



ISO 9001:2000
REGISTERED



0-65 Watts, 3"X5" Open Frame, Universal Input, Dual and Triple Output Family, Medical

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



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 OVERSHOOT:
5% MAXIMUM, 1ms TYPICAL RECOVERY TIME FOR 25% STEP LOAD

TURN-ON DELAY:
3 SEC TYPICAL

HOLD-UP TIME:
12ms MINIMUM AT 65W AT 120VAC INPUT

INRUSH CURRENT:
20A MAXIMUM AT 120VAC AND 40A MAXIMUM AT 230VAC

EFFICIENCY:
75% TYPICAL AT NOMINAL INPUT AND FULL LOAD⁴

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

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.

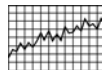
MTBF (BELCORE METHOD I, CASE 1):
1.1 MILLION HRS, 40C, GROUND BENIGN

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%



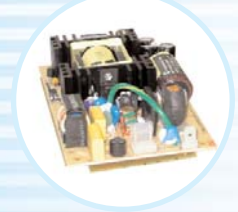
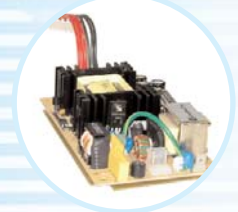
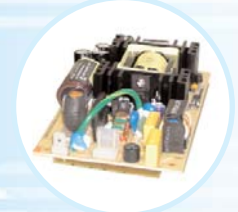
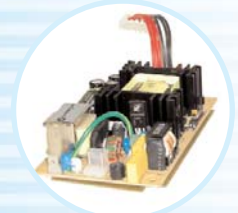
SEE APPENDIX "G" FOR ELECTRICAL PERFORMANCE CURVES

- 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

OUTPUT VOLTAGE / CURRENT:

MODEL NUMBER	DUAL OUTPUT SECTION (PRELIMINARY)	OUTPUT VOLTAGE (VDC)	65W OUTPUT CURRENT (A) FREE AIR CONVECTION	RATED OUTPUT POWER (W)
GTM2066(P)330500-XX	F(W) OR EXXX(W) OR HXXX(W)	+3.3/+5.0	10.0/1.4	40
GTM2066(P)051200-XX	F(W) OR EXXX(W) OR HXXX(W)	+5.0/+12.0	10.0/1.25	65
GTM2066(P)05N1200-XX	F(W) OR EXXX(W) OR HXXX(W)	+5.0/-12.0	10.0/1.25	65
GTM2066(P)051500-XX	F(W) OR EXXX(W) OR HXXX(W)	+5.0/+15.0	10.0/1.0	65
GT-2066(P)05N1500-XX	F(W) OR EXXX(W) OR HXXX(W)	+5.0/-15.0	10.0/1.0	65
GTM2066(P)052400-XX	F(W) OR EXXX(W) OR HXXX(W)	+5.0/+24.0	10.0/0.62	65
GTM2066(P)24N0500-XX	F(W) OR EXXX(W) OR HXXX(W)	+24.0/-5.0	2.29/2.0	65
GTM2066(P)05N0500-XX	F(W) OR EXXX(W) OR HXXX(W)	+5.0/-5.0	11.0/2.0	65
GTM2066(P)12N1200-XX	F(W) OR EXXX(W) OR HXXX(W)	+12.0/-12.0	4.41/1.0	65
GTM2066(P)15N1500-XX	F(W) OR EXXX(W) OR HXXX(W)	+15.0/-15.0	3.33/1.0	65
GTM2066(P)18N1800-XX	F(W) OR EXXX(W) OR HXXX(W)	+18.0/-18.0	2.61/1.0	65
GTM2066(P)24N2400-XX	F(W) OR EXXX(W) OR HXXX(W)	+24.0/-24.0	2.20/0.50	65

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OUTPUT VOLTAGE / CURRENT:



MODEL NUMBER	OUTPUT VOLTAGE (VDC)	65W OUTPUT CURRENT (A) FREE AIR CONVECTION	RATED OUTPUT POWER (W)	
TRIPLE OUTPUT SECTION			PRELIMINARY	
GTM2066(P)330512-XX	F(W) OR EXXX(W) OR HXXX(W)	+3.3/+5.0/+12.0	5.0/3.0/1.0	43.5
GTM2066(P)0512N12-XX	F(W) OR EXXX(W) OR HXXX(W)	+5.0/+12.0-12.0	5.0/2.3/1.0	65
GTM2066(P)0512N05-XX	F(W) OR EXXX(W) OR HXXX(W)	+5.0/+12.0/-5.0	7.0/2.0/1.2	65
GTM2066(P)051215-XX	F(W) OR EXXX(W) OR HXXX(W)	+5.0/+12.0/+15.0	5.0/2.0/1.0	65
GTM2066(P)0515N15-XX	F(W) OR EXXX(W) OR HXXX(W)	+5.0/+15.0/-15.0	5.0/2.0/0.67	65
GTM2066(P)051224-XX	F(W) OR EXXX(W) OR HXXX(W)	+5.0/+12.0/+24.0	5.8/2.0/0.50	65
GTM2066(P)0524N12-XX	F(W) OR EXXX(W) OR HXXX(W)	+5.0/+24.0/-12.0	5.0/1.0/1.33	65

