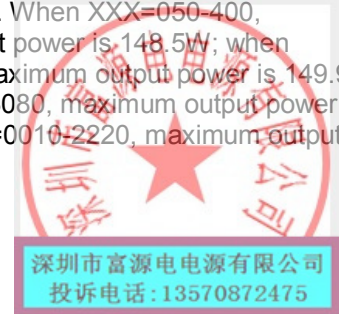


UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Listing
CCN:	QQGQ, QQGQ7 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)
Product:	SWITCHING POWER SUPPLY
Model:	FY150XXXYYYY, FY135XXXYYYY, FY120XXXYYYY("XXX" means 3 digits, indicates 10 times of output voltage in V, "YYY" means 4 digits, indicates 1000 times of current in A. When XXX=050-400, YYYY=0010-9900, maximum output power is 148.5W; when XXX=401-480, YYY=0010-3570, maximum output power is 149.94W; when XXX=481-670, YYYY=0010-3080, maximum output power is 150W; when XXX=671-680, YYYY=0010-2220, maximum output power is 150.96)
Rating:	Input: 100-240Vac, 50/60Hz, 3.0A Output: 5-68Vdc, 0.01-9.9A. (See enclosure ID 7-01 for detail)
Applicant Name and Address:	SHENZHEN FUYUANDIAN POWER CO LTD 3/F BLDG 9 YIJING NORTH 5 LANE ZONE 47 BAOAN DISTRICT SHENZHEN GUANGDONG 518000 CHINA



This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared by: Jackson Su

Reviewed by: Lucio Cinelli

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

- A. Authorization - The Authorization page may include additional Factory Identification Code markings.
- B. Generic Inspection Instructions -
 - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
 - ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
 - iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

Unit is a transportable SWITCHING POWER SUPPLY employing a switching mode transformer, an AC inlet and a non-detachable output cord with polarized output connector, the output is hazardous for models which output rating is above 58Vdc. All electrical components are mounted on a PWB and housed in a plastic enclosure.

Model Differences

All models are identical to each other except for model designation, output rating and secondary components adjust to rating.
see enclosure ID 7-01 for detail.

Technical Considerations

- Equipment mobility : transportable
- Connection to the mains : pluggable A
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : OVC II
- Mains supply tolerance (%) or absolute mains supply values : +10%, -10% (declared by manufacturer)
- Tested for IT power systems : No
- IT testing, phase-phase voltage (V) : N/A
- Class of equipment : Class II (double insulated)
- Considered current rating of protective device as part of the building installation (A) : 20 A
- Pollution degree (PD) : PD 2
- IP protection class : IP X0
- Altitude of operation (m) : up to 2000
- Altitude of test laboratory (m) : less than 2000
- Mass of equipment (kg) : Approx. 0.256
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma)

permitted by the manufacturer's specification of: 40 °C

- The means of connection to the mains supply is: Detachable power cord, Pluggable A
- The product is intended for use on the following power systems: TN
- The equipment disconnect device is considered to be: Appliance inlet
- The following accessible locations (with circuit/schematic designation) are within a limited current circuit: CY7 secondary pin(CY8 and CY7 in series)
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual, The Instruction manual should include the statement clearly stated the connection advised by the qualified service personal
- LEDs provided in the product are considered low power devices: Yes
- The models which output voltages exceed 58Vdc have provided with the insulated output terminal, reinforced insulation shall be provided between accessible parts and internal hazardous live parts in final systems.


Additional Information


N/A

Additional Standards

The product fulfills the requirements of: N/A

Markings and instructions

Clause Title	Marking or Instruction Details
Inter-connecting cables - Non-LPS or TNV	Non-LPS or TNV output connectors identify the type of circuit, intended cable type or relevant circuit characteristics. (Marking or Instruction)
Power rating - Ratings	Ratings (voltage, frequency/dc, current)
Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Power rating - Model	Model Number
Power rating - Class II symbol	Symbol for Class II construction  (60417-2-IEC-5172)
Fuses - Rating	Rated current and voltage and type located on or adjacent to fuse or fuseholder.

See Installation Instructions	<p>The symbol</p>  <p>(exclamation in a triangle) or the words "See Instruction Manual" located adjacent to document feed opening to alert the User to the presence of important operating, maintenance and servicing instructions. (Marking)</p>
-------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Hazards output voltage ITE power supplies	<p>For model's output voltage exceeding 58Vdc is considered as hazards voltage. Pay attention when connected to other equipment. Those ITE power supplies requiring installation by qualified service personnel should be provided with proper instructions stating so. See installation instructions.</p>
-------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Special Instructions to UL Representative

Inspect the transformer(s) listed in Production-Line Testing Requirements (Electric Strength Test Special Constructions) per AA1.1- (C). When the tests are conducted at other location, Inspect test record and specification sheet provided by the component manufacturer. Verify the specification sheet indicates 100% routine test specified in Production-Line Testing Requirements (Electric Strength Test Special Constructions) be conducted at the component manufacturer.

Production-Line Testing Requirements

Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.

Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
All	Transformer T1	--	Primary to secondary	300 0	4242	1

Earthing Continuity Test Exemptions - This test is not required for the following models:

All models in this report

Electric Strength Test Exemptions - This test is not required for the following models:

None

Electric Strength Test Component Exemptions - The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test:

--

Sample and Test Specifics for Follow-Up Tests at UL

Model	Component	Material	Test	Sample(s)	Test Specifics
N/A					

1.5.1	TABLE: list of critical components					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
1.Enclosure	SABIC INNOVATIVE PLASTICS US L L C (E121562)	940(f1), ML1655R(f1)	V-0, 130°C, min. thickness 1.5mm, HWI=3, two pieces construction, secured together by ultrasonic welding. See enclosure 7-02 for details	QMFZ2	UL	
2. AC Inlet	ZHEJIANG LECI ELECTRONICS CO LTD (E302229)	DB-8	250Vac, 5A, 105 degree C	AXUT2	UL	
3. Label	Interchangeable	Interchangeable	Minimum 90 degree C, suitable for plastic surface.	PGDQ2 or PGJ12	UL	
4. PWB	Interchangeable	Interchangeable	V-0, 130 degree C.	ZPMV2	UL	
5. Fuse (F1)	XC ELECTRONICS (SHENZHEN) CORP LTD (E249609)	3T	T6.3AL, 250Vac	JDYX	UL	
(Alternate)	DONGGUAN BETTER ELECTRONICS TECHNOLOGY CO LTD (E300003)	332, 334	T6.3AL, 250Vac	JDYX2	UL	
6. Varistor (MOV1)	HONGZHI ENTERPRISES LTD (E324904)	HEL10D471K, HEL7D471K	Min. 300Vac, 105 degree C, coating V-0	VZCA2	UL	
(Alternate)	SHENZHEN CHUANG NA ELECTRONICS CO LTD (E477910)	CVR-10D471K	Min. 272Vac, 85 degree C, coating V-0	VZCA2	UL	
7. X-Capacitors (CX1)(X2 type)	TENTA ELECTRIC INDUSTRIAL CO LTD (E222911)	MEX	Rated 275Vac minimum, maximum 0.47µF. X2 type, 100 degree C.	FOWX2	UL	
(Alternate)	SHANTOU XINYIN ELECTRONICS TECHNOLOGY CO LTD (E470852)	MPX	Rated 275Vac minimum, maximum 0.47µF. X2 type, 110 degree C.	FOWX2	UL	

8. Line filter (LF1)	Interchangeable	Interchangeable	Minimum 130 degree C. see supplement 4-02 for detail.	--	--	
8-1. Core	--	--	Ferrite, overall size: 18 mm by 10 mm by 7 mm	--	--	
8-2. Coil	Interchangeable	Interchangeable	Minimum 130 degree C	OBMW2	UL	
9. Line filter (LF2)	Interchangeable	Interchangeable	Minimum 130 degree C. see supplement 4-03 for detail.	--	--	
9-1. Bobbin of LF2	Interchangeable	Interchangeable	V-0, 150 degree C., min. thickness: 0.75mm.	QMFZ2	UL	
9-2. core (LF2)	--	--	Ferrite, overall size: 20.5 mm by 20.5 mm by 5.7 mm	--	--	
10. Y-Capacitors (CY7, CY8)	JYA-NAY CO LTD (E201384)	JN	Rated 250Vac minimum, maximum 1000pF. Y1 type, 125 degree C.	FOWX2	UL	
11. Optocoupler (U5)	EVERLIGHT ELECTRONICS CO LTD (E214129)	EL817	Rated 5000V isolation voltage, 100 degree C.	FPQU2	UL	
(Alternate)	CHINA RESOURCES SEMICONDUCTOR(SHENZHEN)LIMITED (E465130)	PC817*, PC817S	Rated 5000V isolation voltage, 100 degree C.	FPQU2	UL	
12. Transformer (T1)	Shenzhensi Yamaxi Electronics Co Ltd	FYD-POT4020RZ	Class F, see supplement 4-01 for detail.	--	--	
12-1. Insulation system	Shenzhensi Yamaxi Electronics Co Ltd (E305515)	YMX-BCK-200	Class F	OBJY2	UL	
12-2. Core	--	--	Ferrite, overall size: 40.1mm by 20.5mm by 28.4mm	--	--	
12-3. Bobbin material	SUMITOMO BAKELITE CO LTD (E41429)	PM-9820	Phenolic, V-0, 150 degree C, minimum thickness 0.70mm	QMFZ2	UL	
12-4. Triple insulated wire	TOTOKU ELECTRIC CO LTD (E166483)	TIW-E	Rated 155 degree C.	OBJT2	UL	
(Alternate)	FURUKAWA ELECTRIC CO LTD (E206440)	TEX-FR, TEX-FS	Rated 155 degree C.	OBJT2	UL	

