Test Report issued under the responsibility of:

TEST REPORT
IEC 60601-1
Medical Electrical Equipment
Part 1: General requirements for basic safety and essential performance

Report Number. ..... :	**220201763SHA-001**
Date of issue ..... :	**2022-10-18** **Amendment 1: 2023-05-04** **Modification 1: 2023-09-18** **Modification 2: 2024-06-18**
Total number of pages ..... :	**23**
Name of Testing Laboratory preparing the Report ..... :	Intertek Testing Services Shanghai Building No. 86, 1198 Qinzhou Road (North) Shanghai 200233 China
Applicant's name ..... :	GlobTek, Inc.
Address ..... :	186 Veterans Dr. Northvale, NJ 07647 USA
Test specification:	
Standard ..... :	IEC 60601-1:2005, IEC 60601-1:2005/AMD1:2012, IEC 60601-1:2005/AMD2:2020
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
TRF template used ..... :	IECEE OD-2020-F1:2020, Ed.1.3
Test Report Form No. ..... :	IEC60601_1U
Test Report Form(s) Originator .... :	UL(US)
Master TRF ..... :	2022-05-13

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General disclaimer:

The test results presented in this report relate only to the object tested.
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Test item description .....:	Medical Power Supply
Trade Mark(s).....:	GlobTek, Inc.
Manufacturer.....:	Same as applicant
Model/Type reference .....:	GT*91099-***-**, GT*96600-***-**, GT*96600-*56*** (Refer to P7)
Ratings .....:	GT*91099-***-**: Input: 1.5A, 100-240V~, 50-60Hz; Output: 5-48VDC, Max. 60W GT*96600-***-**: Input: 1.5A, 100-240V~, 50-60Hz; Output: 5-54VDC, Max. 65W GT*96600-*56***: Input: 2.0A, 100-240V~, 50-60Hz; Output: 56VDC, Max. 70W

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☒	**CB Testing Laboratory:**	Intertek Testing Services Shanghai	
Testing location/ address ..... :		Building No. 86, 1198 Qinzhou Road (North) Shanghai 200233 China	
Tested by (name, function, signature) ..... :		Nike Yuan (Engineer)	Nike Yuan
Approved by (name, function, signature) .. :		Larry Zhong (Mandated reviewer)	Larry Zhong
☐	**Testing procedure: CTF Stage 1:**	N/A	
Testing location/ address ..... :			
Tested by (name, function, signature) ..... :			
Approved by (name, function, signature) .. :			
☐	**Testing procedure: CTF Stage 2:**	N/A	
Testing location/ address ..... :			
Tested by (name, function, signature) ..... :			
Witnessed by (name, function, signature) . :			
Approved by (name, function, signature) .. :			
☐	**Testing procedure: CTF Stage 3:**	N/A	
☐	**Testing procedure: CTF Stage 4:**	N/A	
Testing location/ address ..... :			
Tested by (name, function, signature) ..... :			
Witnessed by (name, function, signature) . :			
Approved by (name, function, signature) .. :			
Supervised by (name, function, signature) :			

List of Attachments (including a total number of pages in each attachment):

None

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
None	Intertek Testing Services Shanghai Building No. 86, 1198 Qinzhou Road (North) 200233 Shanghai China

Summary of compliance with National Differences (List of countries addressed):

None

☒ **The product fulfils the requirements of** IEC 60601-1:2005/AMD2:2020 & **EN 60601-1:2006+A13: 2024** & AAMI ES60601-1:2005+A1:2012+A2:2021 & CAN/CSA-C22.2 No. 60601-1:2014 Ed.3+A2 & SN EN 60601-1:2006& JIS T 60601-1:2017

Statement concerning the uncertainty of the measurement systems used for the tests

☒ **Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:**

Procedure number, issue date and title:

GMS-QC-12 Estimation of Measurement Uncertainty, 1-July-2012 Initial Release, 19-April-2018 revision date.

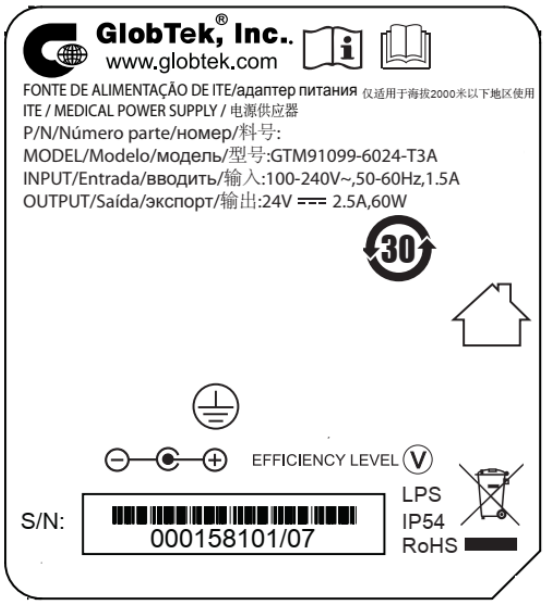
Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

☐ **Statement not required by the standard used for type testing**

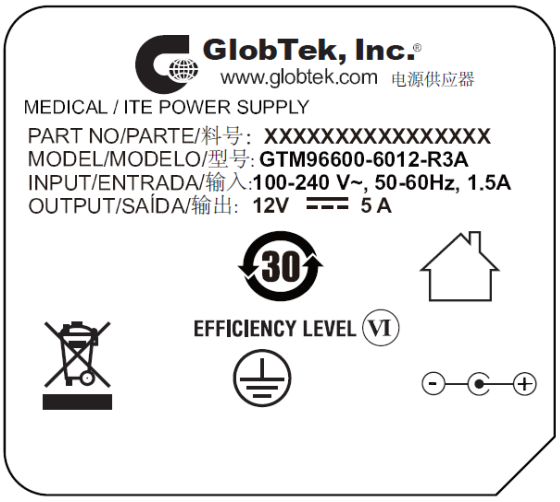
Copy of marking plate:

