



ISO 9001:2000  
REGISTERED

GTM9200P350



**Switcher, 350 Watt, Family, Single Output,  
Open Frame Universal Input, Medical, Class I**



**ELECTRICAL SPECIFICATIONS:**

**INPUT RANGE:**  
90-264 VAC

**INPUT LINE FREQUENCY:**  
47-63Hz

**INPUT CURRENT:**  
<5A RMS @ 90VAC

**INRUSH CURRENT:**  
40A TYPICAL, COLD START @ 25°C

**EFFICIENCY:**  
80% TYPICAL AT FULL LOAD

**POWER FACTOR:**  
0.99 TYPICAL

**TURN-ON DELAY:**  
2 SECOND TYPICAL @ 115VAC NOMINAL LINE

**INPUT LINE PROTECTION:**  
MOV TRANSIENT PROTECTED. INPUT LINE FUSE PROVIDED ON-BOARD

**SOFT START:**  
STANDARD ON ALL MODELS

**MAXIMUM POWER:**  
350 WATTS WITH FREE AIR CONVECTION COOLING

**ADJUSTMENT RANGE:**  
± 10%

**LOAD REGULATION:**  
± 2% MEASURED AT THE CONNECTOR SIDE

**LINE REGULATION:**  
± 0.5% MEASURED AT THE CONNECTOR SIDE

**HIGH FREQUENCY RIPPLE:**  
1% OF OUTPUT VOLTAGE, PEAK TO PEAK

**TURN ON/OFF OVERSHOOT:**  
5% MAXIMUM, 1mS RECOVERY TIME

**HOLD-UP TIME:**  
20 mS @ 200W LOAD, 115VAC NOMINAL LINE

**TRANSIENT RESPONSE:**  
1mS RECOVERY TO WITHIN 1% OF THE REGULATION BAND WITH NO MORE THAN 5% OUTPUT VOLTAGE DEVIATION @ 50% LOAD STEP.

**OVERLOAD PROTECTION:**  
PROTECTED @ 115-130% OF FULL LOAD RATING FOLD BACK

**SHORT CIRCUIT:**  
FOLDBACK, AUTORECOVER UPON REMOVAL OF SHORT

**OVERVOLTAGE:**  
10% TO 20% ABOVE NOMINAL OUTPUT, LATCH

**INDICATOR:**  
GREEN LED FOR OUTPUT PRESENCE

**FAN OUTPUT:**  
12V @ 0.15A (UNREGULATED)

**MODEL DESCRIPTION:**  
GTM9200P1323.3-X.X TO 20048-X.X  
GT: GLOBTEK SERIES  
M: MEDICAL GRADE  
9200: FAMILY DESIGNATOR  
1853.3 TO 35048: 185W 3.3V TO 350W 48V OUTPUT  
POWER OUTPUT VOLTAGE  
X.X: OUTPUT VOLTAGE DEVIATION FROM STANDARD  
MODEL BY SUBTRACTING X.X VOLT FROM STANDARD  
OUTPUT VOLTAGE.  
S: INPUT HEADER AND OUTPUT METAL TERMINAL  
ON BOARD.  
R: IEC INPUT RECEPTACLE AND OUTPUT METAL TERMINAL  
ON BOARD.  
HIOXXX: INPUT AND OUTPUT WIRE HARNESS. WHERE XXX  
CAN BE FROM 000 TO 999 (MAXIMUM LENGHT FOR INPUT IS  
100MM AND 200MM FOR OUTPUT).  
HORXXX: IEC INPUT RECEPTACLE ON BOARD AND OUTPUT  
WIRE HARNESS. WHERE XXX CAN BE FROM 000 TO 999  
(MAXIMUM WIRE LENGHT FOR OUTPUT IS 200MM).  
HOXXX: INPUT HEADER ON BOARD AND OUTPUT WIRE  
HARNESS. WHERE XXX CAN BE FROM 000 TO 999  
(MAXIMUM WIRE LENGTH FOR OUTPUT IS 200MM).  
HIXXX: INPUT WIRE HARNESS. OUTPUT METAL TERMINAL ON  
BOARD. WHERE XXX CAN BE FROM 000 TO 999 (MAXIMUM  
WIRE LENGTH FOR INPUT IS 100MM).

**REMOTE ON/OFF:**

OPEN, INHIBITS OUTPUT.

**DC POWER GOOD:**  
TTL LOGIC GOES HIGH AFTER THE OUTPUT IS IN REGULATION. IT GOES LOW WHEN THERE IS LOSS OF REGULATION.

