

UL TEST REPORT AND PROCEDURE

Standard: UL 60950-1, 1st Edition, 2007-10-31 (Information Technology Equipment - Safety - Part 1: General Requirements)
CSA C22.2 No. 60950-1-03, 1st Edition, 2006-07 (Information Technology Equipment - Safety - Part 1: General Requirements)

Certification Type: Listing

CCN: QQQQ, QQQQ7 (Power Supplies for Information Technology Equipment Including Electrical Business Equipment)

Product: Power Supply

Model: GT-41062 Class I Desktop Series:

GT-41062-1805-T3
GT-41062-1806-T3
GT-41062-1807-T3
GT-41062-1809-T3
GT-41062-1812-T3
GT-41062-1815-T3
GT-41062-1818-T3
GT-41062-1820-T3
GT-41062-1824-T3

GT-41062-1805-T3A
GT-41062-1806-T3A
GT-41062-1807-T3A
GT-41062-1809-T3A
GT-41062-1812-T3A
GT-41062-1815-T3A
GT-41062-1818-T3A
GT-41062-1820-T3A
GT-41062-1824-T3A

The models listed here are the standard models upon which custom versions are based. Custom units are obtained using an optional "-X.X-" suffix placed before the -T3/-T3A suffix. See Model Differences for details.

Rating: Input: 100-240 Vac, 50-60 Hz, 0.6 A.

Output:

GT-41062-1805-T3 OR -T3A	5.0Vdc @ 3.6A
GT-41062-1806-T3 OR -T3A	6.0Vdc @ 3.0A
GT-41062-1807-T3 OR -T3A	7.0Vdc @ 2.57A
GT-41062-1809-T3 OR -T3A	9.0Vdc @ 2.0A
GT-41062-1812-T3 OR -T3A	12.0Vdc @ 1.5A
GT-41062-1815-T3 OR -T3A	15.0Vdc @ 1.2A
GT-41062-1818-T3 OR -T3A	18.0Vdc @ 1.0A
GT-41062-1820-T3 OR -T3A	20.0Vdc @ 0.9A
GT-41062-1824-T3 OR -T3A	24.0Vdc @ 0.75A

See Model Differences for details regarding ratings of custom models employing the "-X.X" suffix.

Applicant Name and Address: GLOBTEK (HONG KONG) LTD
UNIT 1402, BENSON TOWER
74 HUNG TO RD
KWUN TONG
KOWLOON HONG KONG

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

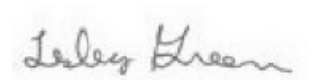
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Supporting Documentation

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

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

Product Description

The covered products are power supply units intended to supply power to IT Equipment.

Model Differences

All units are similar, differing only in minor changes to the transformer (number of winding turns) and the low voltage output circuitry, resulting in various output power ratings. Specific models and ratings are covered as defined by the nomenclature below.

Model number nomenclature is:

"GT-41062-AABB-X.X-TZ",

where:

GT-41062 denotes the GlobTek Series code,

AA denotes the maximum rated wattage, for these models"18",

BB denotes the standard maximum rated voltage, which may be 5.0-24.0 Vdc as shown in the ratings table, X.X - optional - denotes the voltage differentiator, where the value of X.X is subtracted from standard output voltage ("BB", above) in 0.1 volt increments - not applicable to Model GT-41062-1805-T3 OR -T3A, and, Z denotes the input power configuration as Class I, which may be "T3" or "T3A" depending on which Class I input connector is employed (See Critical Components Table for details).

Note - Units employing the voltage differentiator will have the model number marked according to the nomenclature above, however, the marked output voltage rating will be a value which is "X.X" less than that shown in the model number, e.g. Model GT-41062-1824-0.5-T3 would be marked as such, with a marked output rating of 23.5 Vdc at 0.75 A.

Technical Considerations

- Equipment mobility : movable
- Operating condition : continuous
- Mains supply tolerance (%) : +6%, -10%

- Tested for IT power systems : No
- IT testing, phase-phase voltage (V) : N/A
- Class of equipment : Class II (double insulated)
- Mass of equipment (kg) : 0.16
- Protection against ingress of water : IP X0
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40°C
- The means of connection to the mains supply is: Pluggable A
- The product is intended for use on the following power systems: TN
- The equipment disconnect device is considered to be: Appliance inlet
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): Power Supply output
- These units are provided with double/reinforced insulation from Input to Output/Enclosure, and basic insulation from Input to Protective Earth.

Additional Information

Revision: SR8227620-T001

Transfer File from the File E336418, Vol. X2, E336418-A13 into the File E341351, Vol. X3, E341351-A14.

Additional Standards

The product fulfills the requirements of: N/A

Markings and instructions

Clause Title	Marking or Instruction Details
Power rating - Ratings	Ratings (voltage, frequency/dc, current)
Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Power rating - Model	Model Number
Power outlet	Rated voltage, rated current
1.7.6 Fuses - Rating	Rated current and voltage and type located on or adjacent to fuse or fuseholder.
2.5 Limited Power Source	"LPS" may appear on ratings label.

