



检 验 报 告

产品名称 IPS30000 通信用高频开关电源系统

产品型号 IPS30000(48V/50A,200A)

受检单位 深圳安耐特电子有限公司

检验类型 委托试验

深圳市安博技术服务有限公司



This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com Http://www.anbotek.com.cn

深圳市安博技术服务有限公司

测试报告

报告编号……: 201302694S

客户……: 深圳安耐特电子有限公司

客户地址……: 深圳市光明新区凤新路新健兴科技工业园 B2 栋东座

制造厂商……: 深圳安耐特电子有限公司

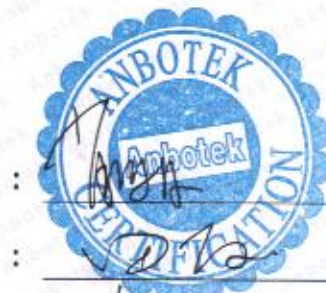
制造商地址…: 深圳市光明新区凤新路新健兴科技工业园 B2 栋东座

实验室地址…: 深圳市前海路深能源工业小区一栋一楼

联系电话……: (86)755-26066544

传真……: (86)755-26014772

报告编写



审 核



批 准



职 位



授权签字人

样品接收日期 : 2013-1-18

样品测试日期 : 2013-1-19 至 2013-2-20

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com Http://www.anbotek.com.cn

委托检验的样品及申请商对样品的说明如下:

样品名称 : 通信用高频开关电源系统
 型号 : IPS30000 (48V/50A, 200A)
 输入参数 : AC220V
 输出参数 : 输出电压: DC 48V/50A, 最大电流: 200A
 样品数量 : 1台
 样品编号 : 系统 13000176
 制造商 : 深圳安耐特电子有限公司
 检测依据 : GB 4943-2011 信息技术设备的安全
 YD/T 731-2008 通信用高频开关整流器
 YD/T 1058-2007 通信用高频开关组合电源
 YD/T 1104-2001 通信用开关电源系统监控技术要求和试验方法

检测结论

YD/T 1051-2000 电源系统总技术要求
 : 该公司生产的 IPS30000(48V/50A, 200A 及以下)通信用高频开关电源系统经检验, 各项性能、功能及技术指标共 45 项, 其检验结果均达到 YD/T 731-2008 通信用高频开关整流器; YD/T 1058-2007 通信用高频开关组合电源; YD/T 1104-2001 通信用开关电源系统监控技术要求和试验方法; YD/T 1051-2000 电源系统总技术要求中规定的要求。

该电源系统采用高效和普效模块混插后, 具备休眠功能, 系统可实现节能, 具体数据见第 28 项

综合判定: 该样品检验结论为合格

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
 Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com Http: //www.anbotek.com.cn

测试设备清单:

名称	型号	制造厂商	编号	校准有效期
数字万用表	FLUKE 45	FLUKE	SE-046	2013.10.16
感应调压器	TDGC2-5	Querli	SE-087	2013.9.27
电能质量分析仪	3196	HIOKI	SE-288	2013.10.16
声级计	2238	Bruel&Kjaer	SE-091	2013.10.16
钳形表	318	FLUKE	SE-296	2013.10.16
高压测试仪	CS2672C	南京长盛	SE-025	2013.10.16
数字示波器	TDS 210	Tektronix	SE-113	2013.10.16
浪涌发生器	801/RC	KEYTEK	SE-253	2013.10.16
恒温恒湿箱	LA-H005F	Shenzhen Longan	SE-026	2013.10.16
数显卡尺	DC-6"CSX	Mitutoyo	SE-052	2013.10.16
数字功率计	PF9811	杭州远方	SE-080	2013.09.27
温升记录仪	34970A	HP-Agilent	SE-059	2013.09.27
热电偶	Type K	--	SE-085	2013.9.27
接地电阻测试仪	MN11B	Yiyuan	SE-024	2013.9.27
绝缘电阻测试仪	DZ2630	Da Zhan	SE-010	2013.04.25

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
 Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com Http: //www.anbotek.com.cn