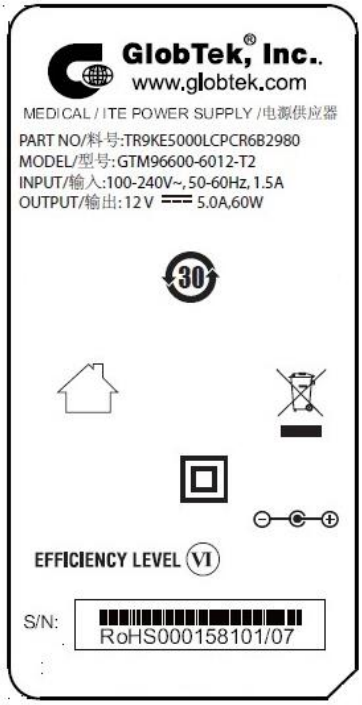
The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

GT*91099-*-****

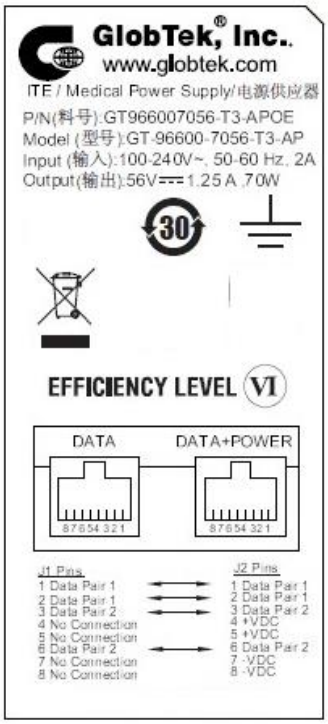


GT*96600-*-****





GT*96600-*56*



Note: The device is intended to be supplied by a 20A branch circuit.

Test item particulars .....:	
Classification of installation and use .....:	~~transportable / portable / stationary / mobile / fixed / permanently installed / hand-held, body-worn for~~ power adapter model. Final evaluation in end product.
Supply Connection.....:	appliance coupler / non-detachable cord for power adapter model.
Device type (component/sub-assembly/ equipment/ system)……..:	Component
Intended use (Including type of patient, application location)……:	PSU (external power adapter or internal power supply board)
Mode of operation……:	Continuous
Accessories and detachable parts included……...:	None
Other options include……...:	None
Possible test case verdicts:	
- test case does not apply to the test object ..... :	N/A
- test object does meet the requirement ..... :	P (Pass)
- test object was not evaluated for the requirement……..:	N/E (collateral standards only)
- test object does not meet the requirement ..... :	F (Fail)
Abbreviations used in the report	
- normal condition……: N.C.	- single fault condition.....: S.F.C.
- means of Operator protection ……: MOOP	- means of Patient protection ....: MOPP
Testing ..... :	
Date of receipt of test item ..... :	None
Date (s) of performance of tests..... :	None

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

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Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided ..... :	☒ **Yes** ☐ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) ..... :	Factory 1 GlobTek, Inc. 186 Veterans Dr. Northvale, NJ 07647 USA Factory 2 GlobTek (Suzhou) Co., Ltd Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou, JiangSu 215021, China Factory 3 Shenzhen ENG Electronics Co., Ltd. Block B, Nuclear Group Industrial District, Baishixia, Fuyun Town, Bao'an, Shenzhen, China

General product information and other remarks:

Product covered by this report is medical power supply module.

Desktop power supplies are provided with suitable external enclosure. The top and bottom parts of the enclosure are ultrasonic welded.

Open frame power supplies are without external enclosure. The external enclosure will be provided within the end product.

The products were tested to be suitable for connection to ≤ 16 A (IEC) and ≤ 20 A (USA) branch circuit in series. The unit is approved for TN mains star connections. The unit provides internally two fuses.
The power supplies are rated class I or class II or class II units may have an optional functional earth connection. Open frame and encapsulated class I power supplies shall be properly bonded to the main protective bonding termination in the end product.
All the types are designed for continuous operation.
For GTM96600 series, primary R16B, C10,R1,R3 secondary R21,R22,C13,R24,C18 may change or optional depends on output voltage, For GTM96600 series, L1 is a jump wire.
The following components were not equipped on Model GTM96600-6019-T3 (Class II with FE):
Components on Primary circuit: R16B, C10, R1, R3
Components on Secondary circuit: R21, R22, C13, R24, C18, D6, C11, C12, R23, U2
Note: The product GTM96600-6019-T3(P/N:TR9CZ3157LR13IMR6BF2) only can use the Triple-insulated wire THL-F-xx or THL-F-SB-xx from HOI LUEN ELECTRICAL MFR CO LTD.
Model similarity:

GT*91099-***-** and GT*96600-***-** series
The 1st “*” part can be ‘M’ or ‘-’ or ‘H’ for market identification and not related to safety.
The 2nd “*” denotes the rated output wattage designation, which can be “01” to “65”, with interval of 1.
When model= GT*91099-***-**,
The 3rd “*” denotes the standard rated output voltage designation, which can be“09”,“15”,“24”, “48”;
The 4th “*”is optional deviation, subtracted from standard output voltage, which can be “-0.01” to “-23.9” with interval of 0.01, or blank to indicate no voltage different.
The 3rd“*” and 4th “*” together denote the output voltage, with a range of 5–48 volts.
When model=GT*96600-***-**,
The 3rd”*” denote the standard rated output voltage designation, which can be “05” to “54” or “5.0” to “54.0” in 0.01V increments.
The 4th”*”=Blank
The 5th“*” =T2 means desktop class II with C8 AC inlet
=T2A means desktop class II with C18 AC inlet
=T3 means desktop class I or class II with functional earth with C14 AC inlet
=T3A means desktop class I or class II with functional earth with C6 AC inlet
=T2L means desktop class II with C8 AC inlet and housing with a DC jack

=T2AL means desktop class II with C18 AC inlet and housing with a DC jack
=T3L means desktop class I or class II with functional earth with C14 AC inlet and housing with a DC jack
=T3AL means desktop class I or class II with functional earth with C6 AC inlet and housing with a DC jack
=R2 means hybrid desktop housing class II with C8 AC inlet
=R3A means hybrid desktop housing class I or class II with functional earth with C6 AC inlet
=F means Open Frame class I or class II with functional earth
=FW means Open Frame class II
=P2 means Encapsulated class II
=P3 means Encapsulated class I or class II with functional earth
=TP means desktop class II with power supply cord with plug
=TP3 means desktop class I or class II with functional earth with power supply cord with plug
=TW means desktop class II with input wire without plug
=TW3 means desktop class I or class II with functional earth with input wire without plug
The last * denote any six character = 0-9 or A-Z or ()[] or – or blank for marketing purposes.
For details please refer to model list table.

