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SPECIFICATION

MODEL:FSP036-1AD102C

| R&D | CHECK | APPROVED | REV. |
|-----|-------|----------|------|
| | | | 1.0 |

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ATTACHMENT: ASSY FIGURES

1.0 GENERAL DESCRIPTION AND SCOPE

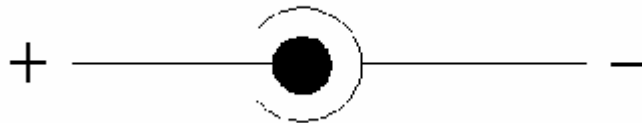
This is the specification of Model FSP036-1AD102C; part no. _____, AC-DC adapter switching power supply designed and manufactured by FSP GROUP, INC. located in Taiwan, Republic of China.

The specification below is intended to describe as detailedly as possible the functions and performance of the subject power supply. Any comment or additional requirements to this specification from our customers will be highly appreciated and treated as a new target for us to approach.

2.0 CONNECTOR PIN DESIGNATIONS

The pin designations and color codes are defined as follows:

OUTPUT POLARITY OF DC PLUG



3.0 OUTPUT ELECTRICAL REQUIREMENTS

3.1 OUTPUT RATING

| Output | Nominal | Regulation | Ripple/Noise | Min | Max |
|--------|---------|-------------|--------------|-----|------|
| 1 | +9.0V | 8.55V~9.45V | 120mV | 0A | 4.0A |

The total output regulation shall be $\pm 5\%$, including the effects of line voltage variations, load current, ripple and noise, and the AC component of the load current. Ripple and noise measurements shall be made under all specified load conditions through a single Pole low pass filter with 20MHz cutoff frequency. Outputs shall bypass at the connector with a 0.1uF ceramic disk capacitor and a 47uF electrolytic capacitor to simulate system loading.

Ripple Noise test condition: 90V/60Hz,output at Max. Current.

3.2 SHORT CIRCUIT PROTECTION

Output can be shorted without damage, and auto recovery.

3.3 TURN-ON DELAY TIME

The turn-on delay from application of AC input power to the establishment of rated DC power voltage should not exceed 4.0 seconds under any conditions at 120Vac/60Hz .

3.4 HOLD UP TIME

5mS minimum. Tested 120Vac input and max load at output.

3.5 DYNAMIC LOAD REGULATION

Output voltage within 8.55V ~ 9.45V, for load step 0.6A to 3.0A on the output. S/R=0.05A/uS, 100Hz & 1KHz 50% duty.

3.6 OVERSHOOT

The output overshoot at turn-on shall not exceed 10% of normal voltage value with or without the load connected.

3.7 OVER VOLTAGE PROTECTION

The voltage will not exceed the upper trip limit.

| Output Voltage | Upper trip limit | Remark |
|-------------------|------------------|--------------------|
| 8.55Vdc ~ 9.45Vdc | 13Vdc ~ 18Vdc | Only internal test |

3.8 NO LOAD POWER CONSUMPTION

SPECIFICATION : Input power 1W(MAX)

CONDITION : At 264Vac input voltage and no load .

4.0. INPUT ELECTRICAL SPECIFICATIONS

4.1 INPUT VOLTAGE RANGE

| PARAMETER | MIN. | NOM. | MAX. | UNITS |
|------------|------|---------|------|-------|
| V-in Range | 90V | 115/230 | 264V | V-rms |

4.2 INPUT FREQUENCY

47 - 63Hz

4.3 INRUSH CURRENT

| | |
|------|----------|
| 220V | 100 Amps |
|------|----------|

4.4 INPUT LINE CURRENT

| | |
|------|------------------------|
| 115V | 1.0 Amps – rms maximum |
| 230V | 0.6 Amps – rms maximum |

4.5 EFFICIENCY

| | |
|-------------------|-------------|
| 115Vac @Full Load | 75% minimum |
| 230Vac @Full Load | 75% minimum |

5.0. ENVIRONMENTAL REQUIREMENTS

The power supply will be compliant with each item in this specification for the following environmental conditions.

5.1 TEMPERATURE RANGE

| | |
|-----------|------------------|
| Operating | 0 to + 40 deg. C |
| Storage | -20 to +65deg.C |

5.2 HUMIDITY

| | |
|-----------|----------------------------|
| Operating | 20 –80% RH, Non-condensing |
| Storage | 10 –90% RH, Non-condensing |

5.3 VIBRATION

10 to 100Hz sweep at a constant acceleration of -0.5G for 10 min. for each of the perpendicular axes X, Y, Z.

5.4 SHOCK

Half-sine: 2ms

Storage All 6 sides; 50 to 90 in/sec in 10 in/sec increments.

Operating All sides except top; 40 to 70 in/sec in 10 in/sec increments.

No mechanical variations permitted. Electrically, the unit is capable of continuous normal operation after test completion.

5.5 PACKAGE DROP

Turn off system.

Follow MIL-STD-810D, 0 - 9.1kg 1m, 9.2 - 18.2kg 90cm.

10 drops: 1 corner, 3 adjacent edges of corner, 6 faces.

At random, repeat the above process 1 more time.

Note: Check for mechanical damage and functional failures.

6.0. RELIABILITY

6.1. MTBF

The subject adapter have a minimum predicted MTBF of 60000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

6.2 DIELECTRIC WITHSTAND VOLTAGE

L-N To FG: 2545 VDC 10mA for 1 second.

6.3 LEAKAGE CURRENT

At 240Vac 60Hz, 3.5mA max.

6.4 PLD

Follow IEC801-5: L-N 1KV / 1.2* 50uS no function error.