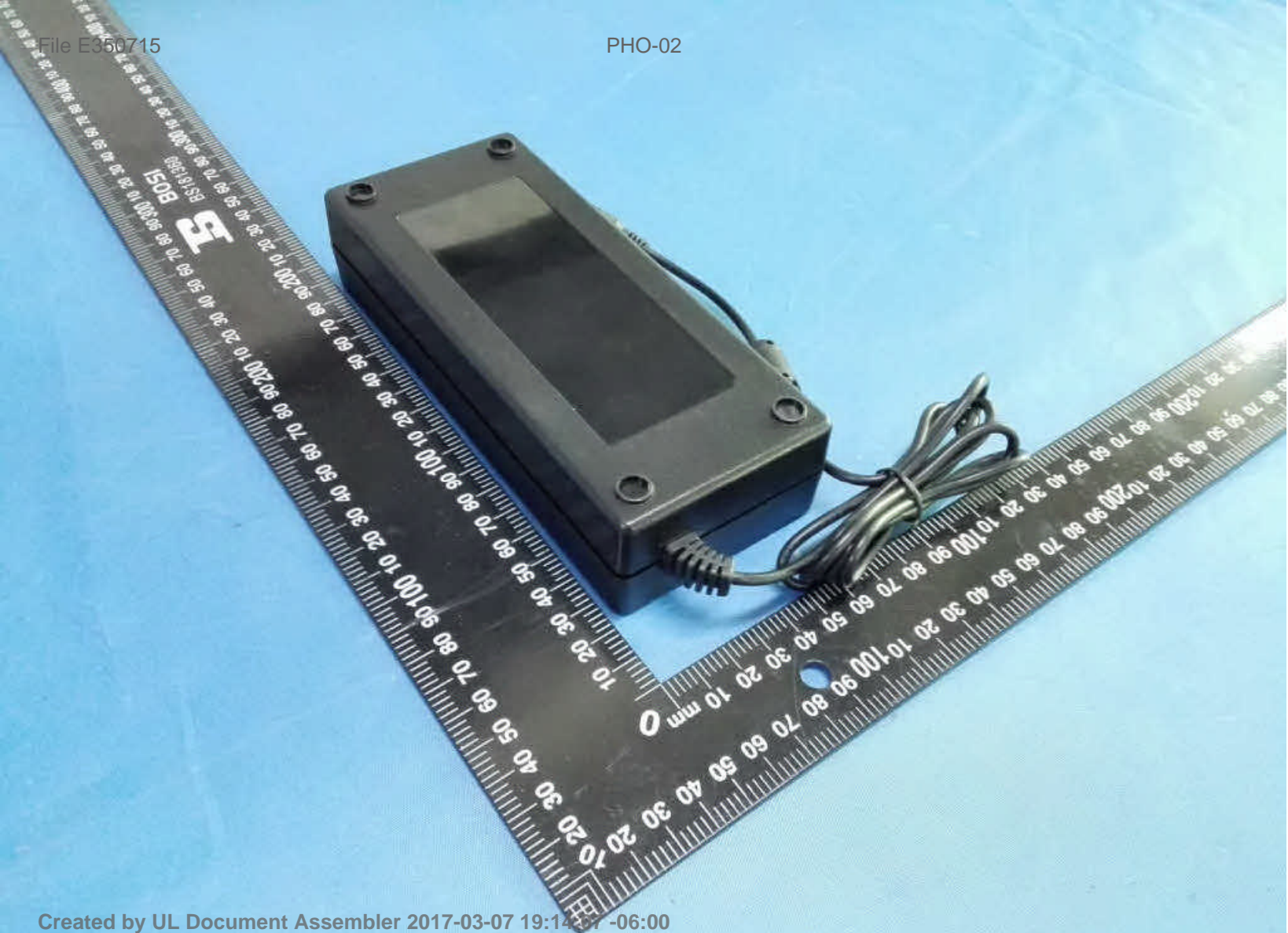
12-5. Magnet wire	Various	Various	ANSI No. MW28, MW75, MW79, MW80, MW82, MW83, Copper magnet wire, minimum 155 degree C	OBMW2	UL	
12-6. Tube	GREAT HOLDING INDUSTRIAL CO LTD (E156256)	TFT	200 degree C.	YDPU2	UL	
12-7. Insulation tape	P LEO & CO LTD (E126174)	1PEN2	155 degree C.	OANZ2	UL	
12-8. Varnish	HITACHI CHEMICAL CO LTD (E72979)	WP-2952F-2G	Minimum 155 degree C.	OBOR2	UL	
14. Rectifier bridge (BD1)	Interchangeable	Interchangeable	Min. 4A, min. 600V	--	--	
15. E-cap (C5A, C5B)	Interchangeable	Interchangeable	120uF 400V 105 degree C, provided with stress relief.	--	--	
16. Discharge IC(U1)	Power Forest Technology corp.	PF62xyyzz series	Min. 400V, 2A	--	--	
17. Limited current resistors (R13)	Interchangeable	Interchangeable	Each 60 ohm, 0.25W	--	--	
18. MOSFET Q3	Interchangeable	Interchangeable	Min. 600V, Min.7A	--	--	
19. Heat-shrinkage tube	GUANGZHOU KAIHENG NEW MATERIAL CO LTD (E321827)	K-102	VW-1, 125 degree C, 600V	YDPU2	UL	
(Alternate)	CHANGYUAN ELECTRONICS GROUP CO LTD (E180908)	CB-HFT	VW-1, degree C, 600V	YDPU2	UL	
20. Glue for fixing components	Interchangeable	Interchangeable	Min.V-2, Min.105°C	--	--	
21. Heat sink (HS1)	Interchangeable	Interchangeable	Metallic L shape overall size: 20.0*19.6mm+20*146mm, thick 2mm	--	--	7-04
22. Heat sink (HS2)	Interchangeable	Interchangeable	Metallic L shape overall size: 36*20mm+138*20mm+ thick 2mm	--	--	7-05
23. Heat sink (HS3)	Interchangeable	Interchangeable	Metallic shape overall size:	--	--	7-06

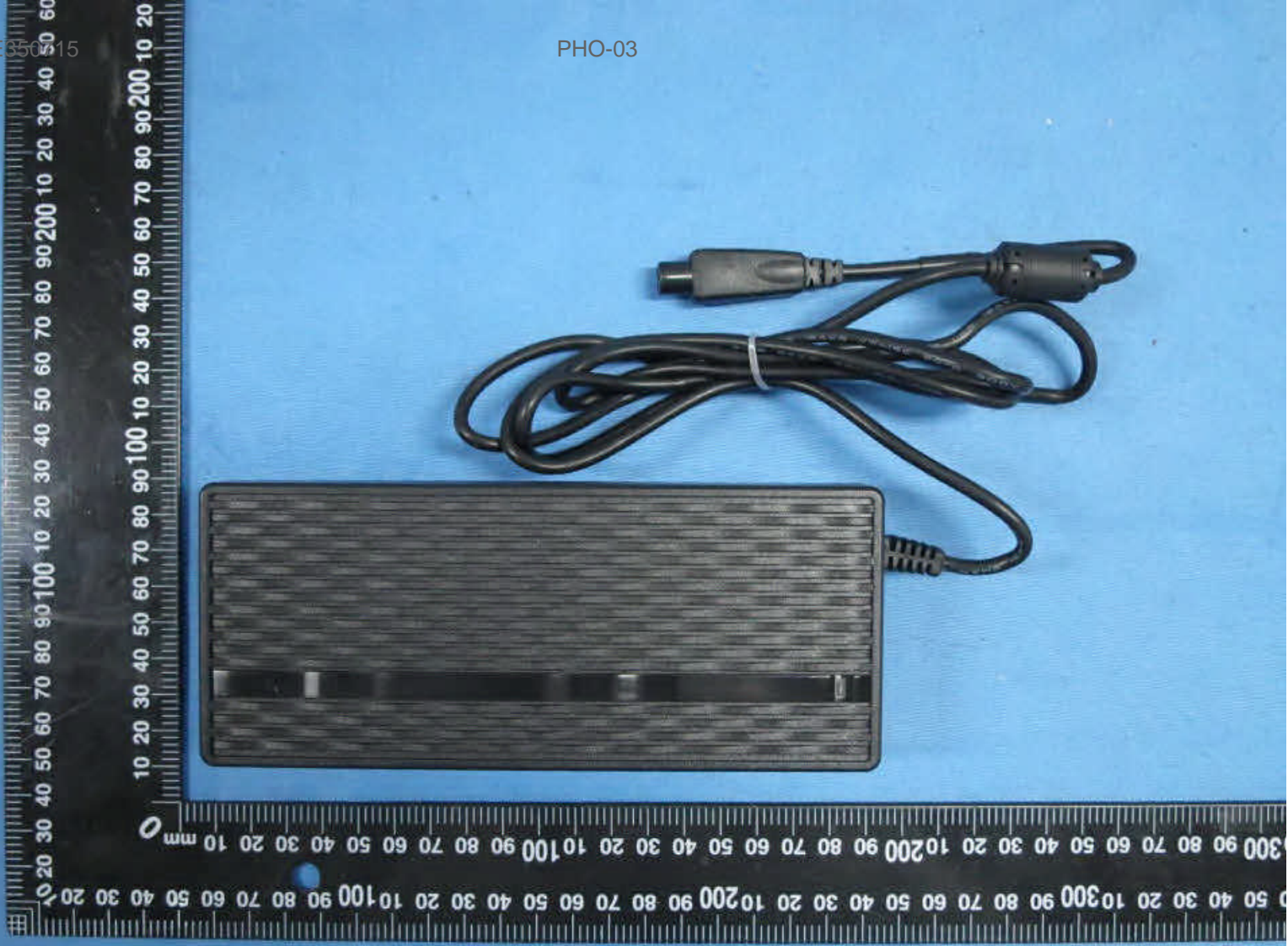
			65mm+16 mm +140mm;			
24. Output wire	Interchangeable	2464	Minimum 22 AWG, VW-1; minimum. 300 V, Minimum 80 degree C, Jacketed wire and suitable for external use.	AVLV2	UL	
25. Output connector(except for models with output voltage exceeding 58Vdc)	TEIJIN LIMITED RESIN AND PLASTIC (E98529)	TN-3500(#), TN-3500R(#)	V-0, 115 degree C.	QMFZ2	UL	
25a. Output connector(except for models with output voltage exceeding 58Vdc)	TEIJIN LIMITED RESIN AND PLASTIC (E98529)	MN-4800(##)	V-0, 115 degree C. Min.0.4mm thickness, see supplement ID 7-03 for detail	QMFZ2	UL	7-03
26. Insulation tape on HS1, HS2	SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD (E188295)	JY312#	130 degree C.	OANZ2	UL	
(Alternate)	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD (E165111)	PZ* (b)	130 degree C.	OANZ2	UL	
27. Mylar sheet	Interchangeable	Interchangeable	V-2 or better, see supplement ID7-07 for detail.	QMFZ2	UL	7-07
28. Strain relief	Interchangeable	Interchangeable	V-1 or better, see supplement ID 7-03 for detail.	QMFZ2	UL	7-03