GT*96600-*56***
The 1st "*" part can be 'M' or '-' or 'H' for market identification and not related to safety.
The 2nd "*" denotes the rated output wattage designation, which can be "01" to "70", with interval of 1.
The 3rd "*" =-T2 means desktop class II with C8 AC inlet
=-T2A means desktop class II with C18 AC inlet
=-T3 means desktop class I or class II with functional earth with C14 AC inlet
=-T3A means desktop class I or class II with functional earth with C6 AC inlet
The 4th "*" = -AP means standing for Active POE with baby board.
= -PP means standing for Passive POE without baby board
= -SP means standing for Simple POE without baby board
The last * denote any six character = 0-9 or A-Z or ()[] or – or blank for marketing purposes.

GT*91099-***-**: Input: 1.5A, 100-240V~, 50-60Hz;
Output: 5-48VDC, Max. 60W
GT*96600-***-**: Input: 1.5A, 100-240V~, 50-60Hz;
Output: 5-54VDC, Max. 65W
GT*96600-*56***: Input: 2.0A, 100-240V~, 50-60Hz;
Output: 56VDC, Max. 70W

Alternate Rating:
For models GTM96600-2005-R2 / GTM96600-2005-R3A: output 5VDC, 4.0A at Tma=70 ℃;
For models GTM96600-2412-R2 / GTM96600-2412-R3A: output 12VDC, 2.0A at Tma=70 ℃;
For models GTM96600-2436-R2 / GTM96600-2436-R3A: output 36VDC, 0.66A at Tma=70 ℃;

For models GTM96600-2448-R2 / GTM96600-2448-R3A: output 48VDC, 0.5A at Tma=70 ℃;
For models GTM96600-2454-R2 / GTM96600-2454-R3A: output 54VDC, 0.44A at Tma=70 ℃;
For models GT-96600-7056-T3-AP/ GT-96600-7056-T2-AP: output 56VDC, 1.25A at Tma=40 ℃;

Model list:
GT*96600-**-T2/T2A/T3/T3A/T2L/T2AL/T3L/T3AL/P2/P3/TP/TP3/TW/TW3* Desktop models or Encapsulated

Model	Output Voltage	Max. output current	Max. output power
GT*96600-**-T2/T2A/T3/T3A/T2L/T2AL/T3L/T3AL/P2/P3/TP/TP3/TW/TW3*	5-6.7VDC	8A	40W
GT*96600-**-T2/T2A/T3/T3A/T2L/T2AL/T3L/T3AL/P2/P3/TP/TP3/TW/TW3*	6.8-11VDC	6A	60W
GT*96600-**-	11.1-54VDC	5.42A	65W

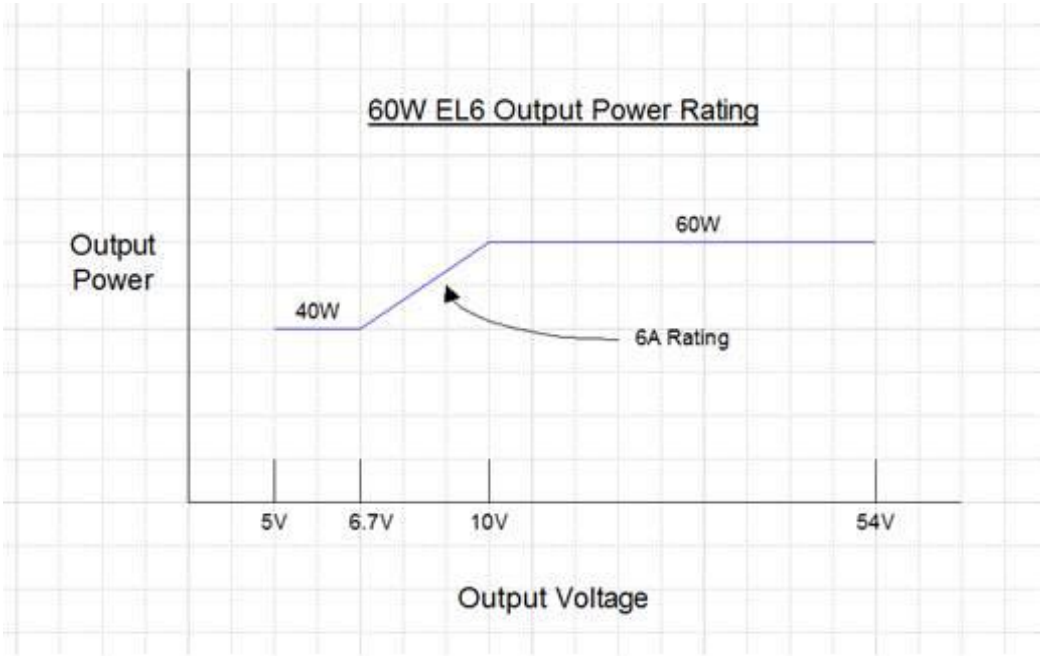
T2/T2A/T3/T3A/T2L/T2AL/T3L/T3AL/P2/P3/TP/TP3/TW/TW3*			

GT*96600-*56-T2/T2A/T3/T3A-AP/PP/SP* Desktop models

GT*96600-*56-T2/T2A/T3/T3A-AP/PP/SP*	56VDC	1.25A	70W

GT*96600-**-R2/R3A*External/Hybrid models

Model	Output Voltage	Max. output current	Max. output power
GT*96600-**-R2/R3A	5-6.7VDC	8A	40W
GT*96600-**-R2/R3A	6.8-11VDC	6A	60W
GT*96600-**-R2/R3A	11.1-54VDC	5.42A	65W



GT*91099-*-T2/T2A/T3/T3A/F/FW/P2/P3*External/Hybrid desktop or Open Frame or Encapsulated**

Model	Output Voltage	Max. output current	Max. output power
GT*91099-*09*-T2/T2A/T3/T3A/F/FW/P2/P3*	5-9VDC	6A	50W
GT*91099-*15*- T2/T2A/T3/T3A/F/FW/P2/P3*	9.1-15VDC	6A	60W
GT*91099-*24*- T2/T2A/T3/T3A/F/FW/P2/P3*	15.1-24VDC	4A	60W
GT*91099-*48*- T2/T2A/T3/T3A/F/FW/P2/P3*	24.1-48VDC	2.5A	60W

Note: For 91099series, T2A model use C8 inlet.

