

FSP150-P37J Series

FEATURES

- Class-I Design
- IEC 62368-1 safety standard
- EN55032 radiated emission
- Remote ON input (optional)
- Standby power less than 0.5W
- Low profile 160×75×28.6 mm

SAFETY STANDARD APPROVAL




DESCRIPTION

This AC-DC switching power supplies in a package of 2.95 x 6.3 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 150 watts continuous power at specified operation temperature. Product is suitable for industry applications.

INPUT SPECIFICATIONS

Input voltage:	85 to 264 VAC
Input frequency:	47-63 Hz
Input current:	2.5 A (rms) for 100 VAC 1.2 A (rms) for 230 VAC
Earth leakage current:	750 μ A max. @ 264 VAC, 50 Hz
Remote ON (optional)	PSU is normally off and has no output voltage until a HIGH-level signal is input.

Vout 

Remote ON 

OUTPUT SPECIFICATIONS

Output voltage adjustment:	$\pm 10\%$ by VR (12V and 15V $\pm 5\%$)
Total output power:	150 watts maximum
Ripple and noise:	1% peak to peak maximum
Protection:	
OVP	Auto recovery
OCP & Shorted	Auto recovery
OTP	Latch off

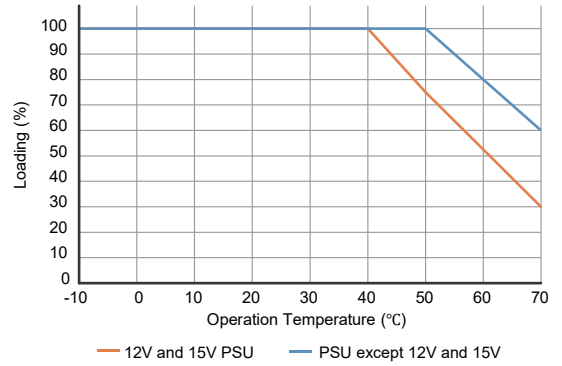
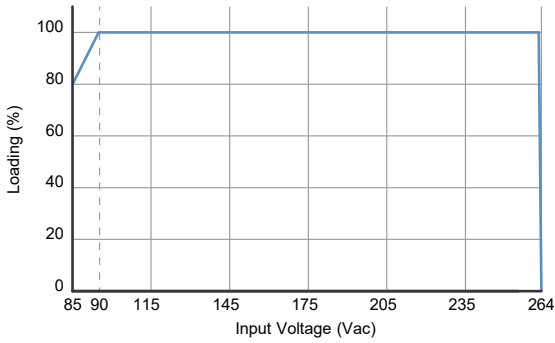
ENVIRONMENTAL SPECIFICATIONS

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 rating:	250VAC T3.15AL
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:	15 A @ 100 VAC / 60HZ or 35 A @ 230 VAC / 50HZ, 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:	1500K hrs minimum 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, 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 immunity, 3 V/m
EN61000-4-8:	Power Frequency Magnetic field, 1 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

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
FSP150-P37J-A12 FSP150-P37J-B12	12 V	0A	12.5A	±5%	120 mV	150W	86.5 / 89.5%
FSP150-P37J-A15 FSP150-P37J-B15	15V	0A	10A	±5%	150mV	150W	86.5 / 89.5%
FSP150-P37J-A24 FSP150-P37J-B24	24V	0A	6.3A	±5%	240mV	150W	89 / 92%
FSP150-P37J-A36 FSP150-P37J-B36	36 V	0A	4.2A	±5%	300mV	150W	90/ 93%
FSP150-P37J-A48 FSP150-P37J-B48	48V	0A	3.2A	±5%	300mV	150W	90/ 93%

NOTES:

1. PSU is the PCB form factor. Suffix " C " in model no. is for the enclosed form, e.g. FSP150-P37J-A12C.
2. " A & B " in the model no. is the difference in output connector. Please refer to mechanical specification.
3. 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.

MODEL NO. RULE:

