



东莞市奥强电子有限公司
Dongguan Oriental Hero Ele. Co., Ltd.



SPECIFICATION FOR APPROVAL
客户承认书

CUSTOMER/客户: 联 贸

FILE NO./认证号: E245654; JPTUV-021781

CUSTOMER PART NO./客户物料号: _____

MODEL NO./产品型号: OH-1065A1903150U

PRODUCT NO./产品编号: OHSPSA3282

MAINFRAME MODEL/主机型号: _____

MARK 修改标记	REVISED CONTENT 修改内容	APPROVED & DATE 认可日期

AUTHORIZED SIGNATURE & COMPANY CHOP/客户认可签回	

DATE/日期	10.03.03	EDITION/版本	A	PAGE/页码	1 OF 10
DESIGN/拟制		CHECK/审核		APPROVAL/批准	

Dongguan Oriental Hero Ele. Co., Ltd. / 东莞市奥强电子有限公司
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东莞市奥强电子有限公司
Dongguan Oriental Hero Ele. Co., Ltd.

客户名称	联 贸	产品型号	OH-1065A1903150U
客户物料号		产品编号	0HSPS3282
样品申请单号		接订单日期	2010-3-2

文件清单

序号	包含文件名称	客户承认书页码
	文件清单	
	样品承认书封面	1-2 OF 10
	电气性能	3-5 OF 10
	外观图	6-7 OF 10
	包装示意图	8 OF 10
	测试报告	9 OF 10
	开发设计评审表	10 OF 10
	线路图*	
	样品申请单*	
	产品履历表*	
	开关电源开发时程表*	
	参考资料*	

DATE/日期	10. 03. 03			EDITION/版本	A
DESIGN/拟制		CHECK/审核		APPROVAL/批准	

Dongguan Oriental Hero Ele.Co., Ltd.

ELECTRICAL PERFORMANCE/电气性能

1. SAFETY STANDARD/安规标准:

The power supply shall be certified by the following international regulatory standards
电源应符合下列的国际标准

	Standard/标准	Certified Status	Meet
CE	EN60065	*	
GS	EN60065	*	
UL/CUL	UL60065	*	
FCC	Fcc part 15 class B	*	
CCC	GB8898	*	
CB	EN60065	*	
KTL	EN60065		*

2. DIELECTRIC WITHSTANDING STRENGTH(HI -POT)/绝缘介电强度(耐压)(S):

Primary to Secondary DC4242V, 10mA 1 minute for type test, 2 second for production.
一次侧对二次侧: DC4242V, 10mA标准测试 1分钟, 量产测试2秒钟.

3. INPUT FEATURE/输入特性:

3.1 RATED INPUT VOLTAGE: 100-240Vac. 额定输入电压范围为100-240Vac.

INPUT VOLTAGE RANGE: 90Vac to 264Vac. 输入电压范围从90Vac到264Vac.

3.2 RATED INPUT FREQUENCY: 50Hz/60Hz. 额定输入频率50Hz/60Hz.

INPUT FREQUENCY RANGE: 47Hz to 63Hz. 输入频率范围从47Hz到63Hz.

3.3 INPUT CURRENT: 1500mA max. at 117Vac. 最大输入电流1500mA(输入条件100-240Vac).

3.4 INRUSH CURRENT: 60A max. at 100-240Vac input for a cold start at 25 .

在冷开机条件下, 最大浪涌电流不超过60A(输入条件100-240Vac).

3.5 Standby power consumption less than 0.5W at 117Vac input.

在输入117Vac时, 待机功耗小于0.5W

3.6 EFFICIENCY: higher than 83% at 100-240Vac input and output full load.

效率高于83%(输入100-240Vac和输出满载条件).

4. OUTPUT FEATURE/输出特性:

RATED OUTPUT/额定输出	SPEC. LIMIT/规格限定		q1
19.0VDC	Min. value	Max. value	
No Load Output Regulation/空载输出电压规格	18.05VDC	19.950VDC	
Full Load Output Regulation/满载输出电压规格	18.05VDC	19.950VDC	
Output Load/输出负载规格	0.0A	3.16A	
Ripple and Noise/输出纹波及噪声	-	160mVp-p	20MHz Bandwidth 10uF Ele. Cap. 0.1uF Cer. Cap.

