



ISO 9001:2000  
REGISTERED

## GT-2065 SERIES-80W



### 0-80 Watts, 3"X5" Open Frame, Universal Input, Single Output Family, ITE

Part Number Ordering System (See Page ???)  
Output Plug/Cord Options (See Page ???)  
Medical Versions (See Page ???)



 INDOOR USE ONLY



#### ELECTRICAL SPECIFICATIONS:

##### INPUT VOLTAGE:

UNIVERSAL INPUT FROM 100VAC TO 240VAC

##### INPUT CURRENT:

1.5A@65W MAXIMUM AT 100VAC FULL LOAD

##### INPUT FREQUENCY:

47 HZ - 63 HZ

##### OUTPUT CURRENT:

NO MINIMUM LOAD REQUIRED

##### OUTPUT POWER (RATED):

65 WATTS MAX FREE AIR CONVECTION

##### OUTPUT RIPPLE (PEAK TO PEAK):

LESS THAN 1% OF OUTPUT VOLTAGE

##### OUTPUT LOAD REGULATION:

+/-2% MEASURED AT THE OUTPUT CONNECTOR END OF THE PSU

##### LINE REGULATION:

+ / - 0.5% OF NOMINAL VOLTAGE MEASURED AT O/P CONNECTOR

##### TURN ON/ TURN OFF OVERSHOOT:

5% MAXIMUM, 1mS TYPICAL RECOVERY TIME FOR 25% TO 50% STEP LOAD

##### TURN-ON DELAY:

3 SEC TYPICAL

##### HOLD-UP TIME:

10MS MINIMUM AT 80W AT 120VAC INPUT

##### INRUSH CURRENT:

20A MAXIMUM AT 120VAC AND 40A MAXIMUM AT 230VAC

##### EFFICIENCY:

80% TYPICAL AT NOMINAL INPUT AND FULL LOAD\*

##### SWITCHING FREQUENCY:

100 KHZ TYPICAL

##### OVER-VOLTAGE PROTECTION:

OUTPUT VOLTAGE LIMITED BY CROWBAR METHOD, HICCUP MODE

##### OVER-CURRENT / SHORT CIRCUIT:

HICCUP MODE, UNIT WILL RECOVER ONCE FAULT IS REMOVED

##### OTHER PROTECTION:

INPUT LINE FUSING

##### SAFETY APPROVALS:

EN60950, UL/CSA60950 3ED., EN60601, UL60601 A1/A2, CB, DEMKO, CE TO EN61000-3-2, EN610003-3, EN61000-4-2, EN61000-4-3, EN61000-4-4 EN61000-4-5, EN61000-4-6, EN61000-4-11, EMI TO EN55011 MEDICAL AND EN55022 ITE CLASS B, TESTED WITH RESISTIVE LOAD

#### DIELECTRIC WITHSTAND VOLTAGE:

4242VDC (3000VAC) FROM PRIMARY TO SECONDARY  
2121VDC (1500VAC) SECONDARY TO GROUND

#### LEAKAGE CURRENT:

LESS THAN 300µA AT 240VAC

#### LINE SURGE:

EN 61000-4-5 LEVEL 2

#### EMI:

COMPLIES WITH EN55022 CLASS B AND FCC PART 15 CLASS B WHEN TESTED WITH RESISTIVE LOAD, BOTH CONDUCTED AND RADIATED EMI.

#### CE MARK:

TESTED TO COMPLY WITH EN61000-3-2 EN610003-3 AND EN50082-1 INCLUDING EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11.

#### MTBF (BELCORE METHOD I, CASE 1):

1.1 MILLION HRS, 40C, GROUND BENIGN

#### OPERATING TEMPERATURE:

-20°C TO 50°C AMBIENT TEMPERATURE

#### STORAGE TEMPERATURE:

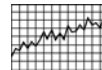
-40° C TO 80° C

#### HUMIDITY:

OPERATING, NON-CONDENSING; 5% TO 90% RH

#### NOTES:

- EACH OUTPUT CURRENT MAY VARY WITHIN ITS DESIGNATED RANGE, AS LONG AS OUTPUT POWER IS NOT EXCEEDED.
- SINGLE OUTPUT UNITS ARE AVAILABLE FROM 3.3V UP TO 48V IN 0.1V INCREMENTS.
- (X.X) OPTIONAL FOR SPECIFYING OUTPUT VOLTAGE DEVIATION FROM STANDARD MODEL. SUBTRACTING X.X VOLTS FROM STANDARD OUTPUT VOLTAGE.
- TYPICAL EFFICIENCY FOR 7.5V AND BELOW IS 70%



SEE APPENDIX "H" FOR ELECTRICAL PERFORMANCE CURVES

#### OPTIONS:

- PASSIVE PFC VERSION
- CLASS II VERSION
- EXTENDED PCB WITH CONFIGURABLE ENCLOSURE.
- OPEN FRAME WITH CONFIGURABLE INPUT AND OUTPUT WIRING HARNESS.
- L-BRACKET WITH PERFORATED COVER
- REMOTE SENSING

