

深圳市巨能伟业技术有限公司
SHENZHEN G-ENERGY TECHNOLOGY CO., LTD

物料承认书
SPECIFICATION FOR APPROVAL

厂商名称 (Provider): 巨能伟业

规格型号 (Model No.): N300V5-A

料件编码 (Part No.): 8000-01499-02

备注 (Remark):

出厂确认 TRX APPROVAL

承认人/日期 Edited by /Date	审核/日期 Checked by/Date	批准/日期 Approved by/Date

客户确认 CUSTOMER APPROVAL

承认人/日期 Edited by /Date	审核/日期 Checked by/Date	批准/日期 Approved by/Date

Buy website address: <https://reissopto-led.com/products/g-energy-n300v5-a-300w-led-display-power-supply>



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一. 概述 Introduction



本电源具有体积小、效率高、工作稳定、可靠性高等特点。电源具有输入欠压，输出限流，输出短路等等。电源采用同步整流电路极大地提高了电源效率，节约了能耗；

The power supply has the characteristics of small volume, high efficiency, stable operation and high reliability. The power supply has input under-voltage, output current limiting, output short circuit and so on. The synchronous rectifier circuit greatly improves the efficiency of the power supply and saves energy consumption.

二、产品主要规格 Product Main Specification

输出功率 Output Power (W)	输入电压范围 Rated Input Voltage (Vac)	输出电压 Rated Output Voltage (Vdc)	输出电流范围 Output Current Range (A)	稳压精度 Precision	纹波及噪音 Ripple and Noise (mVp-p)
300	180—264	+5.0	0-60.0	±2%	≤150

三、环境条件 Environment condition

序号 Item	项目 Description	技术指标 Tech Spec	单位 Unit	备注 Remark
1	工作温度 Working temperature	-30—50	℃	



2	储存温度 Storing temperature	-40—80	℃	
3	相对湿度 Relative humidity	10—90	%	无冷凝 No condensation
4	散热方式 Heat dissipation method	风冷 Fan cooling		电源工作时需安装在金属板上散热 The power supply should be installed on the metal plate to dissipate heat
5	大气压力 Air pressure	80—106	Kpa	
6	海拔高度 Height of sea level	2000	m	

四、电气特性 Electrical character

1	输入特性 Input character			
序号 Item	项目 Description	技术要求 Tech Spec	单位 Unit	备注 Remark
1.1	额定输入电压 Rated voltage range	200-240	Vac	参照输入电压与负载关系曲线图使用 Refer to the diagram of input voltage and load relation.
1.2	输入频率范围 Input frequency range	47—63	Hz	
1.3	效率 Efficiency	≥85.0	%	Vin=220Vac 25℃ 输出满载（常温下） Output Full Load (at room temperature)
1.4	功率因数 Efficiency factor	≥0.45		Vin=220Vac 额定输入电压条件下，输出满载。 Rated input voltage, output full load
1.5	最大输入电流 Max input current	≤3.5	A	
1.6	启动冲击电流 Dash current	≤120	A	冷机状态测试 @220Vac Cold state test @220Vac
2	输出特性 Output character			



序号 Item	项目 Description	技术要求 Tech Spec	单位 Unit	备注 Remark
2.1	输出电压额定值 Output voltage rating	+5.0	Vdc	
2.2	输出电流范围 Output current range	0—60.0	A	
2.3	输出电压可调范围 Output voltage adjustable range	/	Vdc	
2.4	电压调整率 Output voltage range	±2	%	
2.5	负载调整率 Load regulation	±2	%	
2.6	稳压精度 Voltage stability accuracy	±2	%	
2.7	输出纹波及噪音 Output ripple and noise	≤150	mVp-p	额定输入，输出满载，20MHz 带宽 10 μF/104 电容。 Rated input, output full load, 20MHz bandwidth, load side and 47uf / 104 capacitor
2.8	开机输出延迟 Start output delay	≤5.0	S	Vin=220Vac @25°C 测试 test
2.9	输出电压上升时间 Output voltage raise time	≤50	ms	Vin=220Vac @25°C 测试 test
2.10	开关机过冲 Switch machine overshoot	±5	%	测试条件：满载，CR 模式 Test conditions: full load, CR mode
2.11	输出动态 Output dynamic	电压变化小于±5% VO；动态响应时间≤250us The voltage change is less than ±10% VO；the dynamic response time is less than 250us	mV	LOAD 25%-50%-25% 50%-75%-50%
3	保护特性 Protection character			
序号 Item	项目 Description	技术要求 Tech Spec	单位 Unit	备注 Remark
3.1	输入欠压保护 Input under-voltage protection	140-175	VAC	测试条件：满载 Test conditions: full load



