

ISO 9001:2000  
REGISTERED**0-80 Watts, 3"X5" Open Frame, Universal Input,  
Dual and Triple Output Family, Medical****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 REGULATION (LINE/LOAD):**

+/-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 OVERTHOOT:**

5% MAXIMUM, 1ms TYPICAL RECOVERY TIME FOR 25% 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:**

75% 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 AND NEUTRAL FUSING

**SAFETY APPROVALS:**

EN60950, UL/CSA60950 3ED., EN60601, UL60601 A1/A2, CB, DEMKO, CE TO EN61000-3-2, EN61000-3-3, 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

**OUTPUT VOLTAGE / CURRENT:**

| MODEL NUMBER         |                            | OUTPUT VOLTAGE (VDC) | CURRENT (A) 10 CFM AIR FLOW | RATED OUTPUT POWER (W) |
|----------------------|----------------------------|----------------------|-----------------------------|------------------------|
| GTM2066(P)330500-XX  | F(W) OR EXXX(W) OR HXXX(W) | +3.3/+5.0            | 10.0/5.0                    | 58                     |
| GTM2066(P)051200-XX  | F(W) OR EXXX(W) OR HXXX(W) | +5.0/+12.0           | 10.0/2.50                   | 80                     |
| GTM2066(P)05N1200-XX | F(W) OR EXXX(W) OR HXXX(W) | +5.0/-12.0           | 10.0/2.50                   | 80                     |
| GTM2066(P)051500-XX  | F(W) OR EXXX(W) OR HXXX(W) | +5.0/+15.0           | 10.0/2.0                    | 80                     |
| GTM2066(P)05N1500-XX | F(W) OR EXXX(W) OR HXXX(W) | +5.0/-15.0           | 10.0/2.0                    | 80                     |
| GTM2066(P)052400-XX  | F(W) OR EXXX(W) OR HXXX(W) | +5.0/+24.0           | 10.0/1.25                   | 80                     |
| GTM2066(P)24N0500-XX | F(W) OR EXXX(W) OR HXXX(W) | +24.0/-5.0           | 2.92/2.0                    | 80                     |
| GTM2066(P)05N0500-XX | F(W) OR EXXX(W) OR HXXX(W) | +5.0/-5.0            | 14.0/2.0                    | 80                     |
| GTM2066(P)12N1200-XX | F(W) OR EXXX(W) OR HXXX(W) | +12.0/-12.0          | 5.66/1.0                    | 80                     |
| GTM2066(P)15N1500-XX | F(W) OR EXXX(W) OR HXXX(W) | +15.0/-15.0          | 4.33/1.0                    | 80                     |
| GTM2066(P)18N1800-XX | F(W) OR EXXX(W) OR HXXX(W) | +18.0/-18.0          | 3.44/1.0                    | 80                     |
| GTM2066(P)24N2400-XX | F(W) OR EXXX(W) OR HXXX(W) | +24.0/-24.0          | 2.85/0.50                   | 80                     |

**DIELECTRIC WITHSTAND VOLTAGE:**4242VDC (3000VAC) FROM PRIMARY TO SECONDARY  
2121VDC (1500VAC) SECONDARY TO GROUND**LEAKAGE CURRENT:**

LESS THAN 300uA 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 EN61000-3-3 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:**

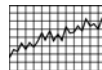
-40° C TO 80° C

**HUMIDITY:**

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

**NOTES:**

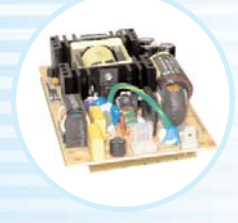
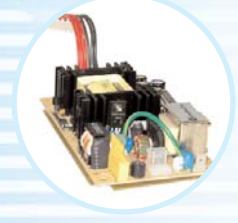
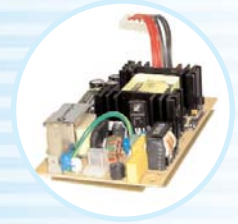
1. EACH OUTPUT CURRENT MAY VARY WITHIN IT'S DESIGNATED RANGE, AS LONG AS OUTPUT POWER IS NOT EXCEEDED.
2. SINGLE OUTPUT UNITS ARE AVAILABLE FROM 3.3V UP TO 48V IN 0.1V INCREMENTS.
3. (X.X) OPTIONAL FOR SPECIFYING OUTPUT VOLTAGE DEVIATION FROM STANDARD MODEL. SUBTRACTING X.X VOLTS FROM STANDARD OUTPUT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



SEE APPENDIX "H" FOR ELECTRICAL PERFORMANCE CURVES

**OPTIONS:**

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



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GTM2066 SERIES-80W



0-80 Watts, 3"X5" Open Frame, Universal Input,  
Dual and Triple Output Family, Medical