Enclosures

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Photographs	3-01	Overall view 1 (Output voltage is not over 58V)
Photographs	3-02	Overall view 2 (Output voltage is not over 58V)
Photographs	3-03	Overall view 1 (Output voltage is over 58V)
Photographs	3-04	Overall view 2 (Output voltage is over 58V)
Photographs	3-05	Internal view 1
Photographs	3-06	Internal view 2
Photographs	3-07	Component side view
Photographs	3-08	PWB Side view
Diagrams	4-01	Transformer T1 specification
Diagrams	4-02	Line filter LF1 specification
Diagrams	4-03	Line filter LF2 specification
Schematics + PWB	5-01	PCB Layout drawing
Miscellaneous	7-01	Model list
Miscellaneous	7-02	Enclosure drawing
Miscellaneous	7-03	SR drawing
Miscellaneous	7-04	Heatsink HS1 drawing
Miscellaneous	7-05	Heatsink HS2 drawing
Miscellaneous	7-06	Heatsink HS3 drawing
Miscellaneous	7-07	Mylar sheet drawing
Miscellaneous	7-08	Output connector drawing(output voltage is over 58V)







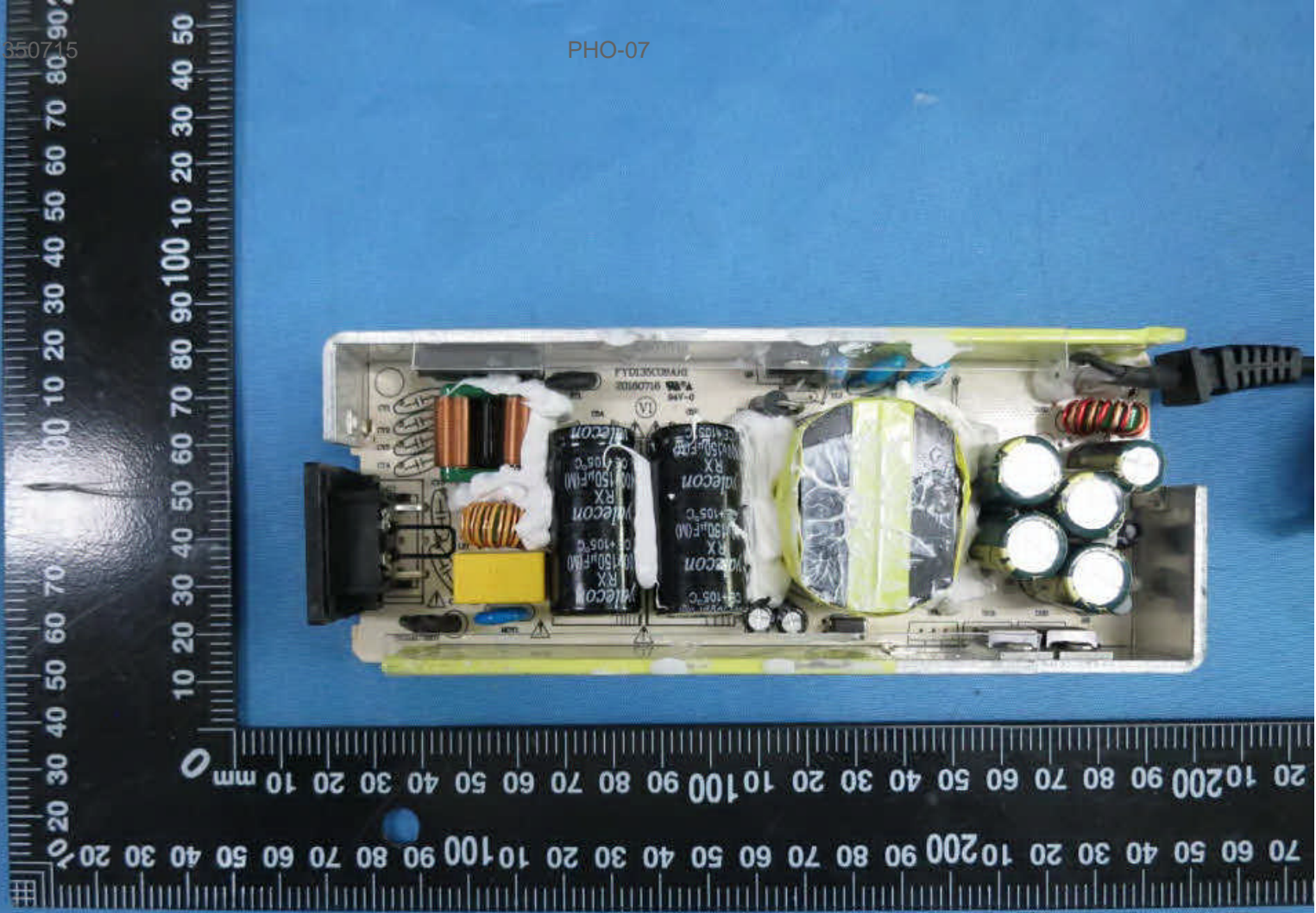


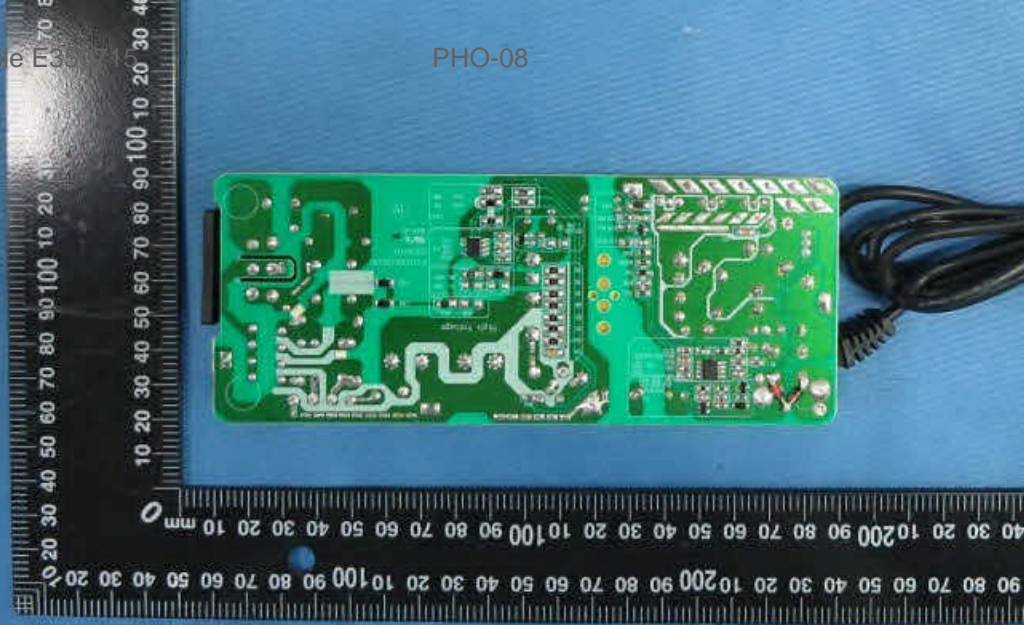
E350715

PHO-05







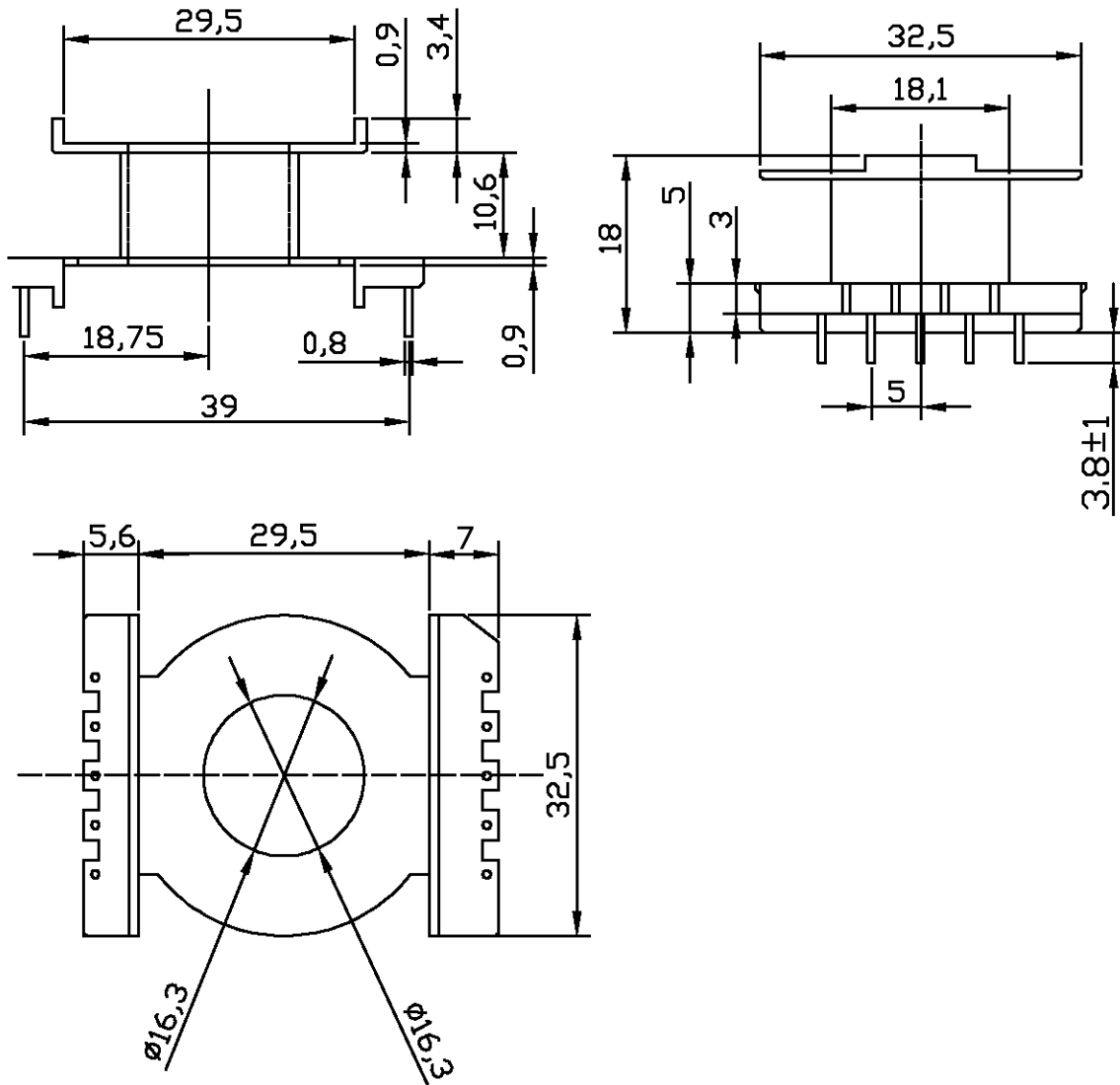


SPECIFICATION FOR APPROVAL

PAGE: 1 OF 4

CUSTOMER	Shenzhen Fuyuan dian	P/N	135C2405RZ ZTD
PART NO	FYD-POT4020RZ	ISSUE DATE	2016/10/22
PART NAME	4020	FILE NO	

产品尺寸及外形结构:



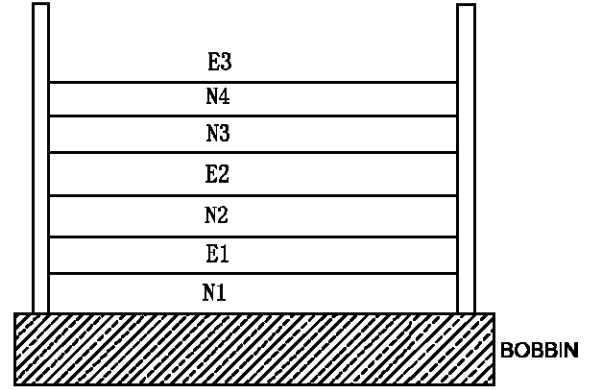
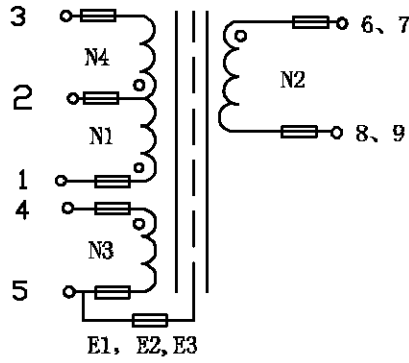
排距: 38.8mm, 脚距: 5mm, 成品限高: 21.6mm

