

FSP200-PNA Series



FEATURES

- Class-I Design
- IEC 62368-1 safety standard
- EN55032 Class B emission
- Remote Off input (PS_Off)

SAFETY STANDARD APPROVAL



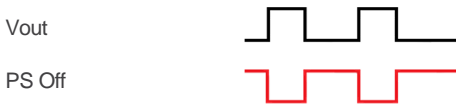
DESCRIPTION

This AC-DC switching power supplies in a package of 199 x 99 x 30 mm is a Class-I (with Protection Earth) safety construction and feature with 0.5W (maximum) low input power consumption at no load which is comply with Energy Star requirement. This PSU is capable of delivering 200 watts continuous power at 45°C operation temperature. Product is suitable for industry control applications.

INPUT SPECIFICATIONS

Input voltage: 90 to 264 VAC
 Input frequency: 47.5 to 63 Hz
 Input current: 3.5 A maximum

Earth leakage current: 710 μ Amax. @ 264 VAC
 PS Off PSU is normally ON until a High-level signal is input.



OUTPUT SPECIFICATIONS

Output voltage adjustment: $\pm 5\%$
 Total output power: 200 watt maximum
 Ripple and noise: Refer to rating chart
 Protection:
 OVP Latch off
 OCP & Shorted Auto recovery
 OTP Auto recovery

ENVIRONMENTAL SPECIFICATIONS

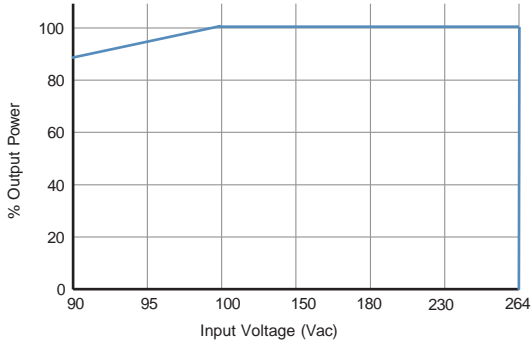
Operating temperature: -20°C to +70°C
 Storage temperature: -40°C to +85°C
 Relative humidity: 10% to 95% non-condensing
 Derating: See derating curve

GENERAL SPECIFICATIONS

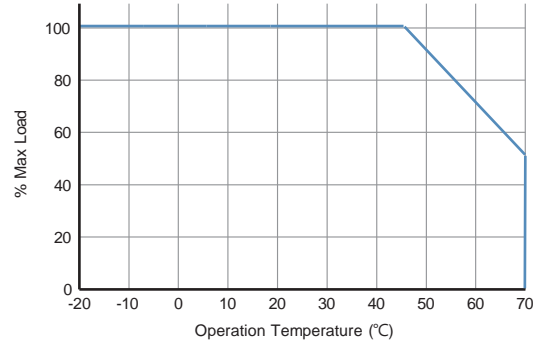
Fuse protection: T4 A , 250 VAC
 Operating altitude : 5000 meters above sea level
 Efficiency: Refer to rating table
 Turn-On Delay Time ≤ 2 sec at 100% load
 Hold-up time: 20 mS minimum @ 115 VAC & 100% load
 Line regulation: $\pm 1\%$ maximum at full load
 Inrush current: 30 A @ 115 VAC / 60 Hz, at 25°C cold start
 60 A @ 230VAC / 50 Hz, at 25°C cold start
 Power factor: ≥ 0.98 @ 115 VAC, ≥ 0.93 @ 230 VAC
 Withstand voltage: 3000 VAC from input to output
 2000VAC from input to ground,
 1500 VAC from output to ground
 Isolation resistance Input to output 100M ohm @ 500Vdc
 MTBF: 300K hours mini. at full load at 25°C ambient temperature, calculated per Telcordia SR-332

