1.0 Reference and Address

Report Number	200501729SHA-001	Original Issued:	16-Dec-2020	Revised:	None

Standard(s)
Medical Electrical Equipment - Part 1: General Requirements For Basic Safety And Essential Performance [AAMI ES60601-1:2005 +A1]
Medical Electrical Equipment - Part 1: General Requirements For Basic Safety And Essential Performance (R2018) [CSA C22.2#60601-1:2014 Ed.3]
Medical Electrical Equipment - Part 1-6: General Requirements For Basic Safety And Essential Performance - Collateral Standard: Usability [IEC 60601-1-6:2010 Ed.3+A1]
Medical Electrical Equipment - Part 1-6: General Requirements for Basic Safety and Essential Performance - Collateral Standard: Usability (R2016) [CSA C22.2#60601-1-6:2011 Ed.3+A1]
Medical Electrical Equipment - Part 1-11: General Requirements for Basic Safety and Essential Performance - Collateral Standard: Requirements for Medical Electrical Equipment and Medical Electrical Systems Used in The Home Healthcare Environment [IEC 60601-1-11:2015 Ed.2]
Medical Electrical Equipment - Part 1-11: General Requirements For Basic Safety And Essential Performance - Collateral Standard: Requirements For Medical Electrical Equipment And Medical Electrical Systems Used In The Home Healthcare Environment [CSA C22.2#60601-1-11:2015 Ed.2]

Applicant	GlobTek, Inc.	Manufacturer	**GlobTek (Suzhou) Co., Ltd.**
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2.0 Product Description	
Product	Medical Power Supply
Brand name	(image only)
Description	Product covered by this report is open-frame medical power supply module. The installation and use for the insulation construction shall be finally determined in end product. Protective earth connection to secondary circuit is optional. Transformers used in all models are with same construction. The turns of secondary winding may be added or reduced according different output voltage. All models have same schematic, but some non-critical components may be adjusted according different output voltage. The parameters of these components depend on output voltage. The products are not intended to use in environment which altitude exceed 5000m.
Models	GT followed by M, - or H; followed by 96225; followed by 0, 1, 2 or 3; followed by P; followed by 001 to 225; followed by 12 to 54; may be followed by A to H; may be followed by -C or -D; may be followed by -; followed by F, FW, P2 or P3; may be followed by -; may be followed by six characters. GT followed by M, - or H; followed by 96225; followed by 0, 1, 2 or 3; followed by P; followed by 001 to 225; followed by 12.0 to 54.0; may be followed by A to H; may be followed by -C or -D; may be followed by -; followed by F, FW, P2 or P3; may be followed by -; may be followed by six characters.
Model Similarity	GT*96225*P*****-* (The 1st “*” part can be ‘M’ or ‘-’ or ‘H’ for market identification and not related to safety. The 2nd “*” can be 0, 1, 2 or 3, denote the different mechanical construction, “0” means open frame, “1” means L frame, “2” means cage, “3” means potted. The 3rd “*” can be “001” to “225”, denotes the rated output wattage designation from 1W to 225W, in step of 1 denote 1W. The 4th “*” can be “12” to “54” or “12.0” to “54.0”, denote the standard rated output voltage designation from 12.0V to 54.0Vdc, in step of 0.1 denote 0.1V. The 5th "*" can be optional, blank or A to H, denote the AUX Output voltage code. The 6th "*" can be Blank, -C or -D, related to PCB size, Blank=2”x4”, -C=3”x5”, -D= 7"x4.22". The 7th "*" =-F or F means Open Frame class I or class II with functional earth =-FW or FW means Open Frame class II =-P2 or P2 means Encapsulated Type, class II =-P3 or P3 means Encapsulated Type, class I or class II with functional earth The last * denote any six character, which can be 0-9 or A-Z or ()[] or – or blank for marketing purposes, -* can be blank.) All the models have similar construction of PCB but the rating output are different.
Ratings	Input: 100-240VAC, 50-60Hz or 50/60Hz, 3.0A; Output: 12.0-54.0Vdc, Max. 18.75A, Max. 225W.
Other Ratings	N/A

2.0 Product Description	
Conditions of Acceptability	The products covered in this Report are incomplete in construction features or limited in performance capabilities and are intended for use and evaluation in other products. Consideration should be given to the following when the component is used in or with another product. 1.Scope of Power Supply evaluation defers the following clauses to be determined as part of the end product investigation: a) Clause 7.9 (Accompanying Documents of power adapter model are provided for some critical issue like technical data, safety warnings, necessary information to set up. Further evaluation is needed on end product level.), b) Clause 8.11.5 (Mains Fuse with High Breaking Capacity), c) Clause 9 (ME Hazard), except 9.1 and 9.3 are evaluated, d) Clause 10 (Radiation), e) Clause 11.7 (Biocompatibility), f) Clause 14 (PEMS), g) Clause 16 (ME Systems), h) Clause 17 (EMC) 2. As the product is open-frame power supply module, accessible parts, insulation construction and the tests thereof such as leakage current, mechanical hazards and fire enclosure shall be determined in end product evaluation.

3.0 Product Photographs

Photo 1 - External view for open frame models

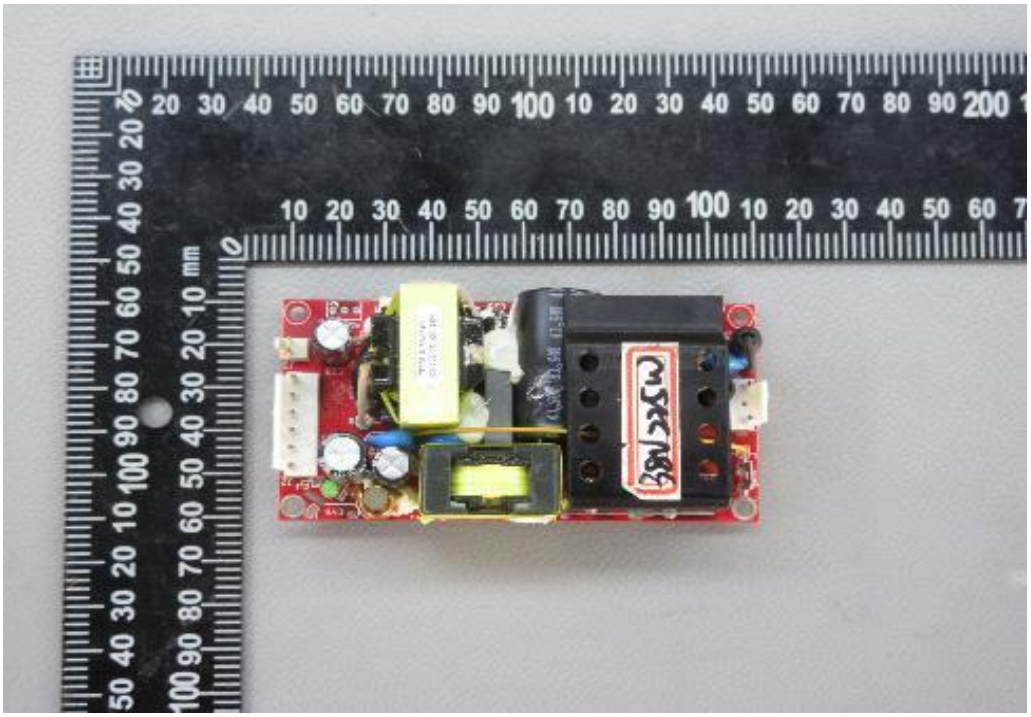
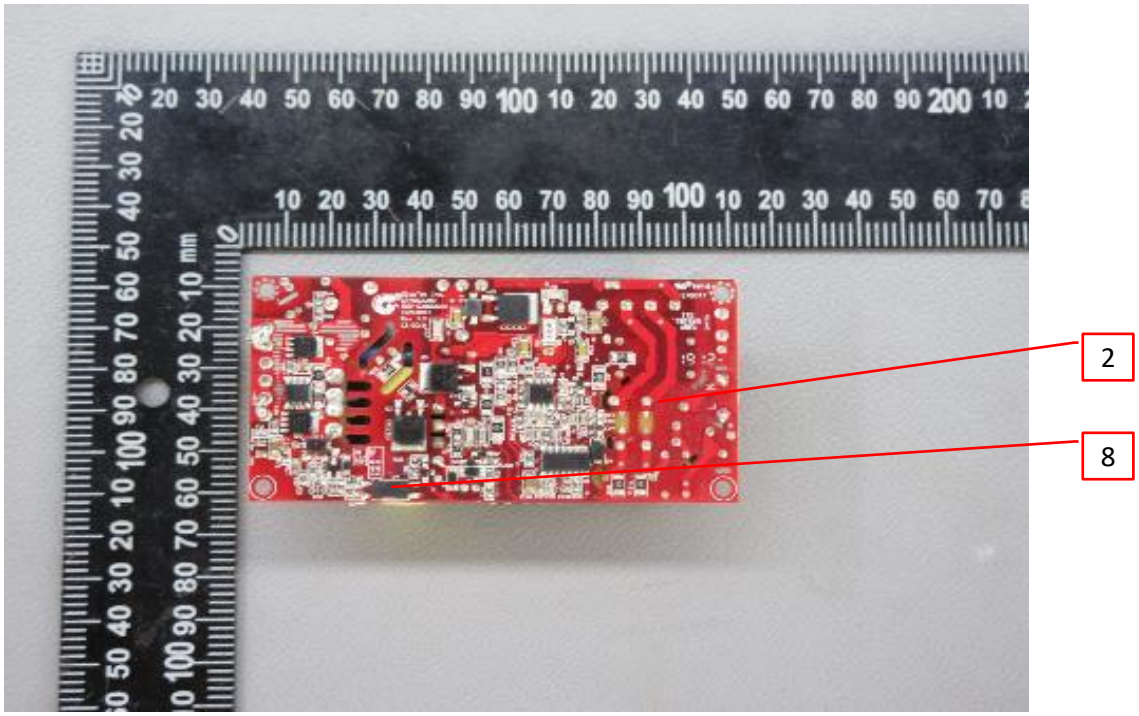