REPORTED BY	CHECKED BY	APPROVED BY	3	
			2	
			REV.1	

SPECIFICATION FOR APPROVAL

CUSTOMER	Shenzhen Fuyuan dian	HSD P/N	135C2405RZ ZTD
PART NO	FYD-POT4020RZ	ISSUE DATE	2016/10/22
PART NAME	4020	FILE NO	

电原理图:



- “•”端为同名端。
- “”表示接铁氟龙套管, 根据制程需要添加或减少, 必须在品质保证的条件下。
- 有交叉处必须加套管 靠近次级磁芯底部背胶2层, 高度8mm, 外屏蔽: E3(5-)5mm 居中, 铜箔背胶, 然后外围胶带高度到变压器顶部3Ts

绕线表:

层别	始端	终端	绕线规格	绕线圈数	绕线方式	层间绝缘圈数
N1	1	2	2UEW \varnothing 0.75X1PX2L	17TS	密平绕	3
E1	5		T0.025*W8*0.8TS	0.8TS	居中绕	3
N2	6、7	8、9	三层绝缘线 \varnothing 0.8*2P	7TS	密平绕	3
E2	5		T0.025*W8*0.8TS	0.8TS	居中绕	3
N3	4	5	2UEW \varnothing 0.25X2PX1L	4TS	疏绕均绕	3
N4	2	3	2UEW \varnothing 0.75X1PX1L	9TS	密平绕	3
E3	5		T0.025*W8*0.8TS	0.8TS	居中绕	3

REPORTED BY	CHECKED BY	APPROVED BY	3	
			2	
			REV.1	

SPECIFICATION FOR APPROVAL

PAGE: 3 OF 4

CUSTOMER	Shenzhen Fuyuan dian	HSD P/N	135C2405RZ ZTD
PART NO	FYD-POT4020RZ	ISSUE DATE	2016/10/22
PART NAME	4020	FILE NO	

电气性能及生产要求:

- 1 电感量 P1-3 360uH±5% 1KHz 1V
- 2 漏感Lsl-3 Else short circuit 30μH MAX 10KHz 1V
3. 骨架: POT4020 5+5P
4. 磁芯: 安磁44A 或同等性能磁材, 磁芯中柱点胶。
5. 2pin CUT OFF 1/2
6. 每层胶带通过AC 3750V高压测试.
7. 变压器需符合安规和ROHS要求.
8. 变压器外观要求美观整洁。
9. 针脚长度从磁芯底部起 控制在3.8-4MM
10. 变压器顶部加上料号标签 :FYD-POT4020RZ

135C2405RZ ZTD
E305515 YMX-BCK-200

抗电强度: (INSTRUMENTS:CJ2670 METER)

- 初级PRI--次级SEC: 3.75KVAC/5.0mA/3S, 无飞弧, 无击穿;
 初级PRI--磁芯CORE: 1.5KVAC/5.0mA/3S, 无飞弧, 无击穿;
 次级SEC--磁芯CORE: 2.0KVAC/5.0mA/3S, 无飞弧, 无击穿;