#### OUTPUT VOLTAGE / CURRENT:

MODEL NUMBER	OUTPUT VOLTAGE (VDC)	CURRENT (A) 10 CFM AIR FLOW	RATED OUTPUT POWER (W)
GT-2065(P)553.3-X.X	+3.3	16.67	55
GT-2065(P)5505-X.X	+5.0	11.00	55
GT-2065(P)707.5-X.X	+7.5	9.33	70
GT-2065(P)8009-X.X	+9.0	8.89	80
GT-2065(P)8012-X.X	+12.0	6.67	80
GT-2065(P)8015-X.X	+15.0	5.33	80
GT-2065(P)8018-X.X	+18.0	4.44	80
GT-2065(P)8024-X.X	+24.0	3.33	80
GT-2065(P)8036-X.X	+36.0	2.22	80
GT-2065(P)8048-X.X	+48.0	1.67	80

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MODEL NUMBER DESCRIPTION

GT(M)2065(P)553.3-X.X TO 8048-X.X

GT: GLOBTEK SERIES

M: MEDICAL GRADE, REPLACE "M" WITH "-" (DASH) FOR I.T.E. GRADE

2065: FAMILY DESIGNATOR

P: PASSIVE PFC VERSION; REPLACE "P" WITH "-" FOR NON-PFC VERSION

553.3 TO 8048: 55W 3.3V TO 80W 48V OUTPUT POWER OUTPUT VOLTAGE

XX: USE TO SPECIFY OUTPUT VOLTAGE DEVIATION FROM STANDARD MODEL BY SUBTRACTING X.X VOLTS FROM STANDARD OUTPUT VOLTAGE

F(W) OR F(W)A

F: OPEN FRAME VERSION

W: SAFETY CLASS II UNITS (NO "W" MEANS SAFETY CLASS I)

A: INDICATES 10CFM AIRFLOW REQUIREMENT

E)XXX(W) OR (E)XXX(W)A

E: EXTENDED PCB (3X6); NO "E" MEANS STANDARD SIZE BOARD (3X5)

XXX: DENOTES PERFORATED ENCLOSURE OR BASE PLATE SIZE CODE WHERE XXX CAN BE FROM 000 TO 999 (MAXIMUM BASE PLATE SIZE IS 50" X 30")

W: SAFETY CLASS II UNITS (NO "W" MEANS CLASS I)

A: INDICATES 10CFM AIRFLOW REQUIREMENT

HXXX(W) OR HXXX(W)A

H: INPUT AND/OR OUTPUT WIRE HARNESS OPTION

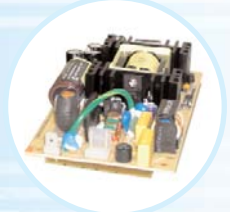
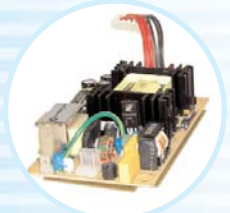
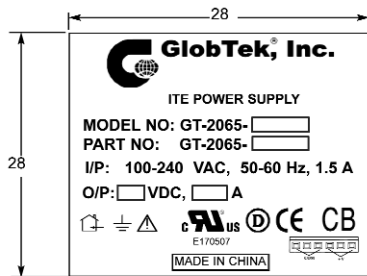
XXX: DENOTES INPUT AND /OR OUTPUT WIRE HARNESS LENGTH CODE WHERE XXX CAN BE FROM 000 TO 999 (MAXIMUM WIRE HARNESS LENGTH FOR INPUT CONNECTOR IS 100mm AND 200mm FOR OUTPUT CONNECTOR)

W: SAFETY CLASS II UNITS (NO "W" MEANS SAFETY CLASS I)

A: INDICATES 10CFM AIRFLOW REQUIREMENT

NOTES:

- 1) THE MEDICAL VERSION IS DESIGNED NOT TO BE USED IN SYSTEM WITH DIRECT PATIENT CONTACT APPLICATIONS.
- 2) FOR 80W VERSIONS, 10CFM OF AIR FLOW DIRECTED TOWARD THE LONGER SIDE OF THE POWER SUPPLY IS REQUIRED. THERMAL TESTING FOR 80W EVALUATION WAS DONE IN A WIND TUNNEL MEASURING 35" X 6" X 2" . A FINE WIRE MESH SCREEN (3 LOCATIONS) WAS USED TO DISPERSE THE INCOMING AIR.
- 3) SWITCHING FREQUENCY NOISE MEASUREMENT ARE MADE ACROSS A 20MHZ BANDWIDTH WITH 10UF TATALUM CAPACITOR AND 0.1UF CERAMIC CAPACITOR CONNECTED AT THE OUTPUT CONNECTOR.
- 4) CONDUCTED AND RADIATED EMI WERE PERFORMED WITH RESISTIVE LOADS SET TO FULL LOAD, NOMINAL LINES. DEPENDING ON SYSTEM CONFIGURATION, ADDITIONAL FILTERING MAY BE REQUIRED.
- 5) ALL MODELS MAY REQUIRE A MINIMUM MOUNTING STANDOFF OF 0.16" (4.00mm) IN THE END USER PRODUCT.
- 6) FOR OPTIMUM RELIABILITY, NO PART OF THE HEATSINK SHOULD EXCEED 120C AND NO SEMI-CONDUCTOR CASE SHOULD EXCEED 130C.
- 7) WHEN REMOTE SENSE IS USED, THE REMOTE SENSE WIRE SHOULD BE TWISTED AT 2 TWIST PER INCH TO AVOID STABILITY PROBLEM IN THE POWER SUPPLY.





