

## DESCRIPTION

FSP400-60DL(48V) is an industrial level of switching power supply. The power supply comes to offer the total power capacity up to 400 Watts, and uses unique active PFC (Power Factor Correction) circuit design with its high-load electrical components, makes it to be perfectly used in an industrial environment. In addition, with its full range of input and output electrical features, the power supply is ideally the best choice for server, workstation, communication or any other automation applications to use. The product also complies with the latest safety and EMC standards, which is perfectly to meet various regulations worldwide.

## APPLICATION

For standard, advanced server, communication and industrial power system.

## FEATURES

- High efficiency, meet 80PLUS GOLD standards.
- Built-in active PFC function, > 0.95 at full load / 100Vrms input.
- With OVP, OCP, OTP & SCP protection function.
- With bi-color LED to indicate power supply status.
- Fan speed control circuit to reduce acoustic noise.

## WATTAGE

**Wattage:** 400W

## DIMENSION

**Dimension:** 140mm(L) x 150mm(W) x 86mm(H)

## PRODUCT HIGHLIGHT

**Efficiency Level:** NON-80PLUS  
**PMBus:** For standard, advanced server, communication and industrial power system.

## INPUT SPECIFICATION

**Input Range:** -36--72 Vdc  
**Input Current:** 18A

## GENERAL SPECIFICATION

**Voltage Regulation:** +3.3V, +12V, +5V, +5SB:  $\pm 5\%$   
-12V, -5V:  $\pm 10\%$

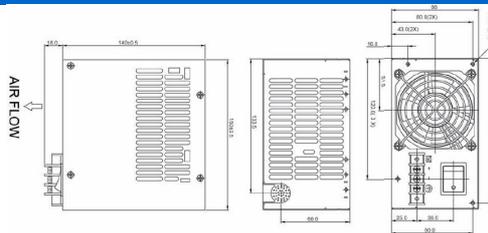
## \*Output Voltage and Current Rating

	+3.3V	+5V	+12V1	-12V	-5V	+5Vsb
<b>Ripple-Noise(R-P) mV</b>	50mV	50mV	5mV	120mV	100mV	50mV
<b>Regulation Load %</b>	$\pm 5\%$	$\pm 5\%$	$\pm 5\%$	$\pm 10\%$	$\pm 5\%$	$\pm 5\%$
<b>Output Max.(A)</b>	28A	40A	15A	0.8A	0.3A	2A
<b>Output Min.(A)</b>	0.3A	0.3A	0.2A	0A	0A	0A

## NOTES

- 5V, 3.3V, 12V, -12V Will gave the regulation to 10% when all load take off.
- The +3.3V and +5V total output shall not exceed 235 watts.
- The +3.3V, +5V and 12V total output shall not exceed 380 watts.
- The total output shall not exceed 400 watts

## MECHANICAL SPECIFICATION



This content is subject to change, please refer to specification for more detail.  
FSP reserve the right to change the content without prior notice



## SAFETY STANDARD APPROVAL



## OUTPUT SPECIFICATION

**Output Voltage Regulation:**  
+3.3Vdc output : +3.5 Vdc minimum, + 4.5Vdc maximum  
+5Vdc output : +5.58 Vdc minimum, + 6.82Vdc maximum  
+12Vdc output : +13.3 Vdc minimum, + 15.6Vdc maximum  
**Output Rise Time:**  
DC input -48V 5V 20ms Maximum  
DC input -48V 3.3V 20ms Maximum  
DC input -48V 12V 20ms Maximum  
**Ripple & Noise:**  
3.3V:50mV p-p  
5V:50mV p-p  
12V1:120mV p-p  
-12V:120mV p-p  
5Vsb:50mV p-p  
-5V:100mV p-p

## ENVIRONMENTAL SPECIFICATION

**TEMP.Range:** Storage Temperature: -20°C to + 80°C  
**MTBF:** The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC inout voltage