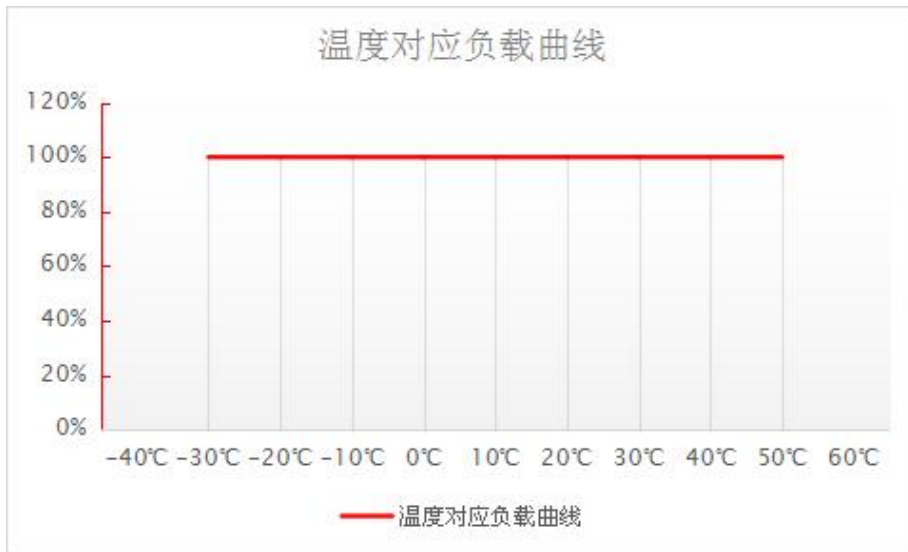
3.2	输入欠压恢复点 Input under-voltage recovery point	160-180	VAC	
3.3	输出限流保护点 Output current limiting protection point	72-90	A	HI-CUP 打嗝自恢复, 避免了电源长期短路后损坏电源。 HI-CUP hiccups self-recovery, avoid long-term damage to power after a short-circuit power.
3.4	输出短路保护 Output short circuit protection	自恢复 Self-Recovery	A	
4	其它特性 Other character			
序号 Item	项目 Description	技术要求 Tech Spec	单位 unit	备注 Remark
4.1	MTBF	$\geq 40,000$	H	
4.2	漏电流 Leakage Current	$< 3.0 (V_{in}=230Vac)$	mA	GB8898-2001 测试方法 test method