Special Instructions to UL Representative

N/A

Production-Line Testing Requirements**Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.**

Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
n/a	n/a	n/a	n/a	n/a	n/a	n/a

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

n/a

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

n/a

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

n/a

Sample and Test Specifics for Follow-Up Tests at UL

Model	Component	Material	Test	Sample(s)	Test Specifics
n/a	n/a	n/a	n/a	n/a	n/a

TABLE: List of Critical Components

Object/part or Description	Manufacturer/ trademark	type/model	technical data	CCN	Marks of Conformity
01. Enclosure	GE Plastics B V	SE1	Min. V-1, 105 degree C min. 1.65 mm thick. Overall measured 79.2 by 49.8 by 30.1 mm	QMFZ2	UL
02. PWB	--	--	V-1, or better. Min.130 degree C	ZPMV2	UL
03. AC Inlet (AC1) - "- T3" models	Supercom Wire & Cable Co Ltd	SC-8R	250 V ac, 15A, 75 degree C	AXUT2	UL, CUL
03. AC Inlet (AC1) - "- T3" models	Sun Fair Electric Wire & Cable Co. Ltd.	S-03-13E	250 V ac, 10A, 75 degree C	AXUT2	UL, CUL
03-1. AC Inlet (AC1) - "- T3" models	Sun Fair Electric Wire & Cable Co. Ltd.	S-02-06A	250Vac, 2.5A, 75 degree C	AXUT2	UL, CUL
04. Fuse (F1)	Wickmann-Werke GMBH	392	T2.0 A, 250 V ac,	JDYX2	UL, CUL
04-1. Fuse (F1)	Conquer Electronics Co., Ltd.	MST	T2.0 A, 250 V ac,	JDYX2	UL, CUL
04-2. Fuse (F1)	Save Fusetech Inc	SS-5	T2.0 A, 250 V ac,	JDYX2	UL, CUL
05. Transient Voltage Surge Suppressor (ZNR1)	Centra Science Corp.	CNR-07D271K	Min. 175 Vac,	XUHT2	UL
05-1. Transient Voltage Surge Suppressor (ZNR1)	Joyin Co. Ltd.	JVR07N471K	300Vac	XUHT2	UL
06. Bleeding Resistor (RA, RB)	--	--	2MO, 1/4W	--	--
07. Line Choke (NF1)	Yao Sheng Electronic Co. Ltd.	NF00030	Class130 degree C	--	--
08. X Capacitor (CX1) (optional)	Various	Various	Max. 0.22(F, 275 V	FOWX2	UL
09. Y Capacitor (CY1) (optional)	Various	Various	Max 2200pF, 250V	FOWX2	UL
10. Bridge Diode (BD1)	--	--	Min. 800V, 1A	--	--
11. Transistor (Q1)	--	--	Min. 600V, 7A	--	--
11. Electrolytic Capacitor (C1)	--	--	Max 33uF, 400V, 105 degree C	--	--
12. Optical isolator (PC1)	Lite-on Electronics Corp	LTV817, LTV827, LTV847	di=0.4mm, min, rated isolation min. 5000Vac, 105 degree C	FPQU2	UL

Object/part or Description	Manufacturer/ trademark	type/model	technical data	CCN	Marks of Conformity
13. Transformer (T1) - for all 5Vdc, 6 Vdc, and 7Vdc models	Yao Sheng Electronic Co., Ltd.	XF00210	Class B	--	--
13-1. Transformer (T1) - for all 9Vdc, 12 Vdc, and 15Vdc models	Yao Sheng Electronic Co. Ltd.	XF00211	Class B	--	--
13-2. Transformer (T1) - for all 18Vdc, 20Vdc, and 24Vdc models	Yao Sheng Electronic Co. Ltd.	XF00212	Class B	--	--
14. Insulation system for T1	Hong Kok Electronics Co Ltd	HIS-8A	Class B	OBJY2	UL
15. Power Supply Cord (Optional)	Various	Various	Type SVT or SPT-2, min 125 V, 10 A, with NEMA 5-15P or 250 V, 10 A, with NEMA 6-15P. Other end (connected to unit) (with cord-connected body, grounding type, suitable for cord size, rating not less than that of attachment plug)	ZJCZ and RTRT and AXUT	UL
18. Wiring, internal primary	Various	Various	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; min 300 V, 80 degree C	AVLV2	UL
19. Label	Various	Various	40 degree C if max. surface temperature not specified.	PGDQ2 or PGJ12	UL
20-1. Output Cord	Various	Various	Style No. 1185, AWM, No. 22 AWG min., VW-1, 80 degrees C, 300 V; one end is soldered to pwb; other end may be open ends or fitted with molded or assembly type connector. Alternate: Same as above except cable , Style # SPT-1, 18 AWG min., VW-1, 105 degrees C.	AVLV2	UL R/C, cUL R/C
20-2. Output Cord - alternate	Various	Various	Same as above, except Cable Style # 2468, 22 AWG min., VW-1, 105 degrees C.	AVLV2	UL R/C. cUL R/C
20-3. Output Cord - alternate	Various	Various	Same as above, except Cable Style # 2464, AWM, 22 AWG min., VW-1, 80 degrees C min., 300 V.	AVLV2	UL R/C. cUL R/C
20-4. Output Cord - alternate	Various	Various	Same as above, except AWM, 22 AWG or greater., XT, 80 degrees C min., 300 V.	AVLV2	UL R/C. cUL R/C
21-1. Switch - Optional for Output Cord	Openwise	Series 303fb-12, -22,-23	250 V, 2 A, V-2	WNWV2	UL R/C, cUL R/C
21-2. Switch - Optional	Teilbar	Series 303	250 V, 2 A; 120 V, 3 A, V-2	WNWV2	UL R/C, cUL

Object/part or Description	Manufacturer/ trademark	type/model	technical data	CCN	Marks of Conformity
for Output Cord - Alternate					R/C

