



Features

- Meet Efficiency Level VI; CoC Version 5 Tier 2
- Operation up to 5, 000 meters
- Full Range AC Input from 90 to 264 Vac
- IEC320-C14 AC Inlet
- Single regulated output from 12/19/24 /48/54Vdc Output
- Output Power: 96W and 120W
- High efficiency and reliability
- Class I Power Adapter
- OVP, OCP, Short circuit and thermal protection
- UL/cUL, FCC, TUV, EMC safety approvals
- Meet NRCAN, COC Tier 2, GEMS, CONUEE efficiency requirements
- Meet KC, CCC, RCM, BSMI, PSB, BIS, CU, PSE, NOM safety requirements
- 100% burn-in/Hi-Pot/ATE
- Operation in tropical climate environment
- Custom designs available

Level VI



Description

The SPI FSP096/120-AxAN3 series are highly reliable AC-DC switching power supplies with output power from 120W to 150W. All models of adapters provide different output voltages 12VDC, 19VDC, 24VDC, 48VDC, and 54VDC with optional DC plug that fit into the demands for various types of consumer, commercial, and industrial electronic devices. They are enclosed in a 94V-0 rated polycarbonate case with an IEC320-C14 inlet to mate with various AC power cords for world-wide use. All models meet FCC Part 15 class B, IC ICES-003, and EMC emission limitations, and comply with Department of Energy (DOE) and Energy-related Products (ErP) standards.

Applications

- Desktop/All-in-One/Notebook PCs
- LCD/LED Monitors
- POS systems
- Office electronic devices
- Telecommunication devices
- Test measurement equipment
- Industrial equipment