Photo 2 - External view for open frame models



3.0 Product Photographs

Photo 3 - External view for L frame models

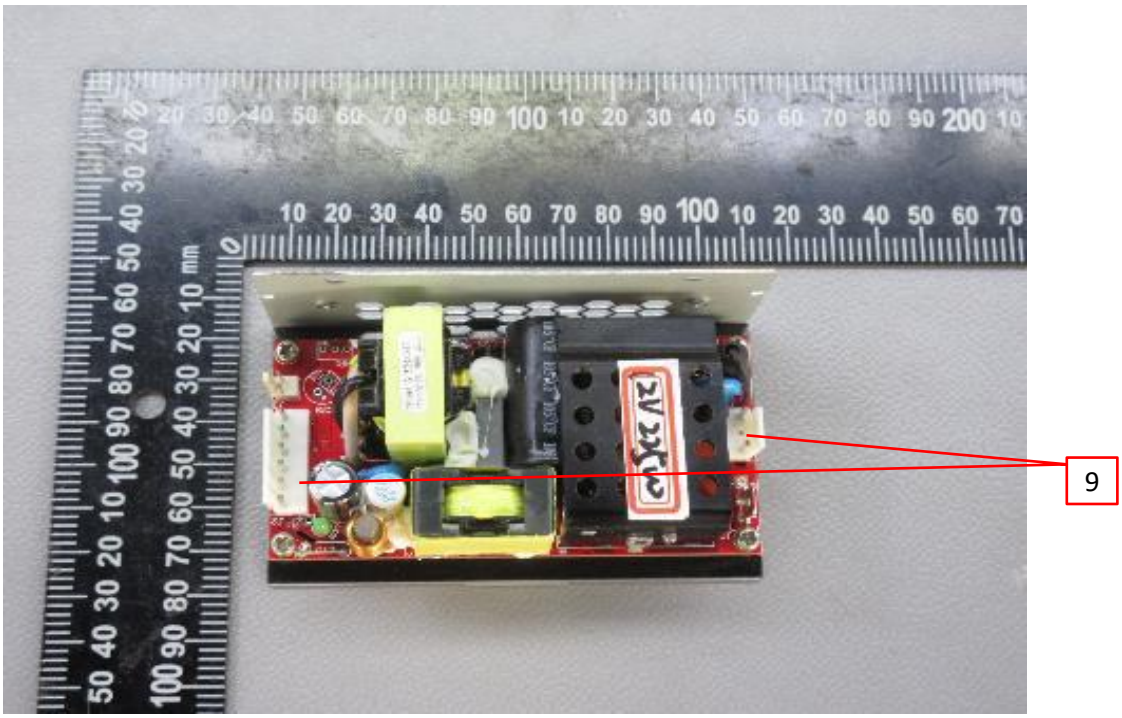
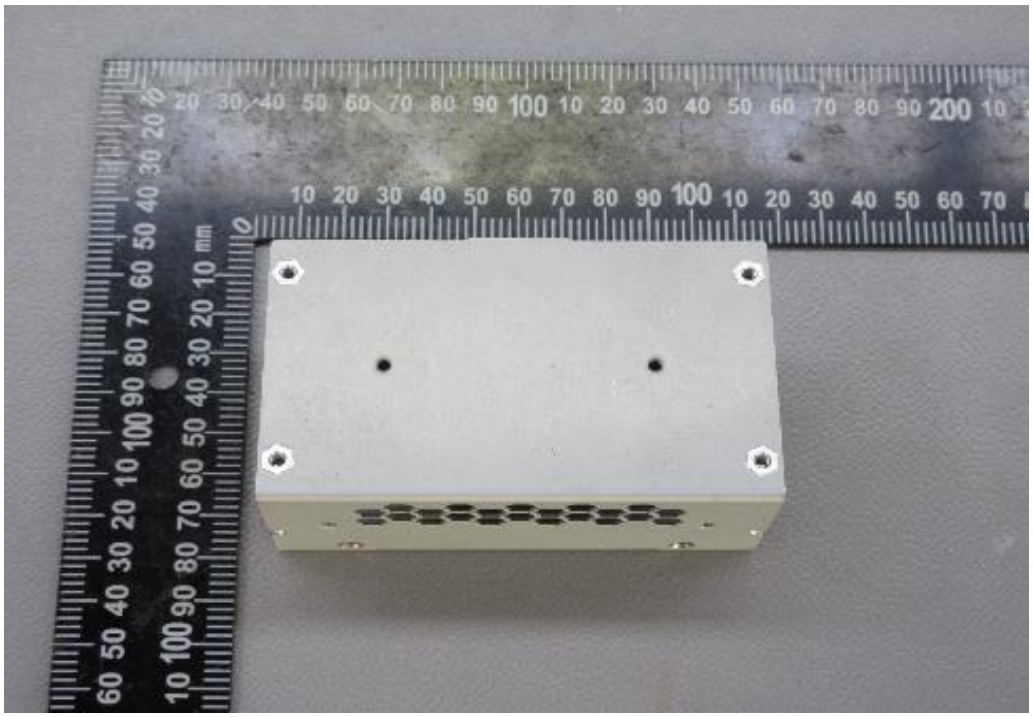


Photo 4 - External view for L frame models



3.0 Product Photographs

Photo 5 - External view for cage models

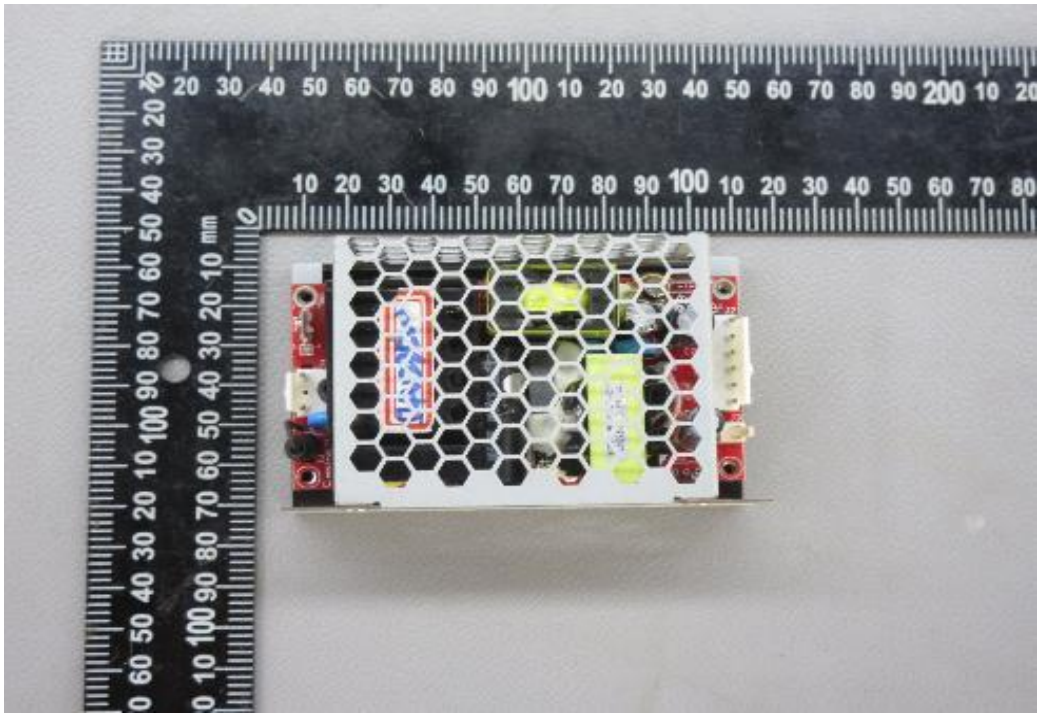
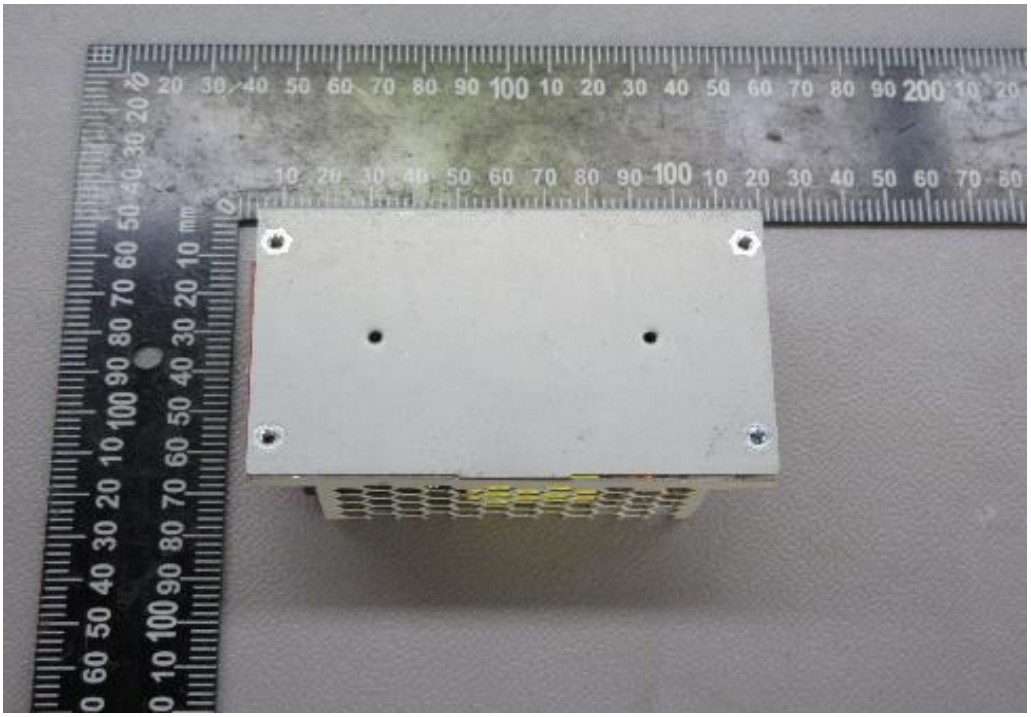


