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1. Electrical Specification 电气规格:

1.1 Table 1 Input Electrical Characteristics（输入特性）

Input voltage range 输入电压	90Vac to 264Vac
Normal voltage range 标称输入	100Vac to 240Vac
Frequency range 频率范围	50Hz/60Hz±5%
Max input ac current 最大输入电流	2.0Amax at full load and 90Vac condition
Inrush current (cold start) 浪涌电流	50Atyp peak, 120Vac;100Atyp peak, 220Vac
Efficiency(full load) 效率	83%min at 90Vac; 86%min at 220Vac Typ.
Harmonic current 谐波电流	Meet GB17625.1-2003/IEC61000-3-2 class D
Leakage Current 泄漏电流	Less Than 0.5mA, 240Vac input
Standby Power Consumption 待机功耗	≦0.5W; 240Vac/50Hz input,+5.2VSB output current≤20mA
Input Fuse 输入保险	T5.0AH/250Vac

1.2 Output Electrical Characteristics（输出特性）

1.2.1 Table 2 Output Voltage & Current Regulation（输出电压电流调整率）

Output Voltage 输出电压	Regulation 调整率	Min. current 最小电流	Load current range 带载电流范围	Peak current or power 峰值电流或功率
+5.2VSB	±5%	0.01A	0.01A-1.0A	≤20W
+5.2V	±5%	0.1A	0.1A-2.5A	
+12V	±5%	0.3A	0.3A-2.0A	≤130W
+24V	±5%	0.2A	0.2A-4.0A	

Note:* The testing of peak current shall be performed under other dc output load rating and the peak current pulse width within 100ms conditions.峰值电流的测试条件是其它负载为额定负载时测试，且脉宽小于 100 毫秒。

1.2.2 Table 3 DC Output Ripple & Noise. （输出纹波和噪声）

Output Voltage	Ripple & Noise (Max.)
+5.2VSB	60mVp-p@25℃;200mVp-p@-10℃;150mVp-p when STB
+5.2V	50mVp-p@25℃; 150mVp-p@-10℃
+12V	120mVp-p@25℃; 200mVp-p@-10℃

+24V	240mVp-p@25℃; 350mVp-p@-10℃

Note: 1)Ripple & Noise test: Ripple & Noise bandwidth is set to 20MHz.
纹波和噪声测试：纹波和噪音带宽设置在 20 兆赫兹。

2)Use a 0.1uF ceramic capacitor in parallel with a 10uF electrolytic capacitor at output connector terminals for ripple & noise measurements.
输出端并联一个 0.1uF 的陶瓷电容和一个 10uF 的电解电容来测试纹波和噪声。

1.2.3 Table 4 Output Transient Response. （输出动态响应）

Test condition.测试条件

Voltage Tolerance Limit	Slew Rate	Load Change
+5.2VSB/±5%,+5.2V/±5% +12V/±10%,+24V/±10%	0.2A/Us	Min. to 50% load and 50% to Max load
All output ±10%	0.2A/Us	Min. load to Max load

Note: Load change repetition rate: 50Hz to 100Hz . 跳变负载频率:50~100Hz.

1.2.4 Table 5 Hold-Up Time（输出保持时间）

Output Voltage	120Vac input	220Vac input
+5.2VSB	≥10 mS	≥10 mS
+5.2V	≥10 mS	≥10 mS
+12V	≥10 mS	≥10 mS
+24V	≥10 mS	≥10 mS

Note: All of dc output at full load. 所有输出带满载。

1.2.5 Table 6 DC Output Overshoot During Turn-On & Turn-Off（输出超调）

Output Channel	Output(V)	Overshoot voltage(V)超调电压	
		Turn-on 开机	Turn-off 关机
+5.2VSB	+5.2V	≤10%	≤10%
+5.2V	+5.2V	≤10%	≤10%
+12V	+12V	≤10%	≤10%
+24V	+24V	≤10%	≤10%

Note: All of dc output current from Min. to Max. 测试时负载范围：最小到最大。

1.2.6 Table 7　DC output voltage rise time（输出上升时间）

Output Voltage	120Vac input &Full Load	220Vac input &Full Load
+5.2VSB	≤50 mS	≤50 mS
+5.2V	≤100 mS	≤100 mS
+12V	≤100 mS	≤100 mS
+24V	≤100 mS	≤100 mS