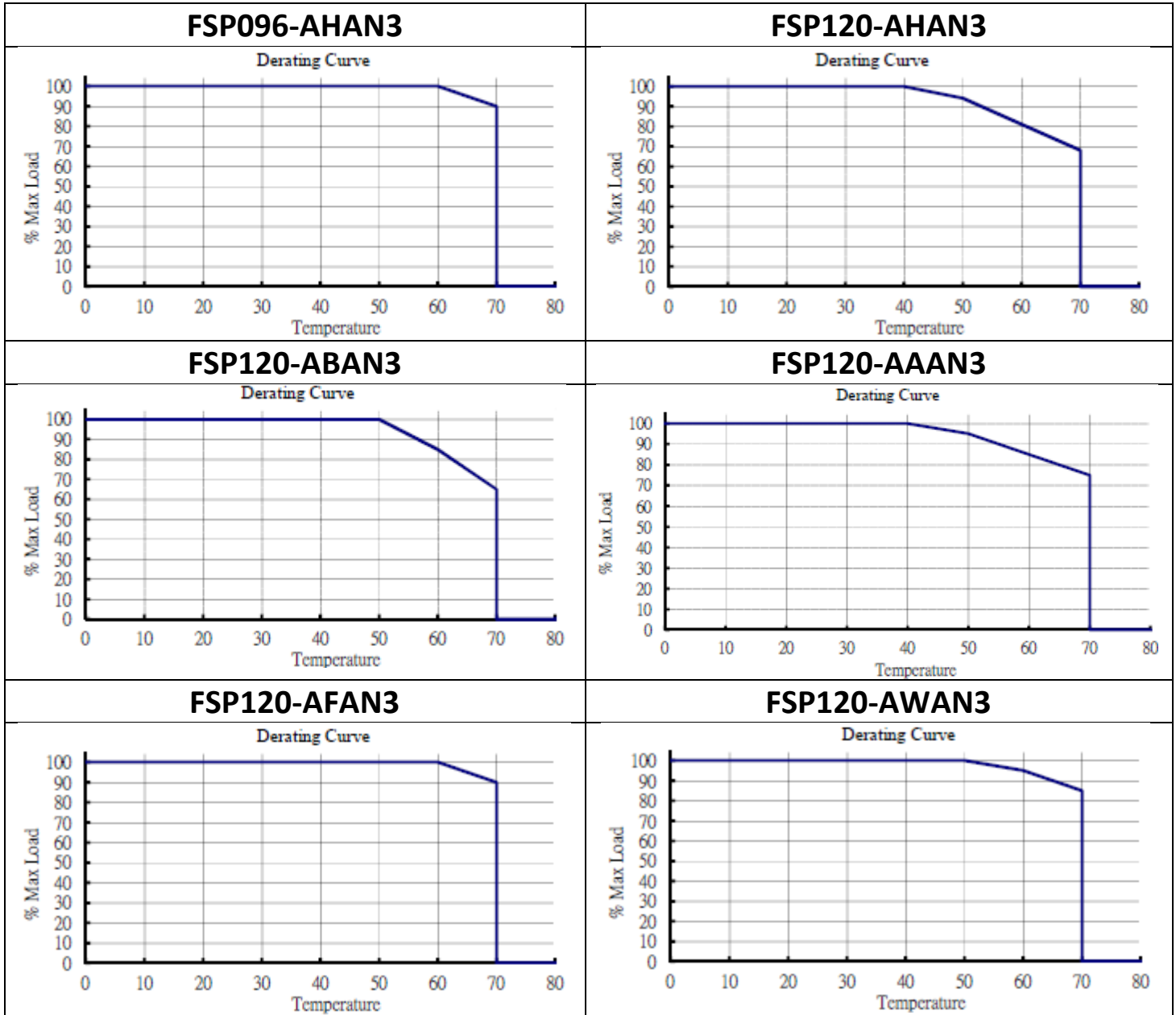


Specifications:

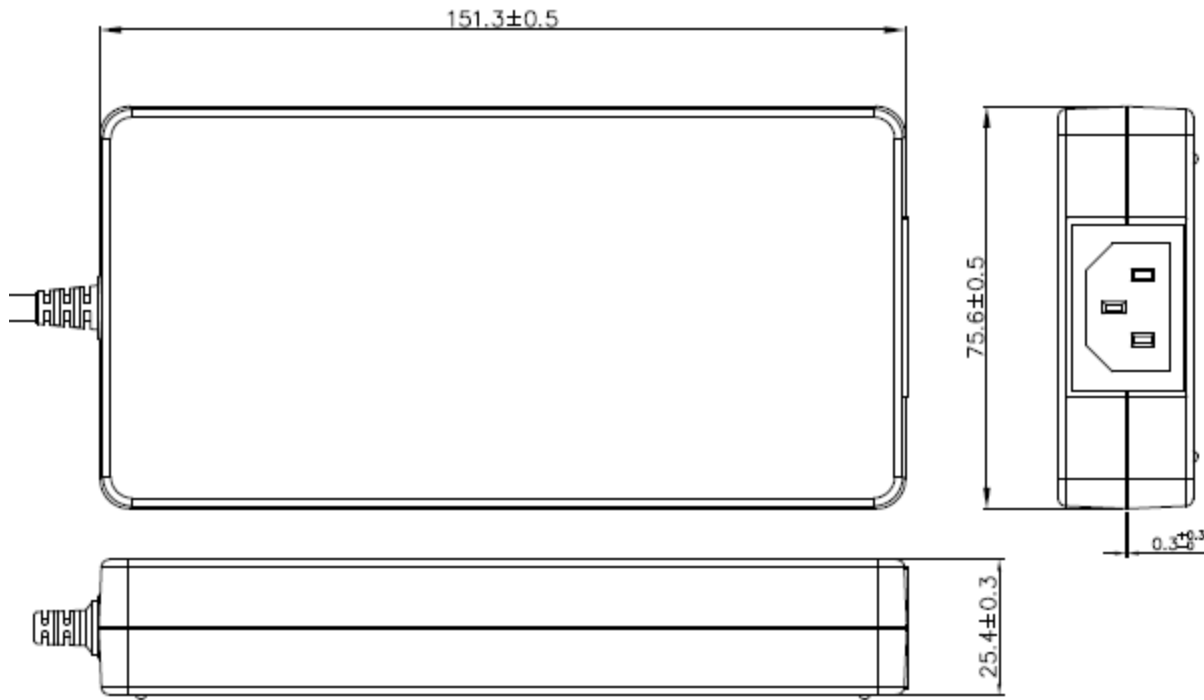
	Model	FSP096-AHAN3	FSP120-AHAN3	FSP120-ABAN3	FSP120-AAAN3	FSP120-AFAN3	FSP120-AWAN3
Output	Rated Voltage	12V	12V	19V	24V	48V	54V
	Current	0 ~ 8A	0 ~ 10A	0 ~ 6.31A	0 ~ 5A	0~2.5A	0~2.22A
	Watts	96W	120W	120W	120W	120W	120W
	Voltage Regulation	±5%					
	Overshoot	±10%					
	Dynamic Load Change	±10%					
	Ripple & Noise (Max.)	350mVp-p					
	Turn on Time (Max.)	3Sec					
	Rise Time (Max.)	50ms				60ms	
	Hold up Time (Min.)	10ms					
	Efficiency (Typical)	~ 89%	89% ~ 90%	89% ~ 90%	89% ~ 90%	90% ~ 91%	91% ~ 92%
Input	Voltage Range	90 ~ 264Vac					
	Frequency Range	47 ~ 63Hz(±1Hz)					
	Current (Max.)	1.8A	2A	1.8A	1.8A	1.8A	1.8A
	Inrush Current (cold start, full load, 25°C)	58A @110Vac 126A@220Vac	51A@100Vac 130A@240Vac	48A@100Vac 127A @240Vac	40A@100Vac 108A @240Vac	63A @110Vac 146A@220Vac	55.5A @110Vac 119A@220Vac
	Leakage Current (Max.)	0.25mA at 264VAC/50Hz					
	No Load Power Consumption	0.15W					
Protection	Short Circuit Protection	output shut down and auto-recovery after Fault condition removed					
	Over Current Protection	output shut down and auto-recovery after Fault condition removed					
	Over Voltage Protection	output shut down at 160% of voltage and recovery after AC reset					
	Over Temperature Protection	output shut down at abnormal temperature and recovery after AC reset					
Safety & Compliance	Safety Approvals	CB,UL/cUL, TUV					
	EMI/EMC	FCC Part 15 Class B, EMC					
	RoHS	2011/65/EU; (EU) 2015/863					
	Hi Pot	Input to output 1.5KV for 1 minute					
	Insulation Resistance	Input to Output at 500Vdc ≥20MΩ					
Environment	Operating Temperature/ Humidity	0~40°C/20~80% (safety) 40 to 70°C Linearly de-rating, need to check safety with system					
	Storage Temperature/ Humidity	-20~80°C/10~90%					
	Vibration	(1) Non-operating, 0.01g2/Hz at 5Hz,slopping to 0.02g2/Hz at 20Hz, And maintain 0.02g2/Hz from 20Hz ~ 500Hz (2) PSD=3.13grms, 15 minutes/axis (3) Vibration duration:15minutes (4) Vibration waveform: Random (5) Force Direction X,Y,Z					
Other	Dimension ((L*W*H)	151.3 x 75.6 x 25.4 mm					
	Adapter Weight (Typical)	485g					
	MTBF	Above 500K hours, Telcordia SR-332 (25°C)					
Note	Contact SPI for further information						



