

FSP100-P36J Series

FEATURES

- Class-I design
- IEC 62368-1 safety standard
- EN 55032 radiated emission
- Remote ON/OFF input (optional)
- Stand by power less than 0.5W
- Low profile 155×62×22 mm

SAFETY STANDARD APPROVAL



DESCRIPTION

This AC-DC switching power supplies in a package of 2.44 x 6.1 inches is a Class-I (with Protection Earth) safety construction and feature with 0.5W low input power consumption at 0.2W load which is comply with Energy Star requirement. This PSU is capable of delivering 100 watts continuous power at 50°C operation temperature. Product is suitable for industry and information applications.

INPUT SPECIFICATIONS

Input voltage:	85 to 264 VAC
Input frequency:	47-63 Hz
Input current:	1.2 A (rms) for 100 VAC 0.6 A (rms) for 230 VAC
Earth leakage current:	750 μ A max. @ 264 VAC, 63 Hz
Remote Off (optional)	PSU is normally off and has no output voltage until a HIGH-level signal is input.

Vout 

Remote Off 

OUTPUT SPECIFICATIONS

Output voltage/current:	See rating chart.
Total output power:	100 watts maximum
Ripple and noise:	1% peak to peak maximum
Protection:	
OVP	Auto recovery
OCP & Shorted	Auto recovery
Temperature coefficient:	All outputs $\pm 0.04\%$ /°C maximum
Transient response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 μ s after a 25% step load change

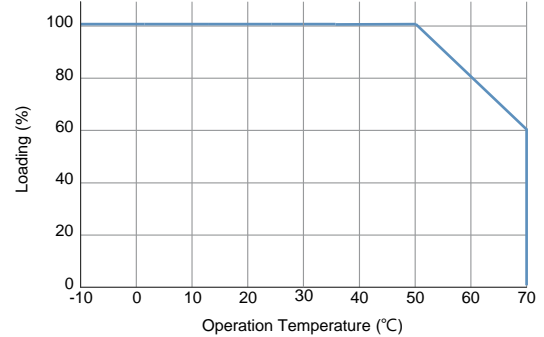
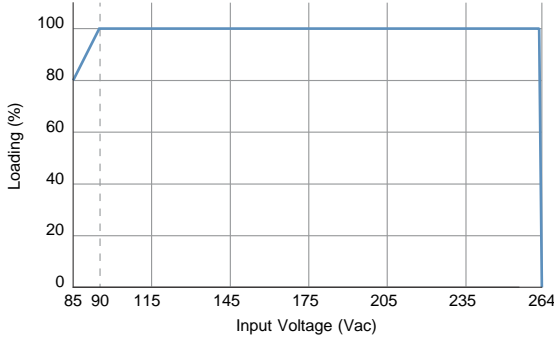
ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	-20°C to +70°C
Storage temperature:	-40°C to +85°C
Relative humidity:	5% to 95% non-condensing
Derating:	Derate from 100% at +40°C linearly to 60% at +70°C, applicable to convection and forced-air cooling conditions.

GENERAL SPECIFICATIONS

Efficiency:	Refer to rating table
Turn-On Delay Time	≤ 1 sec at 100 VAC
Hold-up time:	20 mS minimum @ 100 VAC & 100% load
Line regulation:	$\pm 1\%$ maximum at full load
Inrush current:	15A @ 100 VAC / 60 Hz, at 25°C cold start 35A @ 230 VAC / 50 Hz, at 25°C cold start
Withstand voltage:	3000 VAC from input to output 2000 VAC from input to ground, 1500 VAC from output to ground
Isolation resistance	Input to output 100M ohm @ 500Vdc
MTBF:	400,000 hours mini. at full load at 25°C ambient temperature, calculated per Telcordia SR-332
EMC Performance	
EN55032 /EN55035:	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 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 V/m
EN61000-4-8:	Magnetic field immunity, 1 A/m
EN61000-4-11:	Voltage dip immunity & voltage interruptions 30% reduction for 500 mS, criteria A >95% reduction for 10 mS, criteria A 100% reduction for 5000 mS, criteria B

DERATING CURVE



OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output						Efficiency (typical) @ 100 / 230 Vac
	V1	Min. Current	Max. Current ⁽¹⁾	Tolerance	Ripple & Noise ⁽²⁾	Max. Power	
FSP100-P36J-A12	12 V	0 A	8.5A	±3 %	160 mV	100W	87 / 90%
FSP100-P36J-A15 ⁽³⁾	15 V	0 A	6.7A	±3 %	150 mV	100W	87 / 90%
FSP100-P36J-A24	24 V	0 A	4.3A	±3 %	240 mV	100W	89 / 92%
FSP100-P36J-A36 ⁽³⁾	36 V	0A	2.8A	±3 %	250 mV	100W	89 / 92%

- NOTES:
 1. PSU is the PCB form factor. Suffix " C" in model no. is for the enclosed form, e.g. FSP100-P36J-A12C
 2. 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 µF capacitor in parallel with a 0.1 µF ceramic capacitor across the output.
 3. Please contact with sales office for the safety certificate schedule before design.