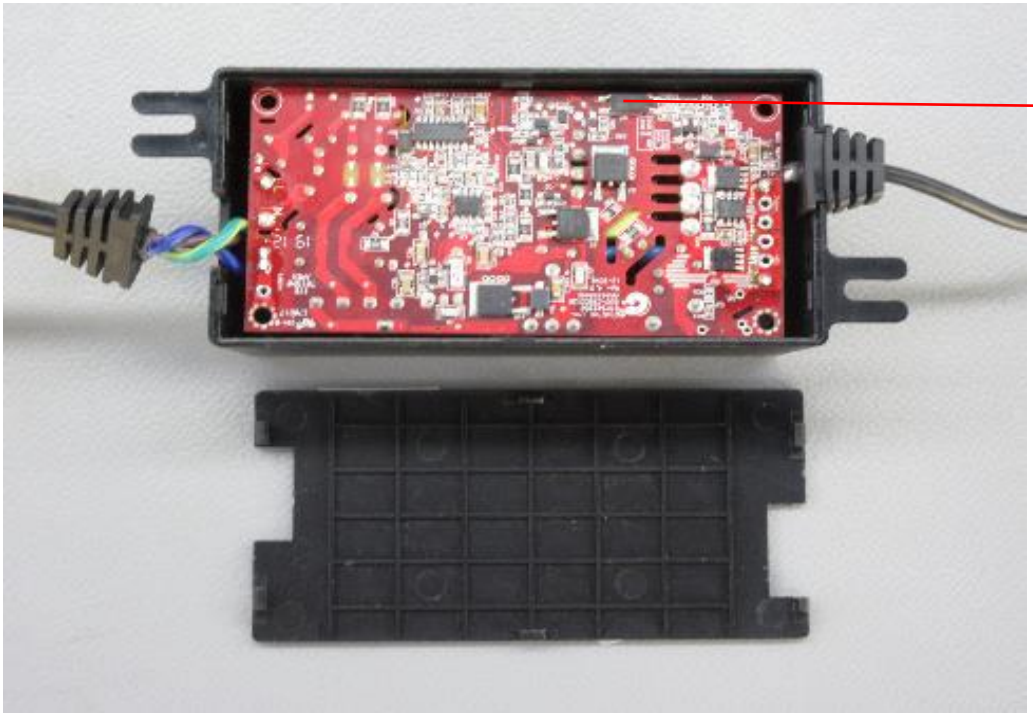
Photo 6 - External view for cage models



3.0 Product Photographs

Photo 7 - External view for potted models

Photo 8 - Internal view for potted models



3.0 Product Photographs

Photo 9 - Internal view for potted models

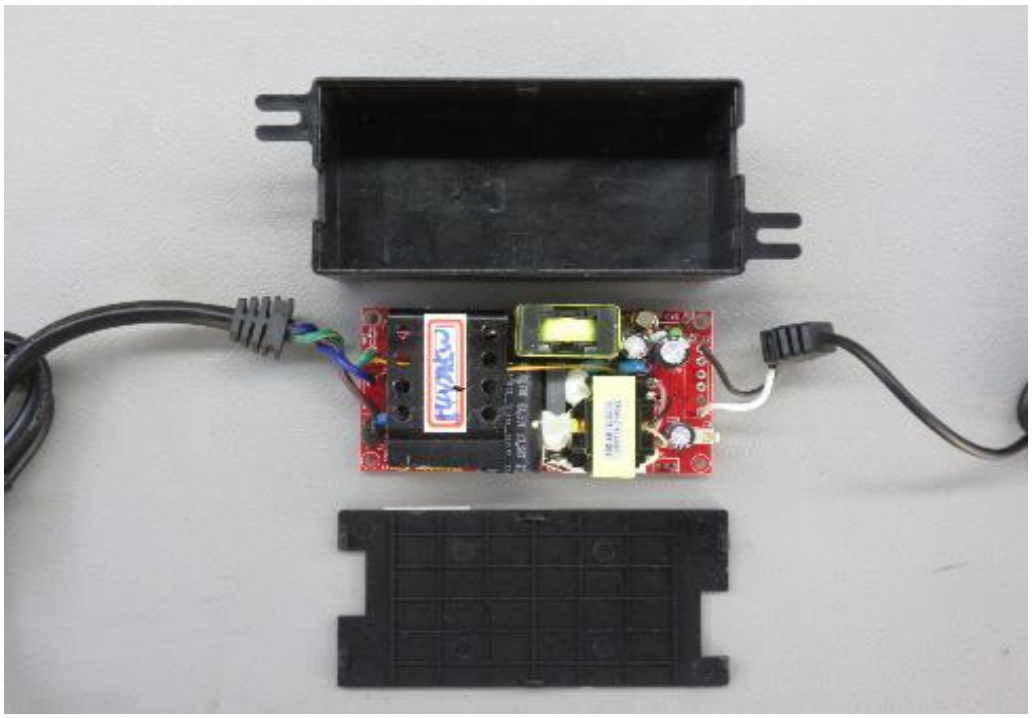
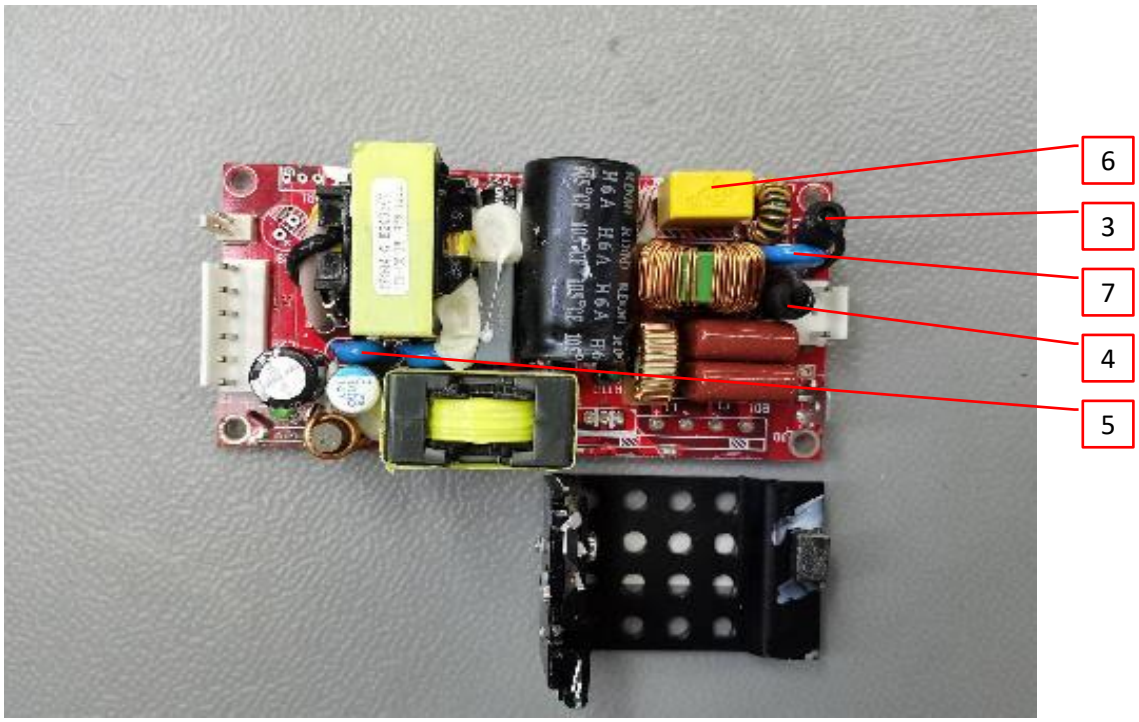


Photo 10 - PCB view



3.0 Product Photographs

Photo 11 - External view for open frame models

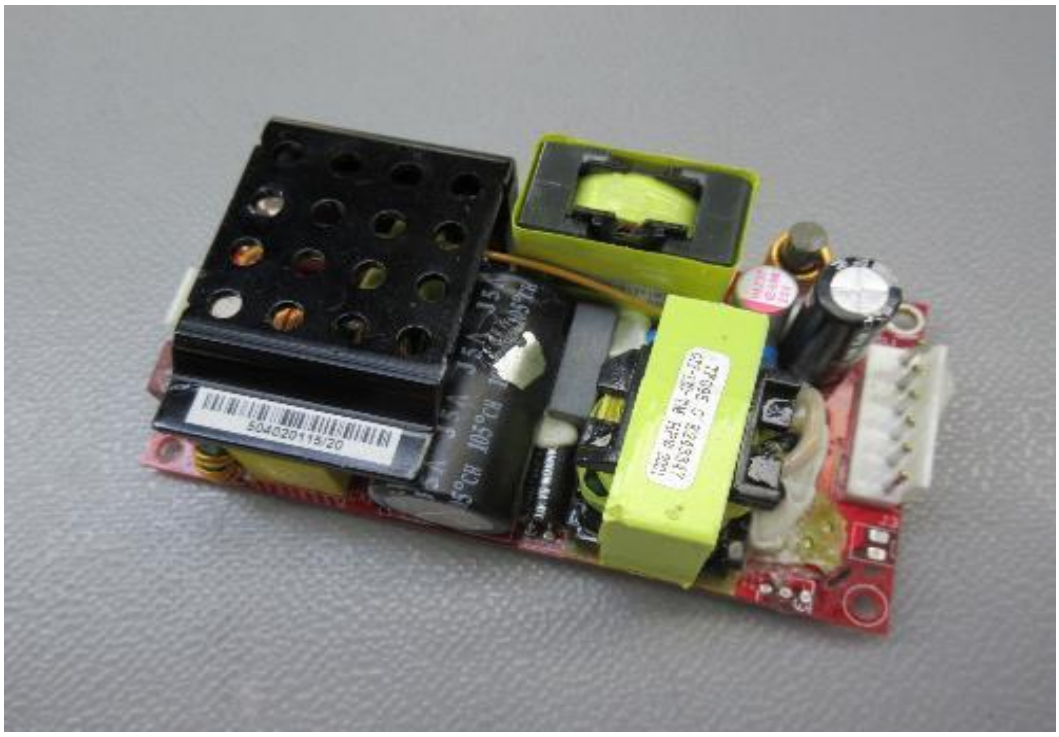
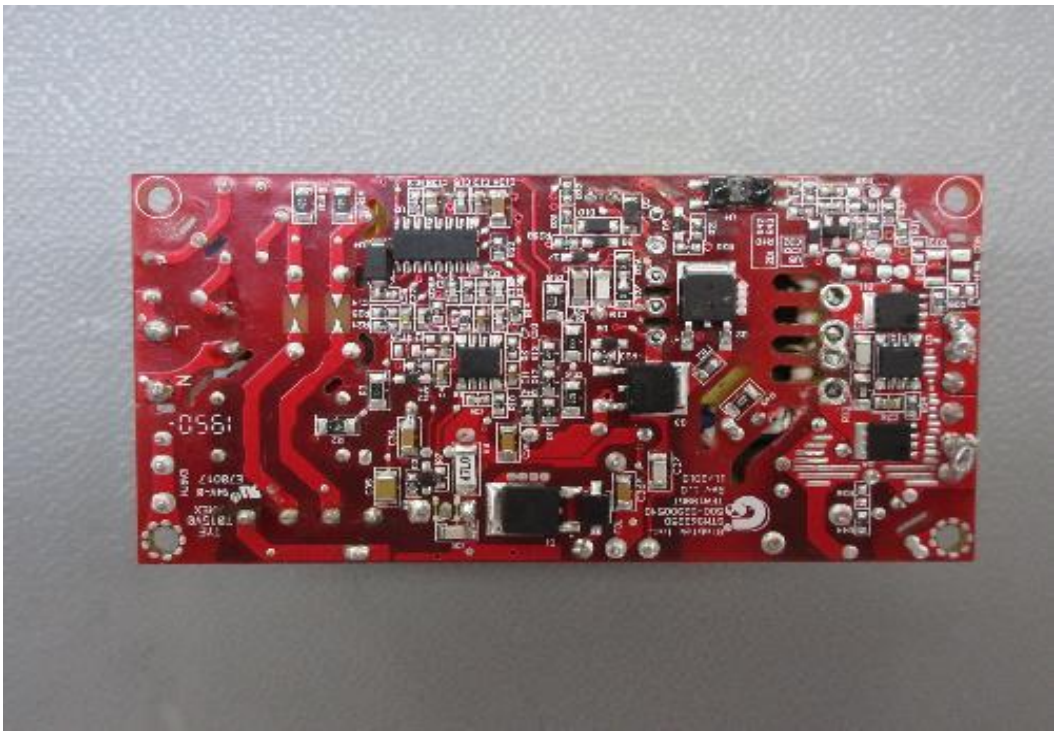


