

# RECOGNIZED COMPONENT Constructional Data Report (CDR)

1.0 Reference and Address			
Report Number	130401493SHA-001	Original Issued: 19-Aug-2013	Revised: 11-Jul-2014
Standard(s)	Class 2 Power Units – UL 1310 Sixth Edition Dated August 26, 2011 containing Revisions through and including May 30, 2014 Power Supplies with Extra-low Voltage Class 2 Outputs – CSA C22.2 No.223-M91 Dated June 1991, Reaffirmed 2013 with General Instruction No. 1 Dated June 1991 and No. 2 Dated September 2009		
Applicant	GlobTek, Inc.	Manufacturer	<b>GlobTek ( Suzhou) Co., Ltd</b>
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2.0 Product Description																												
Product	Built-in Class 2 Power Supply																											
Brand name	GlobTek																											
Description	The products covered by this report are built-in class 2 power supplies which are supplied by 100-240V 50-60Hz mains. They are intended to be installed in end appliance by wiring in factory. The products are fully impregnated by epoxy resin. All internal components are enclosed except these wiring components.																											
Models	GT*93021-***-*2 (where * in the model name are letters or numbers or blank)																											
Model Similarity	<p>The 1st “**” can be “M” or “-” or “H” for market identification and not related to safety.</p> <p>The 2nd “**” denote the rated output wattage designation, which can be “01” to “20”, with interval of 1.</p> <p>The 3rd “**” denote the standard rated output voltage designation, which can be “07”, “09”, “15”, “24”, “36”.</p> <p>The 4th “**” is optional deviation, subtracted from standard output voltage, which can be “-0,1” to “-11,9” with interval of 0,1, or blank to indicate no voltage different.</p> <p>The 3rd and 4th “**” together denote the output voltage, with a range of 5- 36 volts.</p> <p>The last “*” can be P or T or D, the model name with P denotes connected by wires, with T denotes connected by terminal block, with D denotes connected by metal pin.</p> <p>Transformers used in all models are with same construction. The turns of secondary winding may be added or reduced according different output voltage.</p> <p>All models have same PCB, but some non-critical components may be adjusted according different output voltage. The parameters of these components depend on output voltage.</p> <p>The difference for GT*93021-*** -T2, GT*93021-*** -P2 and GT*93021-*** -D2 three series: GT*93021-*** -T2 have two terminal blocks for input and output wiring. Relevant symbols for input and output such as “L”, “N”, “V+” and “V-” are marked on label near corresponding terminals;</p> <p>GT*93021-*** -P2 have four lead wires for input and output wiring; Relevant symbols for input and output such as “LINE”, “NEUTRAL”, “V+” and “COM” are marked on label near corresponding wires;</p> <p>GT*93021-*** -D2 have solid metal pins for input and output wiring, relevant indication marks near pins. Relevant symbols for input and output such as “L”, “N”, “V+” and “V-” are marked on label near corresponding terminals.</p> <p>The environment for these products can reach to maximum ambient temperature 50°C.</p>																											
Ratings	<p>Input: 100-240V~, 50-60Hz, 0.6A max.;</p> <p>Output: 5-36VDC, 20W max.</p> <p>Detailed ratings see below,</p> <table><tr><td>Model</td><td>Output Voltage</td><td>Max. output current</td><td>Max. output power</td></tr><tr><td>GT*93021-*07-*2</td><td>5-7V</td><td>3A</td><td>18W</td></tr><tr><td>GT*93021-*09-*2</td><td>7.1-9V</td><td>2.8A</td><td>20W</td></tr><tr><td>GT*93021-*15-*2</td><td>9.1-15V</td><td>2.2A</td><td>20W</td></tr><tr><td>GT*93021-*24-*2</td><td>15.1-24V</td><td>1.32A</td><td>20W</td></tr><tr><td>GT*93021-*36-*2</td><td>24.1-36V</td><td>0.83A</td><td>20W</td></tr></table>				Model	Output Voltage	Max. output current	Max. output power	GT*93021-*07-*2	5-7V	3A	18W	GT*93021-*09-*2	7.1-9V	2.8A	20W	GT*93021-*15-*2	9.1-15V	2.2A	20W	GT*93021-*24-*2	15.1-24V	1.32A	20W	GT*93021-*36-*2	24.1-36V	0.83A	20W
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GT*93021-*07-*2	5-7V	3A	18W																									
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GT*93021-*36-*2	24.1-36V	0.83A	20W																									
Other Ratings	ta: 50°C																											
Conditions of Acceptability	<p>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.</p> <p>1. Suitability of the enclosure in end appliance should be evaluated. The products shall be enclosed in a enclosure without any openings.</p> <p>2. Temperature Testing and Abnormal testing under an over-temperature condition shall be considered again when installed in the end appliance.</p> <p>3. The suitable wiring and terminals, correct installation condition shall be adopted according manufacturer's specification and shall be evaluated in end appliance.</p> <p>4. Leakage Current, Protection against Access to Live Parts and Mechanical Strength shall be evaluated in end appliance again.</p> <p>5. The products shall be installed on the load side of line filters or similar voltage-peak reduction networks and components in the end appliance.</p>																											

