



ISO 9001  
REGISTERED



**Constant-Current, 20-50 Watt Single Output Family,  
Desktop, Split-Rate Battery Charger Applications,  
ITE and Medical**



### 1.1 DESKTOP POWER SUPPLIES CONSTANT CURRENT FAMILIES: GT(M)21097CC

#### GENERAL DESCRIPTION:

THE SUBJECT MODELS ARE A SERIES OF AC/DC LOW-VOLTAGE SINGLE-OUTPUT, CONSTANT-CURRENT VOLTAGE-LIMITED SWITCHING POWER SUPPLIES(DESKTOP), UNIVERSAL INPUT/IEC 320 INPUT RECEPTACLE FOR CONNECTION OF POWER SUPPLY CORD SET, INTENDED FOR USE WITHIN INFORMATION TECHNOLOGY EQUIPMENT AND MEDICAL ELECTRICAL EQUIPMENT. THE MODELS HAVE EARTH GROUND CONNECTION AND ARE CONSIDERED CLASS "I" EQUIPMENT. THE MODELS ARE SIMILAR IN CONSTRUCTION. ALL MODELS USE THE SAME PRINTED WIRING BOARD LAYOUT AND MOST MODELS USE SAME TRANSFORMER; E.G.: VARIATION IN TURNS RATIO FOR GT(M)21097 MODELS. CONSTANT CURRENT MODELS GT(M)21097CC ARE DERIVATIVES OF CONSTANT VOLTAGE MODELS GT(M)21097 BY ADDING CONSTANT-CURRENT OUTPUT SUB-ASSEMBLY TO THE STANDARD CONSTANT-VOLTAGE EQUIVALENT. DIFFERENCES IN OUTPUTS ARE OBTAINED THROUGH COMPONENT VALUE CHANGES, AS SHOWN IN THE FAMILY SCHEMATIC.

#### 2. ELECTRICAL SPECIFICATIONS:

INPUT VOLTAGE: 90 VAC TO 264 VAC  
 INPUT CURRENT: < 1.6 A RMS AT 90 VAC INPUT  
 INPUT FREQUENCY: 47 HZ - 63 HZ  
 OUTPUT VOLTAGE / CURRENT:

MODEL:	OUTPUT RATING:
GT(- or M)21097CC-2003-X.X	+3.3 V DC @ 0 - 6.0 A(2.0VMIN@0-6.0A)
GT(- or M)21097CC-3005-X.X.	+5.0 V DC @ 0 - 6.0 A
GT(- or M)21097CC-4509-X.X.	+9.0 V DC @ 0 - 5.0 A
GT(- or M)21097CC-5012-X.X.	+12.0 V DC @ 0 - 4.17 A
GT(- or M)21097CC-5015-X.X.	+15.0 V DC @ 0 - 3.3 A
GT(- or M)21097CC-5018-X.X.	+18.0 V DC @ 0 - 2.8 A
GT(- or M)21097CC-5024-X.X.	+24.0 V DC @ 0 - 2.1 A
GT(- or M)21097CC-5048-X.X.	+48.0 V DC @ 0 - 1.1 A

(REFER TO STATE DIAGRAM): CONSTANT CURRENT BULK CHARGE:  
 OUTPUT RATING (A) ± 10% (ADJUSTABLE, FACTORY SET)  
 OVER- CHARGE VOLTAGE: 2.45V/CELL (2.50V MAX/CELL.)  
 FLOAT- CHARGE VOLTAGE: 2.30 V/CELL NOM..  
 TRICKLE CHARGE CURRENT: 100mA TYP.

#### NOTES:

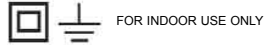
- 1.-: ITE MODEL OR M: MEDICAL MODEL
2. EACH OUTPUT CURRENT CAN BE ADJUSTED WITHIN ITS DESIGNATION RANGE (FACTORY SET), AS LONG AS THE OUTPUT POWER IS NOT EXCEEDED.
3. SINGLE OUTPUT UNITS OUTPUT VOLTAGE MAY VARY FROM ZERO VOLTS OUTPUT SHORT CIRCUIT, TO 1.3 V<sub>o</sub> OF A PARTICULAR MODEL.
4. X.X.: OPTIONAL FOR SPECIFYING OUTPUT CURRENT DEVIATION FROM STANDARD MODEL: SUBTRACTING X.X. AMPS FROM STANDARD OUTPUT CURRENT.





