

**SUNPOWER TECHNOLOGY CORP.**

**SPECIFICATIONS OF SWITCHING POWER SUPPLY**

**MODEL NO.: SPQ-4200    REV.: 1.0**

**SPQ-4250**

**SPQ-4300**

**(UL/CSA/TUV/CE APPROVED)**

<b>STAMP</b>	<b>APPROVED</b>	<b>CHECK</b>	<b>PREPARE</b>

**1. AC INPUT :**

## 1-1.VOLTAGE :

115V : 90V (MIN.) --- 132V (MAX.)

230V : 180V (MIN.) --- 264V (MAX.)

\*AC INPUT 115V/230V AUTO RANGE OR MANUAL SELECTABLE.

## 1-2. FREQUENCY :

47-----63Hz.

## 1-3. CURRENT :

**SPQ-4200:**

4.2A MAX. AT 115V AC INPUT, FULL LOAD CONDITION.

2.0A MAX. AT 230V AC INPUT, FULL LOAD CONDITION.

**SPQ-4250:**

5.2A MAX. AT 115V AC INPUT, FULL LOAD CONDITION.

2.6A MAX. AT 230V AC INPUT, FULL LOAD CONDITION.

**SPQ-4300:**

7.0A MAX. AT 115V AC INPUT, FULL LOAD CONDITION.

3.5A MAX. AT 230V AC INPUT, FULL LOAD CONDITION.

\*AT 115V AC INPUT. INCLUDED AC OUTLET 1A MAX.

AT 230V AC INPUT. INCLUDED AC OUTLET 0.5A MAX.

## 1-4. INRUSH CURRENT:

**SPQ-4200 & SPQ-4250:**

45A MAX. AT 115V AC INPUT, FULL LOAD CONDITION.

80A MAX. AT 230V AC INPUT, FULL LOAD CONDITION.

**SPQ-4300:**

60A MAX. AT 115V AC INPUT, FULL LOAD CONDITION.

100A MAX. AT 230V AC INPUT, FULL LOAD CONDITION.

\* COLD START, AT 25°C AMBIENT.

## 1-5. LEAKAGE CURRENT:

1.5mA MAX. AT 264V AC INPUT.

**2. DC OUTPUT:****SPQ-4200:**

OUTPUT	V1	V2	V3	V4
VOLTAGE	+5V	+12V	-5V	-12V
MIN. LOAD	3 A	0.5 A	0 A	0 A
**MAX. LOAD	20 A	8 A	0.5 A	0.5 A
***REGULATION	±3%	±5%	±8%	±5%
RIPPLE & NOISE (MAX.)	70mV	150mV	70mV	200mV
OVP	+5.8V~7.0V	---	---	---
EFFICIENCY (TYP.)	75%			

**SPQ-4250:**

OUTPUT	V1	V2	V3	V4
VOLTAGE	+5V	+12V	-5V	-12V
MIN. LOAD	3 A	0.5 A	0 A	0 A
**MAX. LOAD	25 A	10 A	0.5 A	0.5 A
***REGULATION	±3%	±5%	±8%	±5%
RIPPLE & NOISE (MAX.)	70mV	150mV	70mV	200mV
OVP	+5.8V~7.0V	---	---	---
EFFICIENCY (TYP.)	70%			

**SPQ-4300:**

OUTPUT	V1	V2	V3	V4
VOLTAGE	+5V	+12V	-5V	-12V
MIN. LOAD	3 A	0.5 A	0 A	0 A
**MAX. LOAD	30 A	12 A	0.5 A	0.5 A
***REGULATION	±3%	±5%	±8%	±5%
RIPPLE & NOISE (MAX.)	70mV	150mV	70mV	200mV
OVP	+5.8V~7.0V	---	---	---
EFFICIENCY (TYP.)	70%			

\*\* **SPQ-4200: TOTAL OUTPUT MAXIMUM 200 WATTS.**

**SPQ-4250: TOTAL OUTPUT MAXIMUM 250 WATTS.**

**SPQ-4300: TOTAL OUTPUT MAXIMUM 300 WATTS.**

\*\*\* THE OUTPUT VOLTAGE LOAD REGULATION IS LESS THAN THE VALUES IN THE ABOVE TABLE BY CHANGING EACH OUTPUT LOAD ±40% FROM 60% RATED OF LOAD, AND KEEP THE OTHER OUTPUTS AT 60% OF RATED LOAD.