Technical Considerations:

Scope of Power Supply evaluation defers the following clauses to be determined as part of the end product investigation:

- Clause 7.5 (Safety Signs),
- Clause 7.9 (Accompanying Documents),
- Clause 9 (ME Hazard), except 9.1 and 9.3 are evaluated,
- Clause 10 (Radiation),
- Clause 11.7 (Biocompatibility),
- Clause 14 (PEMS),
- Clause 16 (ME Systems)
- Clause 17 (EMC)
- Usability was excluded from this investigation.

Note: This report is not valid unless used in conjunction with the original report.
Determination of the test conclusion is based on IEC Guide 115 in consideration of measurement uncertainty.

Amendment 1:
The original test report ref. No. 220201763HA-001, dated 2022-10-18; issued by Intertek Testing Services Shanghai, was amendment on 2023-05-04 , include the following changes and/or additions:
1. Corrected the national difference from “EN 60601-1:2006+A1: 2013” to “EN 60601-1:2006+A2: 2021”, From “AAMI 60601-1:2005 + AMD 1:2012” to “AAMI ES60601-1:2005+A1:2012+A2:2021” ,from “CAN/CSA-C22.2 No. 60601-1:14” to “CAN/CSA-C22.2 No. 60601-1:2014 Ed.3+A2”.

After review, no test need be done.

Modification 1:
The original test report ref. No. 220201763HA-001, dated 2022-10-18; issued by Intertek Testing Services Shanghai, was modified on 2023-09-18 , include the following changes and/or additions:
1. Added the Annex L evaluation for Triple-insulated wire of the type TRW (B) Serie(s).
2. Added the alternative Triple-insulated wire from HOI LUEN ELECTRICAL MFR CO LTD to the critical component list.

After review, the test for clause 8.8.3 and Annex L need be done.

Modification 2:
The original test report ref. No. 220201763HA-001, dated 2022-10-18; issued by Intertek Testing Services Shanghai, was modified on 2024-06-18 , include the following changes and/or additions:

1. Added alternative PCB, Varistor and Bleeder Resistor.
2. Updated the EN standard to the latest version.
3. Corrected component in critical components list.

After review, no test need be done, no clause that need to be reassessed.

IEC 60601-1			
Clause	Requirement + Test	Result - Remark	Verdict

8.10	TABLE: Critical components information				P
Object / part No.	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity[1])**
PCB	WALEX ELECTRONIC (WUXI) CO LTD	T2 T2A T2B T4	Min. 1,6 mm thickness, min. V-0, 130°C	UL 796	UL E154355
Alt. use	SHANGHAI H-FAST ELECTRONIC CO LTD	411001 211001	Min. 1,6 mm thickness, min. V-0, 130°C	UL 796	UL E337862
Alt. use	DONGGUAN HE TONG ELECTRONICS CO LTD	CEM1 2V0 FR4	Min. 1,6 mm thickness, min. V-0, 130°C	UL 796	UL E243157
Alt. use	DAFENG AREX ELECTRONICS TECHNOLOGY COLTD	02V0 03V0 04V0	Min. 1,6 mm thickness, min. V-0, 130°C	UL 796	UL E186016
Alt. use	BRITE PLUS ELECTRONICS (SUZHOU) CO LTD	DKV0-3A DGV0-3A	Min. 1,6 mm thickness, min. V-0, 130°C	UL 796	UL E177671
Alt. use	SHENZHEN TONGCHUANGXIN ELECTRONICS CO LTD	TCX	Min. 1,6 mm thickness, min. V-0, 130°C	UL 796	UL E250336
Alt.	**Interchangeable**	**Interchangeable**	**Min. 1,6 mm thickness, min. V-0, 130°C**	**UL 796**	**UL appreoved**
Fuse (FS1,FS2 or F1, F2) (FS2 or F2 is optional) (FS1, FS2 for GT*91099 series, F1, F2 for GT*96600 series, F1 for GT*96600-*56*** series)	Conquer Electronics Co., Ltd.	MST series	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40017118 UL E82636
Y capacitor (CY1, CY2) (CY1 for GT*96600-*56*** series) (Optional)	TDK-EPC Corporation, Capacitors Group Circuit Devices Business Group	CD	Y1, AC250V, max 2200pF, 25/125/21/B	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40029780 UL E37861

IEC 60601-1			
Clause	Requirement + Test	Result - Remark	Verdict

Alt. use	Success Electronics Co., Ltd.	SE	Y1, AC250V, or AC500V, max 2200pF, 40/125/56/C	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40037211 VDE 40020002 UL E114280
Alt. use	Success Electronics Co., Ltd.	SB	Y1, AC250V, max 2200pF, 40/125/56/C	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40037221 VDE 40020001 UL E114280
Alt. use	Murata Mfg. Co., Ltd.	KX	Y1, AC250V, max 2200pF, 25/125/21/B	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40002831 UL E37921
Alt. use	Walsin Technology Corp.	AH	Y1, AC250V, max 2200pF, 25/125/21/C	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40001804 UL E146544
Alt. use	JYA-NAY Co., Ltd.	JN	Y1, AC250V, max 2200pF, 25/125/21/C	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40001831 UL E201384
Alt. use	Haohua Electronic Co.	CT 7	Y1, AC250V, max 2200pF, 30/125/56/C	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40003902 UL E233106
Alt. use	Jyh Chung Electronic Co., Ltd.	JD	Y1, AC250V, max 2200pF, 40/125/21/C	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 137027 UL E187963
Alt. use	Jerro Electronics Corp.	JX-series	Y1, AC250V, max 2200pF, 40/125/21/C	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40032158 UL E333001
Alt. use	WELSON INDUSTRIAL CO LTD	WD	Y1, AC250V, max 2200pF, 55/125/21/C	IEC/EN 60384-14	VDE 40016157
X capacitor (CX1) (Optional)	Cheng Tung Industrial Co., Ltd.	CTX	Min. 300VAC, Max. 0.47µF,110 °C, X1 or X2	UL 60384-14 UL 1414	UL E193049
Alt. use	Tenta Electric Industrial Co. Ltd.	MEX	Min. 250VAC, Max. 0.47µF, 40/100/21/B, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 119119 UL E222911
Alt. use	Joey Electronics (Dong Guan) Co., Ltd.	MPX	Min. 250VAC, Max. 0.47µF, 40/105/21/B, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40032481 UL E216807