4.0 Critical Components						
Photo #	Item no. <sup>1</sup>	Name	Manufacturer/ trademark <sup>2</sup>	Type / model <sup>2</sup>	Technical data and securement means	Mark(s) of conformity <sup>3</sup>
1	1	Enclosure	SABIC INNOVATIVE PLASTICS B V	SE1X	PPE+PS, V-1, HWI 0, HAI 0, 105°C, min thickness: 2.0mm; The top side is open for filling epoxy resin; UL E45329	cURus
			SABIC INNOVATIVE PLASTICS B V	C2950	PC/ABS, V-0, HWI 3, HAI 0, 75°C, min thickness: 2.0mm; The top side is open for filling epoxy resin; UL E45329	cURus
			SABIC INNOVATIVE PLASTICS B V	CX7211, EXCY0098	PC/ABS, V-0, 5VB, HWI 2, HAI 0, 90°C, min thickness: 2.0mm; The top side is open for filling epoxy resin; UL E45329	cURus
			TEIJIN CHEMICALS LTD	LN-1250P, LN-1250G	PC, V-0, HWI 3, HAI 0, 115°C, min thickness: 2.0mm; The top side is open for filling epoxy resin; UL E50075	cURus
			CHI MEI CORPORATION	PA-765A	ABS, V-0, 5VB, HWI 3, HAI 0, 80°C, min thickness: 2.0mm; The top side is open for filling epoxy resin; UL E56070	cURus
			CHI MEI CORPORATION	PC-540	ABS, V-0, 5VB, HWI 3, HAI 3, 70°C, min thickness: 2.0mm; The top side is open for filling epoxy resin; UL E56070	cURus
3	2	Input cord (for GT*93021-***-P2)	DONGGUAN YUE YANG WIRE & CABLE CO LTD	1007 / 1015 / 1185	Min. 18AWG, 300V, 80°C; UL E230810	cURus
			YONG HAO ELECTRICAL INDUSTRY CO LTD	1007 / 1015 / 1185	Min. 18AWG, 300V, 80°C; UL E240426	cURus
			HIP TAI ELECTRIC WIRE CO	1007 / 1015 / 1185	Min. 18AWG, 300V, 80°C; UL E225804	cURus
			KUNSHAN NEW ZHICHENG ELECTRONICS TECHNOLOGIES CO LTD	1007 / 1015 / 1185	Min. 18AWG, 300V, 80°C; UL E237831	cURus
			SHENG YU ENTERPRISE CO LTD	1007 / 1015	Min. 18AWG, 300V, 80°C; UL E219726	cURus
			SUZHOU HONGMENG ELECTRONIC CO LTD	1007 / 1015 / 1185	Min. 18AWG, 300V, 80°C; UL E315421	cURus
			ZHUANG SHAN CHUAN ELECTRICAL PRODUCTS (KUNSHAN) CO LTD	1007 / 1015 / 1185	Min. 18AWG, 300V, 80°C; UL E333601	cURus

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			SUZHOU YEMAO ELECTRONIC CO LTD	1007 / 1015 / 1185	Min. 18AWG, 300V, 80°C; UL E353532	cURus
			Various	1007 / 1015 / 1185	Min. 18AWG, min. 300V, min. 80°C	ETL, UL or other US and Canada mark approved
3	3	Output cord (for GT*93021-***-P2)	DONGGUAN YUE YANG WIRE & CABLE CO LTD	1015	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), 600V, 105°C; UL E230810	cURus
			YONG HAO ELECTRICAL INDUSTRY CO LTD	1015	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), 600V, 105°C; UL E240426	cURus
			HIP TAI ELECTRIC WIRE CO	1015	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), 600V, 105°C; UL E225804	cURus
			KUNSHAN NEW ZHICHENG ELECTRONICS TECHNOLOGIES CO LTD	1015 / 1569	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), 600V, 105°C; UL E237831	cURus
			SHENG YU ENTERPRISE CO LTD	1015	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), 600V, 105°C; UL E219726	cURus
			SUZHOU HONGMENG ELECTRONIC CO LTD	1015	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), 600V, 105°C; UL E315421	cURus
			ZHUANG SHAN CHUAN ELECTRICAL PRODUCTS (KUNSHAN) CO LTD	1015 / 1569	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), 600V, 105°C; UL E333601	cURus
			SUZHOU YEMAO ELECTRONIC CO LTD	1015	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), 600V, 105°C; UL E353532	cURus
			YONG HAO ELECTRICAL INDUSTRY CO LTD	SPT-1 / SPT-2	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), 300V, 105°C; UL E310072	cURus
			JHI WEI ELECTRIC WIRE & CABLE CO LTD	SPT-1 / SPT-2	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), 300V, 105°C; UL E157718	cURus

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Photo #	Item no. <sup>1</sup>	Name	Manufacturer/ trademark <sup>2</sup>	Type / model <sup>2</sup>	Technical data and securement means	Mark(s) of conformity <sup>3</sup>
			ZHUANG SHAN CHUAN ELECTRICAL PRODUCTS (KUNSHAN) CO LTD	SPT-1 / SPT-2	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), 300V, 105°C; UL E310072	cURus
			SUZHOU DIOUDE ELECTRONICS CO LTD	SPT-1 / SPT-2	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), 300V, 105°C; UL E336192	cURus
			Various	1015 / 1569 / SPT-1 / SPT-2	Min. 24AWG (0-1.49A) / Min. 20AWG (1.5-2.99A) / Min. 18AWG (3A), min. 300V, min. 105°C	ETL, UL or other US and Canada mark approved
1	4	Terminal block (for GT*93021-***-T2)	DINKLE ENTERPRISE CO LTD	EK381A-02P	16-30AWG, 2 poles, 300V, 12A, UG: B, CA: 2, (105), 4; UL E102914	cURus
			CIXI KAIFENG ELECTRONIC CO LTD	KF332	16-28AWG, Cu, 2 poles, 300V, 10A, UG: B, CA: 2 (105); UL E305844	cURus
1	5	Adhesive-Type Label (not shown)	DONGGUAN XIANGQUAN PRINTING CO LTD	XQ03	Temperature range: -40~80°C; UL MH27594	cURus
			FAN JA PAPER PRINTING CO LTD	FJ-03-3	Temperature range: -40~80°C; UL MH19546	cURus
			FAN JA PAPER PRINTING CO LTD	FJ07	Temperature range: -40~80°C; UL MH19546	cURus
			DONGGUAN XIANGQUAN PRINTING CO LTD	XQ004-B	Temperature range: 80°C; UL MH47303	cURus
			E-LIN ADHESIVE LABEL CO LTD	EL-15	Temperature range: -40~80°C; UL MH45549	cURus
			SHENZHEN CORWIN PRINTING CO LTD	CW-01	Temperature range: -40~80°C; UL MH47077	cURus

