

FSP100-PNA Series

FEATURES

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

SAFETY STANDARD APPROVAL



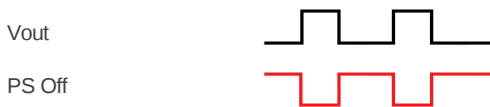
DESCRIPTION

This AC-DC switching power supplies in a package of 179 x 99 x 30 mm is a Class-I (with Protection Earth) safety construction. This PSU is capable of delivering 100 watts continuous power at 50°C operation temperature. Product is suitable for industry control applications.

INPUT SPECIFICATIONS

Input voltage: 100 to 240 VAC
Input frequency: 47.5 to 63 Hz
Input current: 3 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: 100 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

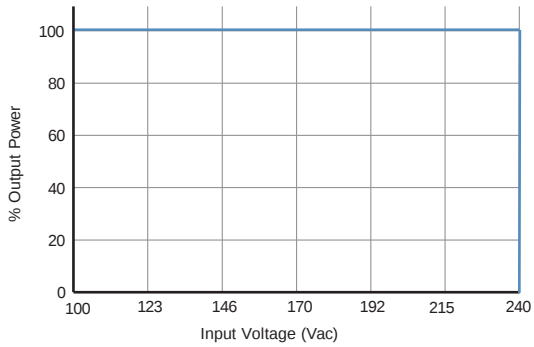
GENERAL SPECIFICATIONS

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: 16 mS minimum @ 115 VAC & 100% load
Line regulation: $\pm 1\%$ maximum at full load
Inrush current: 60 A @ 115 VAC / 60 Hz, at 25°C cold start
120 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: 330K hours mini. at full load at 25°C ambient temperature, calculated per Telcordia SR-332

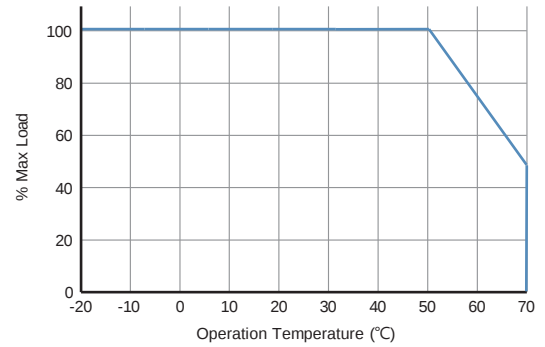
EMC Performance
EN55032: Class B conducted, class B radiated
EN61000-3-2: Harmonic distortion, class D
EN61000-3-3: Line flicker
EN61000-4-2: ESD, ± 8 KV air and ± 4 KV contact
EN61000-4-3: Radiated, Radio Frequency, Electromagnetic field (RS): 3 V/m
EN61000-4-4: Fast transient/burst, ± 1 KV
EN61000-4-5: 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

OUTPUT POWER DERATING CURVE

INPUT VOLTAGE DERATING CURVE



OUTPUT POWER DERATING CURVE



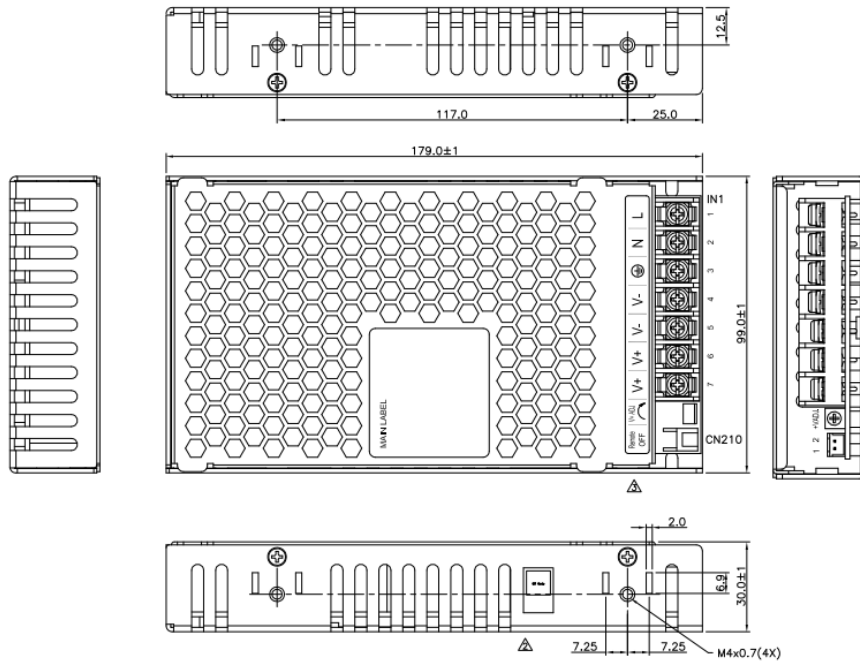
OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output						Efficiency (typical)
	V1	Min. Current	Max. Current	Tolerance	Ripple & Noise ⁽¹⁾	Max. Power	@ 115 / 230 Vac
FSP100-PNA-A12	12 V	0A	8.4A	±3%	120 mV	100W	87 / 88%
FSP100-PNA-A24	24 V	0A	4.2A	±3%	200 mV	100W	88 / 90%
FSP100-PNA-A48	48 V	0A	2.1A	±3%	250 mV	100W	88 / 89%

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 S2B-XH-A or EQUIVALENT
2	PS_OFF RTN	

NOTES:

1. Dimensions shown in mm