REPORTED BY	CHECKED BY	APPROVED BY	3	
			2	
			REV.1	

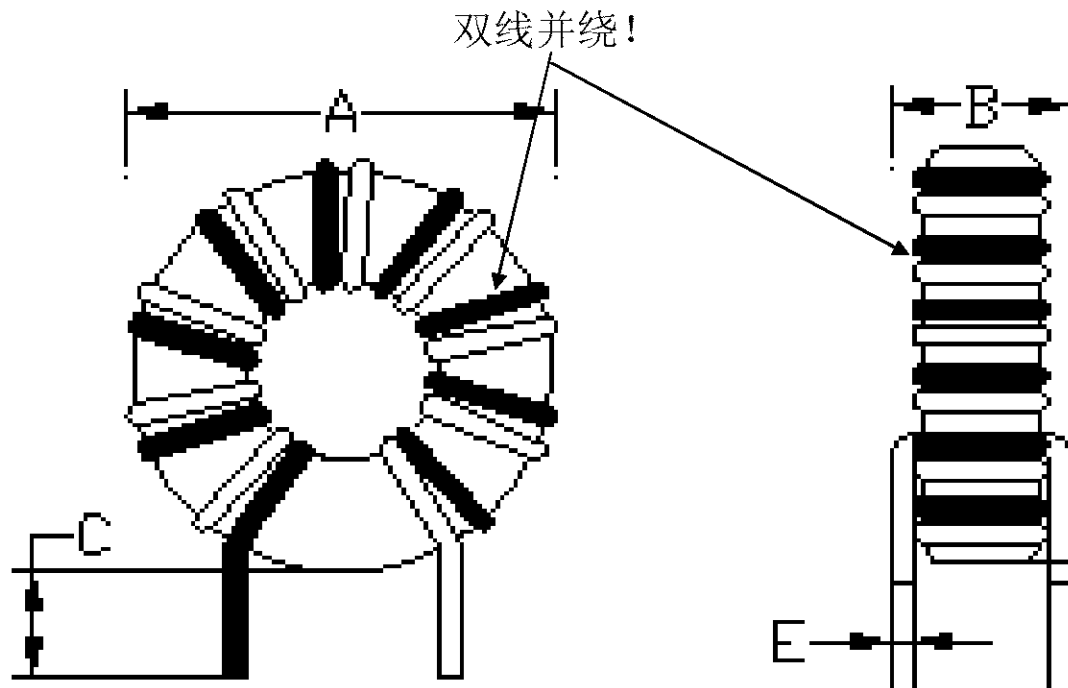
东莞市晋北泉电子有限公司

Dongguan Jibei quan Electronic Co., Ltd

规格书

客户	客户料号	订购号	日期	样板号
衡孚		T14*8*7-1MH(MN)	2016-3-31	JBQ 20160409002

1. 平面图外观:



2. 尺寸:(UNIT: mm)

A: 17.0mm MAX	B: 10.0mm MAX	C: 10.0mm±2	
E: 0.6mm±0.03			

3. 制作工序:

工序	起点-终点	漆包线规格	圈数	颜色
N1	1-2	Φ0.6mm(min) XUEW	12 TS(REF)	本色
N2	3-4	Φ0.6mm(min) TIWHQB	12 TS(REF)	三层绝缘线
N3				

4. 电气性能要求:

4.1电感值:			
L(1-4) =1MH			
L(2-3) =1MH			
4.2直流电阻(@25℃):			
4.3绝缘阻抗			

5. 其它

立式/卧式	点胶/含浸	针脚	胶带	磁材
立式	/	拉脚	/	T14*8*7(MN)

备注:

批准: 李红武	审核: 张国繁	制表: 陈洁兰
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CUSTOMER

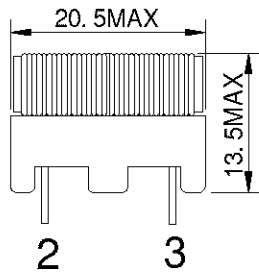
富源电

CUSTOMER P/N

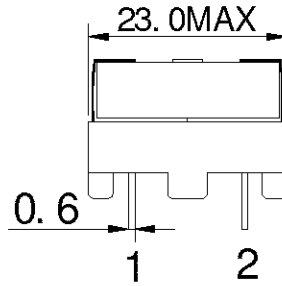
KSQ19-10mH Min

1. MECHANICAL DIMENSION: (UNIT: mm)

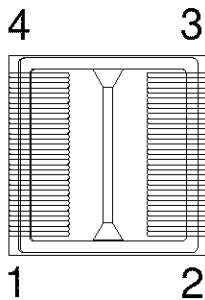
FRONT VIEW



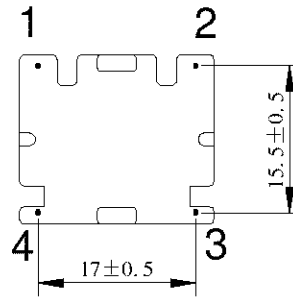
SIDE VIEW



TOP VIEW

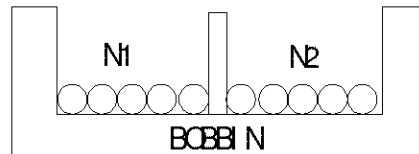
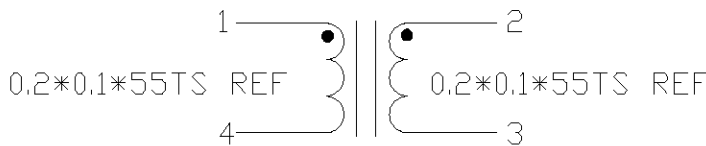


BOTTOM VIEW



2. SCHEMATIC DRAWING

3. WINDING ORDER



PI NI-2

PI N2-3

4. ELECTRICAL CHARACTERISTICS

- 4.1 INDUCTANCE: (2790B, 1KHZ, 0.25V)
L (1-4)=(2-3): 13.0mH MIN
- 4.2 HI-POT TEST: (CS2672, AC 50Hz):
PRIMARY-SECONDARY: AC 2000V 5mA 3SEC
PRIMARY-CORE: AC 1000V 5mA 3SEC
SECONDARY-CORE: AC 1000V 5mA 3SEC

5. MATERIAL LIST:

No.	ITEM	MATERIAL	SUPPLIER	UL No.
1	CORE	KSQ19C	KAISHENDA ELECTRONICS CO.,LTD.	
2	WIRE	0.20T*1.0mmW IUEW180A	KAISHENDA ELECTRONICS CO.,LTD.	
3	BASE	PHENOLIC T375 HF 94V-0	CHANG CHUN PLASTICS CO.,LTD	E59481
4	VARNISH	BC-346A 94V-0	JOHN C DOLPH CO., LTD	E317427

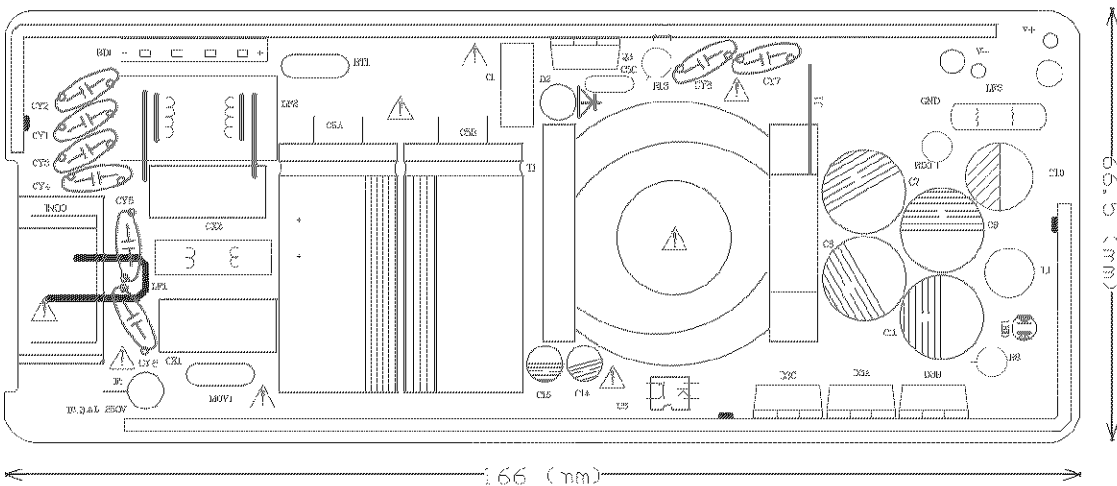
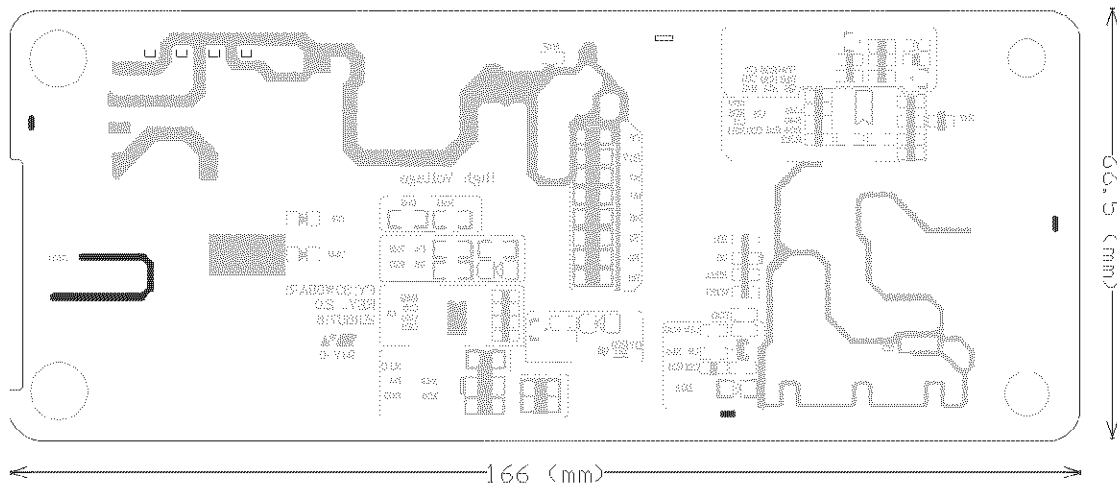
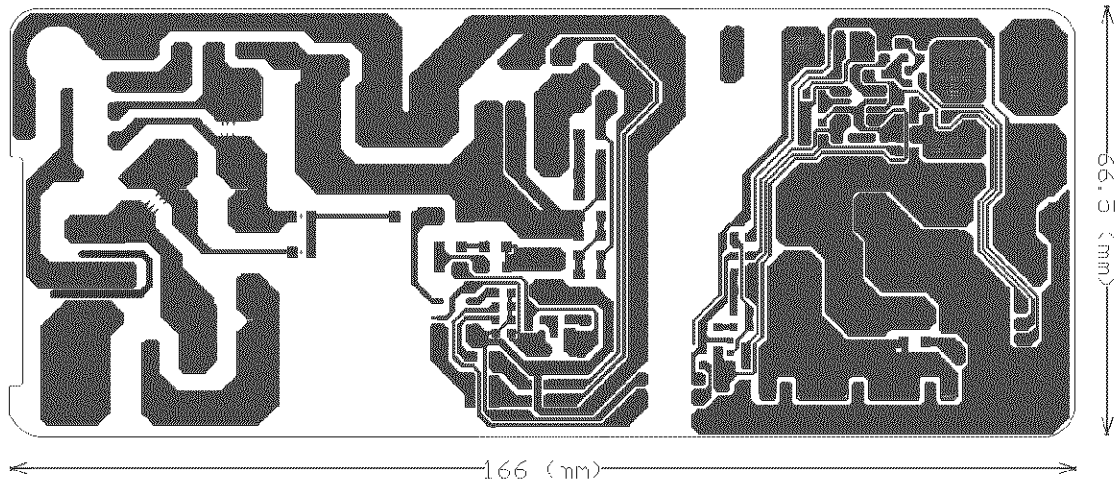


