TECHNICAL DATASHEET

90W Adapter

FSP090-AxxN3 Series

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FEATURES

- Certified IEC 62368-1 & CB 60950-1
- Meet USA EISA 2007
- Meet Energy Efficiency DOE Level VI
- Meet Code of Conduct Version 5 Tier 2
- High Reliability
- Low Profile
- Over Current Protection
- Over Temperature Protection
- Over Voltage Protection
- With PFC Circuit

SAFETY STANDARD APPROVAL

c UL us LISTED I.T.E. POWER SUPPLY E190414

TÜVRheinland ZERTIFIZIERT www.tuv.com ID 1000000000

GS

CE FC Tested to Comply With FCC Standards FOR HOME OR OFFICE USE

CCC

DESCRIPTION

This product is a 90 watts AC to DC adapter intended for use in IPC systems, embedded systems, printers, monitors, POS systems and PoE application, that have a high wattage demands. This adapter operates at 90 to 264 VAC input voltage. The unit meets CISPR32 EN55032 CLASS B, EN55024 and FCC PART 15B Class B emission limits, and is designed for ITE application.

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	100Vac, 240Vac / full load ≦ 1.2A
No load power consumption	115Vac , 230Vac ≦ 0.5W
Touch current:	264Vac / 50Hz ≦ 0.25mA

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart
Total output power:	90W
Protection:	
Over voltage:	The adapter will enter into shut down that means no output while over voltage happened at output terminal that caused by internal fault, the output trip voltage shall not exceed 29/35/60/65* volts. That will be return to normal state by AC reset.
Short circuit & Over current:	When an internal fault occurs, or an external fault is applied to the power supply, such that an overload or short circuit is applied to the output, the power supply shall shut down and enter auto-recovery mode.
Over temperature:	The power supply will enter into shut down while the abnormal thermal rise occurs. That will be return to normal state by AC reset.
Brown-out	Set at 60Vac~70Vac
Environment	
Working TEMP.	0~70℃ (> 40℃ de-rating)
Storage TEMP.	-20~+80℃
Working Humidity	20~80% RH non-condensing
Storage Humidity	10~90% RH non-condensing

INPUT SPECIFICATIONS

Power factor:	115Vac, 230Vac / full load ≧ 0.9 Provisions for adding harmonic reduction per EN 61000-3-2 must be present.
Efficiency:	See rating chart
Power turn-on time	At 100Vac / full load, output voltage shall remain
Hold-up time:	regulation ≦ 3Sec At 100Vac or 240Vac / full load, output voltage shall
Inrush current:	remain regulation ≧10ms 100Vac, 240Vac / full load , Shall be less than the rating of adapter critical component (including rectifiers, fuse
Operating altitude:	surge and current limiting device)
Withstand voltage:	5000 meters above sea level Between AC input and secondary applied DC 4242V,test
MTBF:	time 1 minute,cut off current shall be less than 10mA 100Vac, 240Vac / full load , 300,000 hours at 25℃,
EMC Performance:	standard SR332
EN55032	
FCC	Class B conducted, class B radiated
VCCI	Class B conducted, class B radiated
EN61000-3-2	Class B conducted, class B radiated
EN61000-3-3	Meet class D
EN61000-4-2	Meet regulation Air discharge: ±15 KV,contact discharge: ±8KV, meet
EN61000-4-3	criterion A
EN61000-4-4	80 ~1000 MHz,3V/m,80% AM(1kHz), meet criterion A
EN61000-4-5	Impulse: ±1kV applied to L,N,meet criterion A
EN61000-4-6	±1kV applied differential mode, ±2kV applied common
EN61000-4-8	mode,meet criterion A
EN61000-4-11	0.15 ~ 80 MHz,3Vrms,80% AM(1kHz),meet criterion A 50 Hz or 60Hz,1A/m,meet criterion A Voltage Dips： >95% reduction for 0.5 period,meet criterion B 30% reduction for 25 period,meet criterion C
Power de-rating:	Voltage Interruptions： >95% reduction for 250 period,meet criterion C 100Vac or 240Vac, 0℃ to 40℃, 100% load, 50℃, 85% load, 60℃, 70% load, 70℃, 55% load (Shall be less than the rating of adapter critical component , follow FSP specification (adapter))