IEC 60601-1			
Clause	Requirement + Test	Result - Remark	Verdict

Alt. use	Ultra Tech Xiphi Enterprise Co. Ltd.	HQX	Min. 250VAC, Max. 0.47µF, 40/100/21/C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40015608 UL E183780
Alt. use	Yuon Yu Electronics Co. Ltd.	MPX	Min. 250VAC, Max. 0.47µF, 40/100/21/C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40032392 UL E200119
Alt. use	Sinhua Electronics (Huzhou) Co., Ltd.	MPX	Min. 250VAC, Max. 0.47µF, 40/100/21/C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40014686 UL E237560
Alt. use	Jiangsu Xinghua Huayu Electronics Co., Ltd.	MPX - Series	Min. 250VAC, Max. 0.47µF, 40/100/21/C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40022417 UL E311166
Alt. use	Dain Electronics Co., Ltd.	MEX, MPX, NPX	Min. 250VAC, Max. 0.47µF, 40/100/21/C, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40018798 UL E147776
Alt. use	Shenzhen Jinghao Capacitor Co., Ltd.	CBB62B	Min. 250VAC, Max. 0.47µF, 40/110/56/B, X1 or X2	IEC/EN 60384-14 UL 60384-14 UL 1414	VDE 40018690 UL E252286
Alt. use	Foshan Shunde Chuang Ge Electronic Industrial Co., Ltd.	MKP-X2	Min. 250VAC, Max. 0.47µF, 40/105/21/B, X2	IEC/EN 60384-14	VDE 40008922
Alt. use	Okaya Electric Industries Co. LTD	RE-Series	Min. 250VAC, Max. 0.47µF, 55/100/56/C, X2	IEC/EN 60384-14	VDE 40028657
Alt. use	VISHAY Capacitors Belgium NV	F 1772	Min. 250VAC, Max. 0.47µF, 40/100/56/C, X2	IEC/EN 60384-14	VDE 40005095
Alt. use	Winday Electronic Industrial Co., Ltd.	MPX series	Min. 250VAC, Max. 0.47µF, 40/100/21/C, X2	IEC/EN 60384-14	VDE 40018071
Alt. use	HUA JUNG COMPONENTS CO LTD	MPX series	Min. 250VAC, Max. 0.47µF, 40/100/21/C, X2	IEC/EN 60384-14	ENEC SE-ENEC-2001341 UL E149075
Photo coupler (U1 or U4) (U1 for GT*91099 series, U4 for GT*96600 series, U1 for GT*96600-*56*** series)	Everlight Electronics Co., Ltd.	EL817M	Dti=0.5mm Int., dcr=8.0mm thermal cycling test,110℃	EN IEC 60747-5-5	VDE 132249

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Alt. use	Lite-On Technology Corporation	LTV-817M	Dti=0.5mm Int. , dcr=6.0mm dcr=8.0mm,thermal cycling test,110°C	EN IEC 60747-5-5	VDE 40015248
Varistor MOV1 or MOV (Optional) (MOV/MOV1 for GT*91099 series, MOV1 for GT*96600 series and GT*96600-*56*** series)	Thinking Electronic Industrial Co., Ltd.	TVR10471K, TVR14471K, TVR10621K	Max. Continuous voltage: min 300Vac(rms), 85°C, The coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 005944
Alt. use	Centra Science Corp.	10D471K, 14D471K **10D621K** **14D621K**	Max. Continuous voltage: min 300Vac(rms), 85°C, The coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 4008220
Alt. use	Success Electronics Co., Ltd.	SVR10D471K SVR14D471K **SVR10D621K** **SVR14D621K**	Max. Continuous voltage: min 300Vac(rms), 85°C, The coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40030401
Alt. use	Walsin Technology Co., Ltd.	14D471K 10D471K **14D621K** **10D621K**	Max. Continuous voltage: min 300Vac(rms), 85°C, The coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40010090
Alt. use	Lien Shun Electronics Co., Ltd.	14D471K 10D471K **14D621K** **10D621K**	Max. Continuous voltage: min 300Vac(rms), 85°C, The coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40005858
Alt. use	Ceramate Techn. Co., Ltd.	GNR10D471K GNR14D471K **GNR10D621K** **GNR14D621K**	Max. Continuous voltage: min 300Vac(rms), 85°C, The coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40031745
Alt. use	Brightking (Shenzhen) Co., Ltd.	14D471K 10D471K **14D671K** **10D671K**	Max. Continuous voltage: min 300Vac(rms), 85°C, The coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40027827
Alt. use	Joyin Co., Ltd.	JVR10N471K JVR14N471K **JVR10N671K** **JVR14N671K**	Max. Continuous voltage: min 300Vac(rms), 85°C, The coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 005937