DATE/日期

10.03.03

EDITION/版本

A

PRODUCT NO./产品编号

OHSPSA3282

PAGE/页码

3 OF 10

ELECTRICAL PERFORMANCE/电气性能

5. PROTECTION FEATURE/保护特性:

5.1 OVER-CURRENT PROTECTION/过电流保护:

The power supply shall be protection (hiccupped & power reduced) when any output operating in overload condition under any line condition for an indefinite period of time. The power supply shall be self-recovery when the fault condition is removed.
在任何时候,任何输入条件,当输出操作在过载条件时,电源供应器将进入保护(打嗝或功率下降)模式,当过载故障被移走后,电源要能自动恢复到正常.

5.2 SHORT-CIRCUIT PROTECTION/输出短路保护:

The power supply shall be protection (hiccupped & power reduced) and no damage shall occur when any output operating in a short circuit condition under any line condition for an indefinite period of time. The power supply shall be self-recovery when the fault condition is removed.
在任何时候,任何输入条件下,当输出操作在短路情况下,电源供应器将进入保护(打嗝或功率下降)模式,当短路故障消失后,电源要能自动恢复正常.

6. ENVIRONMENTAL CONDITIONS/环境条件:

6.1 OPERATING/操作条件:

The power supply shall be capable of operating continuously in any mode without performance deterioration in the following environmental conditions.
在下列环境条件下,电源供应器要能够连续操作在各种模式,且不能造成性能的退化.

6.1.1 Operating Temperature: 0 ~ 40 /操作温度: 0 ~ 40

6.1.2 Relative Humidity: 10% ~ 90%/相对湿度: 10% ~ 90%

6.1.3 Vibration: 1.0mm, 10-25Hz, 15 minutes per cycle for each axis(x,y,z)
振动: 分别在X,Y,Z方向, 1.0mm, 10-25Hz, 15分钟

6.1.4 Cooling: The power supply will operate with convection cooling, Blocking of vents must not cause damage to the power supply.
电源供应器将操作在对流冷却的环境下,即使将通风口阻塞电源也不允许有任何损伤发生.

6.2 NON-OPERATING/非操作条件:

The power supply shall be capable of withstanding the following environmental conditions extended periods of time.

电源供应器要能长期的经受下列的环境条件.

6.2.1 Storage Temperature: -20 ~ 70 /存储环境温度: -20 ~ 70

6.2.2 Relative Humidity: 10% ~ 90%/相对湿度: 10% ~ 90%

6.2.3 Vibration and Shock/振动和冲击:

The power supply shall be designed to withstand normal transportation vibration per MIL-STD-810D, as it is mounted in the chassis assemble and packed for shipping.
电源供应器装配及出货的包装设计,均要能承受正常运输的振动,并符合 MIL-STD-810D

DATE/日期	10.03.03	EDITION/版本	A
PRODUCT NO./产品编号	OHSPSA3282	PAGE/页码	4 OF 10

Dongguan Oriental Hero Ele.Co., Ltd.

ELECTRICAL PERFORMANCE/电气性能

7. EMC STANDARDS/电磁兼容性标准:

7.1 EMI STANDARDS/EMI 标准:

The power supply shall meet the radiated and conducted emission requirements for EN55013 EN55020 Fcc part 15 class B

电源供应器要符合辐射及传导要求,满足EN55013 EN55020 Fcc part 15 class B

7.1 EMS STANDARDS/EMS 标准:

The power supply shall meet the following EMS standards/电源供应器要满足下列EMS标准:

7.2.1 EN61000-4-2: 1995/A1:1998 Electrostatic Discharge(ESD)

7.2.2 EN61000-4-3: 1996/A1:1998 Radiated Electromagnetic Fields(RS)

7.2.3 EN61000-4-4: 1995 Electrical Fast Transient/Burst(EFT)

7.2.4 EN61000-4-5: 1995 Surge Immunity.Line to Neutral

7.2.5 EN61000-4-6: 1996 Injected Current

7.2.6 EN61000-4-8: Power Frequency Magnetic Field

8. RELIABILITY AND QUALITY CONTROL/可靠性及品质控制:

8.1 BURN-IN/烘烤:

The power supply shall undergo a minimum of 4 hours Burn-In test under full load at 35 ~ 45 . /电源应在35 ~ 45 和满载条件下烘烤4小时.

