

零件承认书

供应商: 东莞市成良智能科技有限公司

物料名称: 国产电源

物料编码: _____

规格型号: CDP-250-24&50 V2.2

供应商料号: 050045

申请日期: 2021.03.22

资料 OK NG 可靠性 OK NG

部门会签: 外观 OK NG 尺寸 OK NG

 装配 OK NG 功能 OK NG

供应商确认			
核准	工程	制作	签章
杨公海	陶志学	王志海	
核准	研发/工程	品质	签章
确认结果: <input type="checkbox"/> 合格 <input type="checkbox"/> 不合格 <input type="checkbox"/> 其它			

承认书目录

- 1、功能介绍，产品规格书
- 2、原材料材质证明/MSDS
- 3、结构图纸
- 4、FAI 全尺寸测量报告/附上自判
- 5、可靠性测试报告
- 6、原材料 SGS 需确认在 1 年有效期内
- 7、环保声明书
- 8、相关认证证书

注：

零件承认书包括但不限于以上信息，如有其他要求则需另外补，比如零件承认的 CPK 报告，工艺路线图、QC 工程图、BOM、零件上检验规范、产品包装规范、FMEA 等。

另外，作客户对供应商零件承认还需要验证供应商制造能力、品质管控能力，并保留原始记录。

电源选择和使用注意事项

感谢各位客户选用我司的电源,为进一步地确保客户整个系统长期的可靠性和稳定性;请各位客户在使用我司电源时认真阅读如下注意事项,若有任何疑问请及时与我司相关技术人员联系。

1.0 电源裕量的预留

1.1 电源工作环境温度的定义:我司提供给客户所有的电源都是足功率的,工作的环境温度是指我司电源四周外部的环境温度(或客户箱体系统内部的温度),而不是指客户箱体系统外部的大环境温度。

客户工程人员在选择电源和使用电源时,要充分考虑客户箱体外部大环境温度和箱体内部的环境温度;以避免电源因内部环境温度的过高导致电源出现过温保护或电源使用寿命的缩短。

1.2 系统箱体的结构:我司关心的是客户箱体是密封的和非密封的,以及电源的底壳安装时紧贴箱体或是非紧贴;而不是具体的外观和内部结构。

密封箱体主要靠热传递和辐射散热;非密封箱体主要靠空气对流散热。空气对流散热优于热传递和辐射散热。

我司建议客户不要将带有风扇的电源使用于密封箱体,带风扇的电源主要靠强制风冷散热;而密封箱体内空气无法与外部进行对流,将导致箱体内部环境温度极大地升高,过高的环境温度将进一步引起电源的效率下降和温度的升高;将影响客户箱体长期可靠地运行。

若客户一定要将带风扇的电源使用于密封箱体,一定要降额使用。我司建议系统峰值电流降额至 80%使用;及箱体最大的峰值电流(箱体最大的峰值电流需要用示波器进行测量,有效值电流一般用电流钳表进行测量)不超过电源额定输出电流的 80%。

客户根据箱体选择电源时,要以客户箱体的最大峰值电流作为依据,而不是根据箱体的有效值电流作为主要依据。系统箱体峰值电流一般比有效电流高 30%左右,若根据箱体有效值电流选择电源时,即使有效值电流低于电源额定输出电流,也将会导致箱体峰值电流过高超过电源的过流保护点,引起电源过流保护误动作。建议客户箱体最大峰值电流不要超过我司电源的额定输出电流;而峰值电流是需要用示波器测试的,若客户无此测试设备,我司可以提供相关的服务。

2.0 箱体使用环境的注意事项:

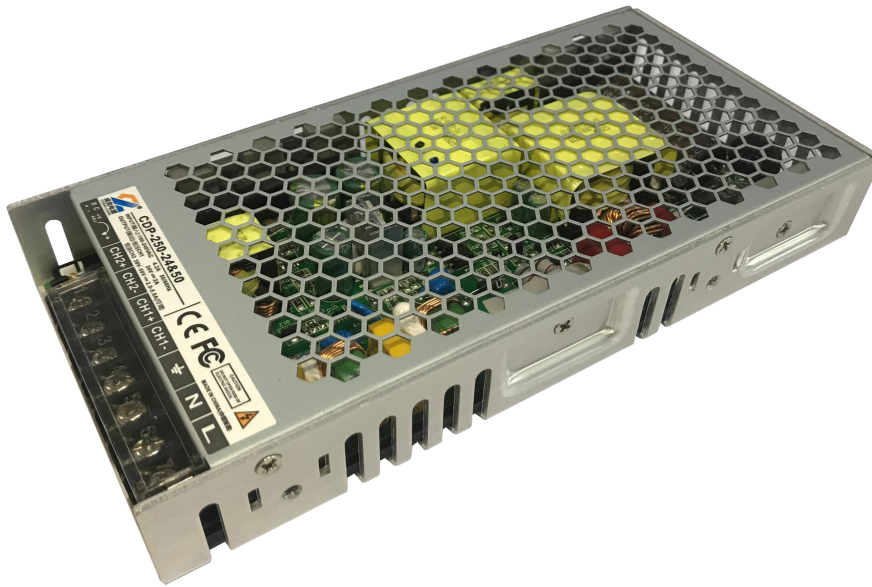
2.1 系统箱体使用于高湿度,海边,多雨水等潮湿以及环境温度低于-30℃的地区,要在下订单时备注电源增加三防处理;箱体尽量采用密封箱体。