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Alt. use	Xiamen Set electronics Co., Ltd.	TFV8S471K TFV10S471K	Max. Continuous voltage: min 300Vac(rms), 85°C, The coating is V-0	IEC 61051-1, IEC 61051-2, IEC 61051-2-2, IEC 62368-1	TUV-RH J 50554061
Alt. use	**Guangdong Huiwan Electronics Technology Co Ltd**	**V-621K-10 DEH V-621K-14 DEH**	**Max. Continuous voltage: 385Vac, Min.125°C, The coating is V-0 Min.V-0**	**IEC 61051-1, IEC 61051-2, IEC 61051-2-2,**	**VDE 40043880**
Alt. use	**SHANTOU HIGH NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD**	**10D621K 14D621K**	**Max. Continuous voltage: Min. 385Vac(rms), Min. 125°C, The coating is V-0**	**IEC/EN 61051-1, IEC/EN 61051-2,**	**VDE 40023049**
Alt. use	**Thinking Electronic Industrial Co., Ltd.**	**TVR10621 TVR14621**	**Max. Continuous voltage: Min. 395Vac(rms), Min. 105°C, The coating is V-0**	**IEC/EN 61051-1, IEC/EN 61051-2,**	**VDE 005944**
Appliance inlet CN1 Class I units(C6 type)	Zhejiang LECI Electronics Co., Ltd.	DB-6	2.5A, 250Vac	IEC/EN 60320-1	VDE 40032465
Alt. use	Rich Bay Co., Ltd.	R-30790	2.5A, 250Vac	IEC/EN 60320-1	VDE 40030381
Alt. use	Sun Fair Electric Wire & Cable (HK) Co. Ltd.	S-02	2.5A, 250Vac	IEC/EN 60320-1	VDE 40034448
Alt. use	TECX-UNIONS Technology Corporation	TU-333	2.5A, 250Vac	IEC/EN 60320-1	ENEC 00633
Alt. use	Rong Feng Industrial Co., Ltd.	RF-190	2.5A, 250Vac	IEC/EN 60320-1	VDE 40030379
Alt. use	Inalways Corporation	0724	2.5A, 250Vac	IEC/EN 60320-1	ENEC 2010080
Alt. use	Zhe Jiang Bei Er jia	ST-A04-002	2.5A, 250Vac	IEC/EN 60320-1	VDE 40016045
Alt. use	Shenzhen Delikang Electronics Technology Co. Ltd.	CDJ-2	2.5A, 250Vac	IEC/EN 60320-1	VDE 40015580

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Appliance inlet CN1 Class I units (C14 type)	Zhejiang LECI Electronics Co., Ltd.	DB-14	10A, 250Vac	IEC/EN 60320-1	VDE 40032137
Alt. use	Rich Bay Co., Ltd.	R-301SN	10A, 250Vac	IEC/EN 60320-1	VDE 40030228
Alt. use	Sun Fair Electric Wire & Cable (HK)Co. Ltd.	S-03	10A, 250Vac	IEC/EN 60320-1	VDE 40034447
Alt. use	TECX-UNIONS Technology Corporation	TU-301-S, TU-301-SP	10A, 250Vac	IEC/EN 60320-1	ENEC 00647
Alt. use	Rong Feng Industrial Co., Ltd.	SS-120	10A, 250Vac	IEC/EN 60320-1	VDE 40028101
Alt. use	Inalways Corporation	0711	10A, 250Vac	IEC/EN 60320-1	ENEC 2010084
Alt. use	Zhe Jiang Bei Er jia	ST-A01-003J	10A, 250Vac	IEC/EN 60320-1	VDE 40013388
Appliance inlet CN1 Class II units (C8 type)	Zhejiang LECI Electronics Co., Ltd.	DB-8	2.5A, 250Vac	IEC/EN 60320-1	VDE 40032028
Alt. use	Rich Bay Co., Ltd.	R-201SN90	2.5A, 250Vac	IEC/EN 60320-1	VDE 40030384
Alt. use	Sun Fair Electric Wire & Cable (HK)Co. Ltd.	S-01	2.5A, 250Vac	IEC/EN 60320-1	VDE 40034449
Alt. use	TECX-UNIONS Technology Corporation	SO-222	2.5A, 250Vac	IEC/EN 60320-1	VDE 40043268
Alt. use	Rong Feng Industrial Co., Ltd.	RF-180	2.5A, 250Vac	IEC/EN 60320-1	VDE 40030168
Alt. use	Inalways Corporation	0721	2.5A, 250Vac	IEC/EN 60320-1	ENEC 2010087
Alt. use	Zhe Jiang Bei Er jia	ST-A03-005	2.5A, 250Vac	IEC/EN 60320-1	VDE 40014833
Alt. use	Shenzhen Delikang Electronics Technology Co. Ltd.	CDJ-8	2.5A, 250Vac	IEC/EN 60320-1	VDE 40025531
Appliance inlet CON1 Class II units (C18 type)	HCR ELECTRONICS CO., LTD	SK05	10A, 250Vac	IEC/EN 60320-1	ENEC (NO4018)

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Alt. use	Rong Feng Industrial Co., Ltd.	SS-120	10A, 250Vac	IEC/EN 60320-1	VDE 40028101
Input connector CN1 (For open frame)	NELTRON INDUSTRIAL CO LTD	2114S	Min 240V; Min 1.5A; Flame class min. V-2;	UL 94	UL E144392
Alt. use	JOINT TECH ELECTRONIC INDUSTRIAL CO LTD	A7920 series A3960 series	Min 250V; Min 7A; Flame class min. V-2;	UL 94	UL E179987
Alt. use	ZHEJIANG HONGXING ELECTRICAL CO LTD	HX396XX-YYY series	Min 250V; Min 5A; Flame class min. V-2;	UL 94	UL E228500
Earthing wire for Class I model or class II +functional earth	KUNSHAN NEW ZHICHENG ELECTRONICS TECHNOLOGIES CO LTD	1015, 1007, 1185, 3271, 3266, 1569	Min. 20 AWG, Min. 300V, Min. 80°C	UL 758	UL E237831
Alt. use	ZHUANG SHAN CHUAN ELECTRICAL PRODUCTS (KUNSHAN) CO LTD	1015, 1007, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	UL 758	UL E333601
Alt. use	DONGGUAN CHUANTAI WIRE PRODUCTS CO LTD	1015, 1007, 1185, 3271, 3266, 1569	Min. 20 AWG, Min. 300V, Min. 80°C	UL 758	UL E315628
Alt. use	YONG HAO ELECTRICAL INDUSTRY CO LTD	1015, 1007, 1185, 3271, 3266, 1569	Min. 20 AWG, Min. 300V, Min. 80°C	UL 758	UL E240426
Alt. use	DONGGUAN GUNEETAL WIRE & CABLE CO LTD	1015, 1007, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	UL 758	UL E204204
Alt. use	SHENG YU ENTERPRISE CO LTD	1015, 1007, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	UL 758	UL E219726