Note: The rise time measured is when the output voltages rise from10% to 90% of specified output voltage Vout observed on the channel waveform.
上升时间为输出电压从 10%上升到 90%的时间。

1.3 Protection（保护功能）

1.3.1 Table 8　DC Output Over current Protection（输出过流保护）

Output Voltage	Over Current	Comments
+5.2VSB	≥1.5Atyp*	Hiccup 保护后重起
+5.2V	≥3.0Atyp*	Hiccup 保护后重起
+12V	≥3.5Atyp*	Hiccup 保护后重起
+24V	≥4.5Atyp*	Hiccup 保护后重起

Note:The over current protection should be tested at other load rating.
过流保护测试是在其它额定负载时测试。

1.3.2 Table 9　DC Output Short Circuit Protection（输出短路保护）

Output Voltage	Comments
+5.2VSB	Hiccup 保护后重起
+5.2V	Hiccup 保护后重起
+12V	Shutdown 关机
+24V	Shutdown 关机

Note: The Short Circuit protection should be tested at other load rating.

短路保护测试是在其它额定负载时测试。

1.4 **Table 11　Remote On/Off Control**：（遥控功能）

The power supply DC outputs (without +5.0Vsb) shall be enable with an active-high TTL(≥2.5V/2.0mA)-compatible signal(Ps-on). The +5.0Vsb is on whenever the AC power is present.

除 5.0Vsb 外，其余输出受控于一个 TTL 电平兼容的信号（Ps-on≥2.5V/2.0mA），5.0Vsb 上电就存在。

* When Ps-on is pulled to TTL high, the DC outputs are to be enabled.
  Ps-on 高电平，打开输出
* When Ps-on is pulled to TTL low or open circuit, the DC outputs are to be disabled.
  Ps-on 低电平，关闭输出

Ps-on Signal	Comments	Outputs
Ps-on- high	≥2.5V&2.0mA (source)	Output
Ps-on- low	≤ 0.5V	X
Ps-on-open	--	X

2. Isolation（绝缘性能）

2.1 **Table 12** （绝缘阻抗）

Input To Output	DC500V 50M Ω min (at room temperature)
Input To FG	DC500V 50M Ω min (at room temperature)
Output To FG	Non Isolated

2.2 **Table 13** （绝缘耐压）

Input To Output	3000Vac 50Hz 1minute ≤10mA
Input To FG	1500Vac 50Hz 1minute ≤10mA
Output To FG	Non Isolated

Note:　Open FG and Output return. 交流地和输出负极要断开。

3. Safety （安全规格）

The power supply shall comply with the following criterion:

电源安全性满足下列标准:

1) UL60950/UL60065
2) EN60950/EN60065
3) GB4943-1995/GB8898-2001

4. EMC （电磁兼容性）

4.1 EMI （电磁干扰）

The power supply shall comply with the following criterion:

电源电磁干扰满足下列标准：

1) Conduction Emission : **（传导干扰度）**

*EN55013/EN55022, CLASS B
*GB13837-2003, CLASS B
*CISPR13:2001/FCC PART15 CLASS B

2) Radiated Emission : **（辐射干扰度）**

*EN55013/EN55022, CLASS B
*GB13837-2003, CLASS B
*CISPR13:2001/FCC PART15 CLASS B

Note：The power board should be assembled in customer product to test for passing the above criterion.需配合用户电路整机通过上述标准。

4.2 EMS （电磁抗扰）

The power supply shall comply with the following criterion:

电源电磁抗扰满足下列标准：

1) ESD **（静电抗扰度）**

*GB17626.2-1998/IEC61000-4-2 Level

2) EFT **（脉冲群抗扰度）**

*GB17626.4-1998/IEC61000-4-4 Level

3) SURGE **（雷击浪涌）**

*GB17626.5-1998/IEC61000-4-5 Level

4） DIP (电压跌落)

*GB17626.11-1998/IEC61000-4-11 Class B/C

5. Environmental Requirement （工作环境）

5.1 Temperature （环境温度）

* Operating 工作温度: -10℃ to +40℃.
* Storage 存储温度: -20℃ to +80℃.

5.2 Humidity （环境湿度）

* Operating 工作: From 10%to90% relative humidity (non-condensing).
* Storage 存储: From 5 to 95% relative humidity (non-condensing).

5.3 Altitude （海拔高度）

* Operating: to10,000 ft.
* Storage: to 20,000ft.