Power Derating



Mechanical Drawing (mm)

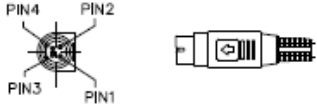
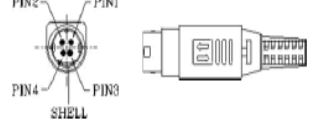

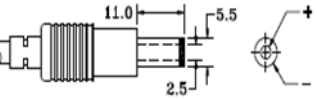
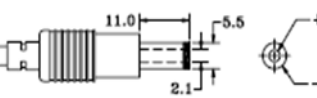
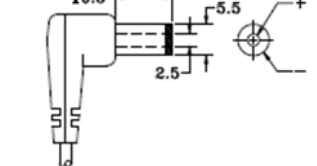
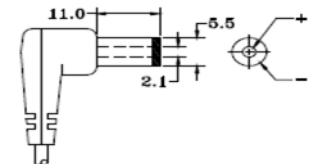
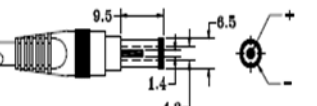


Optional Output DC Plugs

Profile & Dimension	Pinouts	Description	Suitable for SPI Models	Suggested Mating Connector
	1: -V 2: -V 3: -V 4: +V 5: +V 6: +V	6-pin connector Molex receptacle housing 39-01-2060 with female terminal #5556 series or equivalent	FSP096-AHAN3 FSP096-AHAN3 FSP120-ABAN3 FSP120-AAAN3 FSP120-AFAN3 FSP120-AWAN3	Molex plug housing 39-01-2066 with male terminal #5558 series or equivalent
	1: -V 2: -V 3: -V 4: +V 5: +V 6: +V	6-pin connector Molex receptacle housing 39-01-2065 with female terminal #5556 series or equivalent	FSP096-AHAN3 FSP096-AHAN3 FSP120-ABAN3 FSP120-AAAN3 FSP120-AFAN3 FSP120-AWAN3	Molex plug housing 39-01-2066 with male terminal #5558 series or equivalent
	1: +V 2: +V 3: -V 4: -V Shell: -V & AC GND	Female 4-pin plug without lock (molding type) Singatron 3MP-3432 or equivalent	FSP096-AHAN3 FSP096-AHAN3 FSP120-ABAN3 FSP120-AAAN3 FSP120-AFAN3 FSP120-AWAN3	4-pin connector Singatron 2MJ3002, 2MJ-3432, or equivalent