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Alt. use	KUNSHAN XINGHONGMENG ELECTRONIC CO LTD	1015, 1007, 1185, 3271, 3266, 1569	Min. 20 AWG, Min. 300V, Min. 80°C	UL 758	UL E315421
Alt. use	SUZHOU YEMAO ELECTRONIC CO LTD	1015, 1007, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	UL 758	UL E353532
Connection wiring for encapsulated models	KUNSHAN NEW ZHICHENG ELECTRONICS TECHNOLOGIES CO LTD	1015, 1007, 2468, 2464, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	UL 758	UL E237831
Alt. use	Interchangeable	1015, 1007, 2468, 2464, 1185, SPT-1, SPT-2	Min. 20AWG, min. 300Vac, min. 80°C	UL 758	UL approved
Output cord	Interchangeable	Interchangeable	Min. 24AWG, min. 300Vac, min. 80°C	UL 758	UL approved
Heat-shrinkable tubing (for GTM91099 series it is Optional)	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR, RSFR-H, RSFR-HPF	600V, 125°C, thickness Min0.4mm , L 75mm	UL 224	UL E203950
Alt. use	QIFURUI ELECTRONICS CO	QFR-h	600V, 125°C , thickness Min0.4mm, L 75mm	UL 224	UL E225897
Alt. use	DONGGUAN SALIPT CO LTD	SALIPT S-901-300 SALIPT S-901-600	Min. 300V, 125°C Min0.4mm, L 75mm	UL 224	UL E209436
Alt. use	GUANGZHOU KAIHENG ENTERPRISE GROUP	K-2 (+) K-2 (CB)	Min. 300V, 125°C Min0.4mm, L 75mm	UL 224	UL E214175
Alt. use	CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-HFT	Min. 300V, 125°C Min0.4mm, L 75mm	UL 224	UL E180908
Transformer (T1)	GlobTek / HAOPUWEI	See the list of P156	Class B, with critical component listed below	IEC 60601-1	Tested with appliance
-Varnish	T-4260(a)	TAIHU INSULATING MATERIAL	130 °C。	UL 1446	UL E228349

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- Magnet wire	PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEWN/U	MW28-C, 130°C	UL 1446	UL E201757
Alt. use	PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEWS/U	MW75-C, 130°C	UL 1446	UL E201757
Alt. use	JUNG SHING WIRE CO LTD	UEW-4	MW75C, 130°C	UL 1446	UL E174837
Alt. use	JUNG SHING WIRE CO LTD	UEY-2	MW28-C, 130°C	UL 1446	UL E174837
Alt. use	JIANGSU HONGLIU MAGNET WIRE TECHNOLOGY CO LTD	2UEW/130	MW75-C, 130°C	UL 1446	UL E335065
Alt. use	CHANGZHOU DAYANG WIRE & CABLE CO LTD	2UEW/130	MW75-C, 130°C	UL 1446	UL E158909
Alt. use	WUXI JUFENG COMPOUND LINE CO LTD	2UEWB	MW75#, 130°C	UL 1446	UL E206882
Alt. use	JIANGSU DARTONG M & E CO LTD	UEW	MW 75-C, 130°C	UL 1446	UL E237377
Alt. use	SHANDONG SAINT ELECTRIC CO LTD	UEW/130	MW75#, 130°C	UL 1446	UL E194410
Alt. use	ZHEJIANG LANGLI ELECTRIC EQUIPMENTS CO LTD	UEW	MW 79#, 130°C	UL 1446	UL E222214
Alt. use	NINGBO JINTIAN NEW MATERIAL CO LTD	2UEW	MW 79#, 130°C	UL 1446	UL E222214
-Triple-insulated wire (Secondary)	Great Leoflon Industrial Co., Ltd.	TRW (B) Serie(s)	Class B, reinforced insulation,	UL 2353 UL 60601-1	VDE 136581 UL E211989
	HOI LUEN ELECTRICAL MFR CO LTD	THL-F-xx	Class B, reinforced insulation	UL 60950-1, UL 60601-1	UL E257525
		THL-F-SB-xx	Class B, reinforced insulation	UL 60950-1, UL 60601-1	UL E257525
-Bobbin	CHANG CHUN PLASTICS CO LTD	T375HF	V-0, 150°C, thickness 0,45 mm min.	UL 94 UL 746 A/B/C/D	UL E59481
- Alt. use	SUMITOMO BAKELITE CO LTD	PM-9820	V-0, 150°C, thickness 0,45 mm min.	UL 94 UL 746 A/B/C/D	UL E41429

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-Insulating tape	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350T-1	Min.130°C	UL 510	UL E17385
- Alt. use	CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX	Min.130°C	UL 510	UL E246820
- Alt. use	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT	Min.130℃	UL 510	UL E165111
-PTFE tubing	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	WF	600V, 200°C,0.4mm	UL224	UL E203950
-Insulating tape Used on HS1	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350T-1	1:Overall measured 40mm by 117mm, 0.05mm thick, 1 layers 2:25mm by 87mm, 0.025mm thick, 2 layers 3:20mm by 101mm, 0.025mm thick, 2 layers.	UL 510	UL E17385
-Insulating tape Used on HS1（use 3 types，for GTM96600 series）	BONDTEC PACIFIC CO LTD	370S	1:Overall measured 40mm by 117mm, 0.05mm thick, 1 layers 2:25mm by 87mm, 0.025mm thick, 2 layers 3:20mm by 101mm, 0.025mm thick, 2 layers.	UL 510	UL E175868
- Alt. use	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ CT WF	Overall measured 40mm by 117mm, 0.05mm thick, 1 layers 25mm by 87mm, 0.025mm thick, 2 layers 20mm by 101mm, 0.025mm thick, 2 layers.	UL 510	UL E165111