5.4 Cooling Method （冷却方式）

* Ventilation cooling . 风道自然冷却

5.5 Vibration （振动耐受）

* 10-55Hz, 19.6m/s²(2G), 20minutes each along X, Y and Z axis.

5.6 Shock（冲击耐受）

* 49m/s²(5G),11ms, once each X, Y and Z axis.

6. Dimension （物理尺寸）

*180 mm X 180mm X 11mm(元件面高) (长 L *宽 W * 高 H).

7. Weight （重量）

*约 **500 g**

8. Pin Connection (连接器脚位定义)

Table 14 CON1(3Pin)

NO.	Pin Connection	Function
①	AC-L	AC INPUT LINE
②	---	NC
③	AC-N	AC INPUT NUTURE

Note: CON1 -- VH CONNECTION, TYPE : pitch3.96mm

Table 15 CON2(13Pin)

NO.	Pin Connection	Function
①②⑨⑩⑪	GND	GND
③④	+5V	+5.2V DC OUTPUT
⑤	PS	SMPS ON/OFF CONTROL(ON = HIGH)
⑥	+5VSB	+5.2VSB DC STANDBY
⑦⑧	+5V	+5.2V DC OUTPUT
⑫⑬	+12V	+12V DC OUTPUT

Note: CON2 -- PHD DOUBLE ROW CONNECTION, TYPE : pitch2.5mm

Table 16 CON4(8Pin)

NO.	Pin Connection	Function
①②③④	+24V	+24VDC OUTPUT
⑤⑥⑦⑧	GND	+24VDC RETURN

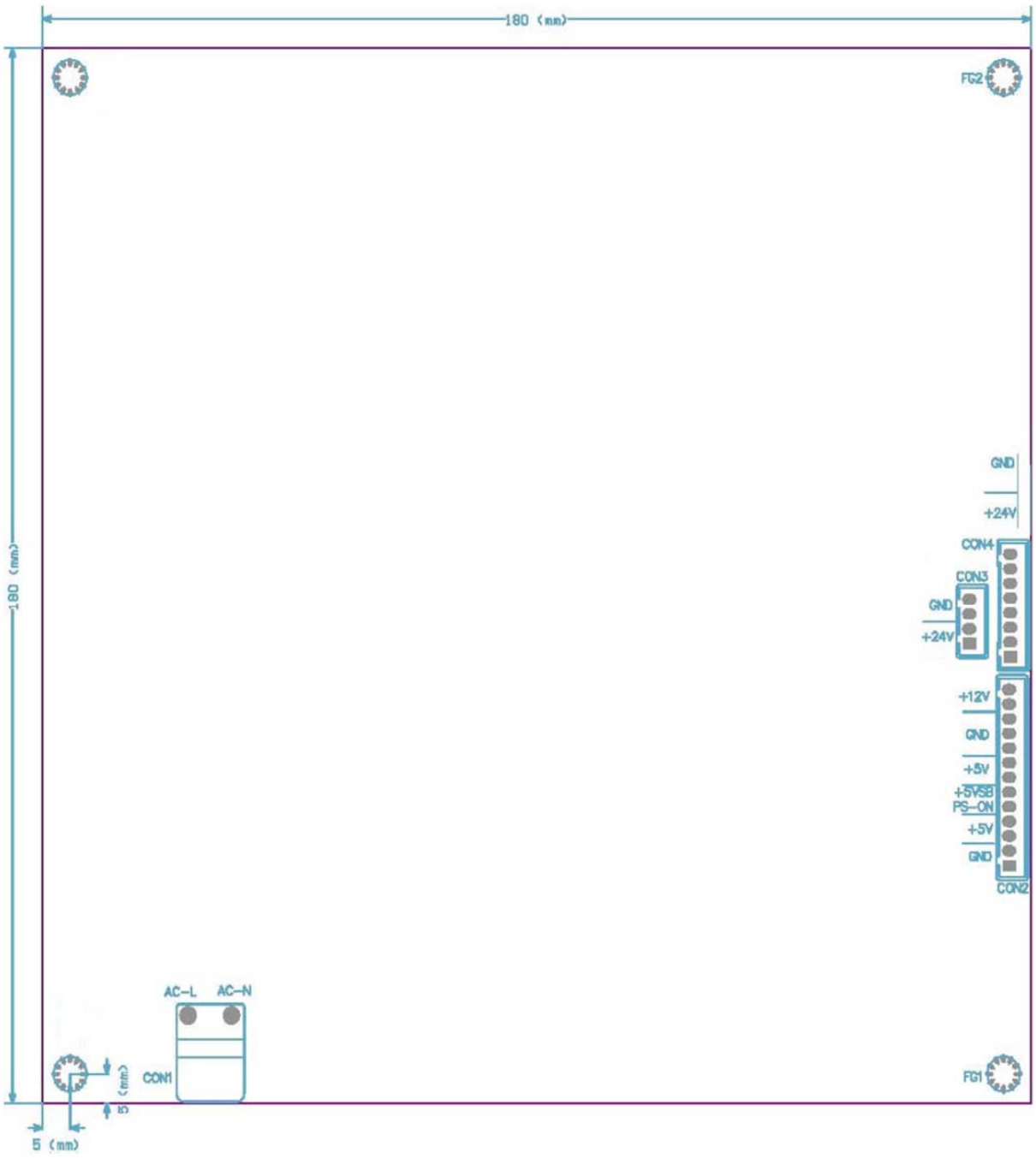
Note: CON4 -- PHD DOUBLE ROW CONNECTION, TYPE : pitch2.5mm