Photo 12 - External view for open frame models



3.0 Product Photographs

Photo 13 - Transformer

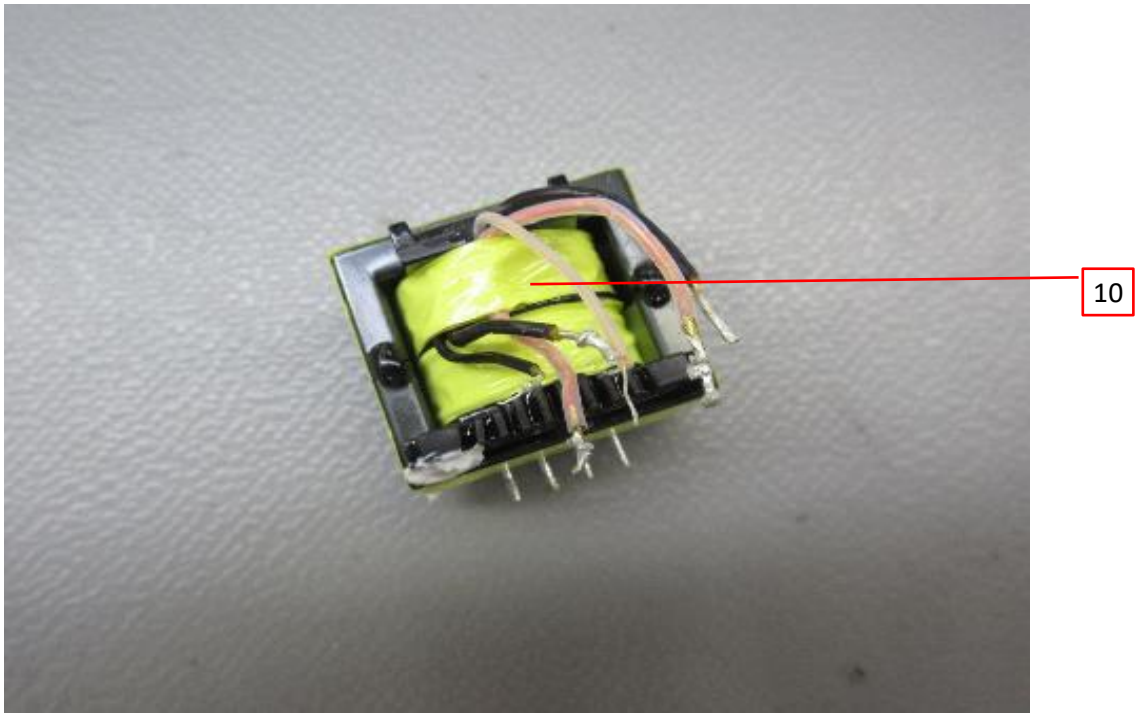
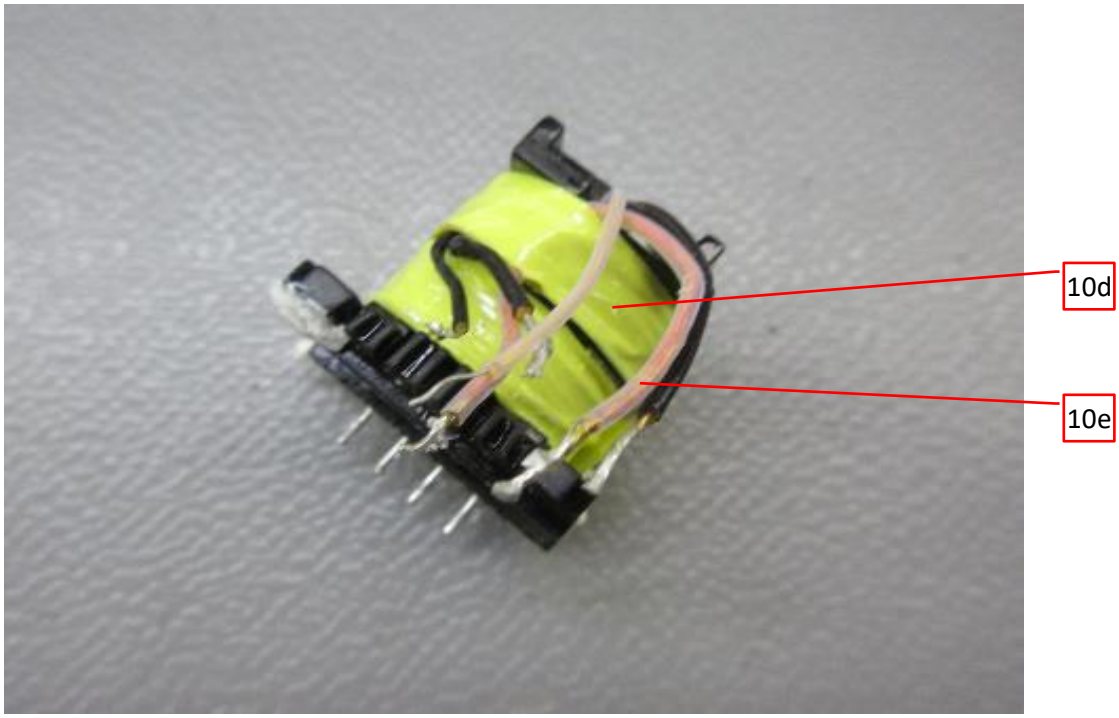


Photo 14 - Transformer



3.0 Product Photographs

Photo 15 - Transformer

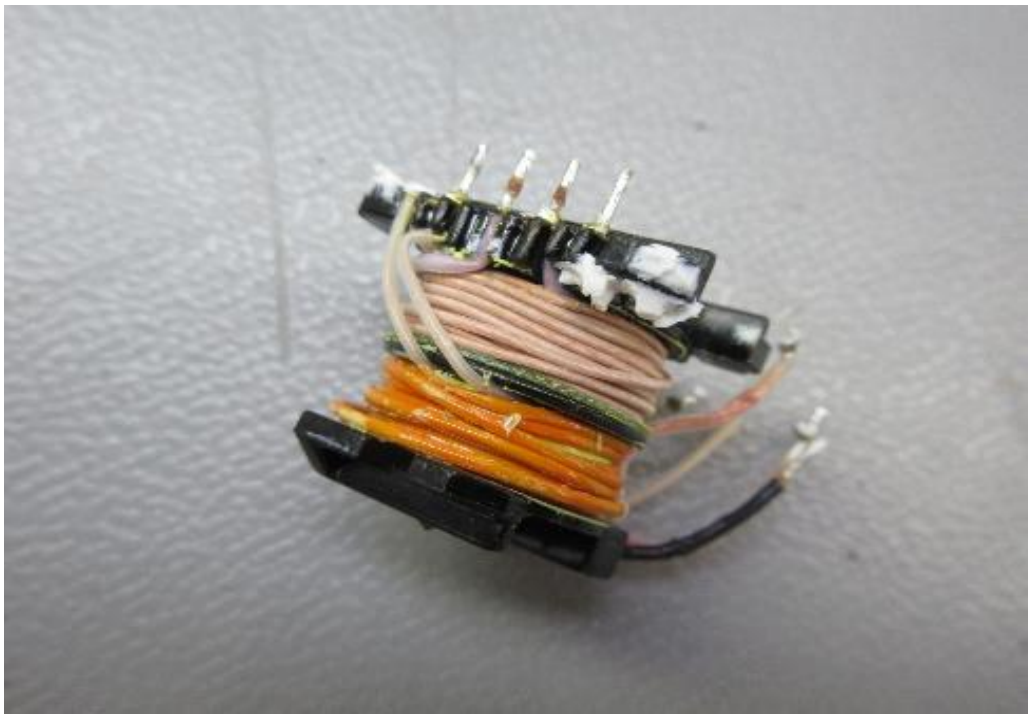
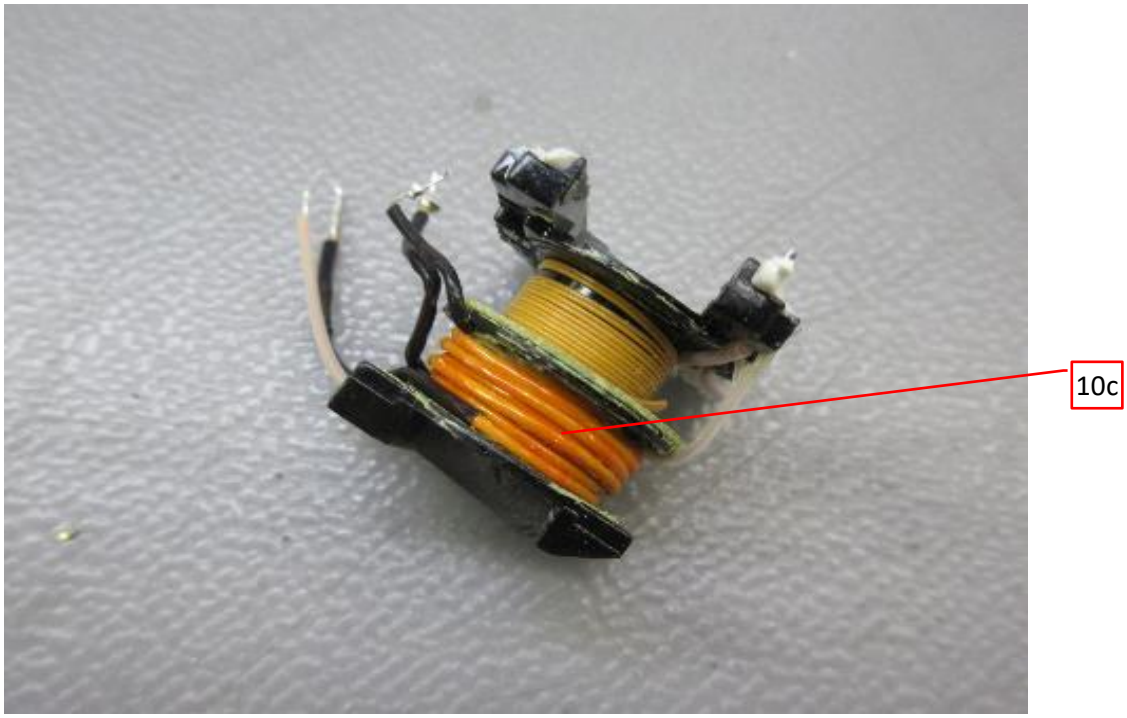


Photo 16 - Transformer



3.0 Product Photographs

Photo 17 - Transformer

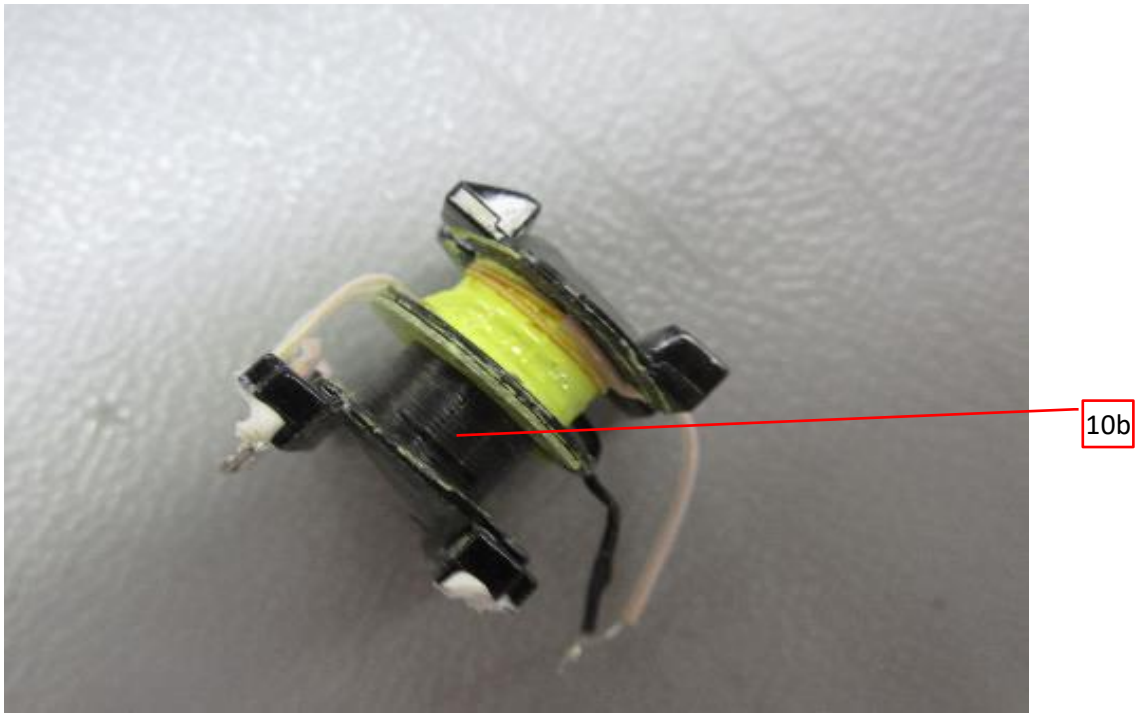
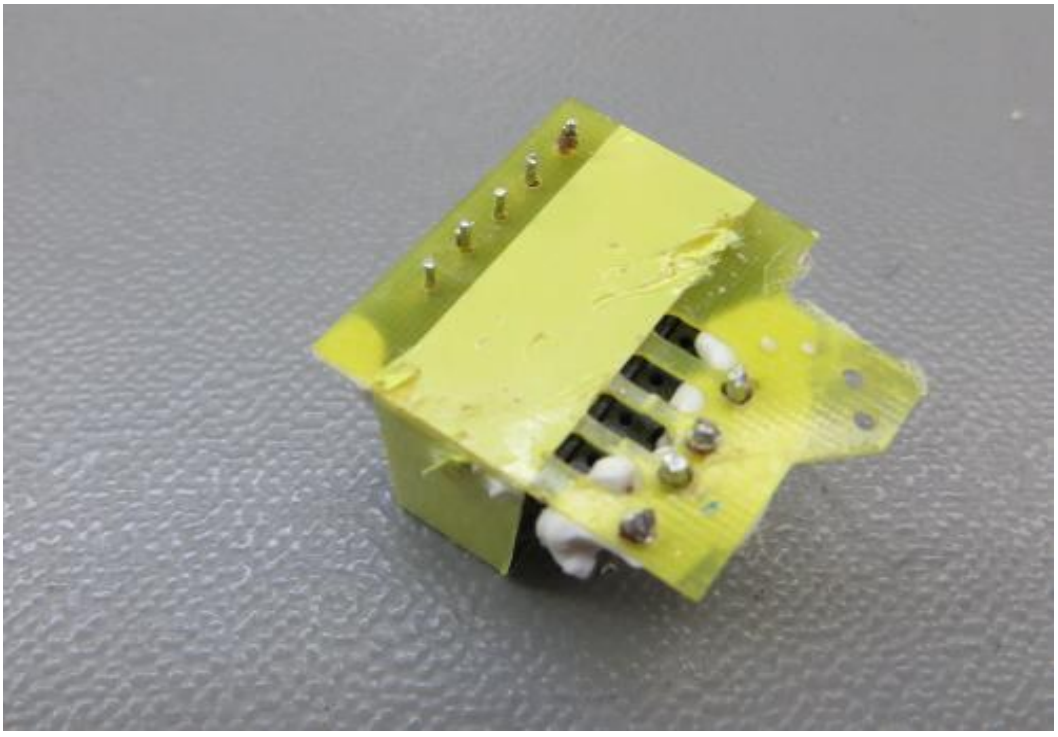