**REMOTE SENSE:**  
COMPENSATE FOR 0.5V LEAD DROP. WILL OPERATE WITHOUT REMOTE SENSE CONNECTION.

**TEMPERATURE COEFFICIENT:**  
± 0.02% PER °C, TYPICAL

**OPERATING TEMPERATURE:**  
0° TO 60°C FOR MODELS WITH OUTPUT <12V  
0° TO 70°C FOR MODELS WITH OUTPUT ≥12V

**STORAGE TEMPERATURE:**  
-40° TO 85°C

**RELATIVE HUMIDITY:**  
OPERATING; 0-90% NON-CONDENSING

**ALTITUDE:**  
UP TO 10000 FEET

**RANDOM VIBRATION/TRANSIENT DROP:**  
MIL-STD 810E

**MTBF:**  
>100,000 HOURS @ 25° AMBIENT TEMPERATURE, FULL LOAD, NOMINAL LINE, MIL-217 STD.

**SAFETY:**  
HIPOT (PRI-SEC)  
5656 VDC

**EARTH LEAKAGE:**  
< 0.3mA @ 50/60Hz, 264 VAC INPUT

**APPROVAL:**  
UL60601-1, CUL TO 22.2 NO. 60601-1, CB REPORT, DEMKO TO EN60601-1.

**EMI:**  
EN55022 CLASS B AND FCC PART 15, TESTED WITH RESISTIVE LOAD.

**CE MARK:**  
EN61000-3-2, EN61000-3-3 AND EN50082-1, INCLUDING EN61000-4-2 (SYSTEM LEVEL), EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11 LEVEL 4

**NOTES:**

1. MEDICAL VERSION IS DESIGNED NOT TO BE USED IN SYSTEM WITH DIRECT PATIENT CONTACT.
2. ALL MEASUREMENTS ARE MADE DIRECTLY AT THE TERMINALS OF THE SUPPLY.
3. OUTPUT RIPPLE AND SPIKE ARE MEASURED DIRECTLY AT THE OUTPUT TERMINALS OF THE POWER SUPPLY WITH 10µF TANTALUM AND 0.1µF CERAMIC CAPACITORS CONNECTED IN PARALLEL. PEAK-TO-PEAK METERING EQUIPMENT MUST HAVE A 20 MHz FREQUENCY RESPONSE WITH PROBES AND CABLES THAT MAINTAIN A FREQUENCY RESPONSE OF 20Hz TO 20MHz. OUTPUT RIPPLE SPECS OF 3.3V AND 5V MODELS IS 2% OF RESPECTIVE OUTPUT VOLTAGE.
4. CONDUCTED AND RADIATED EMI WERE PERFORMED WITH RESISTIVE LOAD SET TO FULL. PSU AND RESISTIVE LOAD WERE MOUNTED TOGETHER IN A 30 x 30 x 3 mm ALUMINUM PLATE.
5. REMOTE SENSE WIRE SHOULD BE TWISTED TOGETHER WHEN USED.
6. ALL MEASUREMENTS ARE MADE AT 25°C AMBIENT TEMPERATURE AND ARE TYPICAL.
7. MOUNTING MAXIMUM INSERTION DEPTH IS 3MM.
8. GLOBTEK PRODUCTS ARE NOT AUTHORIZED TO BE USED AS MISSION CRITICAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE CEO OF GLOBTEK INC.
9. SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