Table 17 CON3(4Pin)

NO.	Pin Connection	Function
①②	+24V	+24VDC OUTPUT
③④	GND	+24VDC RETURN

Note: CON3 -- PHD DOUBLE ROW CONNECTION, TYPE : pitch2.5mm

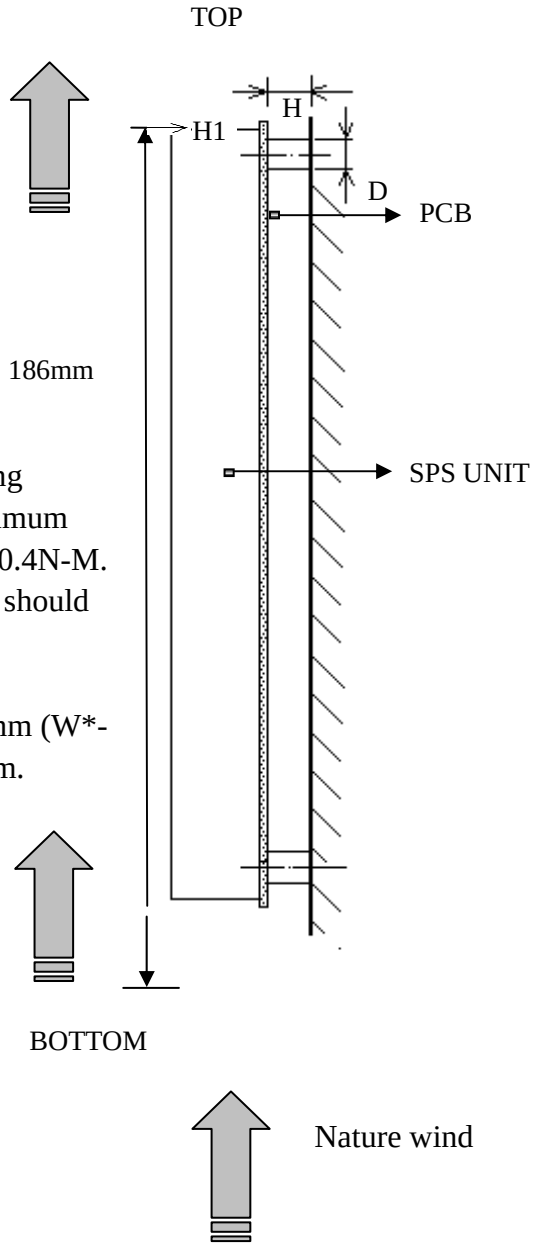
9. **Power Supply Mounting** （安装尺寸）



Mount Method（ 装配注意事项 ）

Table 17

D	≤5.5mm (1*)
H	≥3.0mm
	≤6.0mm (2*)
H1	≤11mm



Note:

1*. Mount the unit to the mounting board using M3 screw. The maximum value of the tightening torque is 0.4N-M. The insertion depth of the screw should be less 5.5mm.

2*. Add 186mm×186mm× 0.25mm (W*-H*T)Mylar under PCB bottom.

10. Package 包装

防静电气泡袋

包装箱尺寸：（TBD）