Photo 18 - Transformer

3.0 Product Photographs

Photo 19 - Transformer

Photo 20 - Transformer



3.0 Product Photographs

Photo 21 - Transformer

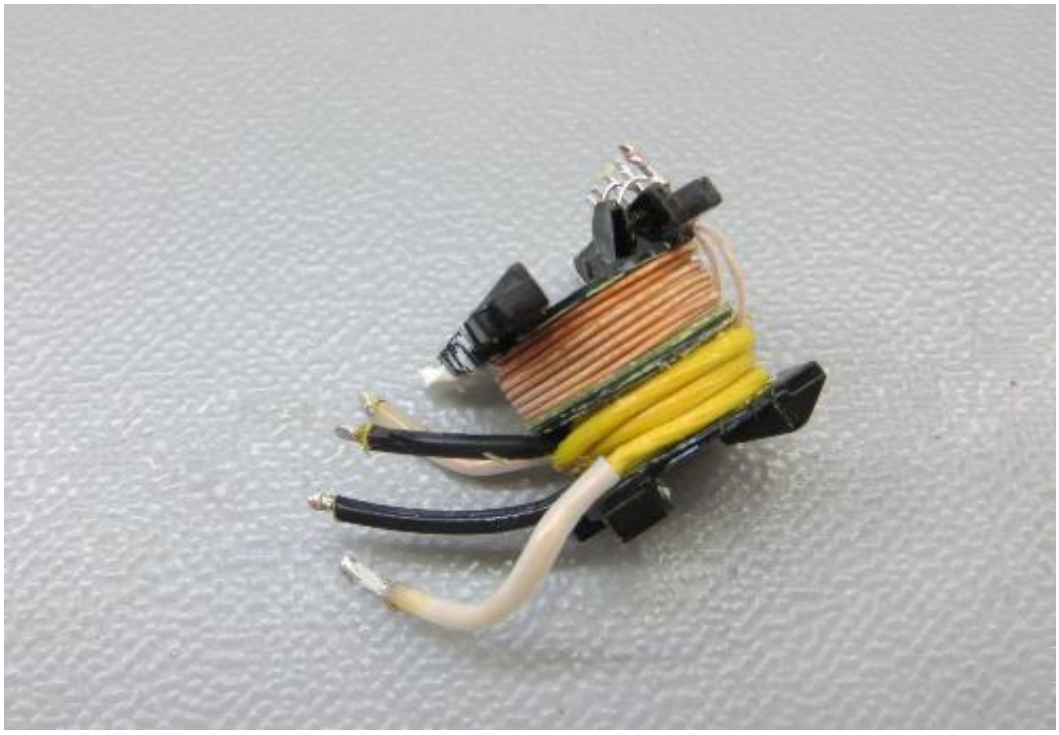
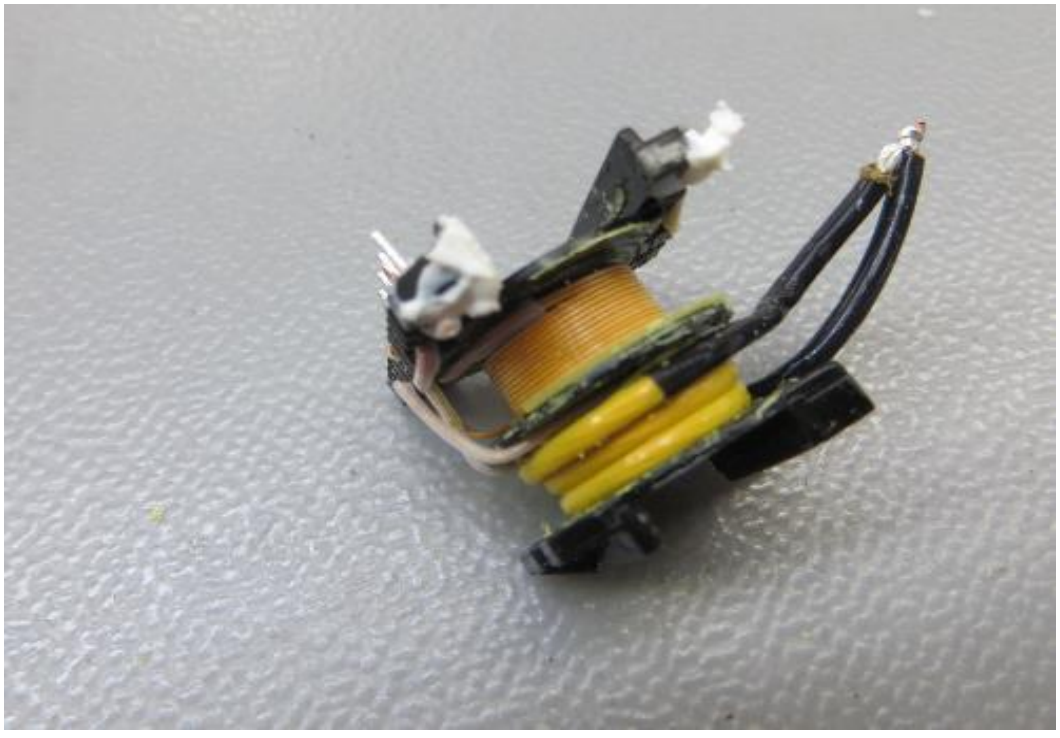


Photo 22 - Transformer



3.0 Product Photographs

Photo 23 - Transformer

4.0 Critical Components						
Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity [3]
1, 2, 3, 4	1	Plastic cover (For model GTM962253P*****-*)	SABIC INNOVATIVE PLASTICS B V	SE1X	PPE+PS, Min. V-1, Min. thickness: 1.5mm, 105°C	cURus
				SE1		
			SABIC INNOVATIVE PLASTICS B V	SE100	PPE+PS, Min. V-1, Min. thickness: 1.5mm, 95°C	
			SABIC INNOVATIVE PLASTICS B V	C2950	PC/ABS, Min. V-0, Min. thickness: 1.5mm, 85°C	
			SABIC INNOVATIVE PLASTICS B V	CX7211	PC/ABS, Min. V-1, Min. thickness: 1.5mm, 90°C	
				EXCY0098		
			SABIC INNOVATIVE PLASTICS B V	940	PC, Min. V-1, Min. thickness: 1.5mm, 120°C	
			SABIC INNOVATIVE PLASTICS B V	945	PC, Min. V-1, Min. thickness: 1.5mm, 120°C	
			SABIC INNOVATIVE PLASTICS B V	HF500R	PC, V-0, Min. thickness: 1.5mm, 125°C	
			SABIC JAPAN L L C	SE1X	PPE+PS, Min. V-1, Min. thickness: 1.5mm, 105°C	
				SE1		
			SABIC JAPAN L L C	SE100	PPE+PS, Min. V-1, Min. thickness: 1.5mm, 95°C	
			SABIC JAPAN L L C	C2950	PC/ABS, Min. V-0, Min. thickness: 1.5mm, 85°C	
			SABIC JAPAN L L C	CX7211	PC/ABS, Min. V-1, Min. thickness: 1.5mm, 90°C	
				EXCY0098		
			SABIC JAPAN L L C	940	PC, Min. V-1, Min. thickness: 1.5mm, 120°C	
				945		
			SABIC JAPAN L L C	HF500R	PC, V-0, Min. thickness: 1.5mm, 125°C	
			SABIC JAPAN L L C	925U	PC, V-0, Min. thickness: 1.5mm, 115°C	
				CH6410		
			TEIJIN CHEMICALS LTD	LN-1250P	PC, Min. V-0, Min. thickness: 1.5mm, 115°C	
				LN-1250G		
			CHI MEI CORPORATION	PA-765A	ABS, Min. V-0, Min. thickness: 1.5mm, 85°C	
			CHI MEI CORPORATION	PC-540	PC/ABS, Min. V-0, Min. thickness: 2.0mm, 70°C	
			COVESTRO DEUTSCHLAND AG(PC RESINS)	6485+	Min. V-0, Min. thickness: 1.5mm, 100°C	

4.0 Critical Components						
Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity [3]
2	2	PCB	JIANGXI ZHONG XIN HUA ELECTRONICS INDUSTRY CO LTD	ZXH-2	V-0, 130°C, Min.1.6 mm thickness	cURus
			SHUANG MING INDUSTRY CO LTD	T005V0	V-0, 130°C, Min.1.6 mm thickness	
				T015V0		
			SHANGHAI H-FAST ELECTRONICS CO LTD	211001	V-0, 130°C, Min.1.6 mm thickness	
			GUANGDE BOYA XINXING ELECTRONIC TECHNOLOGY CO LTD	BY-1	V-0, 130°C, Min.1.6 mm thickness	
			SHENZHEN GOLDEN BOARD CIRCUIT	JYH-2	V-0, 130°C, Min.1.6 mm thickness	
			ZHEJIANG WANZHENG ELECTRONICS SCIENCE & TECHNOLOGY CO LTD	JWZ-2	V-0, 130°C, Min.1.6 mm thickness	
			Various	Various	V-0, 130°C, Min.1.6 mm thickness; Fully comply with UL 796.	
			Conquer Electronics Co., Ltd.	UDA series		
			Suzhou Walter Electronic Co. Ltd.	TSC Series		
			Littelfuse Inc	215-Serie(s)		
			Conquer Electronics Co., Ltd.	MST		
			Suzhou Walter Electronic Co. Ltd.	2010		
			Bel Fuse Ltd.	RST		
			Cooper Bussmann LLC	SS-5		
			Shenzhen Lanson Electronics Co. Ltd.	SMT		