8.2 COMPONENT DERATING/元件温度要求(S):

Semiconductor junction temperatures shall not exceed the manufacturer's maximum thermal rating. /半导体结温不允许超过其制造商要求的最大温度值.

9. INSULATION RESISTANCE/绝缘阻抗:

INPUT TO OUTPUT: 10M min. (500VDC)/输入对输出10M 最小(500VDC)

10. LEAKAGE CURRENT/漏电流:

The leakage current shall be less than 0.25mA for Class when power supply is operated maximum input voltage and maximum load.

当电源供应器操作在最大输入和最大负载的情况下,其漏电流应小于 0.25mA ,满足Class 等级.

11. MAJOR MEASURE EQUIPMENT/主要测量设备:

A. AC SOURCE/交流输入电源: AFC-500W

☐

B. POWER METER/电源功率计: EVERFINE PF9901

☐

C. ELECTRONIC LOAD/电子负载: *chroma* 63030

☐

D. OSCILLOSCOPE/存储示波器: TEKTRONIX TDS1012

☐

E. DIGITAL MULTIMETER/数字式万用表: GW GDM-8245

☐

F. DC POWER/直流输入电源: GW GDS-3030D

☐

G. HI -POT TESTER/耐压测试仪: GOODWILL GPT-605

☐

H. HYBRID RECORDER/混合记录仪: YOKOGAWA uR100

☐

I. CONS. T/H SIMULATOR/恒温恒湿仪: TH-A4H 1-150

☐

J. INSULATION RESISTANCE TESTER/绝缘电阻表: HY7620

☐

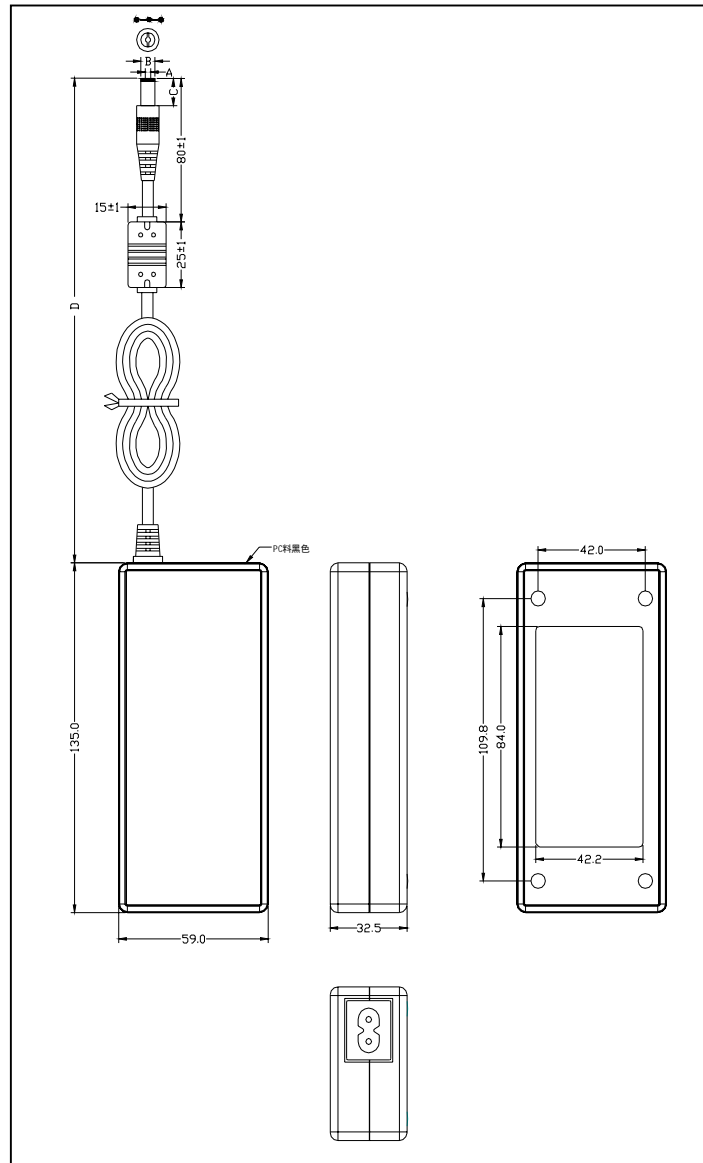
DATE/日期	10.03.03	EDITION/版本	A
PRODUCT NO./产品编号	0HSPSA3282	PAGE/页码	5 OF 10

Dongguan Oriental Hero Ele.Co., Ltd.