**3. ELECTRONIC CHARACTERISTICS :**

## 3-1. RISE TIME:

**20mS MAX.**

## 3-2. HOLD UP TIME:

**20mS MIN.** TEST CONDITION AT 230V AC INPUT AND RATED LOAD, AC OFF POINT AT 0 DEGREE.

## 3-3. OVER LOAD PROTECTION:

WHEN OUTPUT POWER OVER 105% TO 150% OF RATED LOAD, THE POWER SUPPLY WILL SHUTDOWN.

## 3-4. SHORT CIRCUIT PROTECTION:

WHEN OUTPUT SHORT TO GROUND, THE POWER SUPPLY WILL SHUTDOWN.

## 3-5. POWER GOOD SIGNAL:

POWER ON WITHIN 100----500ms, HIGH LEVEL TTL SIGNAL RELEASE.

**4. MECHANICAL DATA :**OUTLINE DIMENSION : **W 150 xD 140 xH 86 mm** (PS/II FORM FACTOR)**5. COOLING:**FORCED AIRFLOW COOLING WITH A **37 CFM** (MIN.) DC FAN.**6. SAFETY :**

THIS PRODUCT IS DESIGN TO COMPLY WITH THE FOLLOWING STANDARDS :

6-1. UL 1950 3rd EDITION APPROVED. (E 129733)

6-2. CSA C22.2 NO.950 APPROVED. (LR 83386)

6-3. TUV EN 60 950: 1992 / A1:1993 / A2:1993 APPROVED. (R 9552596)

6-4. IEC 60950:1991+A1+A2+A3+A4 (1996) STANDARD.

6-5. EMKO-TSE (74-SEC) 207/94 STANDARD.

**7. EMC :**

THIS PRODUCT IS DESIGN TO COMPLY WITH THE FOLLOWING STANDARDS :

**7-1. EMI**(1) . **FCC CFR 47 PART 15 SUBPART J , CLASS B LIMIT**(2) . **EN 50081-1:1997 EMISSION STANDARD**

EN 55022: 1997 CLASS B LIMIT

(3) . **CNS 13438 CLASS B.**

**7-2. EMS****(1) . EN 50082-1 (1997) IMMUNITY STANDARD:**

EN 61000-4-2 : 1995	ELECTROSTATIC DISCHARGE STANDARD.
EN 61000-4-3 : 1996	RADIATED RF STANDARD.
EN 61000-4-4 : 1995	FAST TRANSIENT/BURST STANDARD.
EN 61000-4-5 : 1995	LIGHTNING SURGE STANDARD.
EN 61000-4-6 : 1996	CONDUCTED RF STANDARD.
EN 61000-4-8 : 1993	POWER FREQ. MAG. FIELD STANDARD.
EN 61000-4-11:1994	VOLTAGE DIP & INTERRUPT STANDARD.

**8. PHYSICAL ENVIRONMENT (AMBIENT) :**

## 8-1. TEMPERATURE RANGE :

OPERATING TEMPERATURE RANGE : 0 ~ 70°C

DERATING FACTOR 50°C ~ 70°C : 2.5%/°C

STORAGE -10 TO +75 °C

## 8-2. HUMIDITY :

OPERATION 20% TO 85% RH. (NON CONDENSING)

STORAGE AND SHIPPING 10% TO 95% RH. (NON CONDENSING)

**9.M.T.B.F.:****280K** HOURS APPROXIMATELY, ACCORDING TO MIL-HDBK-217F AT 25°C ENVIRONMENT.