MODEL NO. RULE:

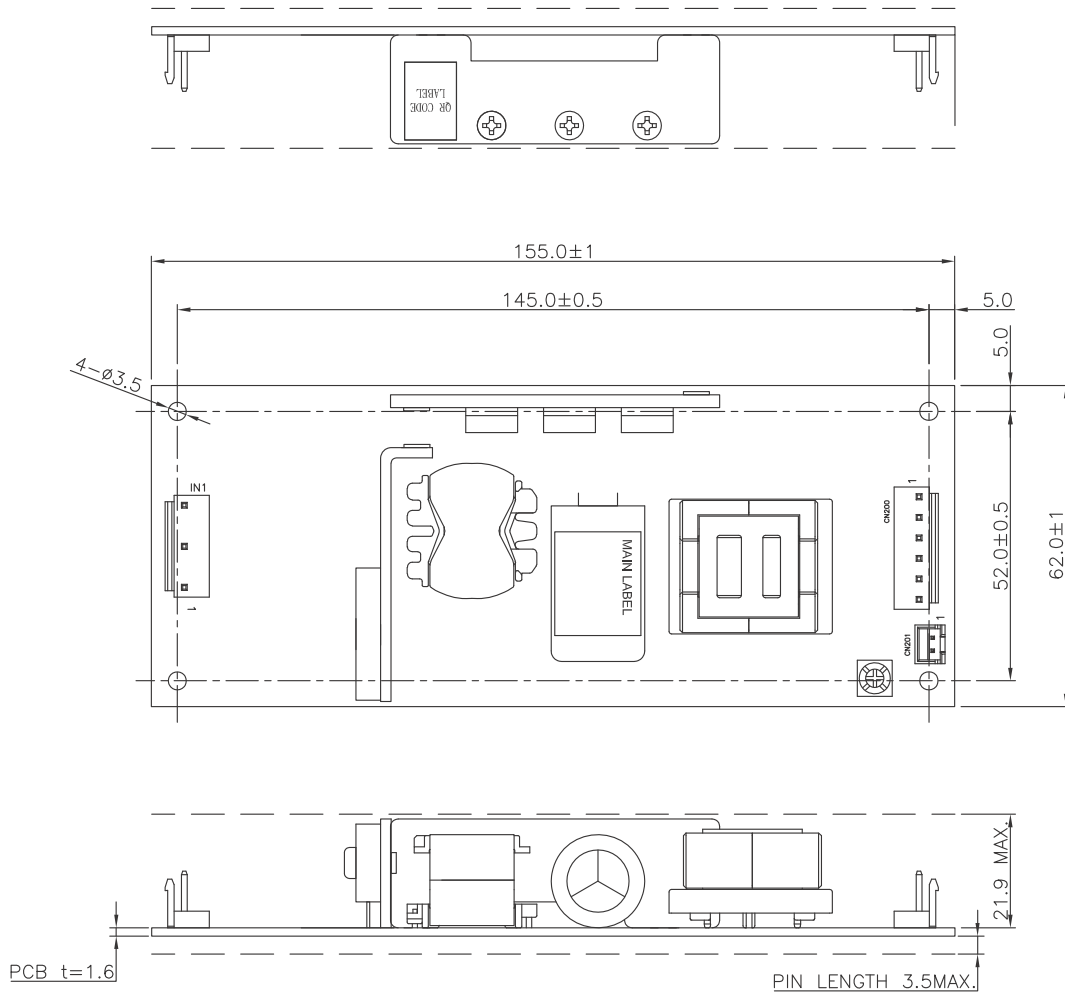
	1		2			3	4	5
FSP	100	-	P36J	-	A	12	C	S

1. Watts, output power.
2. Product Series no.
3. Output voltage
4. Enclosed form factor: C
5. Remote Off: S

EXAMPLE:
 FSP100-P36J-A12 Open frame PSU
 FSP100-P36J-A12C PSU with enclosure
 FSP100-P36J-A12CS PSU with enclosure & remote on/off features
 FSP100-P36J-A12S Open frame PSU with remote on/off features

MECHANICAL SPECIFICATIONS

PCB form factor open frame



Pin assignment:

1. IN1: JST B3P5-VH or EQU

2. CN200: JST B6P-VH or EQU

3. CN201: JST B2B-XH-A or EQU

Pin No.	Function
1	L
2	
3	N
4	
5	FG

Pin No.	Function
1, 2, 3	V-
4, 5, 6	V+

Pin No.	Function
1	R / C+
2	R / C-

NOTES:

- Dimensions shown in mm
- Weight: PCB form factor 201 grams (0.443 lbs.)