INDOOR USE ONLY



OUTPUT VOLTAGE / CURRENT:

| MODEL NUMBER                               | OUTPUT VOLTAGE (VDC)       | CURRENT (A)<br>10 CFM<br>AIR FLOW | RATED OUTPUT POWER (W) |
|--|----------------------------|-----------------------------------|------------------------|
| <b>TRIPLE OUTPUT SECTION (80W VERSION)</b> |                            |                                   |                        |
| (PRELIMINARY)                              |                            |                                   |                        |
| GTM2066(P)330512-XX                        | F(W) OR EXXX(W) OR HXXX(W) | +3.3/+5.0/+12.0                   | 7.0/4.6/1.0            |
| GTM2066(P)0512N12-XX                       | F(W) OR EXXX(W) OR HXXX(W) | +5.0/+12.0-12.0                   | 7.0/2.7/1.0            |
| GTM2066(P)0512N05-XX                       | F(W) OR EXXX(W) OR HXXX(W) | +5.0/+12.0/-5.0                   | 9.0/2.5/1.0            |
| GTM2066(P)051215-XX                        | F(W) OR EXXX(W) OR HXXX(W) | +5.0/+12.0/+15.0                  | 8.0/2.0/1.0            |
| GTM2066(P)0515N15-XX                       | F(W) OR EXXX(W) OR HXXX(W) | +5.0/+15.0/-15.0                  | 8.0/2.0/0.67           |
| GTM2066(P)051224-XX                        | F(W) OR EXXX(W) OR HXXX(W) | +5.0/+12.0/+24.0                  | 7.6/2.5/0.6            |
| GTM2066(P)0524N12-XX                       | F(W) OR EXXX(W) OR HXXX(W) | +5.0/+24.0/-12.0                  | 8.0/1.0/1.33           |

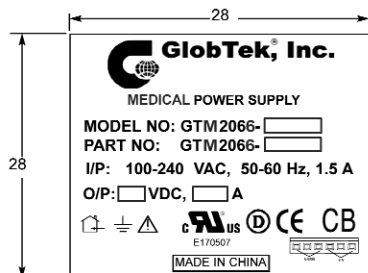
MODEL NUMBER DESCRIPTION

**GT(M)2065(P)553.3-X.X TO 8048-X.X**  
**GT:** GLOBTEK SERIES  
**M:** MEDICAL GRADE; - (DASH) FOR ITE GRADE  
**2065:** 65W FAMILY DESIGNATOR  
**P:** PASSIVE PFC VERSION; NO "P" FOR NON-PFC VERSION  
**553.3 TO 8048 =** 55W @ 3.3V UP TO 80W @ 48V OUTPUT POWER  
**XX:** USE TO SPECIFY OUTPUT VOLTAGE DEVIATION FROM STANDARD MODEL BY SUBTRACTING X.X VOLTS FROM STANDARD OUTPUT VOLTAGE  
**DUAL AND TRIPLE OUTPUT (GT(M)2066):** XXYYZZ DESIGNATES THE OUTPUT VOLTAGE COMBINATION.  
**F(W)**  
**F:** OPEN FRAME VERSION  
**W:** CLASS II UNITS (NO "W" MEANS CLASS I)

**(E)XXX(W)A**  
**E:** EXTENDED PCB (3X6); NO "E" MEANS STANDARD SIZE BOARD (3X5)  
**XXX:** DENOTES PERFORATED ENCLOSURE AND BASE PLATE SIZE CODE WHERE XXX CAN BE FROM 000 TO 999 (MAXIMUM PERFORATED ENCLOSURE AND BASE PLATE SIZE IS 50" X 30")  
**W:** CLASS II UNITS (NO "W" MEANS CLASS I)  
**HXXX(W)A**  
**H:** OPEN FRAME WITH CONFIGURABLE INPUT AND OUTPUT WIRE HARNESS USING UL1007/UL1015 AWG18 WIRES  
**XXX:** DENOTES INPUT AND 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:** CLASS II UNITS (NO "W" MEANS CLASS I)

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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**0-80 Watts, 3"X5" Open Frame, Universal Input, Dual and Triple Output Family, Medical**