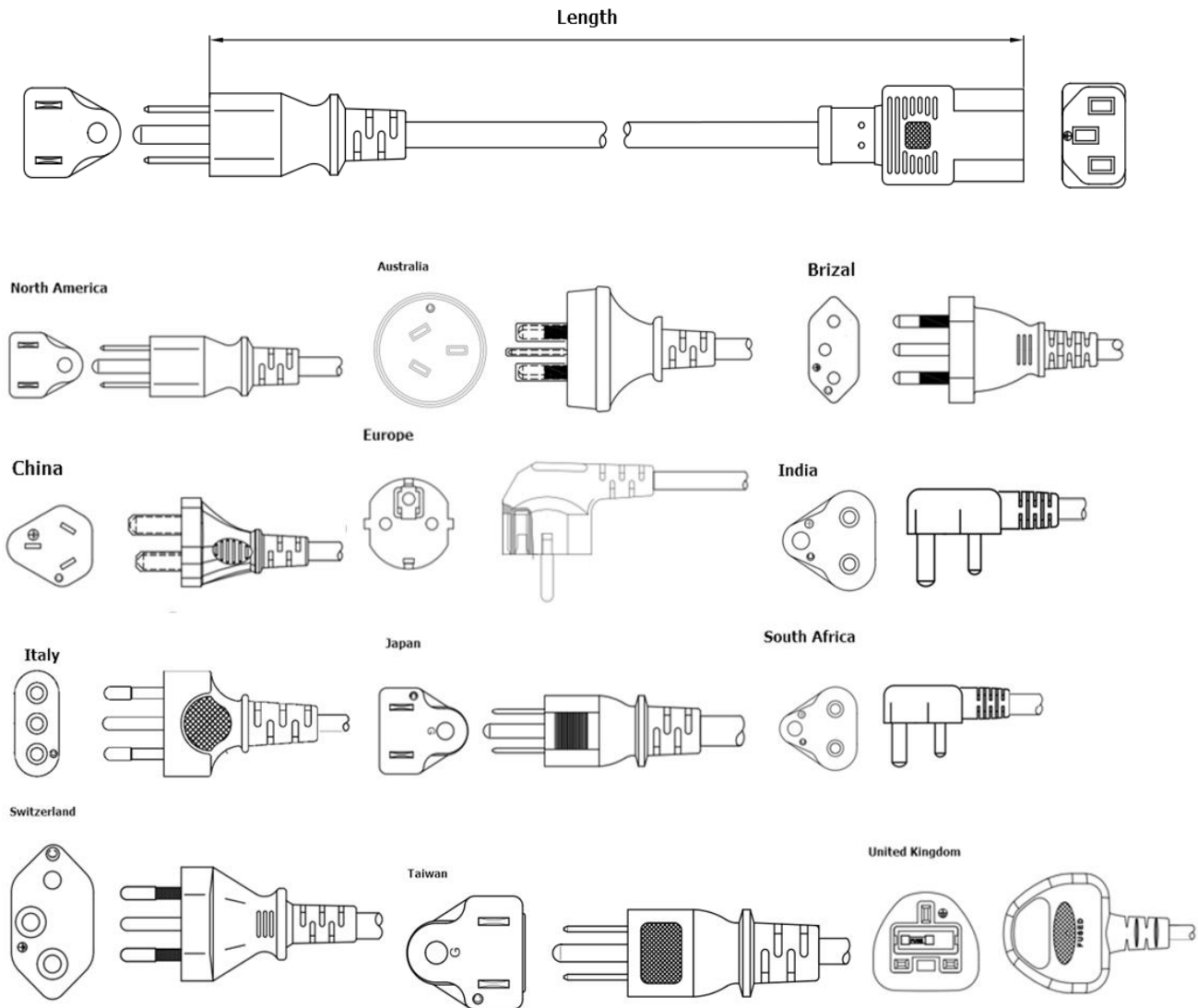
FSP096/120-AxAN3 Series AC-DC POWER SUPPLY

