	-10 to +40°C
Life	3 Years
Dimension	Aprox 120mm x 50mm x 32mm

Part number:

APD - 0045 - CCV - AB - BB

Series

Rated power

Output voltage

Inlet type

Output
connector type

Output voltage

CCV	Constant current and constant voltage charging curve
-----	--

Inlet type

T3	C14 Inlet
----	-----------

Output connector type (we offer different type of output connectors)

BB	Connector Type
----	----------------

Specifications

All specifications are for rated input/output and 25 °C unless otherwise specified

Output Characteristics	
Output Voltage Total Regulation	±5%
Turn on delay	<3 second
Rise Time	<150ms
Holdup Time	>8.3ms
Protections	
Over Current Protection (OCP)	<130% Rated output current Auto-restart after fault condition is removed
Short Circuit Protection (SCP)	Auto-restart after fault condition is removed
Over Voltage Protection (OVP)	Latch off
Over Temperature Protection (OTP)	(optional)
Environmental	
No Load Power Consumption	Meet DoE level VI
Operation Ambient Temperature	-10°C to 40°C.
Operation Humidity	20%~95% RH non-condensing
Storage Ambient Temperature	-40°C to 85°C
Storage Humidity	10%~95% RH non-condensing
Operating Altitude	0~3,000 meters
Shock (Non-Operation)	50G, 11ms, 3 shocks for each direction
Vibration (Operation)	5-500Hz, 2G _{RMS} , 15 Minutes for each three axis

Specifications

All specifications are for rated input/output and 25 °C unless otherwise specified

Reliability	
MTBF	>200K hrs. MIL-HDBK-217F. 25°C
Life	>3 Years
Safety & Directives	
Directives, Compliance only	UL60601-1 2 nd edition, UL60601-1 3 rd edition+A1 CB Report TUV EN60601-1:2006, UL60601-1+CAN/CSA60601-1:(Ed.3.2005)
Energy Saving	DOE Level VI
Dielectric Voltage	Primary to Secondary: 4kVAC
EMC	
Emissions	EN55011/EN55022, FCC TITLE 47: Class B
Harmonic Current Emissions	IEC61000-3-2, Class D
Voltage Flicker	IEC61000-3-3
Electrostatic Discharge	IEC61000-4-2, Level 4, Criteria A.
Electrical Fast Transient / Burst	IEC61000-4-4, Level 3 Criteria A. 1kV
Surge	IEC61000-4-5, Level 3 Criteria A. Common mode 2kV, Differential Mode 1kV
Conducted Immunity	IEC61000-4-6, Level 2 Criteria A. 150kHz-80MHz, 3Vrms, 6Vrms at ISM Bands and Amateur radio bands
Power Frequency Magnetic Fields	IEC61000-4-8, Criteria A. 30A/m
Voltage Dips	IEC61000-4-11 Criteria A: 30% 10ms Criteria B: 60% 100ms, 100% 5000ms
	IEC60601-1-2 Criteria A: 100% 10ms at step 45° Criteria B: 30% 500ms, 100% 20ms, 100% 5000ms

Mechanical Drawing

All dimensions in mm

Estimated at 120 (L) x 50(W) x 32(H)

Features Descriptions

- Turn on delay time

Turn on delay is the delay time from AC turns on o output reaches regulation.

- Rise time

Rise time is defined as the time that output voltage or current rises from 10% of regulation number to 90% of regulation.

- Ripple & Noise

Ripple & Noise is measured at 20MHz bandwidth, and 12" output cable end, with a 10uF aluminum capacitor and a 0.1uF ceramic capacitor paralleled to the cable end.

- Average Efficiency

Average efficiency is defined as average efficiency of 25%, 50%, 75% and 100% load. The input voltage is 115VAC/60Hz and 230VAC/50Hz