ISO 9001  
REGISTERED

**Constant-Current, 20-50 Watt Single Output Family,  
Desktop, Split-Rate Battery Charger Applications,  
ITE and Medical**



OUTPUT CURRENT:  
OUTPUT POWER (RATED):  
OUTPUT RIPPLE (PEAK TO PEAK):  
OUTPUT CURRENT REGULATION:



NO LOAD TO FULL LOAD, FACTORY SET  
50 WATTS MAX  
≤ 1% TYP.  
± 5 % FOR MAIN OUTPUT, MEASURED AT O/P  
CONNECTOR



(LINE/LOAD)  
LINE REGULATION:  
TURN ON/ TURN OFF OVERSHOOT:

± 0.5 % MAX AT FULL LOAD  
4% MAX 500uS MAX RECOVERY TIME FOR 25%  
STEP LOAD

TURN-ON DELAY:  
HOLD-UP TIME:

1 SEC MAX  
16 mSEC MIN AT NOMINAL INPUT AND FULL  
LOAD

INRUSH CURRENT:

20 A MAX AT COLD START FOR N.A.  
(40A FOR EURO)

EFFICIENCY:  
SWITCHING FREQUENCY:  
OVER-VOLTAGE PROTECTION:

75 % TYPICAL  
100 KHZ TYPICAL  
VOLTAGE LIMITED LESS 130% OF NOMINAL  
VOLTAGE

OVER-CURRENT / SHORT CIRCUIT:

CURRENT LIMITED, AUTO RECOVERY HICCUP  
MODE

OTHER PROTECTION:

INPUT FUSING  
REVERSE POLARITY PROTECTION: OUTPUT  
STEERING DIODE

SAFETY APPROVALS:  
MEDICAL MODELS:

UL 2601, CUL TO 22.2 # 601, TUV EN60601-1, CE,  
CLASS I & II (FUNCTIONAL GROUND).

ITE MODELS:

UL60950, CUL TO 22.2 #950, TUV TO EN60950,  
CE, CLASS I & II (FUNCTIONAL GROUND).  
4000VAC PRIMARY-SECONDARY; 1500 VAC  
PRIMARY -GROUND

DIELECTRIC WITHSTAND VOLTAGE:

LEAKAGE CURRENT:  
LINE SURGE:  
EMI:

< 0.1 mA  
EN 61000-4-5 LEVEL 4  
COMPLIES WITH EN55011 AND EN55022 CLASS  
B AND  
FCC PART 15 CLASS B WHEN TESTED WITH  
RESISTIVE LOAD.

CE MARK:

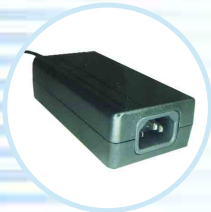
BOTH CONDUCTED AND RADIATED  
TESTED TO COMPLY WITH EN61000-3-2, -3-3,  
AND EN50082-1  
INCLUDING EN61000-4-2, EN61000-4-3,  
EN61000-4-4, EN61000-4-5,  
EN61000-4-6, EN61000-4-11, LEVEL 4.  
UNIT IS ELIGIBLE FOR CE MARK.

MTBF:

GREATER THAN 50,000 HOURS AT 25°C  
AMBIENT TEMPERATURE

OPERATING TEMPERATURE:  
STORAGE TEMPERATURE:  
HUMIDITY:

0 TO 40 C  
-40 TO 80 C  
0 TO 95% RELATIVE HUMIDITY





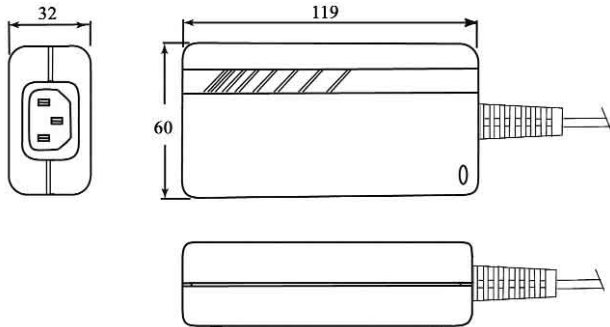
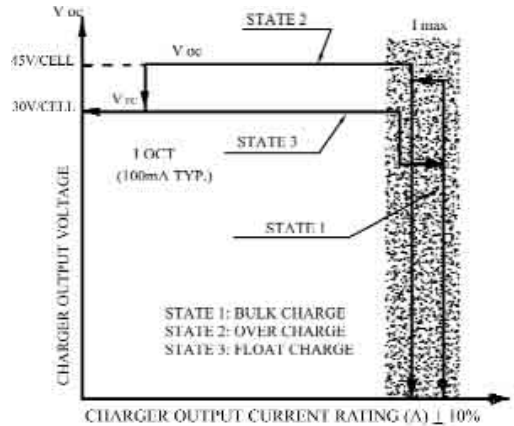
ISO 9001  
REGISTERED