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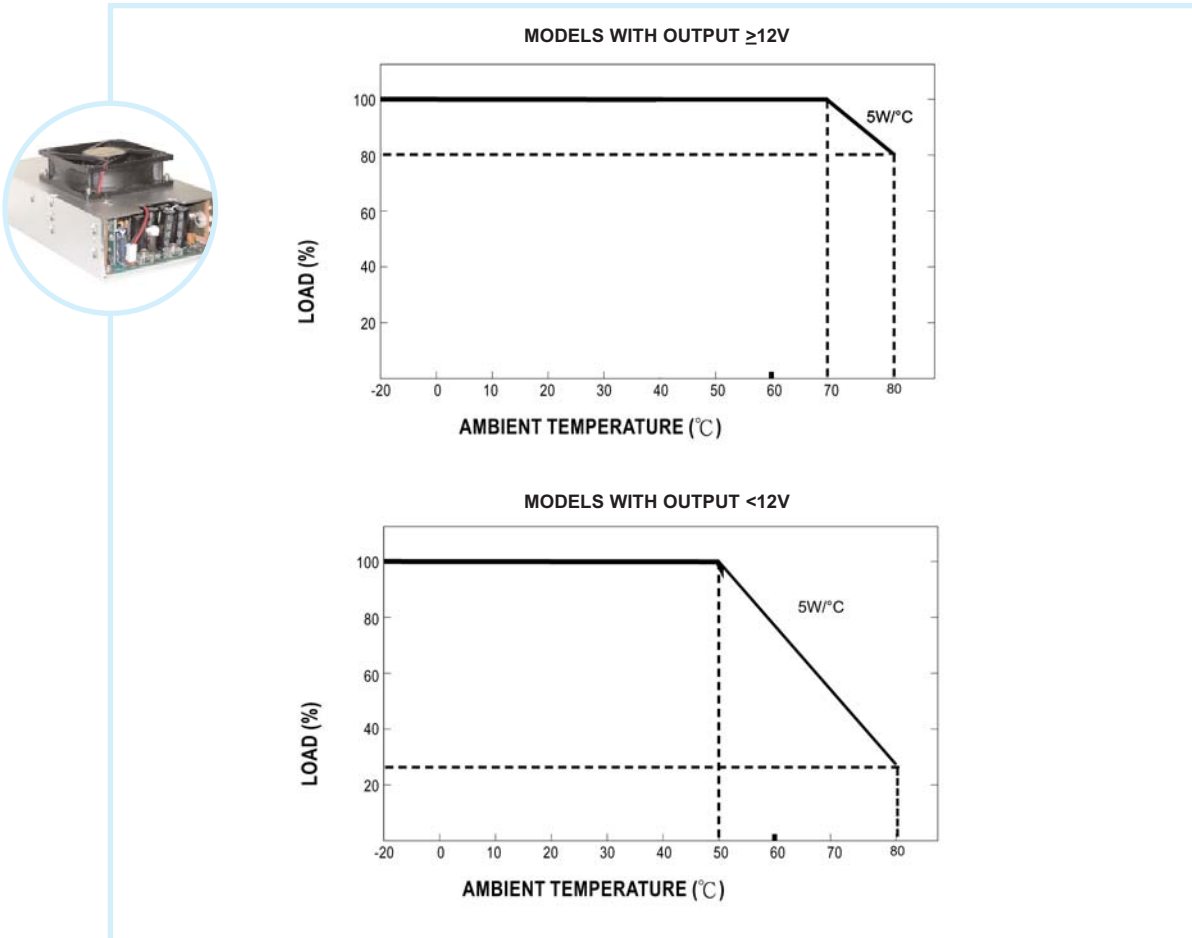


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**OUTPUT VOLTAGE / CURRENT:  
350 WATTS MODELS, NATURAL CONVECTION**

MODEL NUMBER		OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (A)	RATED OUTPUT POWER (W)
GTM9200P1853.3-X.X	[ HIOXXX or HORXXX or HOXXX]	3.3	56	185
GTM9200P2313.3-X.X	[ S or R or HIXXX]	3.3	70	237
GTM9200P2805-X.X	[ HIOXXX or HORXXX or HOXXX]	5	56	280
GTM9200P3505-X.X	[ S or R or HIXXX]	5	70	350
GTM9200P3507.5-X.X	[ S or R or HIOXXX or HORXXX or HOXXX or HIXXX]	7.5	46.67	350
GTM9200P3509-X.X	[ S or R or HIOXXX or HORXXX or HOXXX or HIXXX]	9	38.89	350
GTM9200P35012-X.X	[ S or R or HIOXXX or HORXXX or HOXXX or HIXXX]	12	29.17	350
GTM9200P35015-X.X	[ S or R or HIOXXX or HORXXX or HOXXX or HIXXX]	15	23.33	350
GTM9200P35018-X.X	[ S or R or HIOXXX or HORXXX or HOXXX or HIXXX]	18	19.44	350
GTM9200P35024-X.X	[ S or R or HIOXXX or HORXXX or HOXXX or HIXXX]	24	14.58	350
GTM9200P35036-X.X	[ S or R or HIOXXX or HORXXX or HOXXX or HIXXX]	36	9.72	350
GTM9200P35048-X.X	[ S or R or HIOXXX or HORXXX or HOXXX or HIXXX]	48	7.29	350