EMC Performance
 EN55032: Class B conducted, class B radiated
 EN61000-3-2: Harmonic distortion, class D
 EN61000-3-3: Line flicker
 EN61000-4-2: ESD, ± 8 KV air and ± 4 KV contact
 EN61000-4-3: Radiated, Radio Frequency, Electromagnetic field (RS): 3 V/m
 EN61000-4-4: Fast transient/burst, ± 1 KV
 EN61000-4-5: Surge, ± 2 KV diff., ± 4 KV com.
 EN61000-4-6: Conducted Radio Frequency Disturbances (CS), 3 Vrms
 EN61000-4-8: Power Frequency Magnetic field, 3 A/m
 EN61000-4-11: Voltage dip immunity & voltage interruptions
 30% reduction for 500mS, criteria A
 >95% reduction for 10mS, criteria A
 >95% reduction for 5000mS, criteria B

INPUT VOLTAGE DERATING CURVE



OUTPUT POWER DERATING CURVE



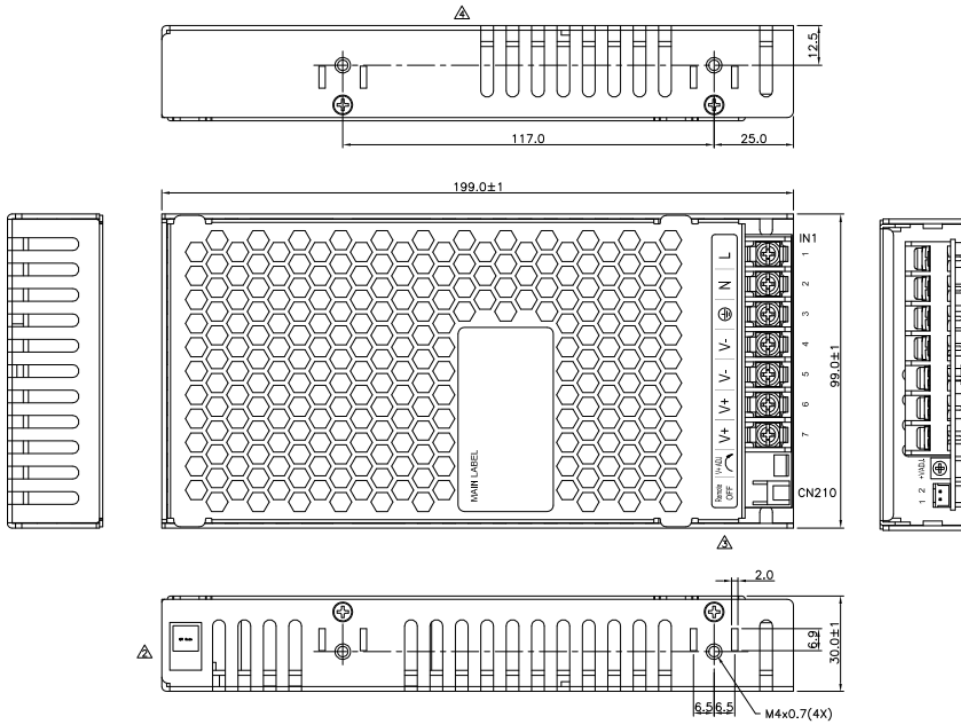
OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output						Efficiency (typical)
	Voltage	Min. Current	Max. Current	Tolerance	Ripple & Noise ⁽¹⁾	Max. Power	@ 115 / 230 Vac
FSP200-PNA-A12	12 V	0A	16.6A	±3%	150 mV	200W	88 / 90%
FSP200-PNA-A24	24 V	0A	8.33A	±3%	200 mV	200W	88 / 90%
FSP200-PNA-A48	48 V	0A	4.17A	±3%	300 mV	200W	92 / 94%

NOTES:

1. Ripple and noise is maximum peak to peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 22 μ F capacitor in parallel with a 0.1 μ F ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS



Pin assignment of IN1

Pin No.	Function	Wafer
1	AC/L	DECA T44-BS1R07 or EQUIVALENT
2	AC/N	
3	FG	
4	V-	
5	V-	
6	V+	
7	V+	

Pin assignment of CN210

Pin No.	Function	Wafer
1	PS_OFF	JST B2B-XH-A or EQUIVALENT
2	PS_OFF RTN	

NOTES:

1. Dimension showed in mm.
2. Weight: 464 grams (1.02 lbs.) approx.