五、安规特性 Production Compliance characteristics

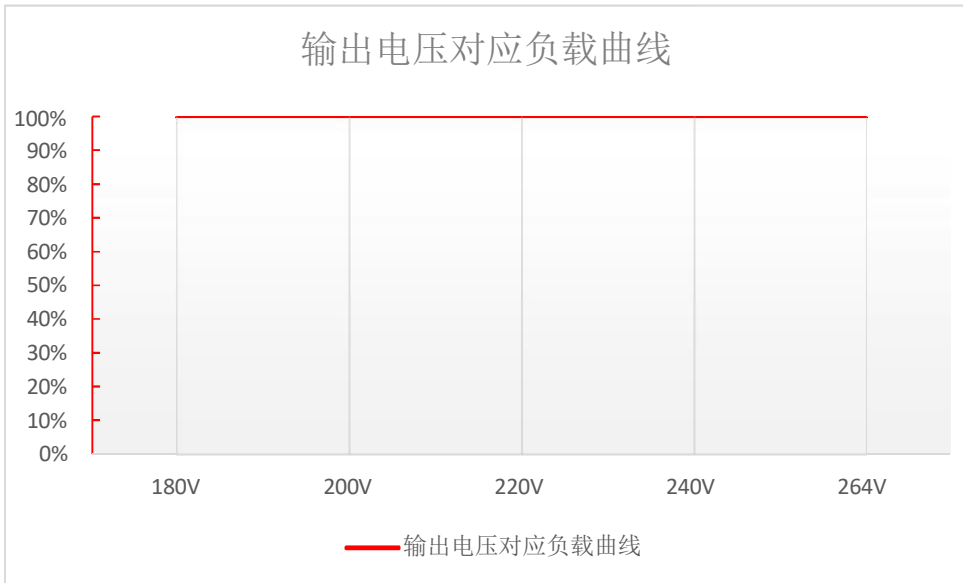
序号 Item	项目 Description		测试条件 Tech Spec	备注 Remark
1	抗电强度 Electric Strength	输入对输出 Input to output	3000Vac/10mA/1min	无飞弧、无击穿 No arcing, no breakdown
2	抗电强度 Electric Strength	输入对地 Input to ground	1500Vac/10mA/1min	无飞弧、无击穿 No arcing, no breakdown
3	抗电强度 Electric Strength	输出对地 Output to ground	500Vac/10mA/1min	无飞弧、无击穿 No arcing, no breakdown

六、曲线 Relative Data Curve

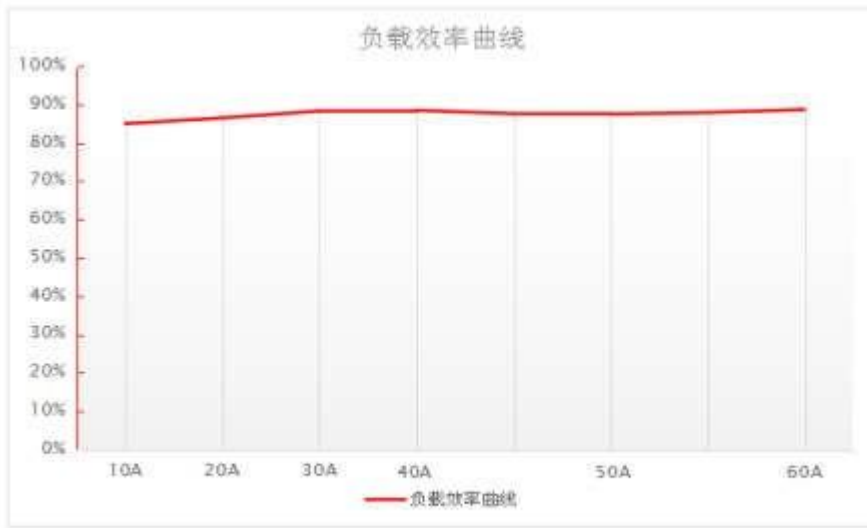
(1) 环境温度与负载关系曲线 Relationship between environmental temperature and load