2.2 系统箱体使用于马路边等高尘埃的环境,建议客户系统采用密封系统,选择不带风扇的电源,并要求电源增加三防处理;若系统采用非密封箱体必须增加防尘罩,避免过多的灰尘进入客户系统和电源内部,带来品质隐患。

2.3 系统箱体使用于租赁箱体以及郊区的地方,可能会涉及到电源输入电压偏低的现象,引起电源欠压保护动作或电源效率过低等问题;建议客户在输入电压可能比较低的区域采用全电压输入的电源或系统箱体接线要均衡,增加系统箱体输入线的线径及减少一条线带电源的个数,以确保电源输入电压高于 90V。

一、 Overview 概述:

本电源是为光固化3D打印机设计的专用电源: 具有双路输出(CH1恒压 CH2恒流)、体积小、效率高、工作稳定、可靠性高等特点。电源具有输入过欠压, 输出限流及输出短路保护; 电源采用高效整流电路极大地提高了电源的效率, 效率高达91%, 极大地节约了能源, 满足欧洲 RoHS 标准。产品通过了CE, FCC认证。



二、 Main Electrical Specification 产品主要电气规格.

恒压型 CH1:

输出功率 (W)	额定输入电压 (Vac)	输出电压 (Vdc)	输出电流 (A)	稳压精度 (%)	纹波及噪音 (mVp-p)
48	100—240	+24.0	0—2.0	±2	≤240

恒流型 CH2:

输出功率 (W)	额定输入电压 (Vac)	输出恒流电压范围 (Vdc)	输出可调电流范围 (A)	输出默认电流 (A)	恒流精度 (%)	纹波及噪音 (mVp-p)
200	100—240	+(30—50)	2.0—5.0	4	±3	≤280

三、 Reference standards and norms 引用标准及规范.

3.1 GB / T 2423.1-2011 electric and electronic products, environmental testing, Part 2: Test methods / test A: low-temperature GB/T 2423.1-2011 电工电子产品环境试验,第 2 部分: 试验方法/试验 A: 低温

3.2 GB / T 2423.2-2011 electric and electronic products, environmental testing, Part 2: Test Methods / Test B: high-temperature GB/T 2423.2-2011 电工电子产品环境试验,第 2 部分: 试验方法/试验 B: 高温

3.3 GB / T 2423.3-1993 electric and electronic products environmental testing procedures - Test Ca: Damp heat test method; GB/T 2423.3-1993 电工电子产品基本环境试验规程—试验 Ca:恒定湿热试验方法;

3.4 GB / T 2423.4.1993 electric and electronic products environmental testing procedures - Test Db: Damp heat test method; GB/T 2423.4.1993 电工电子产品基本环境试验规程—试验 Db:交变湿热试验方法

3.5 GB / T 2423.5-1995 electric and electronic products, environmental testing, Part 2: Test Methods / Test Ea and guidance: Shock; GB/T 2423.5-1995 电工电子产品环境试验, 第 2 部分: 试验方法/试验 Ea 和导则: 冲击

3.6 GB / T 2423.6-1995 electric and electronic products, environmental testing, Part 2: Test Methods / Test Ea and guidance: Bump; GB/T 2423.6-1995 电工电子产品环境试验, 第 2 部分: 试验方法/试验 Ea 和导则: 碰撞

3.7 GB / T 2423.8-1995 electric and electronic products, environmental testing, Part 2: Test Methods / Test Ed: Free fall; GB/T 2423.8-1995 电工电子产品环境试验, 第 2 部分: 试验方法/试验 Ed: 自由跌落

3.8 GB / T 2423.10-1995 electric and electronic products, environmental testing, Part 2: Test Methods / Test Fc and guidance: Vibration (sinusoidal) ; GB/T 2423.10-1995 电工电子产品环境试验, 第 2 部分: 试验方法/试验 Fc 和导则: 振动(正弦)