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			YUEN CHANG SPECIAL PRINTING (SHENZHEN) CO LTD	JL-08	Temperature range: 0~80°C; UL MH29752	cURus
			GlobTek	Various	Permanently secured Engraving or Silkscreen	NR
			Various	Various	Temperature range: min. 80°C; certified according UL 969.	ETL, UL or other US and Canada mark approved
7	6	PWB	TECHNI TECHNOLOGY LTD	T2A / T2B / T4	V-0, 130°C; Thickness: 1.6mm; UL E154355	cURus
			DONGGUAN HE TONG ELECTRONICS CO LTD	CEM1 / 2V0	V-0, 130°C; Thickness: 1.6mm; UL E243157	cURus
			CHEERFUL ELECTRONIC (HK) LTD	02 / 03 / 03A	V-0, 130°C; Thickness: 1.6mm; UL E199724	cURus
			DONGGUAN DAYSUN ELECTRONIC CO LTD	DS2	V-0, 130°C; Thickness: 1.6mm; UL E251754	cURus
			SUZHOU CITY YILIHUA ELECTRONICS CO LTD	YLH-1 / YLH-2	V-0, 130°C; Thickness: 1.6mm; UL E251781	cURus
			SHANGHAI AREX PRECISION ELECTRONIC CO LTD	02V0 / 04V0	V-0, 130°C; Thickness: 1.6mm; UL E186016	cURus
			BRITE PLUS ELECTRONICS (SUZHOU) CO LTD	DKV0-3A	V-0, 130°C; Thickness: 1.6mm; UL E177671	cURus
			SHENZHEN TONGCHUANGXI N ELECTRONICS CO LTD	TCX	V-0, 130°C; Thickness: 1.6mm; UL E250336	cURus
			Various	Various	V-0, 130°C; Thickness: 1.6mm; certified according UL 796	ETL, UL or other US and Canada mark approved

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2	7	Epoxy resin	SUZHOU POCHELY ELECTRONIC MATERIAL CO LTD	HB-5225A/B	V-0, 90°C; UL E304947	cURus
8	8	Current fuse (F1)	CONQUER ELECTRONICS CO LTD	MST	250Vac, 1.6A, Length: 8.35 x 4.3 x 7.7mm; UL E82636	cURus
			EVER ISLAND ELECTRIC CO LTD & WALTER ELECTRIC	2010	250Vac, 1.6A; The whole fuse including pigtail leads shall be wrapped with UL approved heat shrinkable tubing; UL E220181	cURus
			BEL FUSE INC	RST	250Vac, 1.6A, Length: 6.8 x 3.0 x 3.6mm; UL E20624	cURus
			COOPER BUSSMANN L L C	SS-5	250Vac, 1.6A, Length: 8.6 x 4.3 x 8.4mm; UL E19180	cURus
			SHENZHEN LANSON ELECTRONICS CO LTD	SMT	250Vac, 1.6A, Length: 8.4 x 4 x 7.7mm; UL E221465	cURus
			WALTER ELECTRONIC CO LTD	ICP	250Vac, 1.6A, Length: 3.6 x 10mm; The whole fuse including pigtail leads shall be wrapped with UL approved heat shrinkable tubing; UL E56092	cURus
			DAS & SONS INTERNATIONAL LTD	385T1200	250Vac, 1.6A, Length: 3.6 x 10 mm; The whole fuse including pigtail leads shall be wrapped with UL approved heat shrinkable tubing; UL E205718	cURus
			CHENG TUNG INDUSTRIAL CO LTD	CTX	X1/X2, 310Vac, -40~110°C, max 0.22µF; UL E193049	cURus
			ULTRA TECH XIPHI ENTERPRISE CO LTD	HQX	X2, 275Vac, -40~100°C, max 0.22µF; UL E183780	cURus
			TENTA ELECTRIC INDUSTRIAL CO LTD	MEX	X2, 250/275Vac, -40~100°C, max 0.22µF; UL E222911	cURus
			OKAYA ELECTRIC INDUSTRIES CO LTD	RE	250Vac, 100°C, max 0.22µF; UL E47474	cURus
			VISHAY CAPACITORS BELGIUM N V	F1772	X2, 310Vac, -40~110°C, max 0.22µF; UL E354331	cURus

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8	9	X capacitor (CX1) (optional)	DAIN ELECTRONICS CO LTD	MEX, MPX, NPX	X2, 250/275/310Vac, -40~100°C, max 0.22μF; UL E147776	cURus
			SINHUA ELECTRONICS (HUZHOU) CO LTD	MPX	X2, 310Vac, -40~110°C, max 0.22μF; UL E237560	cURus
			SHUN DE DAHUA ELECTRIC CO LTD	HD	X2, 250Vac, -40~105°C, max 0.22μF; UL E227157	cURus
			FOSHAN SHUNDE CHUANG GE ELECTRONIC INDUSTRIAL CO LTD	MKP-X2	X2, 275Vac, -40~105°C, max 0.22μF; UL E308832	cURus
			HONGZHI ENTERPRISES LTD	X2	250Vac, 100°C, max 0.22μF; UL E192572	cURus
			WINDAY ELECTRONIC INDUSTRIAL CO LTD	MPX	X2, 250/275/280/300/310Vac, -40~110°C, max 0.22μF; UL E302125	cURus
			JIANGSU XINGHUA HUAYU ELECTRONICS CO LTD	MPX	X2, 250Vac, 100°C, max 0.22μF; UL E311166	cURus
			WELSON INDUSTRIAL CO LTD	Type WD#	250Vac, 125°C, max 0.22μF; UL E104572	cURus
8	10	Y capacitor (CY1, CY2) (optional)	TDK-EPC CORPORATION	CD##	Y1, 250VAC, 125°C, max 2200pF; UL E37861	cURus
			SUCCESS ELECTRONICS CO LTD	SE, SB	Y1, 500VAC, max 2200pF, -40~+125°C; UL E114280	cURus
			MURATA MFG CO LTD	KX	Y1, 250/300VAC, max 2200pF, -25~+125°C; UL E37921	cURus
			WALSIN TECHNOLOGY CORP	AH	Y1, 250/400VAC, max 2200pF, -25~+125°C; UL E146544	cURus
			JYA-NAY CO LTD	JN	Y1, 250/400VAC, max 2200pF, -25~+125°C; UL E201384	cURus
			HAOHUA ELECTRONIC CO	CT7	Y1, 250VAC, max 2200pF, -25~+125°C; UL E233106	cURus
			JERRO ELECTRONICS CORP	JX	250VAC, max 2200pF, UL E333001	cURus