Table A: Definition of variables (FY150XXXYYYY, FY135XXXYYYY, FY120XXXYYYY):

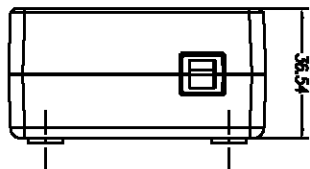
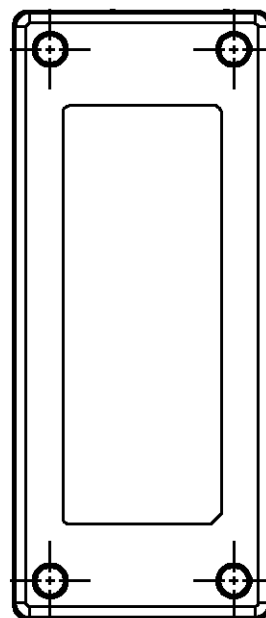
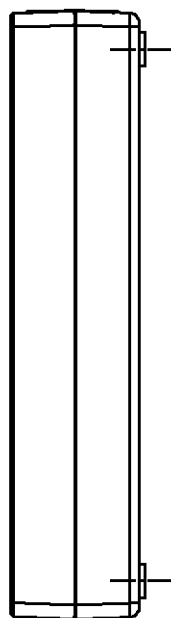
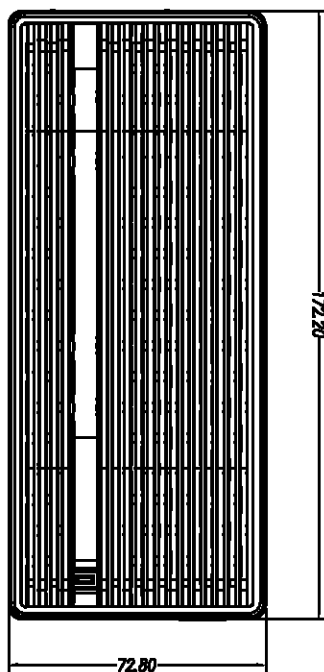
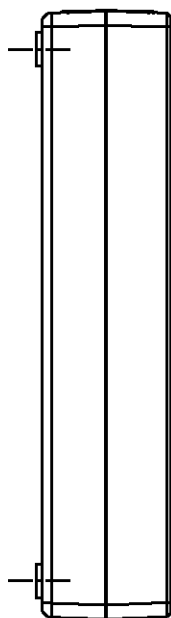
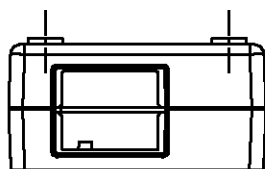
Variable:	Range of variable:	Content:
XXX	050-680	3 digits, indicates 10 times of output voltage in V. eg.050=5V, 680=68.0V.
YYYY	0010-9900	4 digits, indicates 1000 times of output current in A. eg. 0010=0.01A, 9900=9.9A.

Table B: Model list:

Model	Output Voltage(V)	Output Current(A)	Max. Power(W)
FY150XXXYYYY FY135XXXYYYY FY120XXXYYYY	5.0-15.0	0.01-9.9	148.5
	15.1-26.0	0.01-9.0	148.5
	26.1-40.0	0.01-5.69	148.5
	40.1-48.0	0.01-3.57	149.94
	48.1-67.0	0.01-3.08	150
	67.1-68.0	0.01-2.25	150.96
Note: The output voltage is rising in step of 0.1V, The output current is rising in step of 0.01A. The maximum output voltage and current of each range are only tested to the maximum output power.			

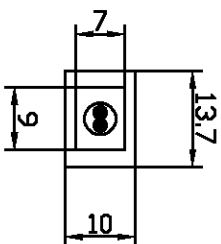
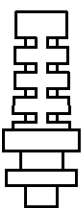
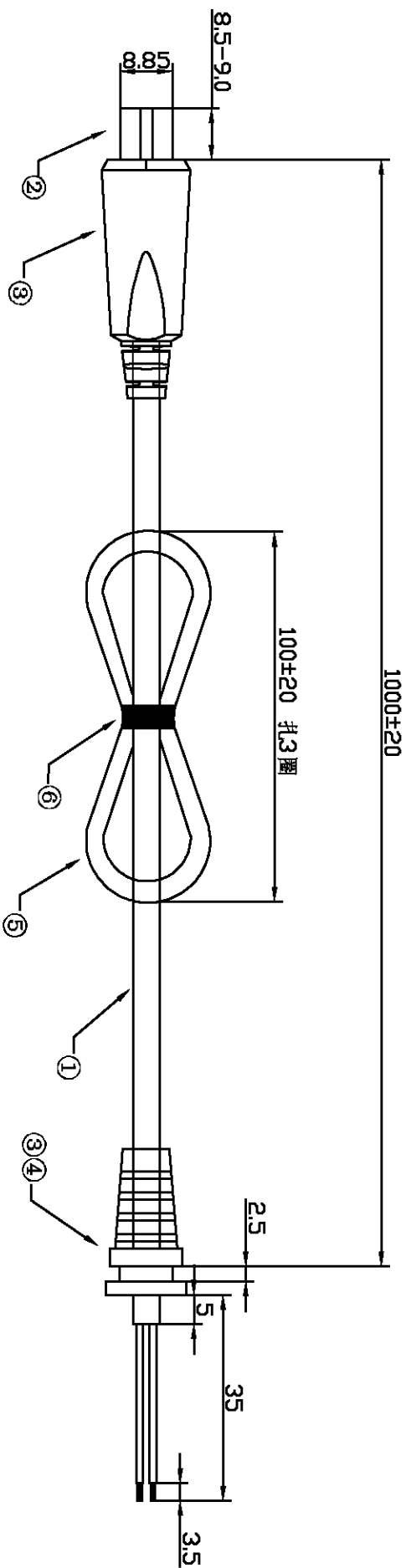
Table C: Differences of components

Model	Components	
	Diode (D3B, D3A)	Ripple capacitor (C6, C7)
FY150XXXYYYY (XXX=050-150)	10-20A, max. 45V	100uF-1000uF, Max.300V
FY150XXXYYYY (XXX=151-280)		
FY150XXXYYYY (XXX=261-400)	10-20A, max.100V	100uF-1000uF, Max.300V
FY150XXXYYYY (XXX=401-480)		
FY150XXXYYYY (XXX=481-670)	10-30A, max.150V	100uF-1000uF, Max.300V
FY150XXXYYYY (XXX=671-680)		
Model FY135XXXYYYY, FY120XXXYYYY are similar to FY150XXXYYYY except their model name.		