3.9 GB / T 2423.11-1997 electric and electronic products, environmental testing, Part 2: Test Methods / Test Fd: Random vibration wide band - General requirements; GB/T 2423.11-1997 电工电子产品环境试验, 第 2 部分: 试验方法/试验 Fd: 宽频带随机振动—一般要求

3.10 GB / T 2423.22-2002 electric and electronic products, environmental testing, Part 2: Test N: temperature change; GB/T 2423.22-2002 电工电子产品环境试验, 第 2 部分: 试验 N: 温度变化

四、 Environmental conditions 环境条件:

NO. 序号	ITEM 项目	Specifications 技术要求	Units 单位	<input checked="" type="checkbox"/> Remarks 备注
4.1	Permanent operating temperature 工作温度	-20-50	℃ 度	
4.2	Storage temperature 存贮温度	-40-80	℃ 度	
4.3	Work Relative Humidity 工作相对湿度	10-50	%	Note 1
4.4	Storage Relative Humidity 存贮相对湿度	10-90	%	
4.5	Cooling mode 散热方式	Ventilation cooling 自冷		
4.6	Atmospheric pressure 大气压力	80-106	Kpa 帕斯卡	
4.7	<input checked="" type="checkbox"/> Altitude 海拔高度	2000	M 米	
4.8	Vibration 振动耐受	10-55Hz 19.6m/S ² (2G),20 minutes each along X,Y and Z axis.		
4.9	Shock 冲击耐受	49m/S ² (5G),20 once each X,Y and Z axis.		

Note 1: Please add the new requirement when the power supply will be used for high humidity condition. 当电源将被用于高湿度的环境下，在下订单时请增加这新的要求。

五、Electrical Characteristics 电气特性:**5.1. Input Electrical characteristics 输入特性:**

NO. 序号	ITEM 项目	Specifications 技术要求	Units 单位	Remarks 备注
5.1.1	Rated input voltage 额定输入电压	100-240	Vac	Note 2
5.1.2	Input voltage range 输入电压范围	90-264	Vac	
5.1.3	Input frequency range 输入频率	47—63	Hz	
5.1.4	Efficiency 效率	≥ 87 (Vin=220Vac)	%	Full load (room temperature) Note 3
5.1.4	PF 功率因数	≥ 0.92	/	Full load
5.1.5	Maximum input current 最大输入电流	≤ 3.2	A	
5.1.6	Inrush current 输入浪涌电流	≤ 40	A	

Note 2: Meanings of rated input voltage and the input voltage range: the rated input voltage is the international general appellation, the highest voltage of rated input voltage float upwards 10%, is the input voltage upper limit, the maximum value, the minimum voltage of rated input voltage float downward 10%, is the input voltage lower limit, the minimum value. Rated input voltage range of 200-240 is corresponding to 180-264. The two terms are not contradictor, essence is consistent, uniform, only two different terms. 额定输入电压与输入电压范围的含义: 额定输入电压是国际通用的称谓, 额定输入电压的最高电压向上浮动 10%, 就是输入电压的上限, 即最大值, 额定输入电压的最低电压向下浮动 10% 就是输入电压的下限, 即最小值。额定输入电压 100-240 对应的输入电压范围为 90-264. 这两者不是相互矛盾的, 实质是一致的, 统一的。

Note 3: Efficiency: Terminal output voltage multiplied by the output current, and then divided by the AC input voltage, divided by the AC input current, divided by the power factor: efficiency = terminal output voltage X output current / (the AC input voltage X AC input current X power factor). 电源效率: 端子口输出电压乘以输出电流, 然后除以交流输入电压, 除以交流输入电流, 除以电源功率因数; 效率 = 端子口输出电压 X 输出电流 / (交流输入电压 X 交流输入电流 X 功率因数)。