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10	11	Optocoupler (U1)	EVERLIGHT ELECTRONICS CO LTD	EL817	Double protection optical isolators, providing 5000 Vac isolation; UL E214129	cURus
			COSMO ELECTRONICS CORP	K1010 / KP1010	Optical isolators, double protection type, rated 5000 Vac; UL E169586	cURus
			LITE-ON TECHNOLOGY CORP	LTV-817	Double protection optical isolators having an isolation voltage of 5300Vrms; UL E113898	cURus
			FAIRCHILD SEMICONDUCTOR CORP	H11A817B / FOD817B	Double Protection Optical isolators, providing 5000 V ac isolation; UL E90700	cURus
			SHARP CORP ELECTRONIC COMPONENTS AND DEVICES GROUP	PC817	Double protection optical isolated switches, providing 5000 Vac isolation; UL E64380	cURus
			BRIGHT LED ELECTRONICS CORP	BPC-817 / BPC-817 M / BPC-817 S	Optical isolators, double protection isolation; UL E236324	cURus
9	12	Varistor (MOV1) (optional)	JOYIN CO LTD	7N471K / 10N471K / 14N471K	300VAC, Type 4 surge protective devices, varistors; UL E325508	cURus
			CENTRA SCIENCE CORP	CNR-07D471K / CNR-10D471K / CNR-14D471K	300VAC, Surge protective devices; UL E316325	cURus
			THINKING ELECTRONIC INDUSTRIAL CO LTD	TVR07471 / TVR10471 / TVR14471	300VAC, Surge protective devices; UL E314979	cURus
			SUCCESS ELECTRONICS CO LTD	SVR07D471K / SVR10D471K / SVR14D471K	300VAC, Surge protective devices; UL E330256	cURus
			CERAMATE TECHNICAL CO LTD	GNR07D471K / GNR10D471K / GND14D471K	300VAC, Surge protective devices; UL E315429	cURus
			BRIGHTKING (SHENZHEN) CO LTD	07D471K / 10D471K / 14D471K	300VAC, Surge protective devices; UL E327997	cURus
			LIEN SHUN ELECTRONICS CO LTD	07D471K / 10D471K / 14D471K	300VAC, Surge protective devices; UL E315524	cURus
			HONGZHI ENTERPRISES LTD	HEL-7D471K / HEL-10D471K / HEL-14D471K	300VAC, Surge protective devices; UL E324904	cURus
			GUANGXI NEW FUTURE INFORMATION INDUSTRY CO LTD	07D471K / 10D471K / 14D471K	300VAC, Surge protective devices, Varistors, Type 4 Surge Protective Devices; UL E323753	cURus

4.0 Critical Components						
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7	13	Tape	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1 / 1350T-1	130°C; UL E17385	cURus
			BONDTEC PACIFIC CO LTD	370S	130°C; UL E175868	cURus
			JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ, CT	130°C; UL E165111	cURus
			JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A	130°C; UL E246950	cURus
			CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX	130°C; UL E246820	cURus
8	14	Transformer (T1)	SHAN DONG BOAM ELECTRIC CO LTD / GLOBTEK INC / WUXI ZHONGTONG ELECTRONICS CO LTD	TF005 / TF006 / TF007 / TF008 / TF009	Core dimension: 21.0×21.0×5.7mm; TF005 (for model with 5-7V output) / TF006 (for model with 7.1-9V output) / TF007 (for model with 9.1-15V output) / TF008 (for model with 15.1-24V output) / TF009 (for model with 24.1-36V output), Class 130 (B) electrical insulation systems, designated BOAM-01 (UL E252329) / Class 130 (B) electrical insulation systems, designated GTX-130-TM (UL E243347) / Class 130 (B) electrical insulation systems, designated ZT-130 (UL E315275) / Class 130 (B) electrical insulation systems, designated 130-1 (UL E308897).	See 5.0

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

### INSULATED COIL

Photo #	Item no.	Name	Manufacturer/Trademark	Type / model
8	14	Transformer (T1)	SHAN DONG BOAM ELECTRIC CO LTD / GLOBTEK INC / WUXI ZHONGTONG ELECTRONICS CO LTD /	TF005 / TF006 / TF007 / TF008 / TF009
Electrical Rating:			N/A	Insulation class 130

Component Standard used: UL 1310 Sixth Edition Dated August 26, 2011 containing Revisions through and including May 30, 2014  
CSA C22.2 No.223-M91 Dated June 1991, Reaffirmed 2013 with General Instruction No. 1 Dated June 1991 and No. 2 Dated September 2009

### MATERIALS LIST (refer to illustration 3 for assembly drawing)

Component	Manufacturer	Type/model	Dimensions/thickness/assembly information
Bobbin	CHANG CHUN PLASTICS CO LTD	T375J / T375HF	PMC; V-0, RTI 150; Minimum thickness: 0.6mm; UL E59481
	SUMITOMO BAKELITE CO LTD	PM-9820	PF; V-0, RTI 150; Minimum thickness: 0.6mm; UL E41429
	HITACHI CHEMICAL CO LTD	CP-J-8800	PF; V-0, RTI 150; Minimum thickness: 0.6mm; UL E42956
Insulating tape	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1 / 1350T-1	130°C; UL E17385
	BONDTEC PACIFIC CO LTD	370S	130°C; UL E175868
	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ, CT	130°C; UL E165111
	JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A	130°C; UL E246950
	CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX	130°C; UL E246820
	PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEWN/U	MW28-C, 130°C; UL E201757
	PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEWS/U	MW75-C, 130°C; UL E201757

## 5.0 Critical Unlisted CEC Components

Magnet wire	CHENG DU SOUTH-WEST ELECTRIC CO.,LTD	2UEW	MW 75#, 130°C; UL E178366
	JUNG SHING WIRE CO LTD	UEW-4	MW75C, 130°C; UL E174837
	JUNG SHING WIRE CO LTD	UEY-2	MW28-C, 130°C; UL E174837
	JIANGSU HONGLIU MAGNET WIRE TECHNOLOGY CO LTD	2UEW/130	MW75-C, 130°C; UL E335065
	CHANGZHOU DAYANG WIRE & CABLE CO LTD	2UEW/130	MW75-C, 130°C; UL E158909
	WUXI JUFENG COMPOUND LINE CO LTD	2UEWB	MW75#, 130°C; UL E206882
	JIANGSU DARTONG M & E CO LTD	UEW	MW 75-C, 130°C; UL E237377
	SHANDONG SAINT ELECTRIC CO LTD	UEW/130	MW75#, 130°C; UL E194410
	ZHEJIANG LANGLI ELECTRIC EQUIPMENTS CO LTD	UEW	MW 79#, 130°C; UL E222214
	NINGBO JINTIAN NEW MATERIAL CO LTD	2UEW/130	MW 75#, 130°C; UL E227047
	ZHEJIANG HONGLEI COPPER CO LTD	2UEW	MW 75#, 130°C; UL E307975
	Various	Various	MW 28, 75, 79, 130°C; ETL, UL or other US and Canada mark approved
Triple insulated winding wire	GREAT LEOFLON INDUSTRIAL CO LTD	TRW (B)	Reinforced Insulation, rated 130°C (Class B), 600 Volts peak for Information Technology; UL E211989
	COSMOLINK CO LTD	TIW-M (B)	Reinforced insulation rated 130°C (Class B), 1.41 kV peak for Information Technology Equipment; UL E213764
	FURUKAWA ELECTRIC CO LTD	TEX-E	Reinforced insulation rated 130°C (Class B), 1.41 kV peak for Information Technology Equipment; UL E206440
	TOTOKU ELECTRIC CO LTD	TIW-2X	Reinforced insulation rated 130°C (Class B), 1.41 kV peak for Information Technology Equipment; UL E166483