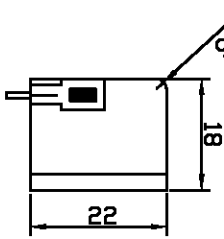
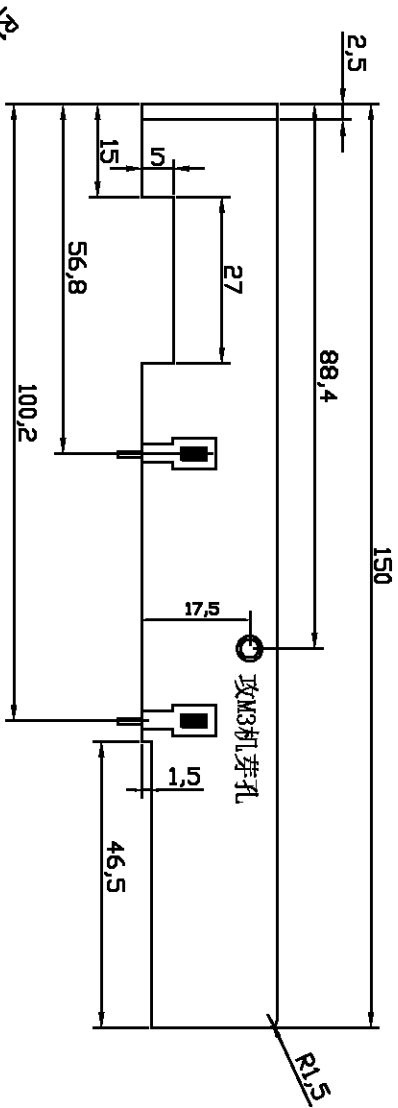
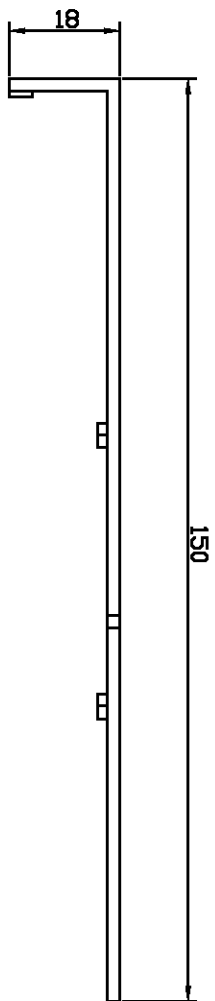
FH-FYD-130W

ROHS



NO.	DESCRIPTION	Q'TY	REMARK
1	OD4.5 UL2464 20AWG L=1000MM *2C 黑色圆线	1	
2	3P MINI航空头	1	
3	45P黑色胶料	2	
4	SR:2.5*7*9	1	
5	黑色魔术贴	1	
6	包扎尺寸	1	

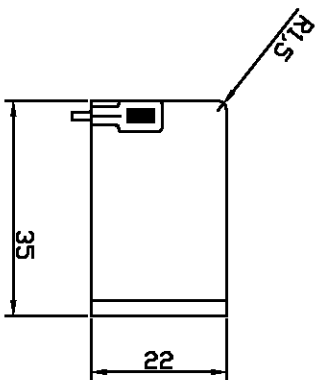
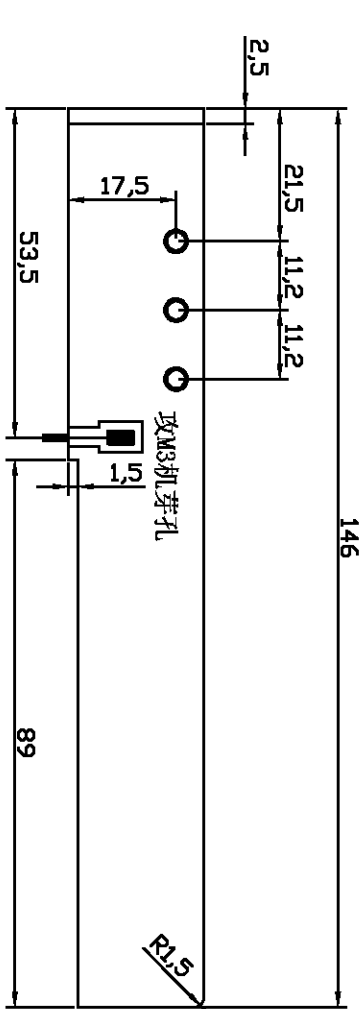
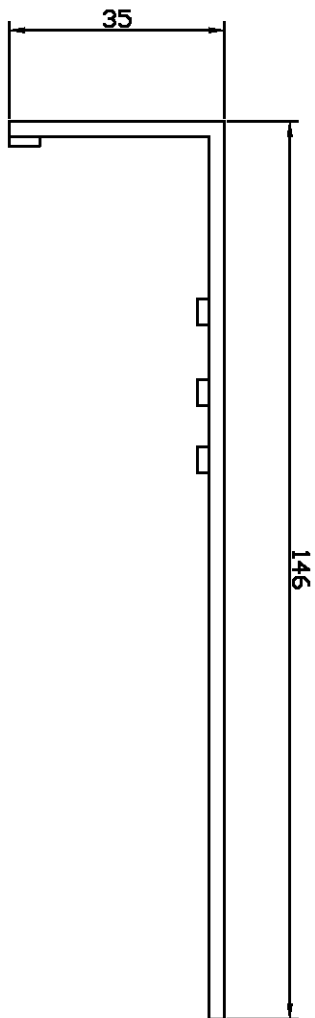
CUSTOMER:	深圳市富源电源有限公司		
TITLE:	UL2464 20AWG OD4.5 3P MINI航空头 L=1000 SR:2.5*7*9MM 留尾:30MM 3.5MM浸锡		
SCALE:	NIL	UNITS:	MM
		SHEET:	1 OF 1
	DATE:	DRAWING BY:	CHECKED BY:
	2015-10-20		
	Customer Number	Factory Number	



FYD135CHS1

- 备注:
1. 材质: 铝
 2. 厚度: 2.5±0.05MM
 3. 表面处理:
 4. 单位: MM
 5. 公差: +/-0.2MM

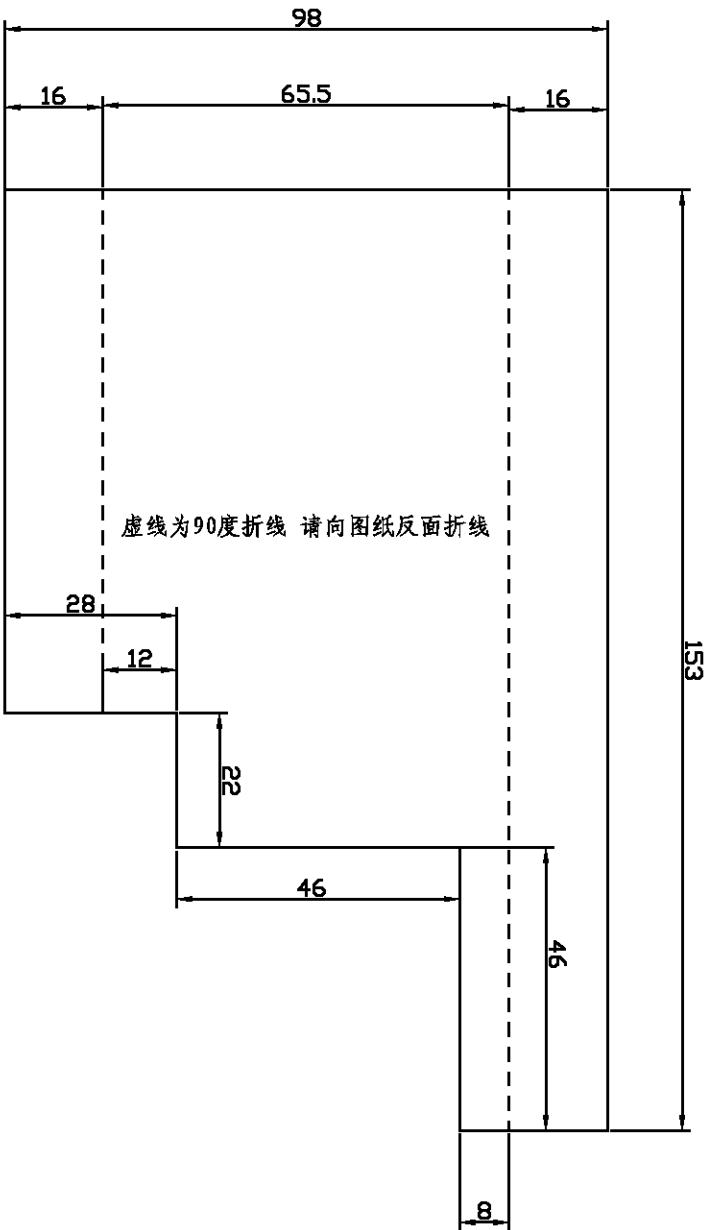
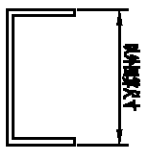
散热片规格书		料号	C-192-135C-HS1	
品名	散热片	图号/标签	FYD135CHS1	
日期	2016-9-24	单位	MM	
版本	A/1	页码	1 of 1	
深圳市富源电电源有限公司				
版本	A/1	变更内容	发行	
设计		绘图	刘华龙	
审核		核準		
日期	2016.9.24			