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- Alt. use	JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A	Overall measured 40mm by 117mm, 0.05mm thick, 1 layers 25mm by 87mm, 0.025mm thick, 2 layers 20mm by 101mm, 0.025mm thick, 2 layers.	UL 510	UL E246950
- Alt. use	CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX	Overall measured 40mm by 117mm, 0.05mm thick, 1 layers 25mm by 87mm, 0.025mm thick, 2 layers 20mm by 101mm, 0.025mm thick, 2 layers.	UL 510	UL E246820
HS1 for GTM96600 series	Interchangeable	Interchangeable	Aluminum Approximate overall dimension （42.9mm+23.5mm）×82mm , 2.0mm thick.	IEC 60601-1	Tested with appliance
HS2 for GTM96600 series	Interchangeable	Interchangeable	Aluminum Approximate overall dimension （103.5mm+14.5mm）×24.3mm, 2.0mm thick.	IEC 60601-1	Tested with appliance
Enclosure (all parts)	SABIC INNOVATIVE PLASTICS B V	SE1X, SE1	PPE+PS, Min. V-1, Min. thickness: 2.0mm, 105°C	UL 94 UL 746 A/B/C/D	UL E45329
Alt. use	SABIC INNOVATIVE PLASTICS B V	SE100	PPE+PS, Min. V-1, Min. thickness: 2.0mm, 95°C	UL 94 UL 746 A/B/C/D	UL E45329
Alt. use	SABIC INNOVATIVE PLASTICS B V	CX7211	PC/ABS, Min. V-1, Min. thickness: 2.0mm, 90°C	UL 94 UL 746 A/B/C/D	UL E45329
Alt. use	SABIC INNOVATIVE PLASTICS B V	945	PC, Min. V-1, Min. thickness: 2.0mm, 120°C	UL 94 UL 746 A/B/C/D	UL E45329
Alt. use	SABIC JAPAN L L C	945	PC,Min. V-1,Min thickness:2.0mm 120°C	UL94 UL746A/B/C/D	UL207780
Alt. use	SABIC INNOVATIVE PLASTICS B V	HF500R	PC, V-0, Min. thickness: 2.0mm, 125°C	UL 94 UL 746 A/B/C/D	UL E45329

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Alt. use	TEIJIN CHEMICALS LTD	LN-1250G	PC, Min. V-0, Min. thickness: 2.0mm, 115°C	UL 94 UL 746 A/B/C/D	UL E50075
Alt. use	CHI MEI CORPORATION	PA-765A	ABS, Min. V-0, Min. thickness: 2.0mm, 85°C	UL 94 UL 746 A/B/C/D	UL E56070
Alt. use	CHI MEI CORPORATION	PC-540	PC/ABS, Min. V-0, Min. thickness: 2.0mm, 70°C	UL 94 UL 746 A/B/C/D	UL E56070
Bleeder Resistor R10,R11 for GTM96600 series	Yageo Components (Suzhou)	RV1206	R10:100KΩ，R11:47KΩ	IEC62368-1	DK-108482-UL E491855
	TZAI YUAN ENTERPRISE CO LTD	HSMD OR SMD	R10:100KΩ，R11:47KΩ	IEC62368-1	E354677 DK-29431-UL
	Viking Tech Corporation Kaoshiung Branch	HVRC series	R10:100KΩ，R11:47KΩ	IEC 62368-1	DK-121748-UL E490339
	TY-Ohm Suzhou Electronic Works Co. Ltd	RT	R10:100KΩ，R11:47KΩ	IEC/EN 60950-1	VDE 40031266 UL E321764
	Ralec Electronic corp	RTV06	R10:100KΩ，R11:47KΩ	IEC 62368-1	DK-66106-M1-UL
	Thick Film High-Voltage Chip Resistor	RVS-06#XXXFT series	R10:100KΩ，R11:47KΩ	IEC 62368-1	DK-121748-UL
	WALSIN TECHNOLOGY CORP	WF12N	R10:100KΩ，R11:47KΩ	IEC 62368-1	DK-119162-UL E491855
	Viking Tech Corporation Kaoshiung Branch	**HVR series**	**R10:100KΩ，R11:47KΩ**	**IEC 62368-1**	**DK-143770-UL E490339**
D2/D3 for GTM96600 series	YANGZHOU HYTECHNOLOGY DEVELOPMENT CO., LTD.	S1ML	Min.1000V Min.1A	IEC 60601-1	Test with equipment
ALT.	Interchangeable	Interchangeable	Min.1000V Min.1A	IEC 60601-1	Test with equipment
U1 for GTM96600 series	NXP Semiconductor Taiwan Ltd	TEA18362T	Vcc: Min 30V	IEC 62368-1	DK-40437-UL
BD1 for GTM96600 series	YANGZHOU HONGYANG ELECTRONIC., LTD	KBL406	4A, 600V	IEC 60601-1	Test with equipment
Alt.	Interchangeable	Interchangeable	Min. 4A, Min. 600V	IEC 60601-1	Test with equipment
Q1 for GTM96600 series	Oriental semiconductor	OSG65R760F	7A, 650V	IEC 60601-1	Test with equipment
Alt.	SILIKRON	SSF7NS65UF	7A, 650V	IEC 60601-1	Test with equipment

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Alt.	Interchangeable	Interchangeable	**Min 7A, Min 600V**	IEC 60601-1	Test with equipment
Bulk Cap C1 for GTM96600 series	AISHI	WH	120uF, 400V, 105℃	IEC 60601-1	Test with equipment
Alt.	SAMXON	KM	120uF, 400V, 105℃	IEC 60601-1	Test with equipment
Alt.	TEAPO	SH	120uF, 400V, 105℃	IEC 60601-1	Test with equipment
Alt.	Interchangeable	Interchangeable	120uF, Min. 400V, 105℃	IEC 60601-1	Test with equipment
Choke LF1 for GTM96600 series	HEJIA	GTM91099-LF1	Min200uH	IEC 60601-1	Test with equipment
Choke LF2 for GTM96600 series	HAOPUWEI	NF00031	Min10mH	IEC 60601-1	Test with equipment
Supplementary information: Provided evidence ensures the agreed level of compliance. See OD-CB2039. For all transformers under all manufacturers.					