5.0 Critical Unlisted CEC Components						
PTFE tubing	GREAT HOLDING INDUSTRIAL CO LTD	TFS	600V, 200°C; UL E156256			
	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	WF	600V, 200°C; UL E203950			
	CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-TT-S	600V, 200°C; UL E180908			
Varnish	NOROO PAINT & COATINGS CO LTD	DVB-2085(1), DVB-2085(C)	MW28, TP 130, HC 130; UL E93947			
	WU JIANG TAIHU INSULATING MATERIAL CO LTD	T-4260(a) ET-90(a)	MW28, TP 130; UL E228349			
WINDING(S) SIZE AND TURNS (Model TF005)						
Winding Designation	Wire Size (mm)	Wire Type	Turns	Volts	Amps	DC resistance (Ω) +/- 5%:
N1 (pin 2 to 3)	Φ 0.3	UEW	49	-	-	-
N2 (pin B-A)	Φ 0.35*2	TIW	8	-	-	-
N3 (pin 4 to 5)	Φ 0.1	UEW	20	-	-	-
N4 (pin 1 to 3)	Φ 0.3	UEW	43	-	-	-
WINDING(S) SIZE AND TURNS (Model TF006)						
Winding Designation	Wire Size (mm)	Wire Type	Turns	Volts	Amps	DC resistance (Ω) +/- 5%:
N1 (pin 2 to 3)	Φ 0.3	UEW	49	-	-	-
N2 (pin B-A)	Φ 0.35*2	TIW	8	-	-	-
N3 (pin 4 to 5)	Φ 0.1	UEW	12	-	-	-
N4 (pin 1 to 3)	Φ 0.3	UEW	43	-	-	-
WINDING(S) SIZE AND TURNS (Model TF007)						
Winding Designation	Wire Size (mm)	Wire Type	Turns	Volts	Amps	DC resistance (Ω) +/- 5%:
N1 (pin 2)	Φ 0.2	UEW	36	-	-	-
N2 (pin 2-1)	Φ 0.2	UEW	87	-	-	-
E1 (pin 5)	0.05*7	Copper	0.9	-	-	-
N3 (pin 7 to A)	Φ 0.5	TIW	10	-	-	-
N4 (pin 1 to 3)	Φ 0.2*2	UEW	15	-	-	-
WINDING(S) SIZE AND TURNS (Model TF008)						
Winding Designation	Wire Size (mm)	Wire Type	Turns	Volts	Amps	DC resistance (Ω) +/- 5%:
N1 (pin 2)	Φ 0.25	UEW	30	-	-	-
N2 (pin 2-1)	Φ 0.25	UEW	88	-	-	-
E1 (pin 5)	0.05*7	Copper	0.9	-	-	-
N3 (pin 7 to A)	Φ 0.5	TIW	16	-	-	-
N4 (pin 1 to 3)	Φ 0.18*3	UEW	13	-	-	-
WINDING(S) SIZE AND TURNS (Model TF009)						
Winding Designation	Wire Size (mm)	Wire Type	Turns	Volts	Amps	DC resistance (Ω) +/- 5%:
N1 (pin 2)	Φ 0.25*2	UEW	15	-	-	-
N2 (pin 2-1)	Φ 0.25	UEW	88	-	-	-
N3 (pin 7 to A)	Φ 0.45	TIW	24	-	-	-

5.0 Critical Unlisted CEC Components						
N4 (pin 5 to 4)	Φ 0.2*3	UEW	10	-	-	-
VERIFICATION PROCESS						
Frequency: <b>Annual</b>	Test Site: <b>CEC</b>			Number of samples to test: <b>1</b>		
Test Name		Test Parameters				
Winding wire size and turns		See wire size and turns per winding above.				
Dielectric Strength	Apply voltage Between			Test Voltage		Test Time
	Primary to secondary			1480 V		60 s
	Secondary to core			1480 V		60 s