EXTERNAL VIEW/外观图

MECHANICAL DIMENSION(UNIT IN mm)


外形尺寸(单位: mm)

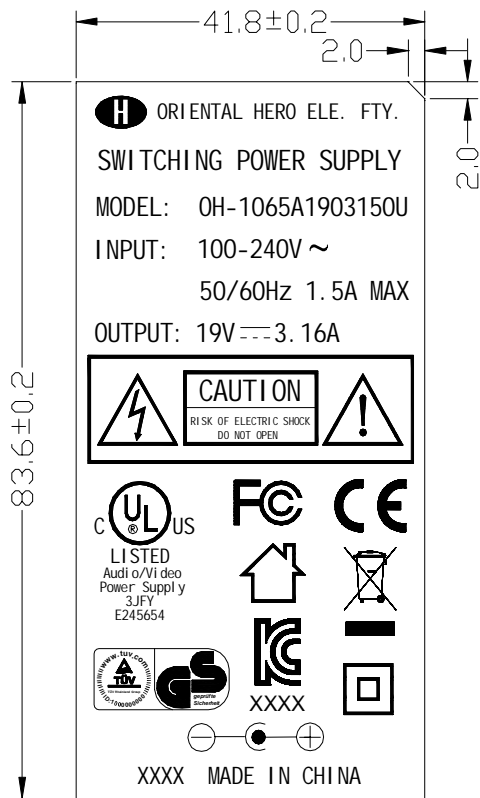


	A	B	C	D	E
DIMENSION/尺寸	2.1	5.5	10.0	1450	
TOLERANCE/公差	± 0.1	± 0.1	± 0.3	min.	
NOTES(DC CORD)	1185AWG18#/2C, SR7*5.5*3.5, With EMI core Plug Center Positive				
NOTES(AC CORD)					

DATE/日期	10.03.03	EDITION/版本	A
PRODUCT NO./产品编号	OHSPSA3282	PAGE/页码	6 OF 10

NAME PLATE/铭牌

NAME PLATE/铭牌: 



UNIT/单位: mm
TOLERANCE/公差: +0.1/-0.2
BACK COLOUR/底色: SILVER/银色
WORD COLOUR/字色: BLACK/黑色

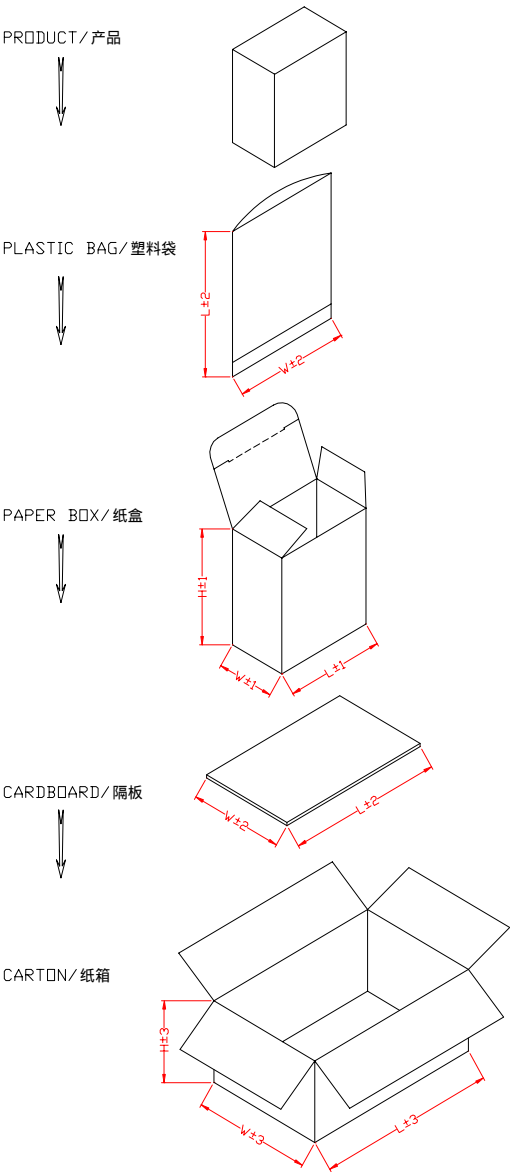
* PLEASE ADVISE IF ANY COMMENT ON NAME PLATE INFORMATION. OTHERWISE, THIS INFORMATION IS REGARDED AS CUSTOMER APPROVAL AND APPLY IN PRODUCTION.