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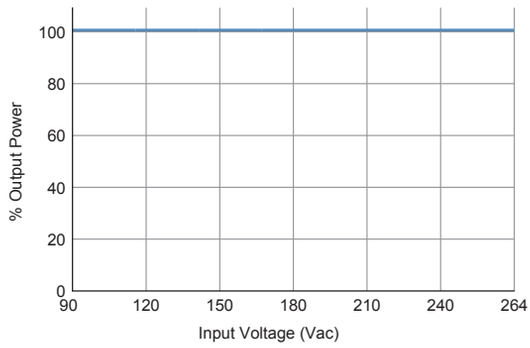
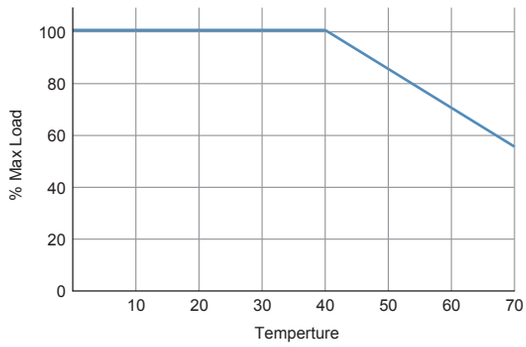
INPUT VOLTAGE DERATING CURVE



OUTPUT POWER DERATING CURVE



OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output Voltage	Output Current	AC Inlet	Efficiency		Over Voltage Protection
				DOE(Level VI)	CoC V5 (Tier 2)	
FSP090-ABAN3	19V	4.74A	C14	≧88%	≧89%	29 Volts
FSP090-ABBN3	19V	4.74A	C6			
FSP090-AAAN3	24V	3.75A	C14			35 Volts
FSP090-AABN3	24V	3.75A	C6			
FSP090-AFAN3	48V	1.88A	C14			60 Volts
FSP090-AFBN3	48V	1.88A	C6			
FSP090-AWAN3	54V	1.67A	C14			65 Volts
FSP090-AWBN3	54V	1.67A	C6			