## 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.

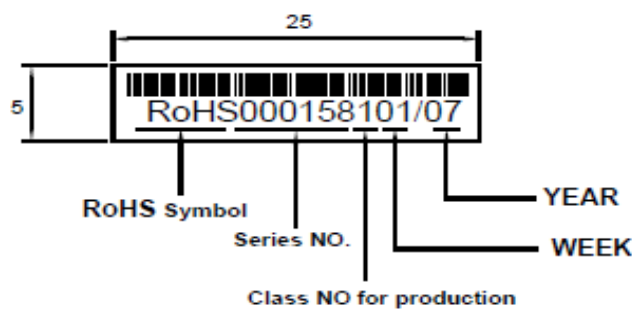
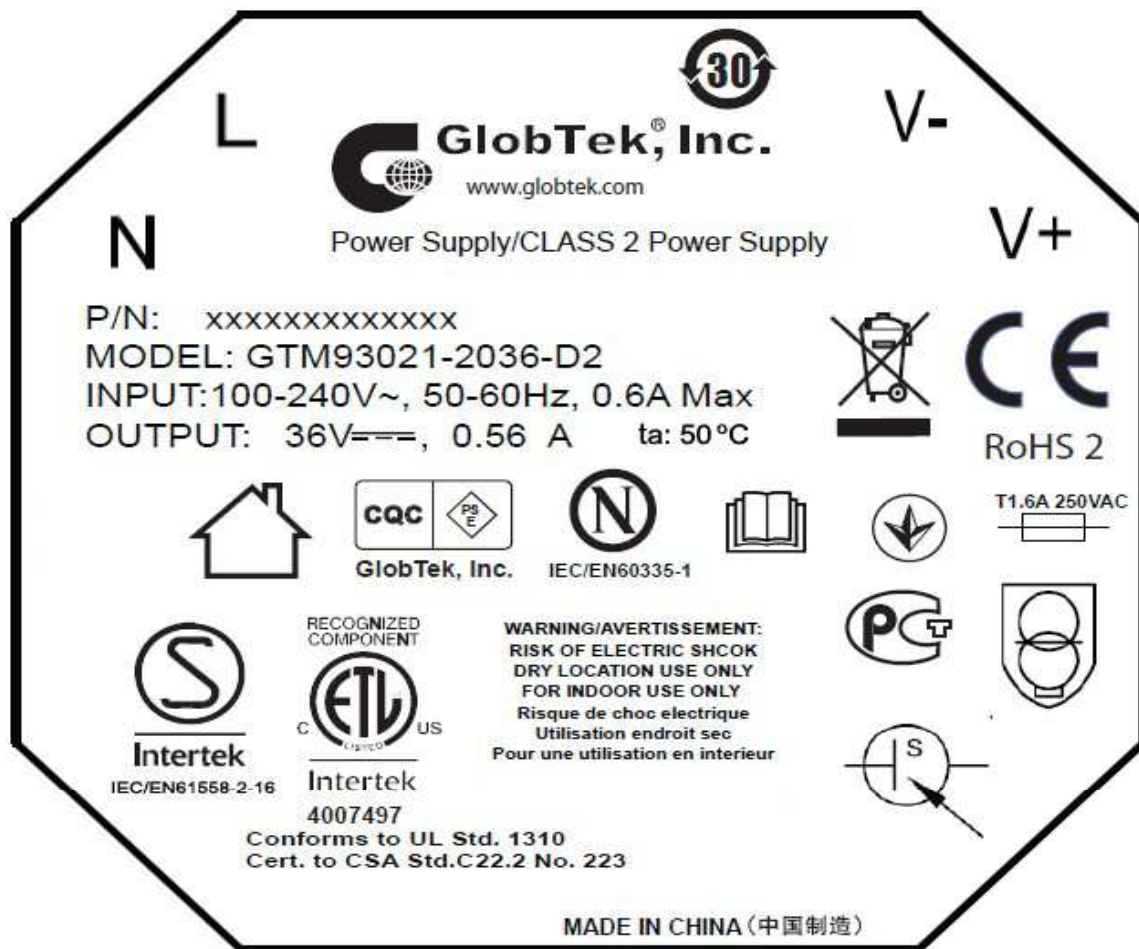
Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.

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 - In primary circuits, 2.5 mm minimum spacing are maintained through air and over surfaces of insulating material between current-carrying parts of opposite polarity (evaluated by UL840), 4.8 mm minimum spacing are maintained through air and over surfaces of insulating material between such current-carrying parts and low voltage isolated circuits.
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 - All uninsulated live parts in secondary circuitry are housed within a non-metallic enclosure constructed with no openings other than those specifically described in Sections 4 and 5.
5. Grounding - This products are not provided with a means of grounding.
6. Polarized Connection - This products are built-in products, line and neutral are marked near relevant terminals.
7. Internal Wiring - Internal wiring is routed away from sharp or moving parts. Internal wiring leads terminating in soldered connections are made mechanically secure prior to soldering. Recognized Component separable (quick disconnect) connectors of the positive detent type, closed loop connectors, or other types specifically described in the text of this report are also acceptable as internal wiring terminals. At points where internal wiring passes through metal walls or partitions, the wiring insulation is protected against abrasion or damage by plastic bushings or grommets. All wiring is minimum 24 AWG, with a minimum rating of 300V, 80°C.
8. Schematics - Refer to Illustration No. 1 for schematics requiring verification during Field Representative Inspection Audits.
9. Transformer - Refer to Illustration No. 3 for transformer construction requiring verification during Field Representative Inspection Audits.
10. PWB Layout - Refer to Illustration No.2 for PWB layout requiring verification during Field Representative Inspection Audits.
11. Markings - The product is marked on a labeling system as described in Section 4.0. Refer to Illustration No.5 for markings.
12. Cautionary Markings - The following are required: refer to illustration No.5 for detail.
13. Installation, Operating and Safety Instructions - Specification for installation and use of this product are provided by the manufacturer. Refer to Illustration No. 6 for details.

## 7.0 Illustrations

Illustration 4 - Marking



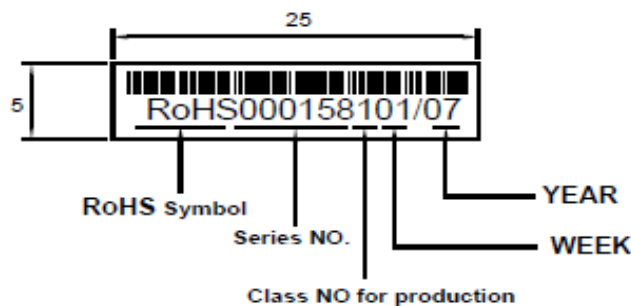
**Note:**

1. The height of the word "WARNING" and "Avertissement" in cautionary statements are not less than 3.2mm. The height of the remaining letters in cautionary statement are not less than 1.6mm.
2. The manufacturing date of the product is presented as WWYY, YY = manufacturing year, WW = the week of the year, e.g. 0213 = The second week of 2013.
3. Other models of GT\*93021-\*\*\*-D2 and all models of GT\*93021-\*\*\*-T2 are with similar label as GTM93021-2036-D2 except different model name and output ratings.



## 7.0 Illustrations

Illustration 4 - Marking (continued)



**Note:**

1. The height of the word "WARNING" and "Avertissement" in cautionary statements are not less than 3.2mm. The height of the remaining letters in cautionary statement are not less than 1.6mm.
2. The manufacturing date of the product is presented as WWYY, YY = manufacturing year, WW = the week of the year, e.g. 0213 = The second week of 2013.
3. Other models of GT\*93021-\*\*\*-P2 are with similar label as GTM93021-2036-P2 except different model name and output ratings.

## 7.0 Illustrations

### Illustration 5 - Instruction

GT\*93021-\*\*\*-\*2

The 1st “\*” can be “M” or “-” or “H” for market identification and not related to safety.

The 2nd “\*” denote the rated output wattage designation, which can be “01” to “20”, with interval of 1.

The 3rd “\*” denote the standard rated output voltage designation, which can be “07”, “09”, “15”, “24”, “36”.

The 4th “\*” is optional deviation, subtracted from standard output voltage, which can be “-0.1” to “-11.9” with interval of 0.1, or blank to indicate no voltage different.