5.2. Output Electrical Characteristics 输出特性

NO. 序号	ITEM 项目	Specifications 技术要求	Units 单位	Remarks 备注
5.2.1	Output rating voltage 输出额定电压	(恒压型 CH1) +24.0 (恒流型 CH2) +(30—50)	Vdc	
5.2.2	Output current range 输出电流	(恒压型 CH1) 0—2.0 (恒流型 CH2) 2.0—5.0	A	
5.2.3	Output voltage range 输出电压范围	(恒压型 CH1) 23.5—24.5 (恒流型 CH2) 29.5—50.5	Vdc	
5.2.4	Voltage regulation accuracy 电压调整率	(恒压型 CH1) $\pm 1\%$	V_0	
5.2.5	Load regulation accuracy 负载调整率	$\pm 1\%$	V_0	
5.2.6	Regulation accuracy 稳压精度	(恒压型 CH1) $\pm 2\%$	V_0	
5.2.7	Ripple and noise 纹波及噪声	(恒压型 CH1) ≤ 240 (恒流型 CH2) ≤ 280	mVp-p	Full load; 20MHz, 104+10uF NOTE 3
5.2.8	Power output delay 开机延迟时间	≤ 3000	ms	NOTE 4
5.2.9	Hold up time 输出保持时间	≥ 10	ms	$V_{in}=220V_{ac}$ NOTE5
5.2.10	Output voltage rise time 输出电压上升时间	≤ 50	ms	NOTE 6
5.2.11	Off overshoot 输出过冲	$\pm 5\%$	V_0	
5.2.12	Output dynamic 输出动态响应	Voltage changes less than $\pm 5\% V_0$; dynamic response time $\leq 250\mu s$		LOAD 25%—50% , 50%—75%

Note 3: Ripple & noise test: Ripple & noise bandwidth is set to 20MHz, use a 0.10uF ceramic capacitor in parallel with a 10.0uF electrolytic capacitor at output connector for ripple & noise measurements. 纹波和噪声的测试: 纹波和噪声的测试带宽为 20 兆赫兹, 在输出端口并联一个 0.10 微法的瓷片电容和一个 10.0 微法的电解电容。

Note 4: The power delay time measured is when AC power on to 90% of specified output voltage observed on the channel. 开机延迟时间为 AC 输入上电到输出电压上升到 90% 间的时间。

Note 5: The hold-up time measured is when AC power off to 90% of specified output voltage observed on the channel. 输出保持时间为从输入 AC 掉电到输出电压下掉到输出电压的 90% 间的时间。

Note 6: The rise time measured is when the output voltage rise from 10% to 90% of specified output V_{out} observed on the channel wave form. 输出上升时间为输出电压从 10% 上升到 90% 间的时间。

5.3. Protection Features 保护特性:

NO. 序号	ITEM 项目	Specifications 技术要求	Units 单位	Remarks 备注
5.3.1	Input undervoltage protection 输入欠压保护	65-75	VAC	FULL LOAD
5.3.2	Input voltage recovery point 输入欠压恢复	75-88	VAC	
5.3.3	Output current limit protection point 输出过流保护	(恒压型 CH1) 2.1-2.6 (恒流型 CH2) 恒流 4A	A	Lock up, power off and restart 锁死, 断电重启
5.3.4	Output short circuit protection 输出短路保护	(恒压型 CH1) ≥ 3.0 (恒流型 CH2) 输出 $< 10V$	A	
5.3.5	Output over-temperature protection 输出过温保护	≥ 125	℃ 度	电源内部温度大于 125 度是电源停止输出

5.4. Other features 其它特性:

NO. 序号	ITEM 项目	Specifications 技术要求	Units 单位	Remarks 备注
5.4.1	MTBF	$\geq 100,000$	H	
5.4.2	Leakage current 输入泄流电流	$< 1.0mA$ ($V_{in}=220Vac$)		GB8898-2001 9.1.1
5.4.2	Leakage voltage 泄漏电压	$< 10Vac$ ($V_{in}=220Vac, Output-PE$)		

六、 Safety features 安全特性:

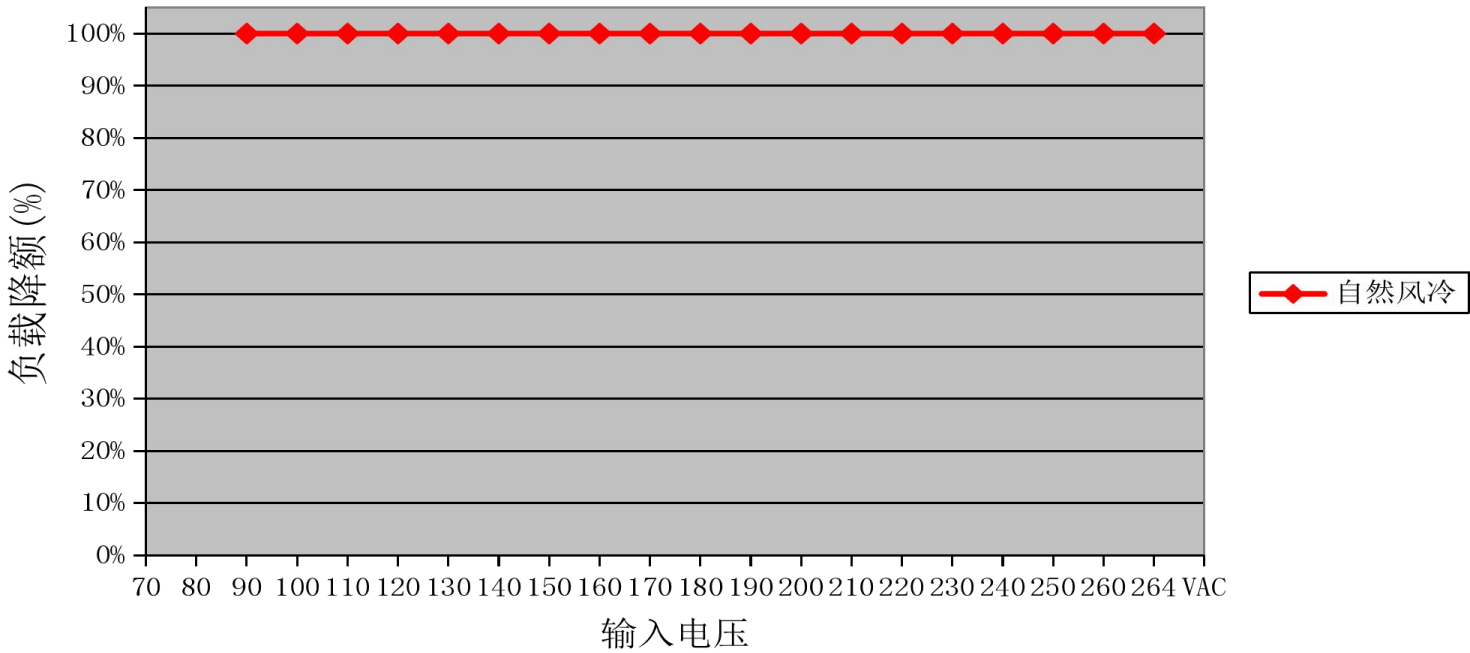
NO. 序号	ITEM 项目	Test conditions 测试条件	Standard/SPEC 标准、技术要求
6.1	Isolation voltage 绝缘耐压	Input-Output 输入对输出	3000VAC/5mA/1min No flashover, no breakdown
		Input-PE 输入对大地	3000VAC/5mA/1min No flashover, no breakdown
		Output-PE 输出对大地	500VDC/5mA/1min No flashover, no breakdown
6.2	Insulation Resistance 绝缘阻抗	Input-Output 输入对输出	DC500V 10M Ω Min
		Input-PE 输入对大地	DC500V 10M Ω Min
		Output-PE 输出对大地	DC500V 10M Ω Min

Note: Input line (all L&N) should be shorted; and all output should be shorted. 所有输入线(包括 L 线和 N 线)要短路和所有输出包括正负端要短路。

七. Derating guideline:降额曲线:

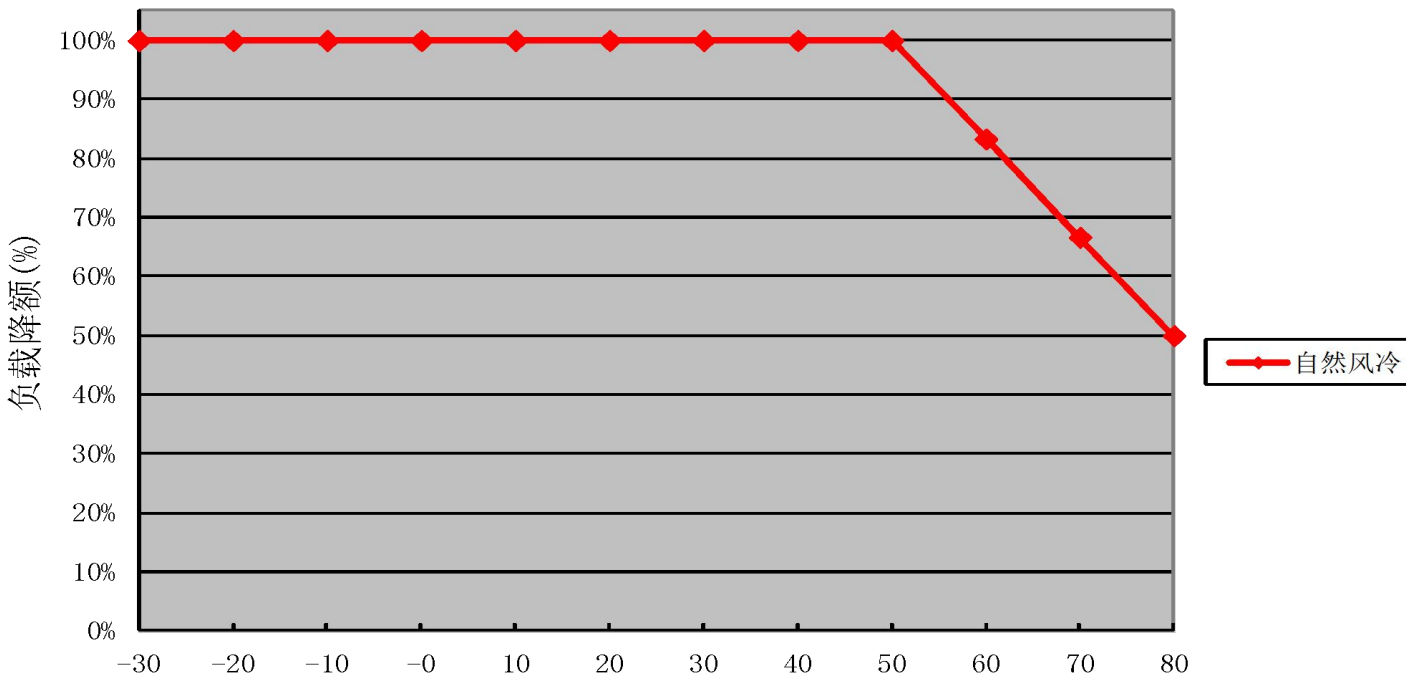
7.1 Input voltage derating guideline.输入电压降额曲线:

输入电压降额曲线图

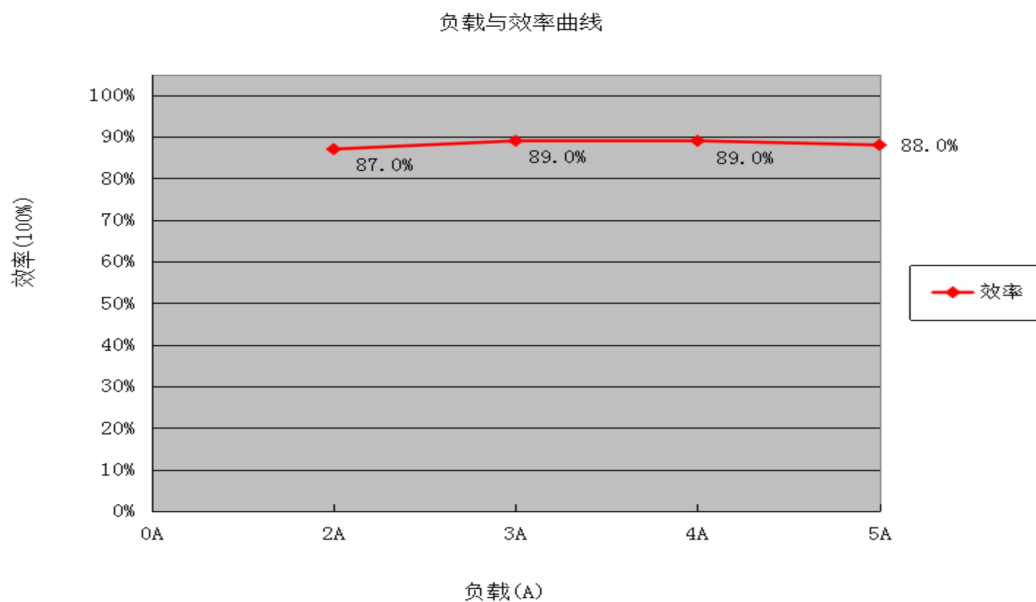


7.2 Operate temperature derating guideline.温度降额曲线:

工作温度降额曲线图



7.3 Effi & load guideline: 效率与负载曲线: (220Vac)



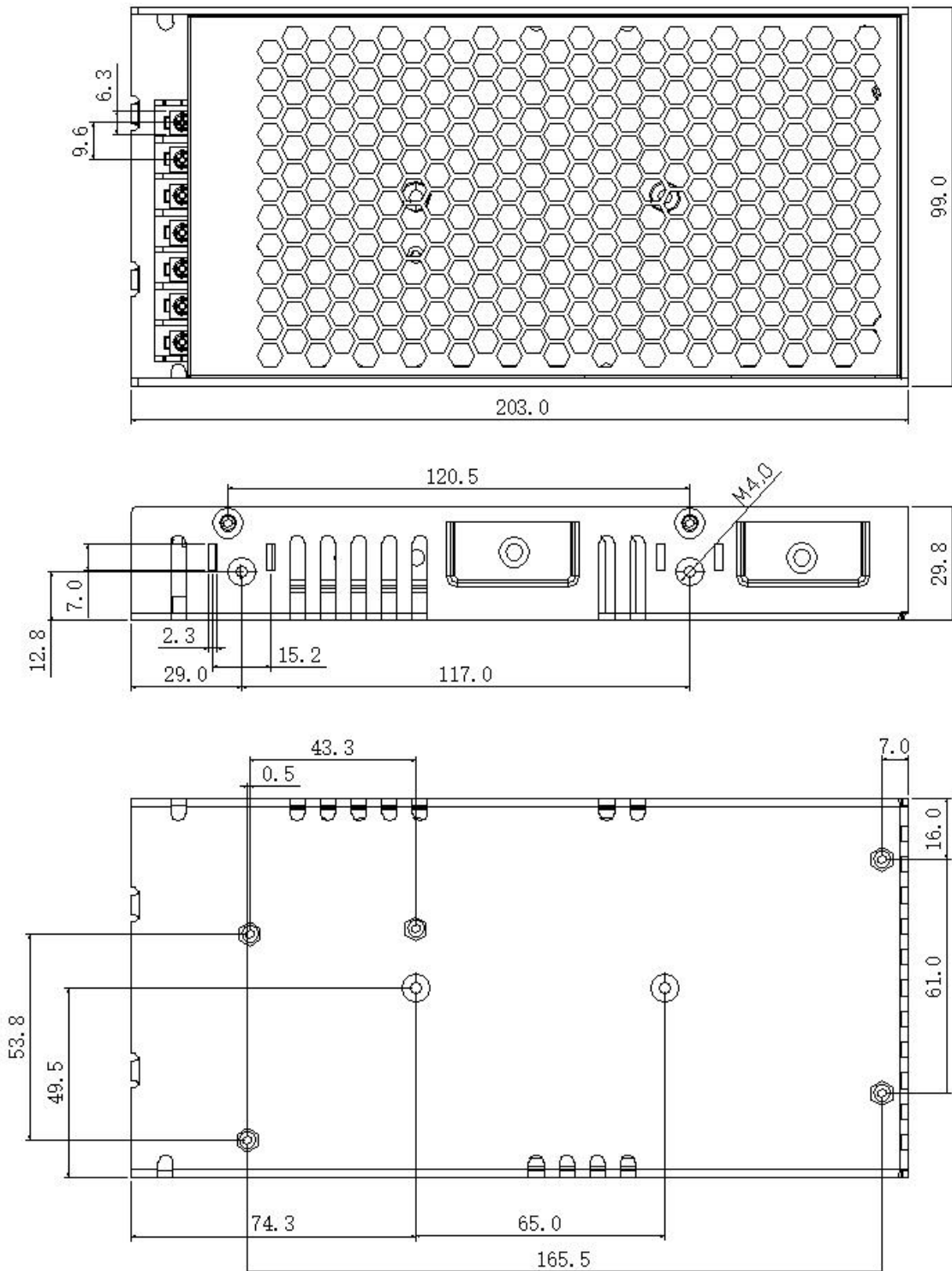
八、The definition of mechanical properties and connectors (**Units: mm**)

机械特性及接插件定义 (单位: 毫米)

8.1. Dimensions 尺寸:

L203x W99 x H30 电源尺寸为: 长 203 宽 99 高 30, 单位毫米。

hole size: 安装孔位尺寸:



8.2. Pin connection. 连接器脚位定义:

8.2.1 Input& output connection CON1 : 7PIN 9.50mm 输入及输出连接器
CON1, 9.50 毫米间距 9PIN

Input& output connection model: 300V 20A

NO. 序号	NO. 序号	Define.定义
1	PIN1	CH2+
2	PIN2	CH2-
3	PIN3	CH1+
4	PIN4	CH1-
5	PIN5	GND
6	PIN6	N
7	PIN7	L

Note: Face the connection from left to right.

九、Weight, packaging, transport and storage. 重量，包装，运输和储存：

9.1. Weight. 重量：

9.1.1. Everyone weight is 400G. 单个电源的重量为 400 克。

9.1.2 One box have 28 units, total weight is 13KG. the dimensions of the box :L380*W230*H300 (units :mm) : 一个箱子装 28 台，总重量为 13 千克;箱子尺寸为：长 380*宽 230*高 300（毫米）

9.2 Packing

Box has the product name, model number, manufacturer ID, the manufacturers certificate of quality inspection department, manufacturing date; the box with an attachment list. 包装箱上有产品名称、型号、厂家标识、厂家质量部门的检验合格证、制造日期等；包装箱内有附件清单。

9.3 Transportation

Suitable for cars, boats, aircraft transport, transport should be awnings, sun protection, loading and unloading of civilization. 适应于车、船、飞机运输，运输中应遮蓬、防晒、文明装卸。