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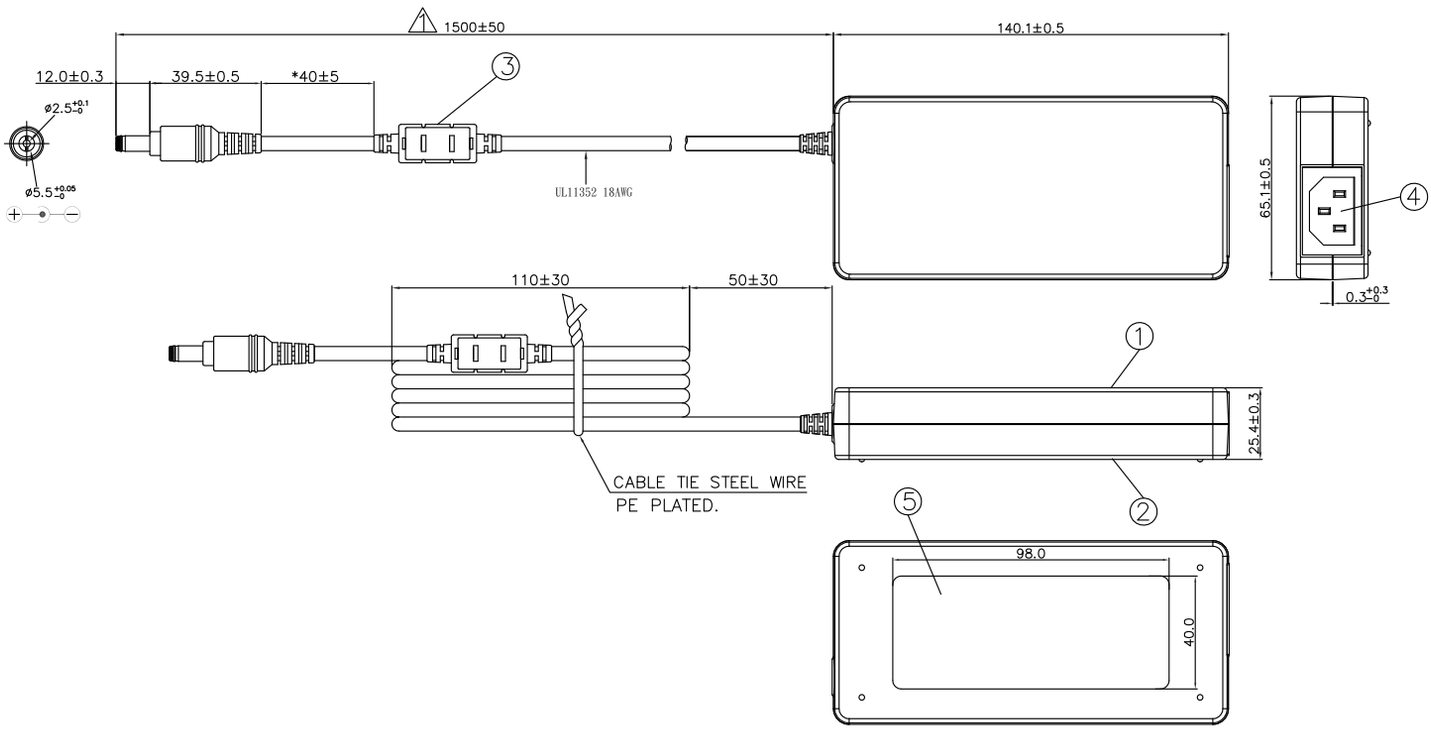
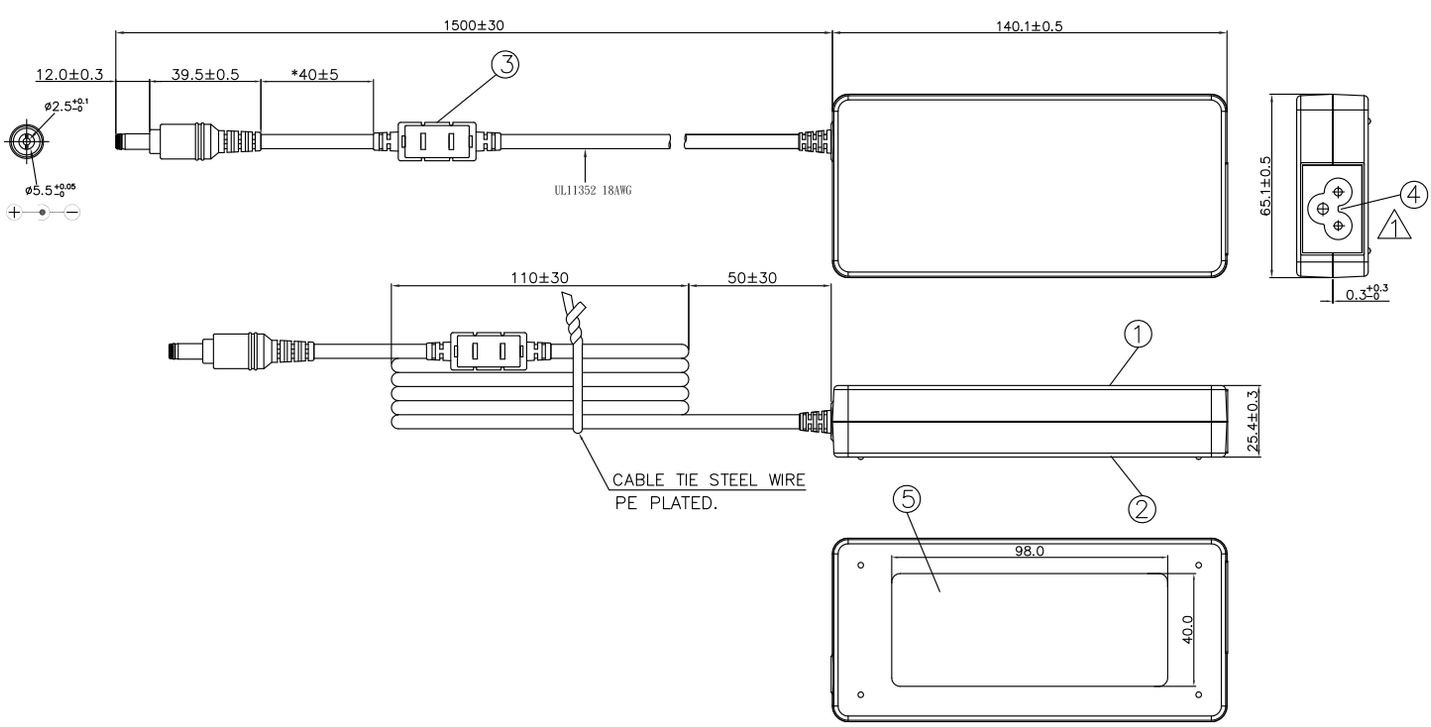
MECHANICAL SPECIFICATIONS