4.0 Critical Components						
Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity [3]
10	3	Current fuse	Dongguan Better Electronics Technology Co., Ltd.	932	T4A, 250V (F1, F2, F2 is optional)	cURus
			Hollyland Company Limited	5ET		
			Sunny East Enterprise Co. Ltd.	CFD		
			Conquer Electronics Co., Ltd	MET		
			Zhongshan Lanbao Electrical Appliances Co., Ltd.	RTI-10		
			Suzhou Walter Electronic Co. Ltd.	ICP-Series		
			Suzhou Walter Electronic Co. Ltd.	2020		
			Conquer Electronics Co., Ltd	MMT		
			Bel Fuse Ltd.	RSTA		
			Littelfuse Inc.	TE5 400		
10	4	Heat shrinkable tubing (Optional)	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR	600V, 125°C, VW-1	cURus
				RSFR-H		
				RSFR-HPF		
			QIFURUI ELECTRONICS CO	QFR-h	600V, 125°C, VW-1	
			DONGGUAN SALIPT CO LTD	SALIPT S-901-300	300V, 125°C, VW-1	
				SALIPT S-901-600	600V, 125°C, VW-1	
			GUANGZHOU KAIHENG ENTERPRISE GROUP	K-2 (+)	300V, 125°C, VW-1	
				K-2 (CB)	600V, 125°C, VW-1	
			CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-HFT	300V, 125°C, VW-1	

4.0 Critical Components						
Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity [3]
10	5	Y-Capacitor (optional)	TDK Corporation	CD	Min.250V, 125°C, Max.1500pF, Y1 type (CY3, CY4)	cURus
			SUCCESS ELECTRONICS CO LTD	SE		
			SUCCESS ELECTRONICS CO LTD	SB		
			Walsin Technology Corp.	AH		
			Haohua Electronic Co.,Ltd	CT 7		
			Murata Mfg. Co., Ltd.	KX		
			JYA-NAY CO LTD	JN		
			JYH CHUNG ELECTRONICS CO LTD	JD		
			WELSON INDUSTRIAL CO LT D	WD		
			Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	MPX		
			Tenta Electric Industrial Co. Ltd.	MEX		
			Joey Electronics (Dong Guan) Co., Ltd.	MPX		
			Ultra Tech Xiphi Enterprise Co. Ltd.	HQX		
			Yuon Yu Electronics Co. Ltd.	MPX		
			Sinhua Electronics (Huzhou) Co., Ltd.	MPX		
			Cheng Tung Industrial Co., Ltd.	CTX		
			Dain Electronics Co., Ltd.	MEX		
				MPX		
				NPX		

4.0 Critical Components						
Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity [3]
10	6	X capacitor (Optional)	Jiangsu Xinghua Huayu Electronics Co., Ltd.	MPX	Max. 0.68µF, Min. 250V, Min. 100°C, X2 type (CX1)	cURus
			Shenzhen Jinghao Capacitor Co., Ltd.	CBB62B		
			DONG GUAN AJC INDUSTRIAL CO., LTD	MPX		
				MKP		
			Foshan Shunde Chuang Ge Electronic Industrial Co., Ltd.	MKP-X2		
			Okaya Electric Industries Co. LTD	RE-Series		
			Hongzhi Enterprises Ltd.	MPX (X2)		
			Foshan Shunde Beijiao Hua Da Electric Industrial Co., Ltd.	HD MKP series		
			Vishay Electrónica Portugal, Lda	F 1772 Serie(s)		
			WINDAY ELECTRONIC (DONG GUAN) CO., LTD	MPX series		
			Hua Jung Components Co., Ltd.	MKP		

4.0 Critical Components						
Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity [3]
10	7	Varistor (optional)	CENTRA SCIENCE CORP	CNR-10D471K	Min. 300Vac, min. 385Vdc, fulfilled 6kV/3kA pulse test, Min. 80°C. MOV1	cURus
				CNR-14D471K		
			Thinking Electronic Industrial Co., Ltd.	TVR10471K		
				TVR14471K		
			SUCCESS ELECTRONICS CO LTD	SVR10D471K		
				SVR14D471K		
			JOYIN CO LTD	10N471K		
				14N471K		
			Lien Shun Electronics Co., Ltd.	10D471K		
				14D471K		
			CERAMATE TECHNICAL CO LTD	GNR10D471K		
				GNR14D471K		
			BRIGHTKING (SHENZHEN) CO LTD	10D471K		
				14D471K		
			Walsin Technology Co., Ltd.	SR471K10D		
				SR471K14D		
2, 8	8	Photo coupler	VISHAY Semiconductor GmbH.	TCLT1009	U4, Double protection optical isolators, providing Min. 5000 vac isolation	cURus
				VOL618A		
			Everlight Electronics Co., Ltd.	EL1019		
			COSMO Electronics Corporation	KT1019		
			Lite-On Technology Corporation	LTV-1009		
3	9	Connector	JAPAN SOLDERLESS TERMINAL MFG CO LTD	VH series	Min. 240V, Min. 80°C;	cURus
			JOINT TECH ELECTRONIC INDUSTRIAL CO LTD	A7920 series		
				A3960 series		
			ZHEJIANG HONGXING ELECTRICAL CO LTD	HX396XX-YYY series		
			MOLEX L L C	MOLEX L L C		

4.0 Critical Components						
Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity [3]
			GlobTek	TF094	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 12-14.9VDC;	
				TF095	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 15-18.9VDC;	
				TF096	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 19-23.9VDC;	
				TF097	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 24-31.9VDC;	
				TF098	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 32-41.9VDC;	
				TF099	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 42-54VDC;	
			ENG	TF094	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 12-14.9VDC;	
				TF095	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 15-18.9VDC;	
				TF096	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 19-23.9VDC;	
				TF097	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 24-31.9VDC;	
				TF098	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 32-41.9VDC;	

4.0 Critical Components						
Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity [3]
13	10	Transformer		TF099	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 42-54VDC;	NR
			BOAM	TF094	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 12-14.9VDC;	
				TF095	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 15-18.9VDC;	
				TF096	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 19-23.9VDC;	
				TF097	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 24-31.9VDC;	
				TF098	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 32-41.9VDC;	
				TF099	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 42-54VDC;	
			HAOPUWEI	TF094	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 12-14.9VDC;	
				TF095	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 15-18.9VDC;	
				TF096	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 19-23.9VDC;	
				TF097	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 24-31.9VDC;	

4.0 Critical Components						
Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity [3]
				TF098	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 32-41.9VDC;	
				TF099	Class B, with insulation system and critical component shown as below items (10a - 10e); Used for models with output voltage 42-54VDC;	
13	10a	Insulation system (not shown)	Globtek	GTX-130-TM	Class B	cURus
			Haopuwei	ZT-130		
			BOAM	BOAM-01		
				B1		
			ENG	ENG130-1		
17	10b	Bobbin	HITACHI CHEMICAL CO LTD	CP-J-8800	Phenolic, V-0, 150 °C, Min. thickness 0.45mm	cURus
			SUMITOMO BAKELITE CO LTD	PM-9820		
				PM-9830		
			CHANG CHUN PLASTICS CO LTD	4130		
				T375J		
				T375HF		
16	10c	Triple-insulated wire	Furukawa Electric Co Ltd.	TEX-E	Class B	cURus
			TOTOKU ELECTRIC CO LTD	TIW-2		
			COSMOLINK CO. Ltd.	TIW-M		
			Great Leoflon Industrial Co Ltd	TRW (B) Serie(s)		
			E&B TECHNOLOGY CO LTD	E&B-XXXB		
				E&B-XXXB-1		
			SHENZHEN JIUDING NEW MATERIAL CO LTD	DTIW-B		
			CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-TIW		

4.0 Critical Components						
Photo #	Item no.[1]	Name	Manufacturer/ trademark[2]	Type / model[2]	Technical data and securement means	Mark(s) of conformity [3]
14	10d	Insulating tape	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1	Min.130°C	cURus
				1350T-1		
				44		
			JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ		
				CT		
				WF		
			JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A(b)		
			BONDTEC PACIFIC CO LTD	370S(b)		
			CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX(a)(b)		
14	10e	Tubing	GREAT HOLDING INDUSTRIAL CO LTD	TFT	Min. 300V, 200°C	cURus
				TFS		
			SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	WF	600V, 200°C	
			CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-TT-T	Min. 300V, 200°C	
				CB-TT-S		
			DONGGUAN LING FREE HARDWARE PLASTICS PRODUCT CO LTD	LING FREE PTFE TUBE	Min. 300V, 200°C	

NOTES:

1) Not all item numbers are indicated (called out) in the photos, as their location is obvious.

2) “Various“ means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used.

3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - indicates Unlisted and only visual examination is necessary. "See 5.0" indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details.

5.0 Critical Unlisted CEC Components
No Unlisted CEC components are used in this report.

6.0 Critical Features

Recognized Component - A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.

Listed Component - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.

Unlisted Component - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.

Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.

Construction Details - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.

1. Spacing - Refer to illustration No(s) 1-2 in sec.7.0 for details.
2. Mechanical Assembly - Components such as switches, fuseholders, connectors, wiring terminals and display lamps are mounted and prevented from shifting or rotating by the use of lockwashers, starwashers, or other mounting format that prevents turning of the component.
3. Corrosion Protection - All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.
4. Accessibility of Live Parts - For adapter models, all uninsulated live parts in primary circuitry are housed within a non-metallic enclosure constructed with no openings and metal enclosure earthed with ventilation holes other than those specifically described in Sections 4 and 5.
5. Grounding - For adapter models with earthing connection, all exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed are connected to the grounding lead of the power supply cord and the equipment grounding terminal. For adapter models without earthing connection, the products are not provided with grouding means as they are reinforced insulated.
6. Polarized Connection - This product is provided with a non-polarized power supply connection.
7. Internal Wiring - No primary internal wiring.
8. Markings - The product is marked as follows:
   1. Brand name: refer to sec. 2.0
   2. Product name: refer to sec. 2.0
   3. Model: refer to sec. 2.0
   4. Ratings: refer to sec. 2.0
9. Transformer - Supplier records must be provided that indicate the received shipment of transformers (section 4.0, item 10) was constructed as indicated in Illustrations No(s). 4-6. These records must be available at the factory for inspection on every received shipment.