**Constant-Current, 20-50 Watt Single Output Family,  
Desktop, Split-Rate Battery Charger Applications,  
ITE and Medical**



**STATE DIAGRAM:**



**3. ENCLOSURE**

UPPER HOUSING: HIGH IMPACT PLASTIC, 94V0 POLYCARBONATE, NON-VENTED, COLOR BLACK  
LOWER HOUSING: HIGH IMPACT PLASTIC 94V0 POLYCARBONATE, NON- VENTED, COLOR BLACK  
SIZE: 119 x 60 x 32 + 1 mm

**4. INDICATOR (2):** AMBER: CHARGING; GREEN: CHARGED

**5. INPUT CONNECTOR:**

CONFIGURATION: CLASS 1 MODEL IEC320 / C14, AC POWER RECEPTACLE WITH 3 PRONGS

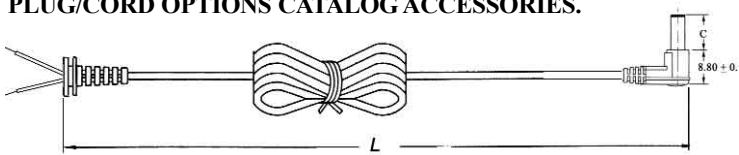
**6. OUTPUT CORD:**

2 CONDUCTOR , 20 AWG STRANDED WIRE FLAT RATED UL2468 CORD TYPE, COLOR BLACK ,  
LENGTH OF CORD: 1830 ± 50mm.  
CORD IS MEASURED FROM THE HOUSING TO THE END OF OVERMOLD OF THE CONNECTOR.  
CABLE MARKED WITH WIRE GAUGE, AND ALL APPLICABLE RATING AND SAFETY APPROVALS.

**7. OUTPUT CONNECTOR:**

STANDARD, RIGHT ANGLE FEMALE BARREL 5.5 x 2.5 x 14.5 MM WITH CENTER POSITIVE.:

**NOTE: FOR OTHER OUTPUT CORD/  
CONNECTOR ARRANGMENT, SEE OUTPUT  
PLUG/CORD OPTIONS CATALOG ACCESSORIES.**



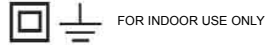
**A = 5.5 mm  
B = 2.5 mm  
C = 14.5 mm**





ISO 9001 REGISTERED


**Constant-Current, 20-50 Watt Single Output Family, Desktop, Split-Rate Battery Charger Applications, ITE and Medical**



**7. LABEL:**



44.5



**GlobTek, Inc.**

BATTERY CHARGER/POWER SUPPLY




PART NO: TR9CK5000LRPCC-Y-MED  
MODEL: GTM21097CC-4509-1.6




---

INPUT: 100-240 V ~ 50-60 Hz 1.6A  
OUTPUT: --- 7.4 V 5.0 A

---

L.P.S. (LIMITED POWER SOURCE)  
CAUTION: INDOOR USE ONLY!

Power Supply Recognized to the category of QMH2 under UL2601-1

S/N: \_\_\_\_\_


WWYY

  
 MADE IN XXXX

XXXX - USA OR CHINA

DATE CODE:  
WW - WEEK  
YY - YEAR

44.5



**GlobTek, Inc.**

BATTERY CHARGER/POWER SUPPLY




PART NO: TR9CX1100LRPCC-Y  
MODEL: GT-21097CC-5048-1.5




---

INPUT: 100-240 V ~ 50-60 Hz 1.6A  
OUTPUT: --- 46.5 V 1.1 A

---

L.P.S. (LIMITED POWER SOURCE)  
CAUTION: INDOOR USE ONLY!

S/N: \_\_\_\_\_

WWYY

  
 MADE IN XXXX

79.5

XXXX - USA OR CHINA

DATE CODE:  
WW - WEEK  
YY - YEAR

**8 INDIVIDUAL PACKING BOX:**