The 3rd and 4th “\*\*” together denote the output voltage, with a range of 5- 36 volts.

The last “\*” can be P or T or D, the model name with P denotes connected by wires, with T denotes connected by terminal block, with D denotes connected by metal pin.

#### Ratings

Input: 100-240V~, 50-60Hz, 0,6A max.;

Output: 5-36VDC, 20W max.

Model	Output Voltage	Max. output current	Max. output power
GT*93021-*07-*2	5-7V	3A	18W
GT*93021-*09-*2	7,1-9V	2,8A	20W
GT*93021-*15-*2	9,1-15V	2,2A	20W
GT*93021-*24-*2	15,1-24V	1,32A	20W
GT*93021-*36-*2	24,1-36V	0,83A	20W

#### Warning

The products are suitable for indoor use only.

The products are intended to be installed in end appliances in factory. Before installation, the input and output voltage must be checked to secure correct use.

Check the correct wiring position according indication in label before wiring. Do not connect input wires to output side or output wires to input side.

Do not use the power supplies in the circumstances that the output polarity does not match the load polarity.

Means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

The adaptor shall be installed and used according to national wiring rules.

The products shall be installed in the circumstances that with minimum 50mm distance to inner wall of appliance.

They shall be fixed reliably.

For GT\*93021-\*\*\*-D2 with solid metal pins shall insert solid pins into the holes of PCB or such similar constructions and soldered reliably.

For GT\*93021-\*\*\*-T2 with terminal blocks shall be fixed or inserted into installation holes or base of appliances.

The wiring ranger is 24-16AWG for output connection and 18-16AWG for input connection.

For GT\*93021-\*\*\*-P2 with lead wires shall be fixed or inserted into installation holes or base of appliances. The lead wires shall be soldered in correct position in appliances.

The products do not require ventilating holes but do not used in the circumstances with ambient temperature more than 50°C.

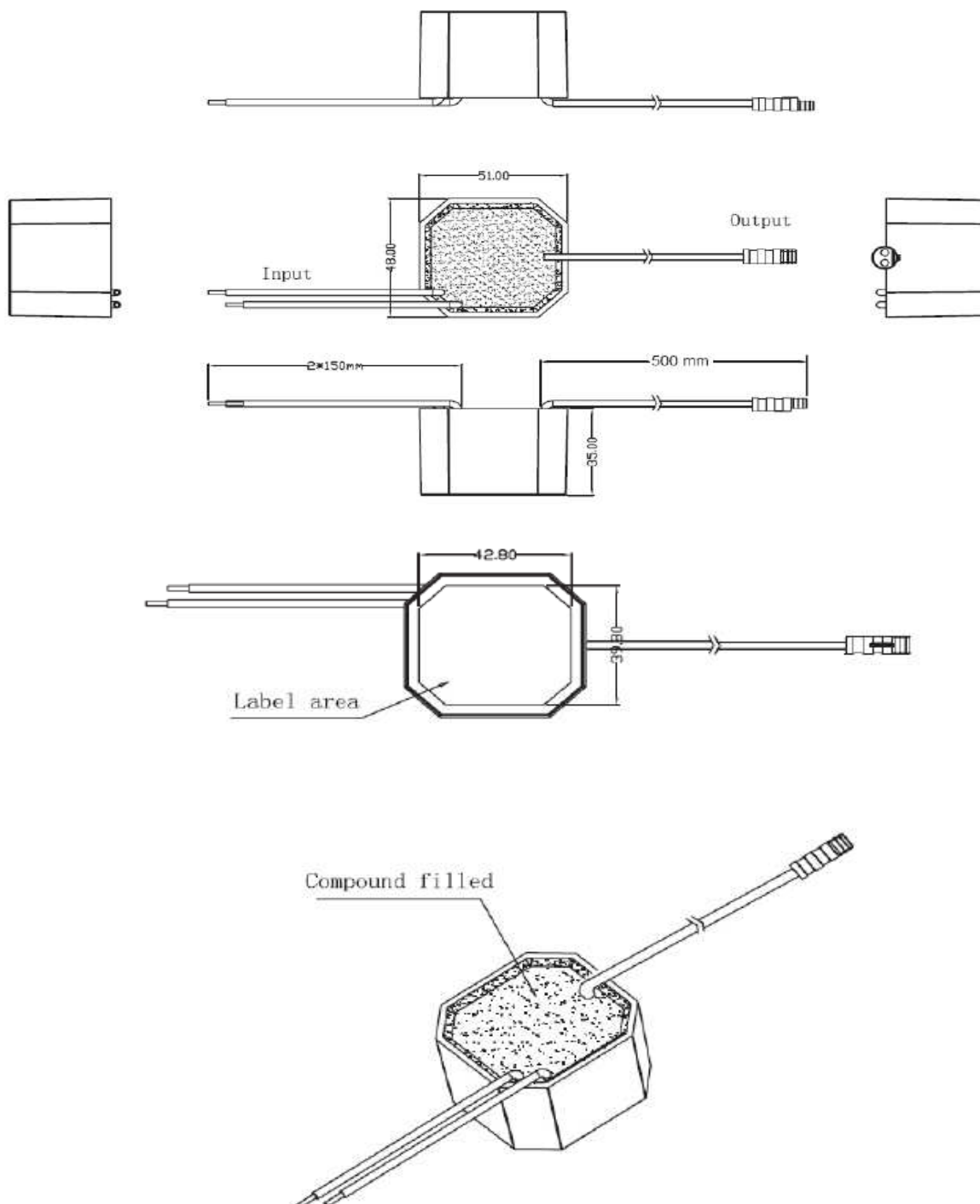
The products are allowed to disconnect of the appliance after installation, by accessible plug or a switch in the fixed wiring.