7.0 Illustrations

Illustration 1 - Spacings

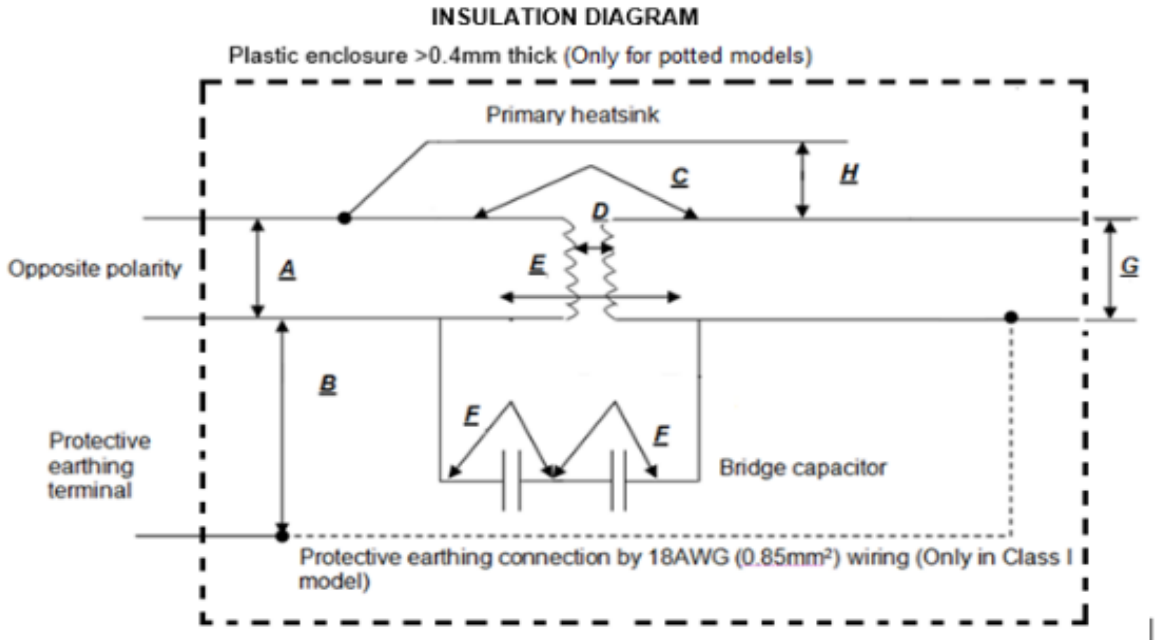


TABLE: INSULATION DIAGRAM		P
Pollution degree .....:	2	—
Overvoltage category.....:	II	—
Altitude.....:	Up to 5000m	—
Additional details on parts considered as applied parts .....:	☒ None ☐ Areas _____ (See Clause 4.6 for details)	—

Area	Number and type of Means of Protection: MOOP, MOPP	CTI	Working voltage		Required creepage (mm)	Required clearance (mm)	Measured creepage (mm)	Measured clearance (mm)	Remarks
			V_{rms}	V_{pk}					
A	1MOOP	IIIb	240	--	3.0	3.0[6]	3.50	3.50	Opposite polarity of mains part
B	1MOOP	IIIb	240	--	3.0	3.0[6]	3.52	3.52	Line/Neutral to PE terminal trace (for Class I)
B[1]	1MOPP	IIIb	240	340	4.0	3.0[6]	4.05	4.05	Mains parts to PE terminal
C	2MOPP	IIIb	240	340	7.9[4]	7.4[6]	7.96	7.96	Mains part to secondary

7.0 Illustrations

Illustration 2a - Spacings (Cont.)

									circuits (Optocoupler)
D	2MOPP	IIIb	240	340	7.9[4]	7.4[6]	12.0	12.0	Mains part to secondary circuits (Transformer)
D[1]	2MOPP	IIIb	240	340	7.9[4]	7.4[6]	8.20	8.20	Core to secondary circuits (Transformer)
E	2MOPP	IIIb	240[3]	--	7.9[4]	7.4[6]	8.10	8.10	Mains parts to secondary circuits (PCB trace) to secondary pin-out (Y capacitor x 2)
G	--	IIIb	Max. 54Vdc	--	--	--	--	--	Accessible parts per 8.4.2 c)

Note:

1) The same area is evaluated in open frame model. And there is no more difference if not specified.
2) Optionally an electromagnetic shield which is copper foil is added around the outside of the coil. It's connected to mains part.
3) The working voltage is highest measured value which acquired by testing all the models listed in the report at the rated input voltage, but not less than the rated input voltage.
4) Linear interpolation is applied to the determination of required creepage.
5) The minimum creepage and clearance is selected from all the types of optocouplers.
6) Multiplication factor for MOOP: 1.48; Multiplication factor for MOPP: 1.29.
7) Minimum 0.4 mm thick Mylar sheet wraps around internal conductive parts.

Two layers of insulating tape or one layer of min. 0.4 mm thickness insulating tube wrap around the secondary heatsink.

7.0 Illustrations

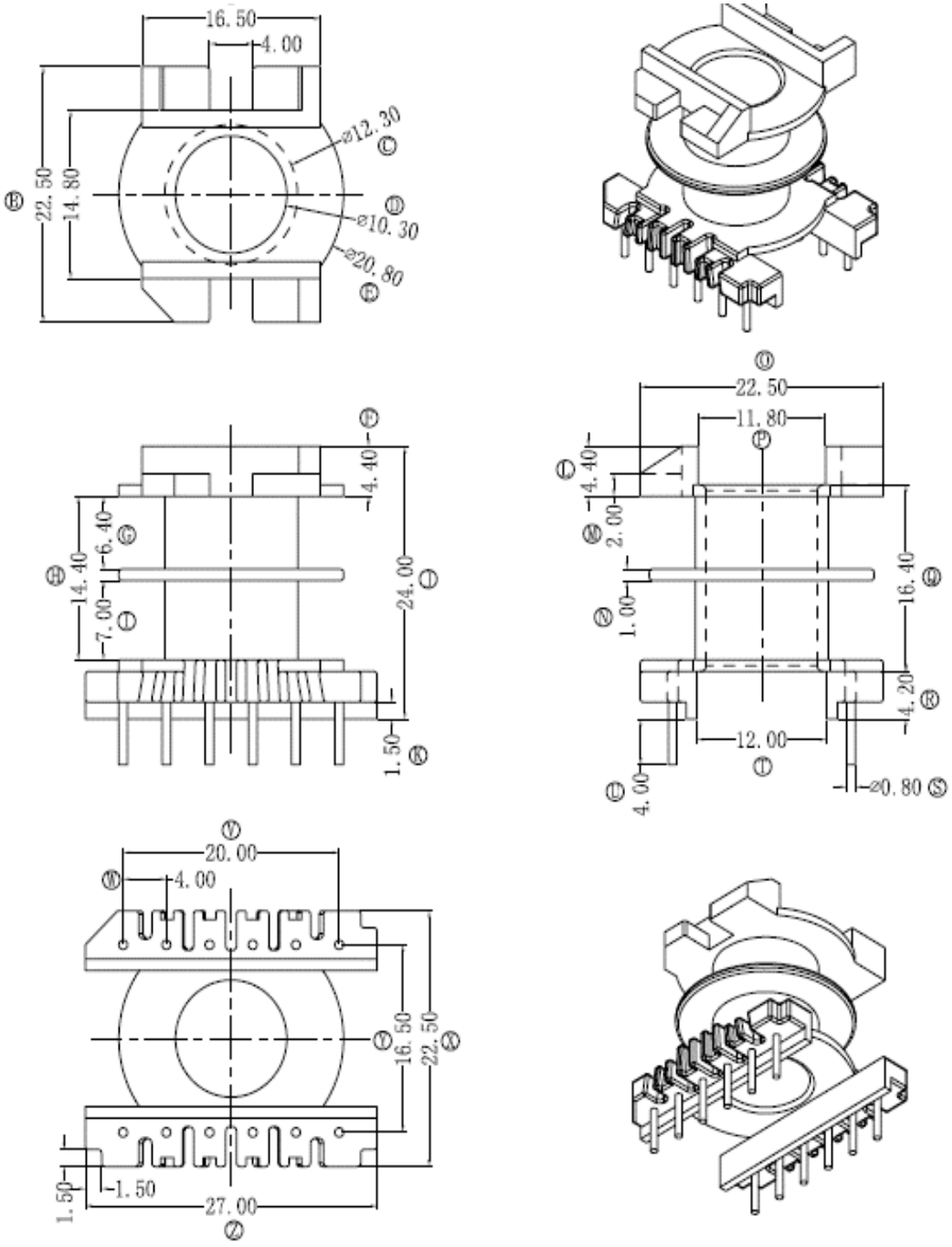
Illustration 3 - Model list

Model without AUX output voltage	Output Voltage	Max. output current	Max. output power
GT*96225*P**-F/FW/P2/P3-* GT*96225*P**F/FW/P2/P3-*	12.0-54.0Vdc	18.75A	225W
GT*96225*P**-C-F/FW/P2/P3-* GT*96225*P**-CF/FW/P2/P3-*			
GT*96225*P**-D-F/FW/P2/P3-* GT*96225*P**-DF/FW/P2/P3-*			

Model with AUX output voltage	Main Output Voltage	Max. output current	AUX output voltage	AUX output current	Max. output power
GT*96225*P**A*-F/FW/P2/P3-* GT*96225*P**A*F/FW/P2/P3-*	12.0-54.0Vdc	18.75A	12Vdc	Max 1.2A	225W
GT*96225*P**B*-F/FW/P2/P3-* GT*96225*P**B*F/FW/P2/P3-*	12.0-24.0Vdc	18.75A	5Vdc	Max 1.2A	225W
GT*96225*P**C*-F/FW/P2/P3-* GT*96225*P**C*F/FW/P2/P3-*			6Vdc		225W
GT*96225*P**D*-F/FW/P2/P3-* GT*96225*P**D*F/FW/P2/P3-*			7Vdc		225W
GT*96225*P**E*-F/FW/P2/P3-* GT*96225*P**E*F/FW/P2/P3-*			8Vdc		225W
GT*96225*P**F*-F/FW/P2/P3-* GT*96225*P**F*F/FW/P2/P3-*			9Vdc		225W
GT*96225*P**G*-F/FW/P2/P3-* GT*96225*P**G*F/FW/P2/P3-*			10Vdc		225W
GT*96225*P**H*-F/FW/P2/P3-* GT*96225*P**H*F/FW/P2/P3-*			11Vdc		225W

7.0 Illustrations

Illustration 4 - Transformer specification

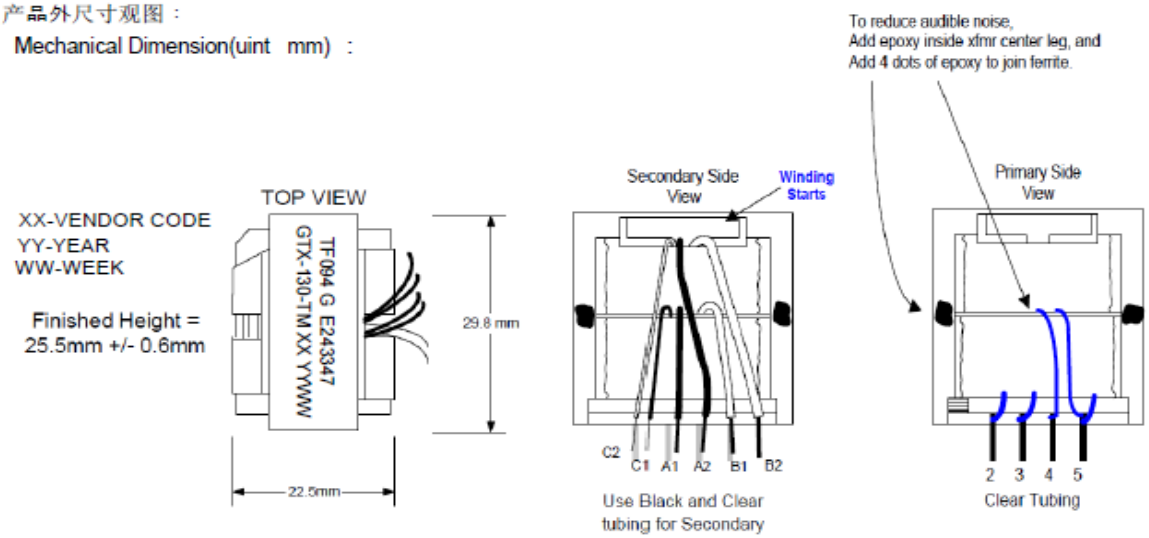


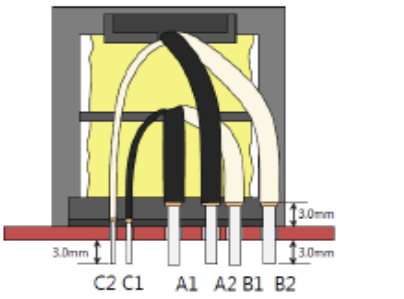
7.0 Illustrations

Illustration 5 - Transformer specification (Cont.)