铭牌资料供客户样品认可使用, 如有疑问, 请于样品认可前提出, 否则, 资料将视作客户认可并应用于生产上.

DATE/日期	10. 03. 03	EDITION/版本	A
PRODUCT NO. /产品编号	OHSPSA3282	PAGE/页码	7 OF 10

Donqquan Oriental Hero Ele.Co., Ltd.

PACKING DRAWING/包装示意图



MECHANICAL DIMENSION (UNIT IN mm) / 尺寸 (单位 mm):

	L	W	H
PLASTIC BAG / 塑料袋	280.0	150.0	
PAPER BOX / 纸盒	160.0	65.0	65.0
CARDBOARD / 纸板			
CARTON / 纸箱	500.0	345.0	280.0

PACKING METHOD / 包装方式:

CARDBOARD PLACEMENT METHOD / 纸板放置方式	PUT A CLAPBOARD OVER AND UNDER THE PRODUCTS OF EACH LAYER, TOTAL 5PCS / 每层产品上下面均有一张平卡, 共4张。
PACKING METHOD / 装箱方式	(3*5) 35PCS / LAYER X 4 LAYERS (3*5) 15个 / 层 X 4 层
QTY / 装箱总数	60PCS
N. G / 单个成品净重	
G. W / 毛重	

- 1. RELATIVE HUMIDITY / 相对湿度: 30% ~ 80%
- 2. STORAGE TIME / 保存时间: 6 MONTHES / 6个月
- 3. ANLSTATIG: NO REQUIREMENT / 无抗静电要求.
- 4. PLEASE ADVISE IF ANY COMMENT ON PACKING INFORMATION, OTHERWISE, THIS INFORMATION IS REGARDED AS CUSTOMER APPROVAL AND APPLY IN PRODUCTION.
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DATE / 日期	10.03.03	EDITION / 版本	A
PRODUCT NO. / 产品编号	OHSPSA3282	PAGE / 页码	8 OF 10

Dongguan Oriental Hero Ele. Co., Ltd.

SAMPLE PRIMARY TEST REPORT/样品初测报告													
CUSTOMER/客户		联 贸		PRODUCT NO./产品编号						OHSPSA3282			
MODEL NO./产品型号		OH-1065A1903150U											
Test Items./测试项目	Test Condition/测试条件	Unit/单位	Sample quantity and test result/样品数量和测试结果										Pass/Fail
			1#	2#	3#	4#	5#						
Unload output voltage/ 空载输出电压(0.0A) 18.05Vdc - 19.95Vdc	90Vac/60Hz	V	19.22	19.18	19.21	19.26	19.22						PASS
	120Vac/60Hz	V	19.22	19.18	19.21	19.26	19.22						PASS
	264Vac/50Hz	V	19.22	19.18	19.21	19.26	19.22						PASS
Rated load output voltage/ 额定负载输出电压 (3.16A) 18.05Vdc - 19.95Vdc	90Vac/60Hz	V	18.68	18.64	18.69	18.72	18.69						PASS
	120Vac/60Hz	V	18.66	18.64	18.67	18.71	18.67						PASS
	264Vac/50Hz	V	18.65	18.64	18.66	18.71	18.66						PASS
Output ripple & noise voltage/输出纹波及噪声电压 160mV	90Vac/60Hz	mV	96.0	76.0	72.0	82.0	88.0						PASS
	120Vac/60Hz	mV	49.0	56.0	60.0	68.0	72.0						PASS
	264Vac/50Hz	mV	36.0	43.0	44.0	53.0	56.0						PASS
Short-circuit protection test/短路保护测试	90Vac/60Hz	W	hiccup	hiccup	hiccup	hiccup	hiccup						PASS
	264Vac/50Hz	W	hiccup	hiccup	hiccup	hiccup	hiccup						PASS
Over current protection/过流保护点 (5.5A)	90Vac/60Hz	A	3.40	3.40	3.40	3.45	3.40						PASS
	264Vac/50Hz	A	3.75	3.70	3.70	3.80	3.65						PASS
Hi-pot test/介电强度	4242Vdc/10mA/ 1Minute		OK	OK	OK	OK	OK						PASS
Appearance/外观	无刮伤,字迹清晰无误		OK	OK	OK	OK	OK						PASS
Mosfet(IC)/Vds耐压测试	*Vac	V	542	Mosfet规格		600	Derating 98% Max. Volt.		90.33%				PASS
输出肖特基D/Vrr耐压测试	*Vac	V	117	Diode规格		200	Derating 90% Max. Volt.		58.50%				PASS
变压器反馈绕组上所连接电阻(R)功率损耗(PD)	90Vac	P	-	R(功率)规格		-	Derating 65% Max Power		-				PASS
	264Vac	P	-	R(功率)规格		-	Derating 65% Max Power		-				PASS
DATE / 日期	10.03.03		EDITION / 版本			A		PAGE / 页码		9 OF 10			
TEST / 测试			EE CHE./审核					EE CHE./审核					

