

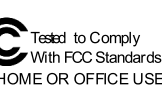


FSP090-A1BR3

FEATURES

- Approved with IEC 62368-1 Ed. 3.0 & global safety certifications
- Approved with EN55032 and CISPR 32/FCC part 15 Class B
- Operating altitude 5000m
- Meets CoC Tier2 & DOE Level VI
- Built-in OCP/OTP/OVP
- Class I (IEC320-C6)

SAFETY STANDARD APPROVAL



DESCRIPTION

FSP090-A1BR3 is a 90W AC to DC USB type-C PD desktop type power supply with a IEC320-C6 AC inlet (Class I power unit). The adapter operates at 90 to 265Vac input voltage with the output rating 5V/9V/12V/15V/20V.

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	100Vac, 240Vac / full load ≤ 2.4A
No load power consumption:	115Vac, 230Vac ≤ 0.1W
Touch current:	264Vac / 50Hz ≤ 0.25mA

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart
Max. output power:	90W
Protection:	
Over voltage:	The adapter will shut down caused by internal fault. That will be return to normal state by AC reset. See chart in Spec.
Over current:	The power will shutdown without damage.
Over Temperature:	The power supply will enter into shut down while the abnormal thermal rise occurs.

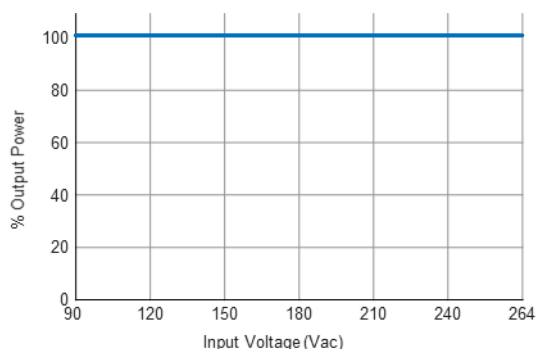
ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	0~70°C (> 40°C derating)
Storage temperature:	-20~+80°C
Operating humidity:	10~85% RH non-condensing
Storage humidity:	10~95% RH non-condensing

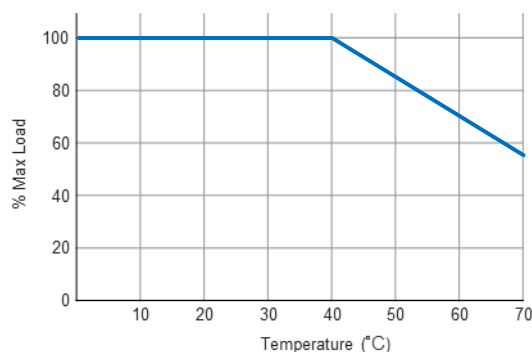
GENERAL SPECIFICATIONS

Power factor:	PF ≥ 0.9 at 100Vac/240Vac input (36V/5.0A)
Efficiency:	See the chart at next page
Hold-up time	≥ 5ms at 100 or 240Vac with max. load
Inrush current:	No damage, I ² T Shall be less than 29% of the rating of adapter critical component
Operating altitude:	5,000 meters
MTBF:	≥ 100,000Hrs with 115Vac / Max. load at 40°
EMC Performance	
EN55032:	Class B conducted, class B radiated
FCC:	Class B conducted, class B radiated
VCCI:	Class B conducted, class B radiated
EN61000-3-2:	Harmonic distortion, Class A & D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, ±15 KV air & ±8 KV contact
EN61000-4-3:	Radiated immunity, 3 V/m
EN61000-4-4:	Fast transient / burst, ±1 KV
EN61000-4-5:	Surge, ±1 KV diff., ±2 KV com.
EN61000-4-6:	Conducted immunity, 3 Vrms
EN61000-4-8:	Magnetic field immunity, 1A/m
EN61000-4-11:	Voltage dip immunity, 30% reduction for 500 ms, >95% reduction for 10 ms, and 100% reduction for 5000 ms

INPUT VOLTAGE DERATING CURVE



OUTPUT POWER DERATING CURVE



OUTPUT VOLTAGE / CURRENT RATING CHART

Model	Output Voltage	Output Current	AC Inlet	Efficiency: DoE L6 & CoC V5 T2		Over Voltage Protection
				115V	230V	
FSP090-A1BR3	5/9/12/15/20V	3/3/3/3/4.5A	C6	5V: 81.39% 9V: 86.62% 12V: 87.40% 15V: 87.73% 20V: 88.00%	5V: 81.39% 9V: 86.62% 12V: 87.40% 15V: 87.73% 20V: 88.00%	5V: 7.5V Max. 9V: 12.6V Max. 15V: 21.0V Max. 20V: 26.0V Max. 28V: 33.6V Max. 36V: 43.2V Max.

MECHANICAL & AC CONNECTOR SPECIFICATIONS

FSP090-A1BR3