检测项目

系统 13000176

序号	检验项目	标准要求	检验结果	单项评定
1	交流输入电压变动范围	单相 154V~286V	交流输入 154V~290V 时 满功率输出, 交流输入 90 V~154V 降额输出	合格
2	输入频率变动范围	50Hz±5 Hz	45~65	合格
3	输入电压波形畸变率	不大于 5% (电压)	3.5%	合格
4	输入电流谐波	不大于 28% (电流)	3.9%	合格
5	输入功率因素	≥0.99 (满载时)	0.996	合格
6	直流输出电压可调节范围	-42V~-58V 手动或自动连续可调	-42V~-58V	合格
7	输出电流	总容量 200A, 50A 模块, 2900W (176Vac~290Vac)	57.6v 时输出 200A	合格
8	系统效率	≥92%(满载)	94.3%	合格
9	系统稳压精度	≤±0.6%	0.5%	合格
10	系统平衡杂音	≤2mV	1.1 mV	合格
11	系统峰-峰杂音	≤200 mV	95mV	合格
12	直流配电部分电压降	≤500 mV	340 mV	合格
13	显示功能	输入: 交流电压、电流 输出: 直流电压、电流	符合	合格

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company.

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China.
Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com Http: //www.anbotek.com.cn

13	显示功能	输入: 交流电压、电流 输出: 直流电压、电流	符合	合格
14	蓄电池管理功能	系统对蓄电池能进行手动或自动均浮充转换, 均充充电时有三级限流功能, 有温度补偿、估算蓄电池容量功能	符合	合格
15	并联工作性能	不平衡度应优于输出电流的 $\pm 5\%$ (负载 50~100%)	2.15%	合格
16	监控性能	能实时监控系统工作状态, 采集和存储系统运行参数, 设置参数的掉电存储功能, 三遥功能, 干接点输出	符合	合格
17	通信接口	RS232/IP	符合	合格
18	系统音响噪声	$\leq 55\text{dB}$	48 dB	合格
19	交流输入单元防雷	配置 C 级防雷器, 40KA 以上	符合	合格
20	交流输入过、欠压保护	交流高于 300V 或低于 90V 模块可自动关机, 恢复到正常范围时可自动恢复	欠压关机: 77v, 过压关机: 310V 欠压恢复点: 84V 过压恢复点: 292V	合格
21	直流输出过、欠压保护	当输出电压达到设定的过欠压时能自动告警; 高于关机电压时 (如 58.5V) 应能自动关机保护, 高压关机需手动恢复	符合	合格
22	直流输出电流限制或输出功率限制功能	限流范围可在标称值的 20%~110%之间调整 达到恒功率值时以限功率输出	符合	合格

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company.

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com Http://www.anbotek.com.cn

23	直流输出过流及短路保护	具有过流与短路的自动保护功能, 故障消除后能自动或人工恢复工作	符合	合格	
24	蓄电池欠压保护	具有下电功能, 低于 43.5V 切断全部负载, 停止输出, 电压正常时能自动接入,	符合	合格	
25	熔断器(或断路器)保护	交流输入分路应具有断路器保护装置, 直流输出分路应具有熔断器(或断路器)	符合	合格	
26	温度过高保护	当系统所处环境温度超过系统温度告警点时系统能自动告警, 温度正常时告警自动消除 系统机内 温度超过模块内部限值时, 应能停止输出或限流, 恢复正常范围时可自动恢复工作	符合	合格	
27	告警性能	组合电源在各种保护功能动作的同时应能自动发出相应的可闻、可见告警信号且能送近、远端监控设备上, 有记录可查 如交流异常、蓄电池低压、模块故障等	符合	合格	
28	休眠及混插功能 (系统总容量 200A)	系统效率 (一个高效模块, 三个普效模块)	输出电流为额定值的 15%	96.10%	合格
			输出电流为额定值的 20%	95.2%	
			输出电流为额定值的 25%	94.61%	
			输出电流为额定值的 30%	94.08%	
			输出电流为额定值的 35%	93.78%	
			输出电流为额定值的 40%	93.69%	
			输出电流为额定值的 45%	93.38%	
			输出电流为 15% 的损耗降低率	53.01%	

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
Tel: (86) 755-26068544 Fax: (86) 755-26014772 Email: service@anbotek.com Http: //www.anbotek.com.cn

			输出电流为 20%的 损耗降低率	43.02%	
			输出电流为 25%的 损耗降低率	34.60%	
			输出电流为 30%的 损耗降低率	24.06%	
			输出电流为 35%的 损耗降低率	23.29%	
			输出电流为 40%的 损耗降低率	21.99%	
			输出电流为 45%的 损耗降低率	18.13%	
		系统效率 (两个高 效模块, 两个普效 模块)	输出电流为额定值 的 15%	96.10%	
			输出电流为额定值 的 20%	95.31%	
			输出电流为额定值 的 25%	96.10%	
			输出电流为额定值 的 30%	96.10%	
			输出电流为额定值 的 35%	95.31%	
			输出电流为额定值 的 40%	95.30%	
			输出电流为额定值 的 45%	94.71%	
		系统损耗 降低率(4 个全是普 通模块,)	输出电流为 15%的 损耗降低率	53.01%	
			输出电流为 20%的 损耗降低率	43.06%	
			输出电流为 25%的 损耗降低率	46.00%	
			输出电流为 30%的 损耗降低率	53.08%	
			输出电流为 35%的 损耗降低率	43.06%	
			输出电流为 40%的 损耗降低率	43.06%	
			输出电流为 45%的 损耗降低率	35.47%	
			输出电流为 15%的 效率	92.05%	