**OUTPUT DERATING**



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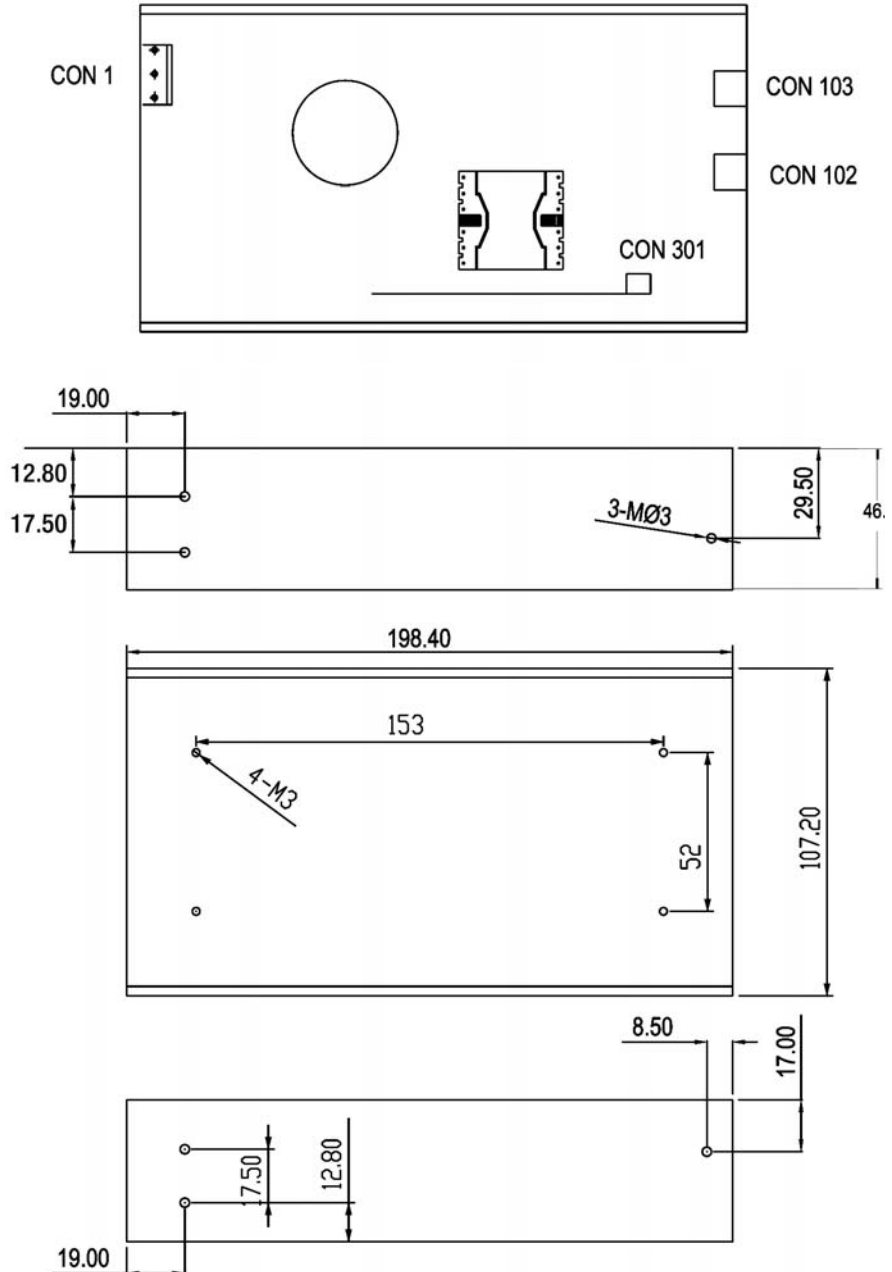


**MECHANICAL SPECIFICATION**

SIZE: 198.40 x 107.20 x 46.50 mm



**PIN ASSIGNMENTS:**  
CON1: (PIN 1: EARTH,  
PIN 3: NEUTRAL, PIN 5: LIVE)  
MOLEX P/N 26-62-4051 (FOR S  
and HOXXX versions)  
MOLEX P/N 09-50-3051, CRIMP  
TERMINAL P/N 08-52-0071 (FOR  
HIXXX and HIOXXX versions)  
INALWAYS P/N 0707-1 (FOR VER-  
SIONS R and HORXXX)  
CON102 (POSITIVE), CON103  
(COMMON):  
M4X6 SCREW TERMINAL (FOR S,  
R and HIXXX versions)  
MOLEX P/N 39-01-2165 (FOR  
HIOXXX, HIXXX, HOXXX and  
HORXXX versions)  
**MATING CONNECTORS:**  
CON1: MOLEX P/N 09-50-3051,  
CRIMP TERMINAL P/N 08-52-0071  
(FOR VERSIONS S and HOXXX)  
MOLEX P/N 26-62-4051  
(FOR VERSIONS HIXXX and  
HIOXXX) CON102 / CON103:  
MOLEX P/N 39-28-8160, CRIMP  
TERMINAL P/N 44485-1211 (FOR  
VERSIONS HIOXXX, HIXXX,  
HOXXX and HORXXX)



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