Dongguan Oriental Hero Ele.Co.,Ltd.

开发设计评审表										
CUSTOMER / 客户:		联 贸		PRODUCT NO. / 产品编号:			OHSPSA3282			
MODEL NO. / 产品型号:		OH-1065A1903150U		CUSTOMER NO. / 客户编号:						
Items No.	Test Items / 测试项目	Unit / 单位	Test condition & result / 测试条件和结果					Spec. Limit	Pass/Fail	
			90Vac	120Vac	264Vac					
1	Unload input current 空载输入电流	mA	15.0	17.0	30.0			-	-	
2	Unload input power 空载输入功率	W	0.20	0.20	0.30			0.5W (115-230Vac)	Pass	
3	Rated load input current 额定负载输入电流	mA	1218.0	852.0	396.0			1500mA (90Vac)	Pass	
4	Rated load input power 额定负载输入功率	W	70.90	69.00	67.70			73.20W	Pass	
5	Unload output voltage 空载输出电压 / (0.0A)	V	19.18	19.18	19.18			18.05V -19.95V	Pass	
6	Rated load output voltage 额定负载输出电压 / 3.16A)	V	18.650	18.640	18.630			18.05V -19.95V	Pass	
7	Rated half load output voltage 额定半载输出电压 / (1.6A)	V	18.900	18.900	18.900			18.05V -19.95V	Pass	
8	Output ripple&noise voltage 纹波及噪声电压(0A-3.16A)	mV	68.0	65.0	45.0			160mVp-p	Pass	
9	Output ripple&noise voltage 纹波及噪声电压(3.16A-0A)	mV	65.0	59.0	41.0			160mVp-p	Pass	
10	Short-circuit test (Pin&Iout) 短路输入功率及输出电流	W	hiccup	hiccup	hiccup			-	-	
		mA	hiccup	hiccup	hiccup			-	-	
11	Over current protection 过流保护点	A	3.45	3.65	3.75			5.5A	Pass	
12	I C V _{CC} voltage test V _{CC} 电压测试	V	20.60	20.80	21.20			24.0V	Pass	
13	Efficiency 效率	%	83.12%	85.37%	86.96%			>83%	Pass	
14	Mech. Dimension 外观尺寸	mm	长 L 135			±0.5		135.1	Pass	
			宽 W 59			±0.5		59.1	Pass	
			高 H 32.5			±0.5		32.6	Pass	
									Pass	
15	DC cord and DC connector DC线和DC连接头	mm	DC cord: 1185AWG#18/2C, LENGTH: 1500mm					1450mm Min.	Pass	
			DC plug.: Inside (+),Outside(-), Dimension conform with spec. limit.						Pass	
16	Hi-pot test介电强度	Pri. to Sec. : 4242Vdc, 1Minute, Cut off current 10mA (Test result: 2.30mA)								Pass
17	Drop test跌落试验	Drop test 6 Times (High: 1000mm), The sample OK								
18	Max. and Light load change test 重轻载转换测试	Max. load to Light load : OK Light load to max. load: OK (90-264Vac)								
19	Burn-in老化试验	Burn-in 4 Hrs, The sample OK								
20	Appe. label and fusion 外观, 铭牌及熔合	Appearance: OK, Label: OK, Fusion: OK								
21	EMI testEMI 测试	Test : OK								
DATE / 日期		10.03.03		EDITION / 版本		A		PAGE / 页码	10 OF 10	
TEST / 测试				EE CHE. /审核				EE CHE. / 审核		