产品编号 Article No.			

产品外尺寸观图：
Mechanical Dimension(uint mm) ：





Please check lead lengths using provided PCB.
Assembly must resemble above drawing.

注意事项 / Notes:

1. PIN 脚长度 3.5±0.2 mm
   PIN length:3.5 ±0.2 mm
2. 变压器表面没有锡珠或其他异物附着。
   The transformer does not have solder balls or other dirt.
3. 尺寸如图
   All the dimension must be following the drawing.
4. 均匀绕线
   The winding must be distribuited in the whole surface of the bobbin.
5. 拔除脚1,6,7,8,9,10,11,12
   Remove pins:1,6,7,8,9,10,11,12
6. 所有引脚出线要套特氟龙套管。
   All wire to pin terminal need add teflon tube

Lead	Total Length	Insulation Length	Solder Length
C2	28mm	23mm	5mm
C1	22mm	17mm	5mm
A1	20mm	12mm	8mm
A2	27mm	19mm	8mm
B1	20mm	12mm	8mm
B2	32mm	24mm	8mm

制定 年 月 日	环球特科（苏州）有限公司 GlobTek(Suzhou) Co. Ltd.	制作 Prepared by		承认 Approved by	

7.0 Illustrations

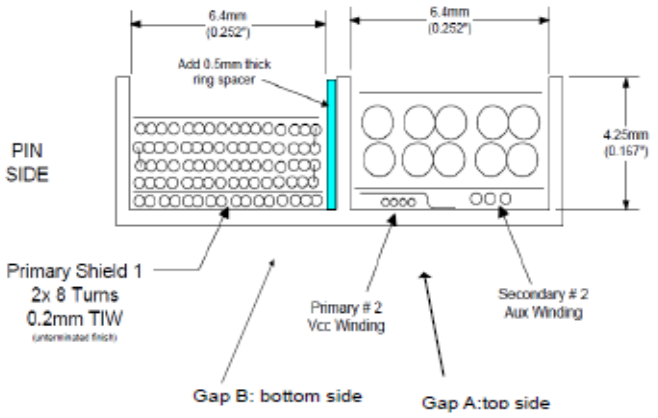
Illustration 6 - Transformer specification (Cont.)

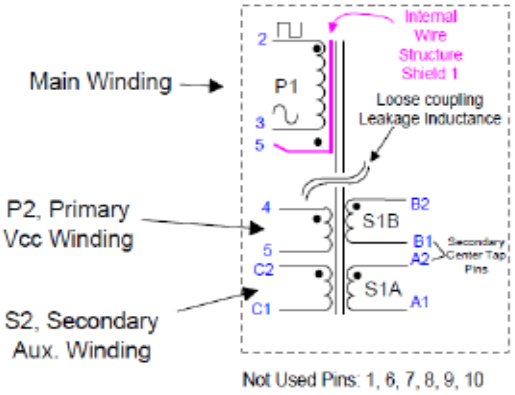
产品编号 Article No.			

绕线规格:

顺序 Order	PIN 脚 PIN No.	铜线 Copper wire	圈数 Turns	线槽 Slot	方向 Direction	备注 Remarks
E1	5–	TIW wire 0.2mm*2	8Ts	Gap B	Finish unterminated	
1 Ts W=6mm, T=0.025mm insulation tape @Gap B						
P1	2-3	Litz wire 0.06mm*72	35Ts	Gap B		4 layers
P2	4-5	TIW wire 0.25mm	3Ts	Gap A	P2 and S2 are in the same layer	
S2	C2-C1	TIW wire *0.3mm	0Ts	Gap A		
1 Ts W=6mm, T=0.025mm insulation tape @Gap A						
S1A	A2-A1	TIW Litz wire 0.1mm*150	2Ts	GAP A	1 Layer	
S1B	B2-B1	TIW Litz wire 0.1mm*150	2Ts	GAP A	1 Layer	
2 Ts W=6mm, T=0.025mm insulation tape @Gap B						
2Ts W=6mm, T=0.025mm insulation tape @Gap A						
2Turns W=11.5mm T=0.025mm core fixing tape						

Main Primary Litz Wire: Either 60/0.06 or 72/0.06 stranding, depending on number of primary turns. Must be covered with either Nylon Serving, or Silk Serving.





Not Used Pins: 1, 6, 7, 8, 9, 10

All windings starts on Dots

S1B using Clear Sleeving
S1A using Black Sleeving

S2, Secondary Aux. Winding, and wires C1 and C2 **Not Used**, for this variation.

制定 年 月 日	环球特科（苏州）有限公司 GlobTek(Suzhou) Co. Ltd.	制作 Prepared by		承认 Approved by	

8.0 Test Summary					
Evaluation Period	12-May-2020 to 16-Sep-2020			Project No.	200501729SHA
Sample Rec. Date	12-May-2020	Condition	Prototype	Sample ID.	0200512-34-001~020
Test Location	Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China				
Test Procedure	Testing Lab				
Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.					
The following tests were performed:					

Test Description	AAMI ES60601-1:2005 +A1 CSA C22.2#60601-1:2014 Ed.3
Power Input	4.11
Humidity Preconditioning	5.7
Legibility of Markings	7.1.2
Durability of Markings	7.1.3
Plug Discharge Test	8.4.3
Working Voltage Measurement	8.5.4
Leakage Current Test	8.7.4
Dielectric Strength Test	8.8.3
Ball Pressure Test	8.8.4.1
Creepage & Clearance Measurements	8.9.4
Excessive Temperature	11.1
Single Fault Conditions	13.2
Push Test	15.3.2
Impact Test	15.3.3
Drop Test	15.3.4
Moulding Stress Relief	15.3.6
Transformer Short-Circuit Test	15.5.1.2
Transformer Overload Test	15.5.1.3

Test Description	IEC 60601-1-6:2010 Ed.3+A1 CSA C22.2#60601-1:2014 Ed.3
General requirements	4

Test Description	IEC 60601-1-11:2015 Ed.2 CSA C22.2#60601-1-11:2015 Ed.2
Environmental condition test of transport and storage between uses	4.2.2
Continuous operating conditions	4.2.3.1
Shock test	10.1.2 a)
Vibration test	10.1.2 b)

8.1 Signatures			
A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.			
Completed by:	Albert Zhou	Reviewed by:	Will Wang
Title:	Engineer	Title:	Manager
Signature:	Albert Zhou	Signature:	Will Wang

9.0 Correlation Page For Multiple Listings	
The following products, which are identical to those identified in this report except for model number and Listee name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program.	
BASIC LISTEE	GlobTek, Inc.
Address	186 Veterans Dr. Northvale, NJ 07647
Country	USA
Product	Medical Power Supply

MULTIPLE LISTEE 1	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 1 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 2	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 2 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 3	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 3 MODELS	BASIC LISTEE MODELS

10.0 General Information

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

COMPONENTS

Components used shall be those itemized in this Intertek report covering the product, including any amendments and/or revisions.

LISTING MARK

The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

The mark must include the following four items:

1) applicable country identifiers "US" and/or "C" or "US", "C" and "EU"
2) the word "Listed" or "Classified" or "Recognized Component" (whichever is appropriate)
3) a control number issued by Intertek
4) a product descriptor that identifies the standards used for certification. Example:

For US standards, the words, “Conforms to” shall appear with the standard number along with the word, “Standard” or “Std.” Example: “Conforms to ANSI/UL Std. XX.”

For Canadian standards, the words “Certified to CAN/CSA Standard CXX No. XX.” shall be used, or abbreviated, “Cert. to CAN/CSA Std. CXX No. XX.”

Can be used together when both standards are used.

Note: A facsimile must be submitted to Intertek, Attn: Follow-up Services for approval prior to use. The facsimile need not have a control number. A control number will be issued **after signed Certification Agreements** have been received by the Follow-up Services office, approval of the facsimile of your proposed Listing Mark, satisfactory completion of the Listing Report, and scheduling of a factory assessment in your facility.

MANUFACTURING AND PRODUCTION TESTS

Manufacturing and Production Tests shall be performed as required in this Report.

FOLLOW-UP SERVICE

Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
3. Manufacturing changes.
4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the ETL Mark from non-conforming product.
3. Contact the issuing product safety evaluation center for instructions.

10.1 Evaluation of Unlisted Components

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

The Applicant will be notified, in writing, via the applicable contact methods, as defined in Section 1.0, when these components must be selected and sent to Component Evaluation Center (CEC) for re-evaluation.

Due to particular testing requirements, some components may be requested to be shipped to specific labs. Thus, specific shipment destination(s) for each sample will be provided in the written notification.

Managing CEC Location:
Intertek Testing Services Shanghai Limited
ETL Component Evaluation Center
Building No. 86, 1198 Qinzhou Road (North)
Shanghai 200233, China
Attn: Ms. Angela Han
Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.

11.0 Manufacturing and Production Tests

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

Required Tests

Dielectric Voltage Withstand Test

11.1 Dielectric Voltage Withstand Test

Method

One hundred percent of production of the products covered by this Report shall be subjected to a routine production line dielectric withstand test.

The test shall be conducted on products, which are fully assembled. Prior to applying the test potential, all switches, contactors, relays, etc., should be closed so that all primary circuits are energized by the test potential. If all primary circuits cannot be tested at one time, then separate applications of the test potential shall be made.

The test voltage specified below shall be applied between primary circuits and accessible dead-metal parts. The test voltage may be gradually increased to the specified value but must be maintained at the specified value for one second or one minute as required.

Test Equipment

The test equipment shall incorporate a transformer with an essentially sinusoidal output, a means to indicate the applied test potential, and an audible and/or visual indicator of dielectric breakdown.

The test equipment shall incorporate a voltmeter in the output circuit to indicate directly the applied test potential if the rated output of the test equipment is less than 500VA.

If the rated output of the test equipment is 500VA or more, the applied test potential may be indicated by either:

1 - a voltmeter in the primary circuit;

2 - a selector switch marked to indicate the test potential; or

3 - a marking in a readily visible location to indicate the test potential for test equipment having a single test potential output.

In cases 2 and 3, the test equipment shall include a lamp or other visual means to indicate that the test potential is present at the test equipment output. All test equipment shall be maintained in current calibration.

Products Requiring Dielectric Voltage Withstand Test:

Product	**Test Voltage**	**Test Time**
All the product covered by this report Between mains part and secondary circuits.	4000Vac	1s
Product - One sample from each shipment of Section 4.0 item 10:	**Test Voltage**	**Test Time**
Between primary circuit and secondary output	4000Vac	1min
Between secondary circuit and core	4000Vac	1min
Product - Model TF099 from each shipment of Section 4.0 item 10:	**Test Voltage**	**Test Time**
Between primary circuit and secondary output	4000Vac	1min
Between secondary circuit and core	4000Vac	1min

12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change
				None