FYD135CHS2

- 备注:
1. 材质: 铝
 2. 厚度: 2.5±0.05MM
 3. 表面处理:
 4. 单位: MM
 5. 公差: +/-0.2MM

散热片规格书		料号	C-192-135C-HS2	
品名	散热片	图号/标签	FYD135CHS2	
日期	2016-9-24	单位	MM	
版本	A/1	页码	1 of 1	
深圳市富源电电源有限公司				
版本	A/1	变更内容	发行	
设计		绘图	刘华龙	
审核		核准		
日期	2016.9.24			

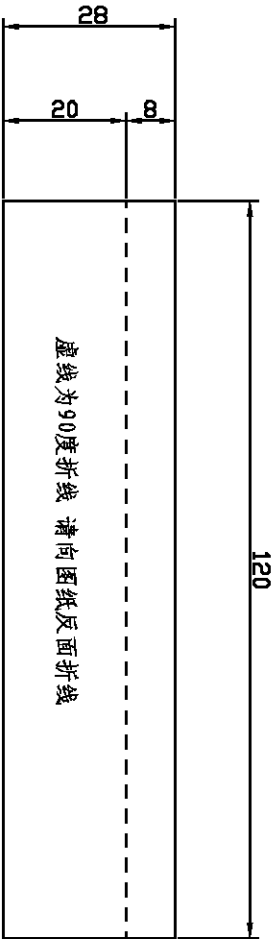


FYD135CHS3

- 备注:
1. 材质: 铝
 2. 厚度: $0.8 \pm 0.05\text{MM}$
 3. 表面处理:
 4. 单位: MM
 5. 公差: $\pm 0.2\text{MM}$

散热片规格书		料号	C-192-135C-HS3	
品名	散热片	图号/标签	FYD135CHS3	
日期	2016-04-28	单位	MM	
版本	A/1	页码	1 of 1	
深圳市富源电电源有限公司				
版本	A/1	变更内容	发行	
设计		绘图	刘华龙	
审核		核准		
日期	2016.04.28			


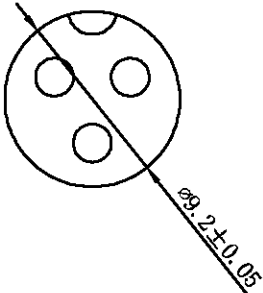
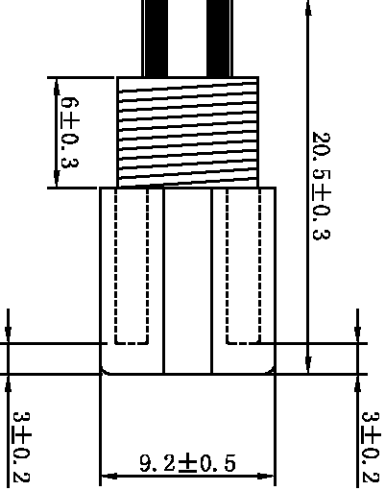

- 备注:
1. 材质: 透明色 麦拉
 2. 厚度: 0.4±/ -0.05mm
 3. 防火等级: 94V0
 4. 耐温: 130度
 5. 未注明公差按±0.3mm



绝缘片规格书

品名	绝缘片	料号	Q-784-135C-000	版本号	A/1	变更内容	发行	设计	绘图	审核	核准	日期
日期	2016-11-18	图号/标签	FYD-135W-J01	单位	MM				刘华龙			2016.11.18
版本	A/1	页码	1 of 1									

深圳市富源电电源有限公司

1	2	3	4	5	6	7	8																								
																															
																															
<p>检验要求:</p> <ol style="list-style-type: none"> 1. 胶芯不可有变形, 毛边, 胶芯不可突出或下陷 2. PIN针无氧化及变形和断裂的现象, 形状一致 3. 尺寸测量符合要求 4. 公母插座相配, 不可有配合不良的现象且松紧适中 																															
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">三角法</td> <td style="width:50%; text-align: center;"></td> </tr> <tr> <td>单位</td> <td style="text-align: center;">MM</td> </tr> </table>		三角法		单位	MM	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">核准</td> <td style="width:50%;"></td> </tr> <tr> <td>审核</td> <td></td> </tr> <tr> <td>制作</td> <td style="text-align: center;">王同保</td> </tr> </table>		核准		审核		制作	王同保			<p>深圳市环亚电子有限公司 SHENZHEN HUANYA ELECTRONICS Co., Ltd</p>															
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">页次</td> <td style="width:50%; text-align: center;">1/1</td> </tr> </table>		页次	1/1																												
页次	1/1																														

Test Record

Test Record No. 1

-- The manufacturer submitted representative production sample of Switching power supply , models FY150XXXYYYY, FY135XXXYYYY, FY120XXXYYYY("XXX" means 3 digits, indicates 10 times of output voltage in V, "YYY" means 4 digits, indicates 1000 times of current in A. When XXX=050-400, YYYY=0010-9900, maximum output power is 148.5W; when XXX=401-480, YYY=0010-3570, maximum output power is 149.94W; when XXX=481-670, YYYY=0010-3080, maximum output power is 150W; when XXX=671-680, YYYY=0010-2220, maximum output power is 150.96)

-- Only limited testing was considered necessary based upon previous evaluation under the CB Scheme. The CB test certificate No. JPTUV-077901 dated 2017-02-13 and Report Ref. No. 50063524 001 dated 2017-02-12 was prepared by TUV Rheinland Japan Ltd. Global Technology Assessment center 4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021 Japan.

-- Only limited testing were conduct on Models Model: FY1505802580 and tests were conducted at Shenzhen NTEK Testing Technology Co., Ltd under the WTDP program and witness by UL staff, see datasheet for detail.

-- Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

The following tests were conducted:

Test	Testing Location/Comments
Humidity (2.9.1, 2.9.2, 5.2.2)	Refer to Datasheet and CB report
Strain Relief (3.2.6, 4.2.1, 4.2.7)	Refer to datasheet
Stress Relief (4.2.7, 4.2.1)	Refer to datasheet and CB report
Electric Strength (5.2.2)	Refer to datasheet and CB report
Component Failure (5.3.1, 5.3.4, 5.3.7)	Refer to datasheet and CB report

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

Test Record

The following tests were waived:

Test	Rationale for Waiving
Power Supply Reference Page	Refer to CB report
Input: Single-Phase (1.6.2)	Refer to CB report
Capacitance Discharge (2.1.1.7)	Refer to CB report
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	Refer to CB report
Limited Current Circuit Measurement (2.4.1, 2.4.2)	Refer to CB report
Limited Power Source Measurements (2.5)	Refer to CB report
Determination of Working Voltage; Working Voltage Measurement (2.10.2)	Refer to CB report
Transformer and Wire /Insulation Electric Strength (2.10.5.13)	Refer to CB report
Steady Force (4.2.1 - 4.2.4)	Refer to CB report
Heating (4.5.1, 1.4.12, 1.4.13)	Refer to CB report
Touch Current (Single-Phase; TN/TT System) (5.1, Annex D)	Refer to CB report
Transformer Abnormal Operation (5.3.3, 5.3.7b, Annex C.1)	Refer to CB report
Power Supply Output Short-Circuit/Overload (5.3.7)	Refer to CB report

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

Type	Supplement Id	Description
Attachment	2-01	CRD
Datasheet	2-02	Datasheet

Project No. 4787698889 File E350715 Page 1
 Compliance Review
 Conducted by: Jackson Su Jackson Su Date 2017-01-17
 Printed Name Signature

CONSTRUCTION COMPLIANCE REVIEW RECORD

Sample Identification -

Sample Card No.	Date Received	Sample No.	Manufacturer, Product Identification and Ratings
A01	4787698889 A01	2017-0 1-17	Shenzhen Fuyuan Power Co., Ltd Switching Power Supply Model: FY1505802580 Input: AC100-240V, 50/60Hz, 3.0A. Output: 58Vdc, 2.58A

[X] Indications of compliance apply to all samples identified with specific indications of compliance included for construction differences of the different samples.

Measurement Instrument Information -

Inst. ID No.	Instrument Type	Function/Range	Last Cal. Date	Next Cal. Date
N017	Digital Caliper	0-150mm	2016.06.03	2017.06.02

[] UL measurement equipment information is recorded on Meter Use in UL's Laboratory Project Management (LPM) database.

[] Measurement instrument information is recorded on UL's Laboratory Project Management (LPM) database. (This statement may be selected only if CRD's are completed at UL facility)

[X] The following additional information is required when using client's or rented equipment, or when a UL ID Number for an instrument number is not used. The Inst. ID No. below corresponds to the Inst. ID No. above.

Inst. ID No.	Make/Model/Serial Number/Asset No.
N017	SMCT/20cm/051612/ 110-020

CONSTRUCTION COMPLIANCE REVIEW:

The sample was reviewed for compliance with the construction requirements in the following Standard and compliance with applicable construction requirements is noted below.

Standard	CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements)	Edition/ Revision Date	2nd Edition, <u>2014-10</u>
----------	-------------------------------------------------------------------------------------------------------------------------------	---------------------------	--------------------------------