9.4 storage

Product is not used which should be stored in the box, warehouse temperature -20°C - $+80^{\circ}\text{C}$, relative humidity of 10% -90%, the warehouse does not allow any harmful gases, flammable, explosive and corrosive products of chemicals, and strong mechanical vibration, shock and strong magnetic field, package box should be at least 20cm high from the ground, away from the wall, heat, window or air intake at least 40cm, under specified conditions in the storage period is generally one year, more than one year should be re-tested. 产品未使用时应存放在包装箱内，仓库环境温度为 -10°C — $+80^{\circ}\text{C}$ ，相对湿度为 10%—90%，仓库内不允许有有害气体，易燃，易爆的产品及有腐蚀性的化学物品，并且无强烈的机械振动，冲击和强磁场作用，包装箱应垫离地至少 20cm 高，距离墙壁、热源、窗口或空气入口至少 40cm，在本规定条件下的贮存期一般为 1 年，超过 1 年后应重新进行检验。



Guangdong Keyway Testing Technology Co.,Ltd. Tel : 86-769-87182258
 No.7 of Zhangmutou Section, Guanzhang Road, Fal : 86-769-87181058
 Zhangmutou town, Dongguan Guangdong China. Mail : kwtest@keywaytest.com

Certificate of Conformity

No. CA20120139-S-000

The following products have been tested by us with the listed standards and found in Conformity with the council LVD directive 2014/35/EU. It is possible to use CE marking to demonstrative the Conformity with this LVD Directive.

Applicant : Dongguan Chengliang Intelligent Technology Co.,LTD

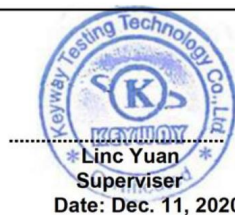
Address : B DISTRICT,2ND C BUILDING NO.1 XINZHOU EAST STREET LIN VILLAGE TANGXIA TOWN DONGGUAN CITY,GUANGDONG 523000 CHINA

Product : POWER SUPPLY

Trade Name : 成良智能

Model No. : CDP-250-24&50

Test Standards <input type="checkbox"/>	
EN 62368-1:2014 + A11:2017	Audio/video, information and communication technology equipment Part 1: Safety requirements



The statement is based on a single evaluation of one sample of above mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab. logo.



Guangdong keyway Testing Technology Co., Ltd. Tel : 86-769-8718 2258
No.7 of Zhangmutou District, Guanzhang Road, Fax : 86-769-8718 1058
Zhangmutou town, Dongguan Guangdong China. Mail : kwtest@Keywaytest.com

Certificate of Conformity

No. CA20120141-E-000

Applicant : Dongguan Chengliang Intelligent Technology Co., LTD
Address : B DISTRICT, 2ND C BUILDING NO.1 XINZHOU EAST
STREET LIN VILLAGE TANGXIA TOWN DONGGUAN CITY,
GUANGDONG 523000 CHINA
Trade Name : 成良智能
Product : POWER SUPPLY
Model No. : CDP-250-24&50

The submitted sample of the above equipment has been tested and found to comply with the following European Directive and the following standards:

- Electromagnetic directive 2014/30/EU
- Standards
 - EN 55032:2015
 - EN 55035:2017
 - EN IEC 61000-3-2:2019
 - EN 61000-3-3:2013+A1:2019

This certificate is part of the full test report(s) and should be read in conjunction with it. The referred test report(s) show that the product complies with standard(s) recognized as giving presumption of compliance with the essential requirements in the specified European Directive.

This certificate does not imply assessment of the production of the product.

The CE marking may be affixed if all relevant and effective European Directives are applicable.

The test data & results are referred to the test report Number: TR20060344-E-000



Date: Dec. 07, 2020

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Guangdong Keyway Testing Technology Co., Ltd.
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Zhangmutou town, Dongguan Guangdong China.

Tel : 86-769-8718 2258
Fax : 86-769-8718 1058
Mail : kwtest@keywaytest.com

Certificate of Compliance

No. CA20120140-E-000

Applicant : Dongguan Chengliang Intelligent Technology Co., LTD
Address : B DISTRICT, 2ND C BUILDING NO.1 XINZHOU EAST
STREET LIN VILLAGE TANGXIA TOWN DONGGUAN CITY,
GUANGDONG 523000 CHINA
Trade Name : 成良智能
Product : POWER SUPPLY
Model No. : CDP-250-24&50

The submitted sample of the above equipment has been tested and found to comply with the following standards:

- FCC Part 15, Subpart B
- ANSI C63.4:2014

This verification is part of the full test report(s) and should be read in conjunction with it. The referred test report(s) show that the product complies with standard(s) recognized as giving presumption of compliance with the essential requirements in the specified FCC standard.

This Verification does not imply assessment of the production of the product.



Date: Dec. 07, 2020

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