	1		2			3	4	5
FSP	150	-	P37J	-	A	12	C	S

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

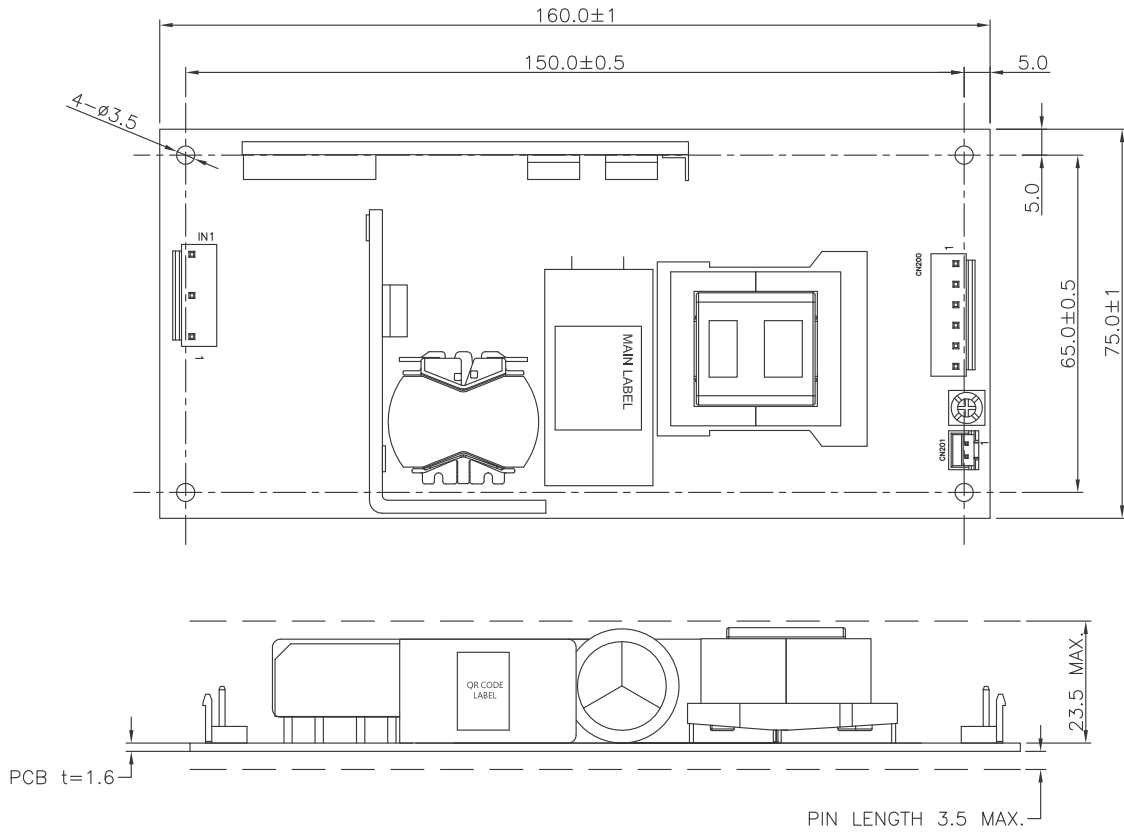
EXAMPLE:

- FSP150-P37J-A12 Open frame PSU
- FSP150-P37J-A12S Open frame PSU with remote on features
- FSP150-P37J-A12C PSU with enclosure
- FSP150-P37J-A12CS PSU with enclosure & remote on features

MECHANICAL SPECIFICATIONS

PCB form factor

FSP150-P37J-A series



Pin assignment:

1. IN1: JST B3P5-VH or EQU

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

2. CN200: JST B6P-VH or EQU

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

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

*Optional function

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

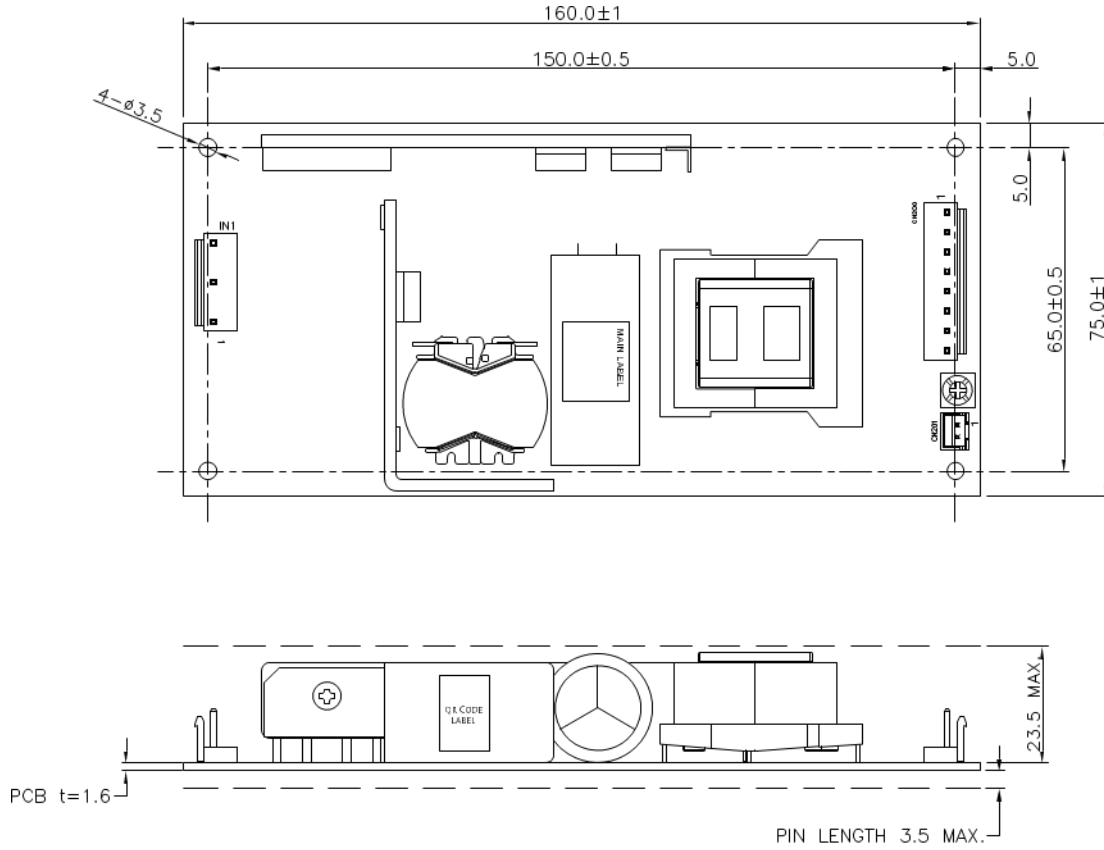
NOTES:

1. Dimension showed in mm.
2. Weight: PCB form factor 320 grams (0.706 lbs.)

MECHANICAL SPECIFICATIONS

PCB form factor

FSP150-P37J-B series



Pin assignment:

1. IN1: JST B3P5-VH or EQU

2. CN200: JST B8P-VH or EQU

3. CN201: JST B2B-XH-A or EQU
*optional function

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

Pin No.	Function
1,2,3,4	V-
5,6,7,8	V+

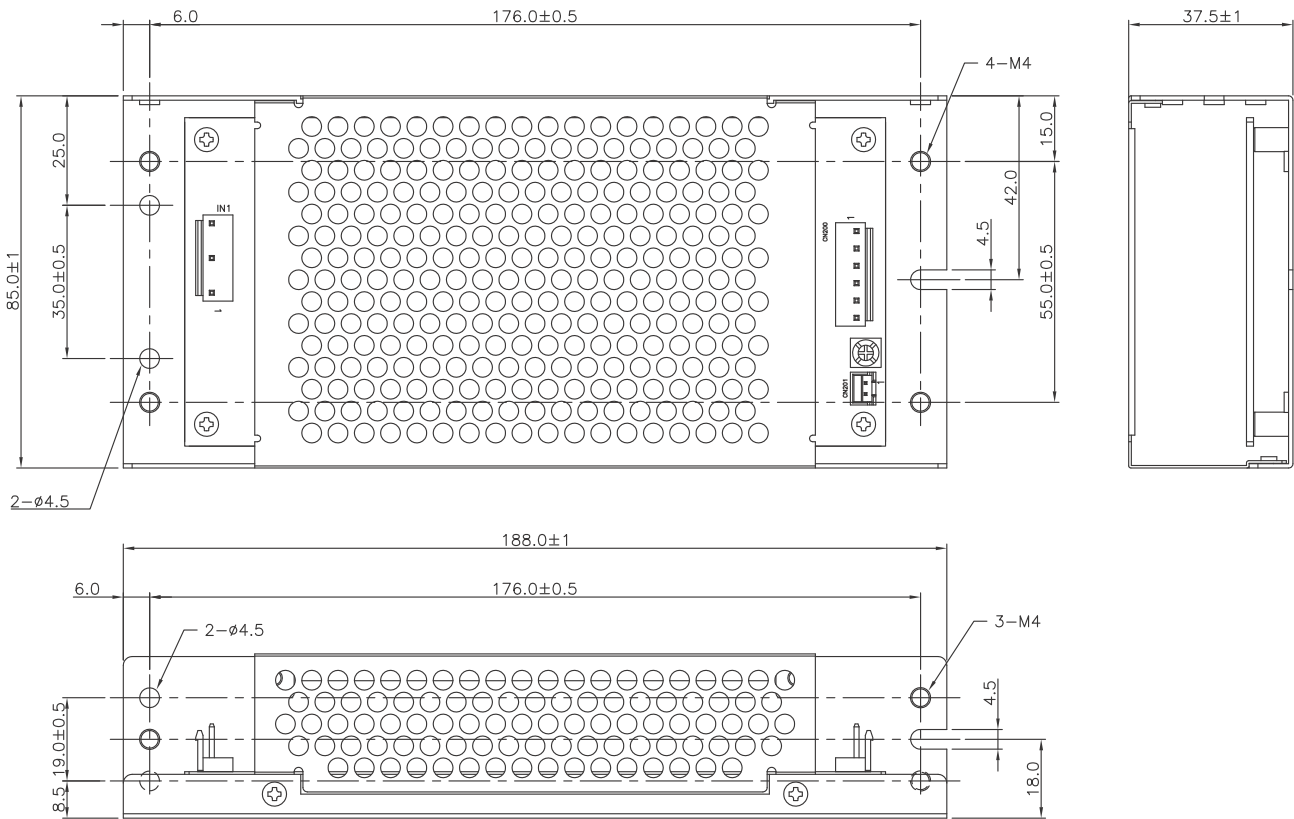
Pin No.	Function
1	R/C+
2	R/C-

NOTES:

1. Dimension showed in mm.
2. Weight: Enclosed form factor 320 grams (0.706 lbs.)

MECHANICAL SPECIFICATIONS

Enclosed form factor



NOTES:

1. Dimension showed in mm.
2. Weight: Enclosed form factor 494 grams (1.09 lbs.)