MODEL NUMBER DESCRIPTION

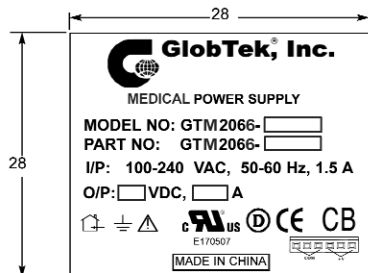
GT(M)2065(P)333.3-X.X TO 6548-X.X
GT: GLOBTEK SERIES
M: MEDICAL GRADE; - (DASH) FOR ITE GRADE
2065: 65W FAMILY DESIGNATOR
P: PASSIVE PFC VERSION; NO "P" FOR NON-PFC VERSION
333.3 TO 6548 = 33W @ 3.3V UP TO 65W @ 48V OUTPUT POWER
XX: USE TO SPECIFY OUTPUT VOLTAGE DEVIATION FROM STANDARD MODEL BY SUBTRACTING 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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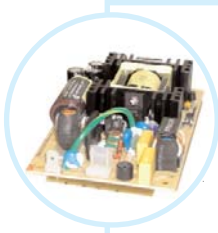
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CONFIGURATION

OPEN FRAME SWITCHING POWER SUPPLY WITH MOUNTING HOLES POSITIONED AS BELOW



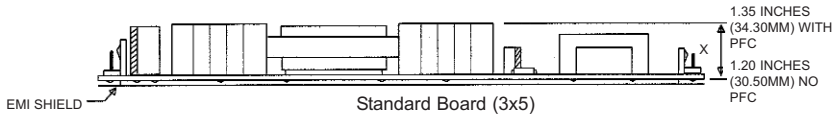
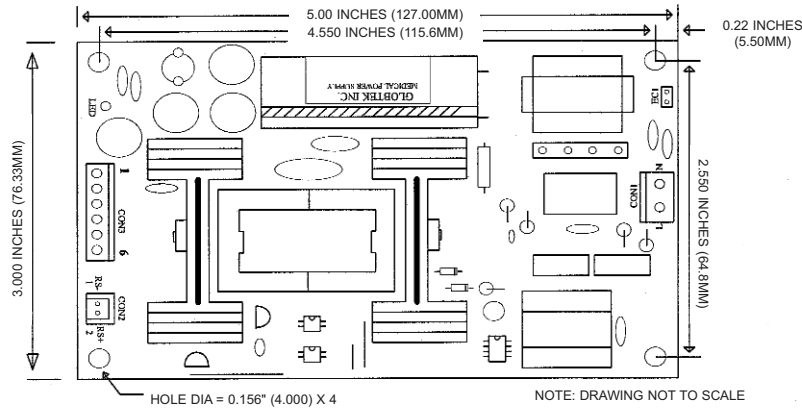
OPEN FRAME CLASS I:

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



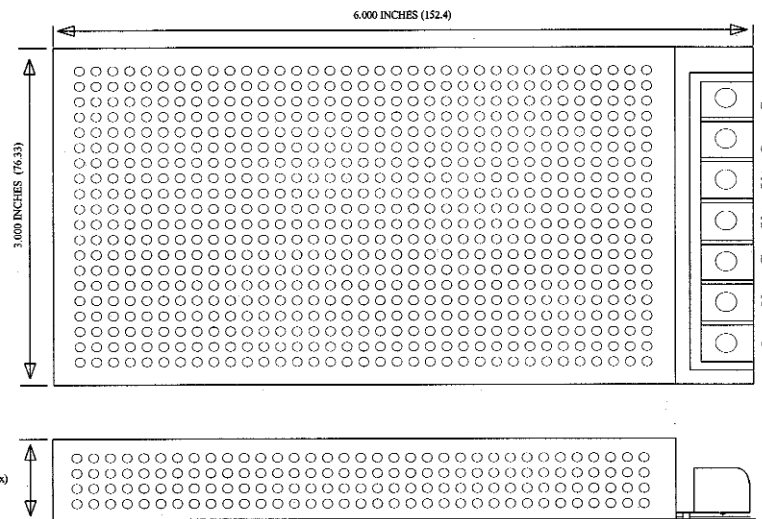
DRAWING SHOWN IS FOR SINGLE OUTPUT

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

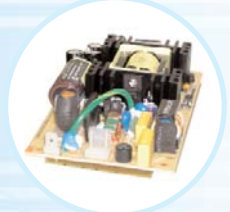
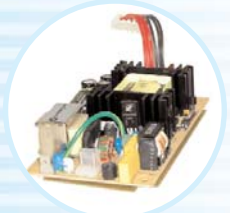
OUTPUT CONNECTOR (CON3) WITH WIRE HARNESS(H): WIRE HARNESS WITH MOLEX HEADER PN: 09-50-3061 WITH AWG 18 STRANDED WIRE, UL1007 WITH CONFIGURABLE LENGTH UP TO 200mm. 3C X AWG18 RED FOR V+; 3C X AWG18 BLACK FOR COMMON. CON2 IS REMOTE SENSE CONNECTOR, MOLEX 22-28-0020 MATES WITH MOLEX PN: 22-01-2021 PIN 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

OPTION: L-BRACKET WITH PERFORATED COVER.



Extended Board (3x6)



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