(2) 输入电压与负载关系曲线 Input voltage and load voltage curve



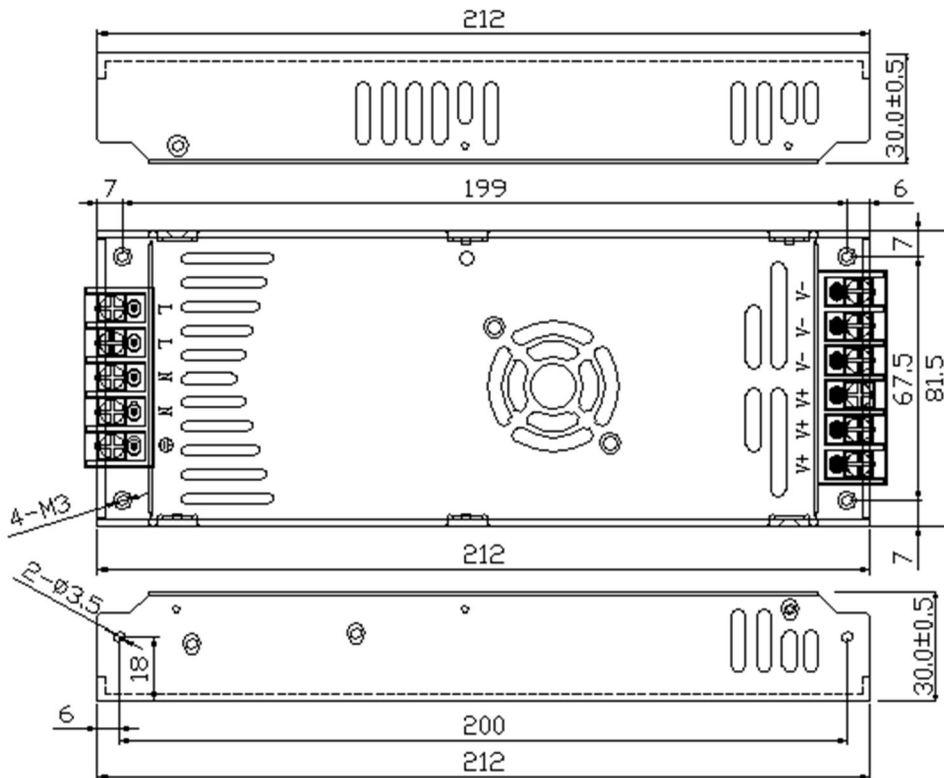
(3) 负载与效率曲线 Load and efficiency curve



七、机械特性及接插件定义 The mechanical character and the definition of connectors (单位 unit: mm)

1、外形尺寸 Dimensions: 长 length×宽 width×高 height=212×81.5×30.5±0.5.

2. 安装孔位尺寸 Assembly Holes Dimensions





上图为底壳俯视图, 固定于客户系统的螺丝规格是 M3, 共 4 个. 固定螺丝进入电源本体的长度不能超过 3.5mm

Above is the top view of the bottom shell. The specifications of the screws fixed in the customer system are M3, totaling 4. The length of the fixed screws entering the power supply body should not exceed 3.5mm.

八、使用注意事项 Attention For Application

1、电源使用须安全绝缘, 其任一面须与外面金属壳体有 8mm 以上安全距离。如果达不到 8mm 需垫 1mm 厚度以上 PVC 片以加强绝缘

Power supply to be safe insulation, any side of the metal shell with the outside should be more than 8mm safe distance. If less than 8mm need to pad 1mm thickness above PVC sheet to strengthen the insulation.

2、安全使用, 避免用手接触散热片, 造成触电

Safe use, to avoid contact with the heat sink, resulting in electric shock.

3、PCB 板安装孔螺柱直径不超过 8mm

PCB board mounting hole stud diameter not exceeding 8mm.

4、需外垫一个 L355mm*W240mm*H3mm 的铝板作为辅助散热

Need a L355mm*W240mm*H3mm aluminum plate as auxiliary heat sink.

九、包装、运输、贮存 Packaging, Transport, Storing

1、包装 Packaging

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。

There are product name, model, manufacturer's logo, manufacturer's quality department's inspection certificate, manufacturing date and so on on the packing box; there is a list of accessories in the packing box.

2、运输 Transport

适应于车、船、飞机运输, 运输中应遮蓬、防晒、文明装卸。

Suitable for car, ship, air transport, transportation should awnings, sun protection, civilized handling.

3、贮存 Storing

产品未使用时应存放在包装箱内, 仓库环境温度为-40℃—+80℃, 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 50cm，在本规定条件下的贮存期一般为 2 年，超过 2 年后应重新进行检验。

When the product is not in use should be stored in the box, the warehouse ambient temperature -40°C — $+80^{\circ}\text{C}$, relative humidity of 10% -90%, the warehouse does not allow harmful gases, flammable, explosive products and corrosion Chemical products, and no strong mechanical vibration, shock and strong magnetic field, the box should be at least 20cm away from the ground, from the wall, heat, window or air inlet at least 50cm, under the conditions of the storage period is generally 2 years, more than 2 years should be re-tested.

十、标贴 Label