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com Http: //www.anbotek.com.cn

		块, 同样启动节能功能, 普通效率模块 92%以上)	输出电流为 20%的效率	92.03%	
			输出电流为 25%的效率	93.01%	
			输出电流为 30%的效率	92.04%	
			输出电流为 35%的效率	92.03%	
			输出电流为 40%的效率	92.03%	
			输出电流为 45%的效率	92.02%	
29	接地性能	系统应具有工作地和保护地, 且有明显的标志, 接地点应用铜螺母 (直径 \geq M8)		符合	合格
30	绝缘电阻	交流对地、直流 直流输出对机壳均 $>2M\Omega$		50 M Ω	合格
31	抗电强度	交流对地、直流应能承受交流 2500V 或直流 3535V 电压 1min 且无击穿飞狐现象 直流输出对机壳应能承受交流 1000V 或直流 1414V 电压 1min 且无击穿飞狐现象		符合	合格
32	接触电流	系统接触电流应不大于 3.5mA		1.8 mA	合格
33	传导骚扰限值	符合 YD/T983-1998 中 A 级的要求		符合 B 级	合格
34	辐射骚扰限值	符合 YD/T983-1998 中 A 级要求		符合 B 级	合格
35	热插拔性能	热插拔系统不应振荡		符合	合格

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein: The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com Http://www.anbotek.com.cn

36	振动或运输试验	10~55Hz、振幅为 0.35mm 的正弦波振荡	符合	合格
37	材料阻燃性能	模块 PCB 的阻燃等级达到 GB4943 中规定的 V-0 要求； 塑胶导线的阻燃等级达到 GB/T18380-2001 中规定的要求； 其他绝缘材料的阻燃等级达到 GB4943 中规定的 V-1 要求	符合	合格
38	防雷性能	交流能承受 10/700us,5KV 正负极各五次 8/20us,20KA 正 负 极 各 五 次 ， 8/20us,40KA 一次 直流能承受 8/20us,10KA 和 15KA 各一次	符合	合格
39	可靠性试验	MTBF $\geq 5 \times 10^4$ h	---	---
40	低温储存试验	-40°C \pm 3°C	符合	---
41	低温工作试验	-25°C \pm 3°C 2h	符合	---
42	高温储存试验	70°C \pm 2°C	符合	---
43	高温工作试验	55°C \pm 2°C 2h	符合	---
44	恒定湿热试验	温度 40°C \pm 2°C, 湿度 95% 2 天	符合	---
45	系统外观	系统面板平整，镀层牢固，漆面均匀，所有标记、标牌清晰可辨，无剥落、锈蚀、明显变形等不良现象，机框应有防尘、防潮、防盗设施	符合	合格

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com Http://www.anbotek.com.cn

声明

1. GB 4943-2011 在CNAS授权范围内, 其余标准不在CNAS授权范围。
2. 本报告不能修改和删除。
3. 本报告出现的试验结果仅与试验样品有关。
4. 本报告在未经安博实验室书面许可情况下不能用于宣传、广告之用。
5. 除非全部复制, 否则无安博实验室书面批准本报告不得部分复制。

*****报告结束*****

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company.

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
Tel: (86) 755-26068544 Fax: (86) 755-26014772 Email: service@anbotek.com [Http://www.anbotek.com.cn](http://www.anbotek.com.cn)



This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com [Http://www.anbotek.com.cn](http://www.anbotek.com.cn)



This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company.

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com [Http://www.anbotek.com.cn](http://www.anbotek.com.cn)



This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company.

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com [Http://www.anbotek.com.cn](http://www.anbotek.com.cn)



This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf. Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. The results shown in this report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full, without prior written permission of the company

Anbotek Compliance Laboratory Limited

Address: 1/F, Building 1, SEC Industrial Park, No. 0409 Qianhai Road, Nanshan District, Shenzhen, 518054, Guangdong, China
Tel: (86) 755-26066544 Fax: (86) 755-26014772 Email: service@anbotek.com Http: <http://www.anbotek.com.cn>