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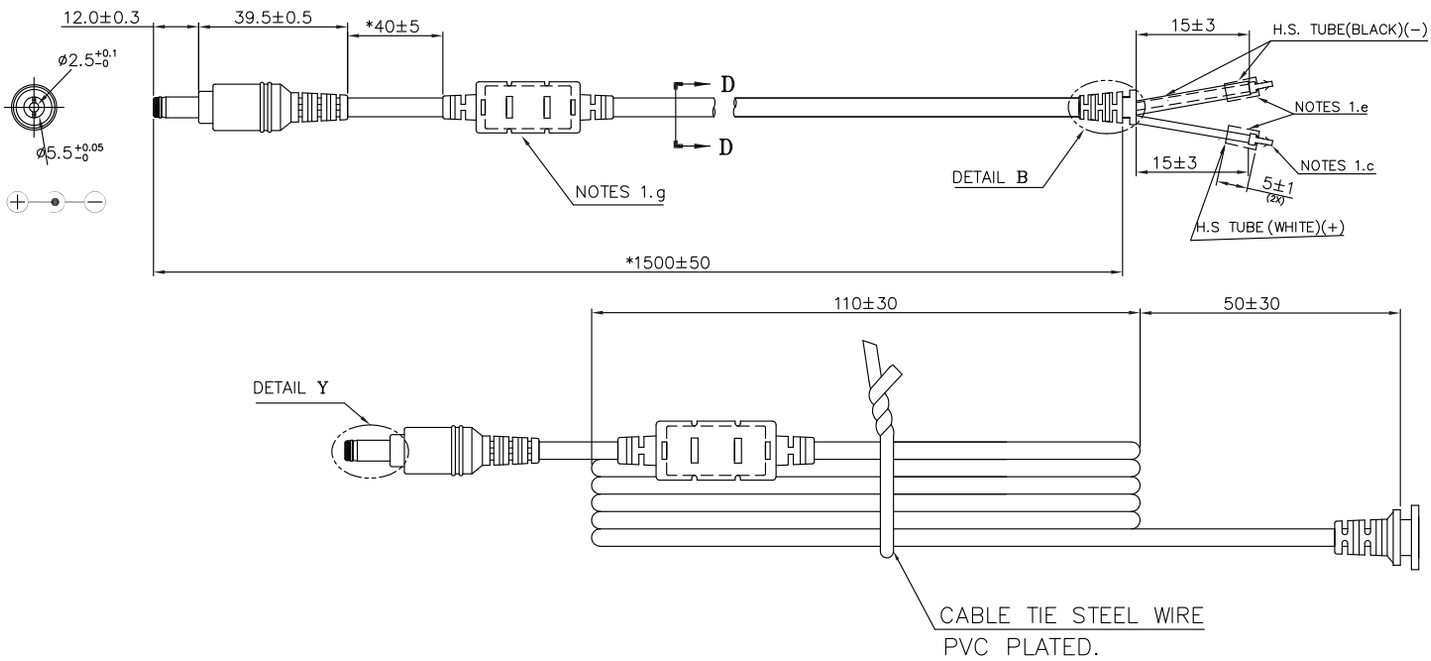
CONNECTOR SPECIFICATIONS



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