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#### CONFIGURATION

OPEN FRAME SWITCHING POWER SUPPLY WITH MOUNTING HOLES POSITIONED AS BELOW

#### OUTPUT CONNECTOR (CON3)

MOLEX 6-PIN FRICTION LOCK HEADER MOLEX PN: 26-60-4060 MATES WITH PN: 09-50-3061, PIN 1,2,3: V+, PIN 4,5,6: COMM, CON2 IS REMOTE SENSE CONNECTOR, MOLEX 22-28-0020 MATES WITH MOLEX PN: 22-01-2021, PIN 1: +SENSE; PIN2: -SENSE

#### OUTPUT CONNECTOR (CON3) WITH WIRE HARNESS(H)

WIRE HARNESS WITH MOLEX HEADER PN: 09-50-3061 WITH AWG 18 STRANDED WIRE, UL1007 WITH CONFIGURABLE LENGTH UP TO 200mm. 3C X AWG18 RED FOR V+; 3C X AWG18 BLACK FOR COMMON. CON2 IS REMOTE SENSE CONNECTOR, MOLEX 22-28-0020 MATES WITH MOLEX PN: 22-01-2021 PIN 1: +SENSE; PIN2: -SENSE

#### INPUT AND OUTPUT CONNECTOR FOR ENCLOSED (E) VERSION

7-PIN TERMINAL BLOCK, PIN 2: AC NEUTRAL, PIN 1: AC LINE, PIN 3: EARTH GROUND, PIN 4,5: V+, PIN 6,7: COMMON, CON4 IS OPTIONAL REMOTE SENSE CONNECTOR, MOLEX PN: 22-28-0020 MATES WITH MOLEX PN: 22-01-2021, PIN 1: +SENSE; PIN2: -SENSE

#### OPEN FRAME CLASS I: T3

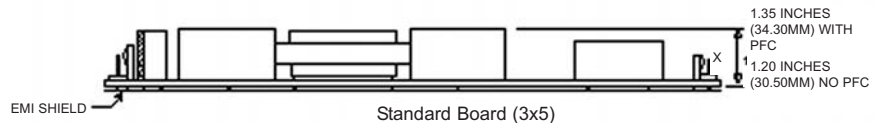
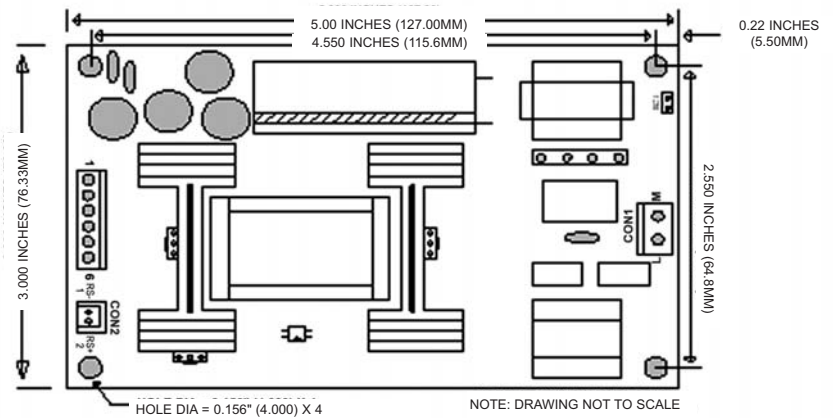
##### INPUT CONNECTOR (CON1)

MOLEX 3-PIN WITH CENTER PIN  
REMOVED MOLEX PN: 26-60-4030  
MATES

W/PN: 09-50-3031, PIN 1: AC NEUTRAL,  
PIN 3: AC LINE, EC1: EARTH GROUND  
FOR CLASS I UNITS ONLY

##### INPUT CONNECTOR (CON1 OPTION)

WIRE HARNESS WITH MOLEX  
HEADER PN: 09-50-3031  
WITH AWG 18 STRANDED WIRE,  
UL1007/UL1015 WITH CONFIGURABLE  
LENGTH UP TO 100mm.  
BLACK OR BROWN FOR AC LINE;  
WHITE OR BLUE FOR AC NEUTRAL;  
GREEN WITH YELLOW STRIPE  
FOR EARTH GROUND



DRAWING SHOWN IS FOR  
SINGLE OUTPUT

X = 1.35 (34.30) INCHES FOR SINGLE OUTPUT

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