



FSP065M Series

FEATURES

- USB Power Delivery Type-C Adapter
- IEC60601-1 & IEC 62368-1
- Class I design
- Energy efficiency DOE Level VI
- No load power consumption $\leq 0.21W$
- EN55011 class B compliance

SAFETY STANDARD APPROVAL



DESCRIPTION

This series of medical USB Power Delivery adapters are Class I design (with safety-protected earth) with IEC-320/C14 or IEC 320/C6 AC inlet. Maximum 65W continued output power at 40°C operation temperature. High-efficiency features comply with US DOE requirements. All models meet EN 55011 conducted and radiated emission.

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	≤ 1.7 A (rms) / 100 VAC ≥ 0.8 A (rms) / 240 VAC
Input protection:	T3.15AH/250V Internal fuse fitted in line and neutral
Touch current:	≤ 100 μ A / 264 VAC, 63 Hz
Earth Leakage Current:	≤ 150 μ A / 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart
Maximum output power:	65W
Protection:	
OVP:	Latch off
OCP & Shorted:	Auto recovery
OTP:	Latch off

ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	0°C~+40°C
Storage temperature:	-20°C~+85°C
Operating humidity:	5% to 95% RH non-condensing
Storage humidity:	5% to 95% RH non-condensing

GENERAL SPECIFICATIONS

Efficiency:	See rating chart
Hold-up time:	> 6 ms minimum at 100Vac/60Hz or 230Vac/50Hz
Line regulation:	$\pm 1\%$ maximum at full load
Inrush current:	3 A @ 115 VAC or 100 A @ 230 VAC, at 25°C cold start
Operating altitude :	5000 meters
Withstand voltage:	4000 VAC from input to output (2 MOPP) 1500 VAC from input to ground (1 MOPP) 500 VAC from output to ground
MTBF:	150,000 hours at full load at 25°C ambient , calculated per SR332
EMC Performance (IEC60601-1-2)	
EN55011:	Class B conducted, class B radiated
EN61000-3-2:	Harmonic distortion, Class D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, ± 15 KV air and ± 8 KV contact
EN61000-4-3:	Radiated immunity, 3 V/m
EN61000-4-4:	Fast transient/burst, ± 2 KV
EN61000-4-5:	Surge, ± 1 KV diff., ± 2 KV com.
EN61000-4-6:	Conducted immunity, 3 Vrms
EN61000-4-8:	Magnetic field immunity, 30 A/m
EN61000-4-11:	Voltage dip immunity, 30% reduction for 500 ms 60% reduction for 100 ms >95% reduction for 10 ms

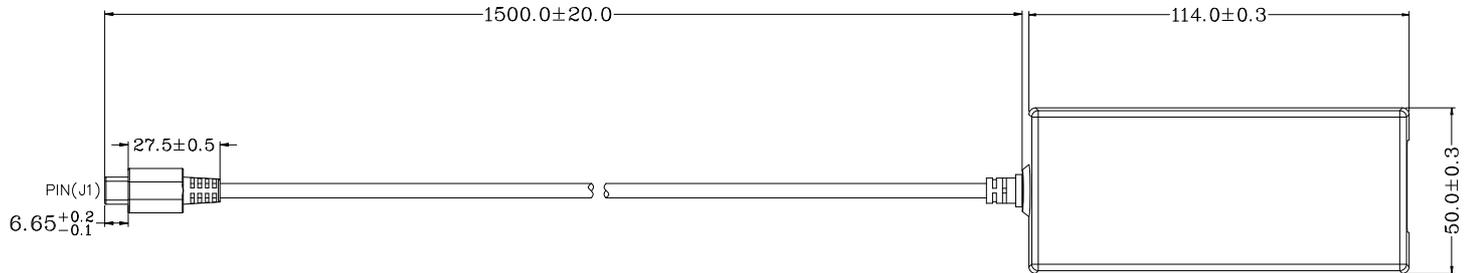
OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Input Socket	Output						Average Active Efficiency (typical) @115V / 230V ⁽²⁾
		Voltage	Min. Current	Max. Current	Tolerance	Ripple & Noise ⁽¹⁾	Max. Power	
FSP065M-DUA	C14	5/9/12/15/20V	0 A	3/3/3/3/3.25A	±5%	5/9/12V ≤ 250 mV 15/20V ≤ 300 mV	65W	≥88%
FSP065M-DUB	C6	5/9/12/15/20V	0 A	3/3/3/3/3.25A	±5%	5/9/12V ≤ 250 mV 15/20V ≤ 300 mV	65W	≥88%

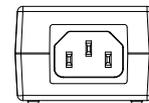
NOTES:

- Ripple and noise measurements shall be made with an oscilloscope of at least 20MHz bandwidth. Output shall be bypassed at the connector with a 0.1µF ceramic disk capacitor and a 10µF electrolytic capacitor to simulate system loading.
- Average Active Efficiency measurements shall be tested at 100%, 75%, 50%, 25%, and 10% of nameplate output current and no load condition.

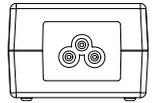
MECHANICAL SPECIFICATIONS



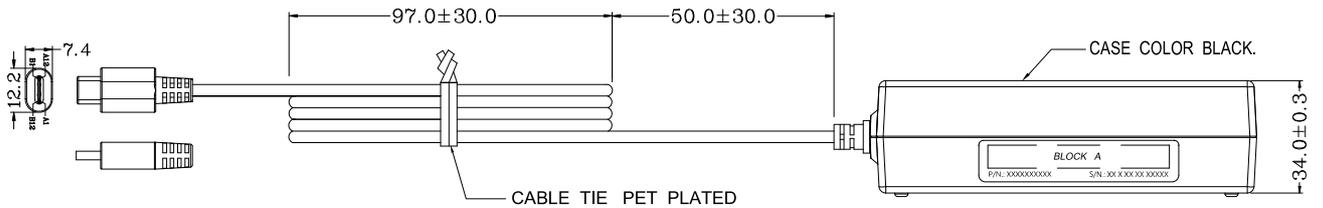
P1	Signal Name	AWG	COLOR
A4,B4,A9,B9	VBUS	20AWG	WHITE
A5	CC	26AWG	BLUE
A6 A7		Short	
A1,B1,A12,B12	GND	20AWG	BLACK
SHELL		NA	



C14 AC Inlet



C6 AC Inlet



NOTES:

- Dimensions shown in mm.
- Weight: 194.5 grams (0.43 lbs.) approx.