	<p>1: +V 2: +V 3: -V 4: -V Shell: -V & AC GND</p>	<p>Male 4-pin plug without lock (molding type)</p>	<p>FSP096-AHAN3 FSP096-AHAN3 FSP120-ABAN3 FSP120-AAAN3 FSP120-AFAN3 FSP120-AWAN3</p>	<p>4-pin socket Kycon P/N: KPJX-4S-S or equivalent</p>
	<p>1: +V 2: +V 3: -V 4: -V Shell: -V & AC GND</p>	<p>Male 4-pin plug with lock (molding type)</p>	<p>FSP096-AHAN3 FSP096-AHAN3 FSP120-ABAN3 FSP120-AAAN3 FSP120-AFAN3 FSP120-AWAN3</p>	<p>4-pin socket Kycon P/N: KPJX-4S-S or equivalent</p>
	<p>1: -V 2: +V</p>	<p>2-pin receptacle housing Molex 39-01-3025 with female terminal #5556 series or equivalent</p>	<p>FSP096-AHAN3 FSP096-AHAN3 FSP120-ABAN3 FSP120-AAAN3 FSP120-AFAN3 FSP120-AWAN3</p>	<p>Molex plug housing 39-01-2021 with male terminal #5558 series or equivalent</p>
	<p>Center: +V Sleeve: -V</p>	<p>Barrel female connector (Fork & Groove type)</p>	<p>FSP096-AHAN3 FSP096-AHAN3 FSP120-ABAN3 FSP120-AAAN3 FSP120-AFAN3 FSP120-AWAN3</p>	<p>Switchcraft, Type: RA712 or equivalent</p>
	<p>Center: +V Sleeve: -V</p>	<p>Barrel female connector (Fork & Groove type)</p>	<p>FSP096-AHAN3 FSP096-AHAN3 FSP120-ABAN3 FSP120-AAAN3 FSP120-AFAN3 FSP120-AWAN3</p>	<p>Switchcraft, Type: RA722 or equivalent</p>
	<p>Center: +V Sleeve: -V</p>	<p>Barrel right angle female connector (Fork & Groove type)</p>	<p>FSP096-AHAN3 FSP096-AHAN3 FSP120-ABAN3 FSP120-AAAN3 FSP120-AFAN3 FSP120-AWAN3</p>	<p>Switchcraft, Type: RA712 or equivalent</p>
	<p>Center: +V Sleeve: -V</p>	<p>Barrel right angle female connector (Fork & Groove type)</p>	<p>FSP096-AHAN3 FSP096-AHAN3 FSP120-ABAN3 FSP120-AAAN3 FSP120-AFAN3 FSP120-AWAN3</p>	<p>Barrel right angle female connector (Fork & Groove type)</p>
	<p>Center: +V Sleeve: -V</p>	<p>EIAJ RC-5320A plug type B with internal pin EIAJ-05 plug</p>	<p>FSP096-AHAN3 FSP096-AHAN3 FSP120-ABAN3 FSP120-AAAN3 FSP120-AFAN3 FSP120-AWAN3</p>	<p>Lumberg 1613 11 or Lumberg 1614 05 or equivalent</p>

Note: Contact SPI for further information

Optional AC Power Cords

Country	Cable Type	Length	SPI P/N
North America	SVT	1830 mm +/- 50	PCR-B3US-183C
Australia	H05VV-F	1830 mm +/- 50	PCR-B3AU-183B
Brazil	H05VV-F	1830 mm +/- 50	PCR-B3BR-183B
China	RVV 300/500	1830 mm +/- 50	PCR-B3CN-183B
India	H05VV-F	1830 mm +/- 50	PCR-B3OUK-183B
Italy	H05VV-F	1830 mm +/- 50	PCR-B3IT-183B
Japan	VCTF	1830 mm +/- 50	PCR-B3JP-183A
South Africa	H05VV-F	1830 mm +/- 50	PCR-B3SA-183B
Switzerland	H05VV-F	1830 mm +/- 50	PCR-B3SW-183B
Taiwan	VCTF	1830 mm +/- 50	PCR-B3TW-183A
United Kingdom	H05VV-F	1830 mm +/- 50	PCR-B3UK-183B



Note: Contact SPI for further information
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