## 7.0 Illustrations

### Illustration 5 - Instruction (continued)

#### 3. ENCLOSURE:

MATERIAL: PC+ABS  
COLOR: BLACK  
DIMENSIONS: 51.00 x 48.00 x 35.00 mm, DESIGNED TO FIT IN A STANDARD EUROPEAN WALL RECEPTACLE BOX (Hohlwanddose) PER VDE0606

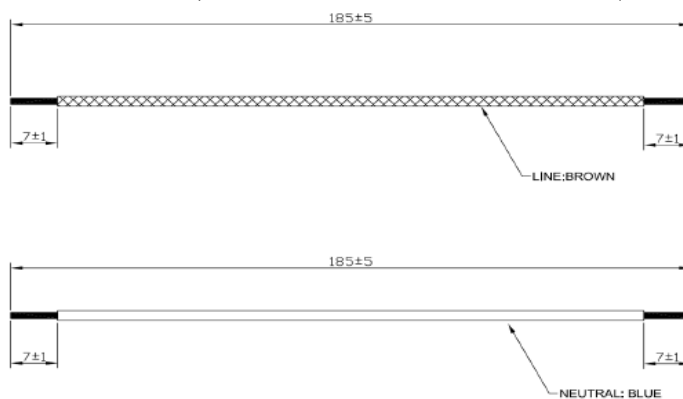


## 7.0 Illustrations

### Illustration 5 - Instruction (continued)

#### 4. INPUT CORD:

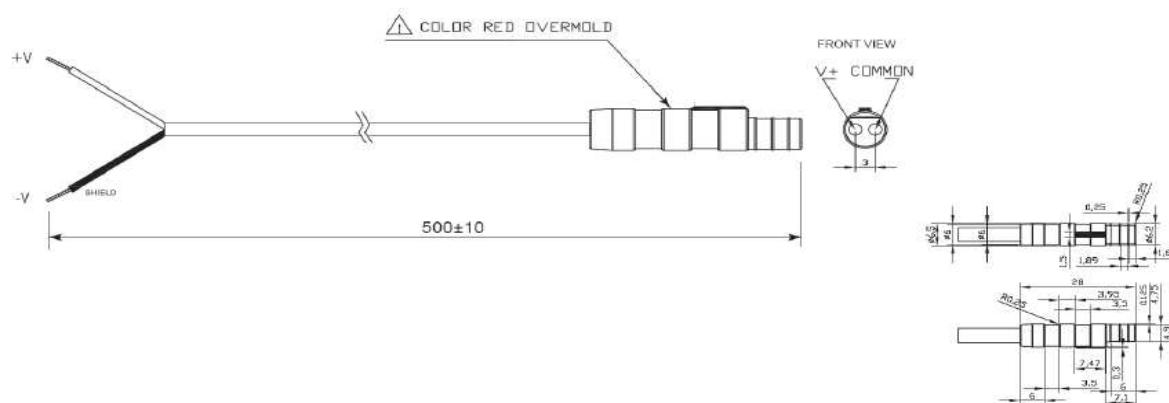
CABLE TYPE		INDIVIDUAL FLYING WIRES
CABLE COLOR		BROWN / BLUE
CABLE LENGTH		185±5 mm
WIRE GAUGE (AWG)		18 AWG
STRIP LENGTH		N/A
TINNED LENGTH		7±1 mm
ADDITIONAL REQUIREMENTS		SEE DRAWING BELOW



#### 5. OUTPUT CORD AND CONNECTOR:

CABLE TYPE		1 CONDUCTOR+SHIELD,UL1185
CABLE COLOR		BLACK
CABLE LENGTH		500±10 mm
WIRE GAUGE (AWG)		20 AWG
STRIP LENGTH		N/A
TINNED LENGTH		N/A
ADDITIONAL REQUIREMENTS		SEE DRAWING BELOW

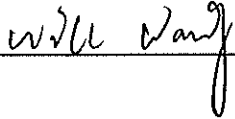
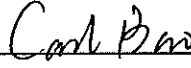
OUTPUT CONNECTOR: 2 PIN FEMALE CONNECTOR, TERMINAL CONTACT: AMP P/N: 166291-1 FOR 20-24AWG, RED OVERMOLD



8.0 Test Summary					
Evaluation Period	26-May-2013 to 28-July-2013			Project No.	130401493SHA
Sample Rec. Date	24-May-2013	Condition	Prototype	Sample ID.	0130524-39-001~020
Test Location	Intertek Testing Services Shanghai Limited				
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			UL 1310 Sixth Edition Dated August 26, 2011 containing Revisions through and including April 26, 2013 Clause	CSA C22.2 No.223-M91 Dated June 1991, Reaffirmed 2008 with General Instruction No. 1 Dated June 1991 and Update No. 2 Dated September 2009 Clause	UL 746C Sixth Edition Dated September 10, 2004 including Revisions through February 6, 2013 Clause
Leakage Current Test			26	6.5	-
Leakage Current Test and Dielectric Voltage Withstand Test After Humidity Exposure			27	-	-
Maximum Output Voltage Test			28	6.2.1	-
Maximum Input Test			29	6.2.2	-
Output Current and Power Test			30	6.2.4	-
Full-Load Output Current Test			32	6.2.3	-
Normal Temperature Test			33	6.3	-
Dielectric Voltage-Withstand Test			34	6.4	-
Abnormal Tests			39	6.7	-
Tests on Insulating Materials			40	-	-
Secondary Circuit Protection			-	6.6	-
Securement of components			-	6.12	-
Insulating Material			-	6.13	-
Mold-Stress Relief Distortion			-	-	29

Evaluation Period	11-Jul-2014			Project No.	140700799SHA
Sample Rec. Date	-	Condition	Prototype	Sample ID.	-
Test Location	Intertek Testing Services Shanghai Limited				
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.					
All tests have been evaluated in 130401493SHA-001. No test required in below updated standards:					

8.0 Test Summary			
Test Description	UL 1310 Sixth Edition Dated August 26, 2011 containing Revisions through and including May 30, 2014	CSA C22.2 No.223-M91 Dated June 1991, Reaffirmed 2013 with General Instruction No. 1 Dated June 1991 and No. 2 Dated September 2009	UL 746C Sixth Edition Dated September 10, 2004 including Revisions through August 29, 2013

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:	Will Wang	Reviewed by:	Carl Bao
Title:	Supervisor	Title:	Technical Supervisor
Signature:		Signature:	

## 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 USA
Country	USA
Product	Built-in Class 2 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 issue 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.

**Note to Intertek Follow Up Inspector: The Component Evaluation Center, CEC, will notify you in writing when these components must be selected and sent to the CEC for re-evaluation**

Ship the samples to:  
Intertek Testing Services Shanghai Limited  
ETL Component Evaluation Center  
Building No. 86, 1198 Qinzhou Road (North)  
Shanghai 200233, China  
Attn: Ms. Dansy Xu

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 input and output circuits. 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:

<u>Product</u>	<u>Test Voltage</u>	<u>Test Time</u>
All products covered by this Report.	1000V	60 s
	or	
	1200V	1 s

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

ED 16.3.15 (1-Jan-13) Mandatory