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**CONFIGURATION**

OPEN FRAME SWITCHING POWER SUPPLY WITH MOUNTING HOLES POSITIONED AS BELOW

**OUTPUT CONNECTOR (CON3)**

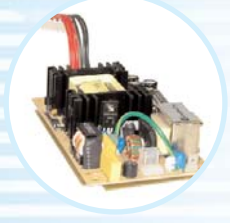
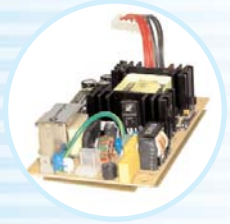
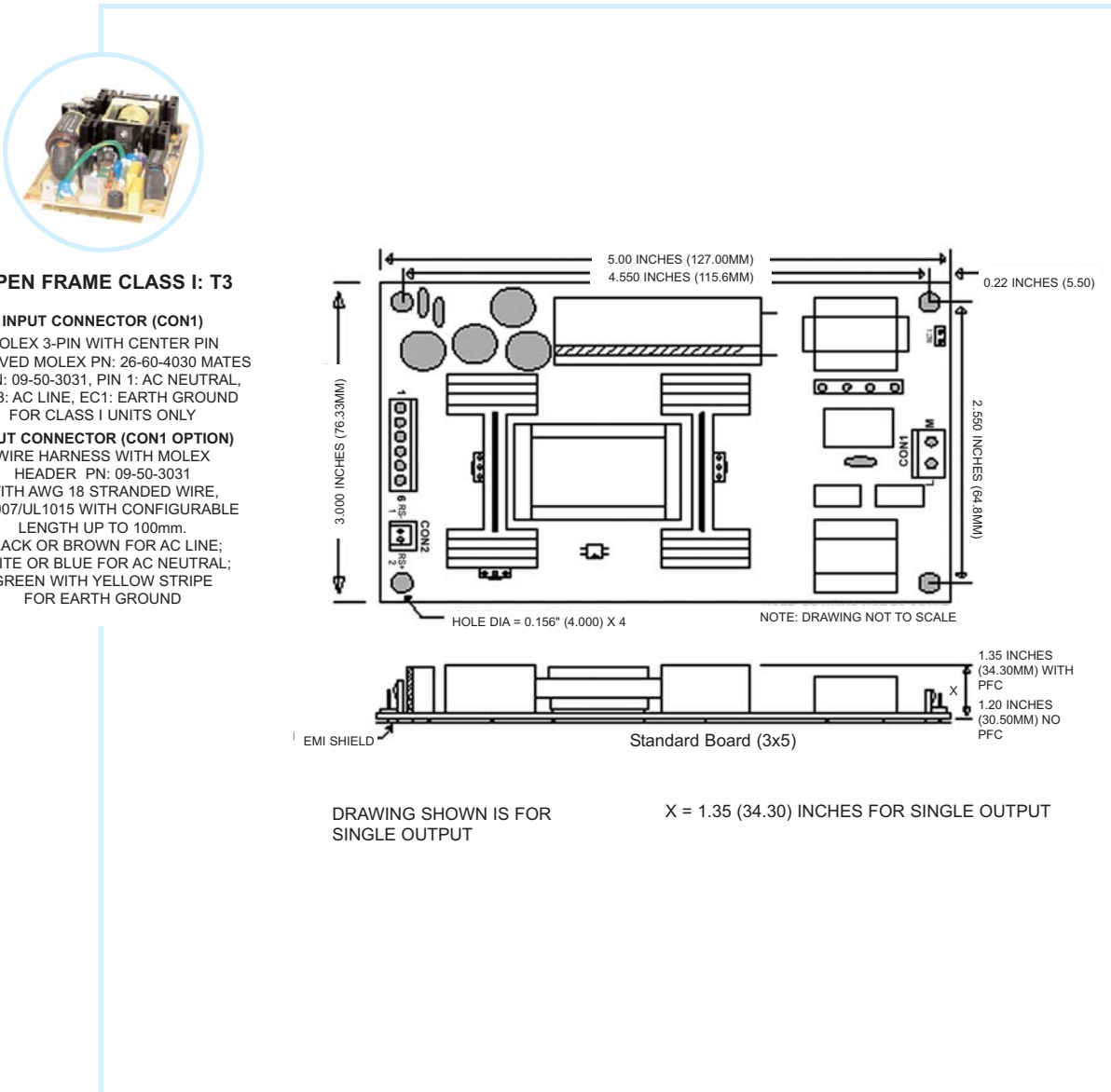
MOLEX 6-PIN FRICTION LOCK HEADER MOLEX PN: 26-60-4060 MATES WITH PN: 09-50-3061, PIN 1,2,3: V+, PIN 4,5,6: COMM, CON2 IS REMOTE SENSE CONNECTOR, MOLEX 22-28-0020 MATES WITH MOLEX PN: 22-01-2021, PIN 1: +SENSE; PIN2: -SENSE

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

WIRE HARNESS WITH MOLEX HEADER PN: 09-50-3061 WITH AWG 18 STRANDED WIRE, UL1007 WITH CONFIGURABLE LENGHT 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



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