



ISO 9001:2000  
REGISTERED

## GTM21089 SERIES-19W



### 0-19 Watts, DeskTop Universal Input, Single Output Family, Medical Class I & II

Part Number Ordering System (See Page 224)  
Output Plug/Cord Options (See Page 189)



#### ELECTRICAL SPECIFICATIONS:

**INPUT VOLTAGE:**  
90 VAC TO 264 VAC

**INPUT CURRENT:**  
< 0.5 A RMS AT 90 VAC INPUT

**INPUT FREQUENCY:**  
47 HZ - 63 HZ

**OUTPUT CURRENT:**  
NO LOAD TO FULL LOAD, NO MINIMUM LOAD REQUIRED

**OUTPUT POWER (RATED):**  
19 WATTS MAX

**OUTPUT RIPPLE (PEAK TO PEAK):**  
≤ 1% TYP

**OUTPUT REGULATION (LINE/LOAD):**  
± 5% FOR MAIN OUTPUT, MEASURED AT O/P CONNECTOR

**LINE REGULATION:**  
± 1% MAX AT FULL LOAD

**TURN ON/ TURN OFF OVERSHOOT:**  
5% MAX 500µS MAX RECOVERY TIME FOR 25% STEP LOAD

**TURN-ON DELAY:**  
1 SEC TYPICAL

**HOLD-UP TIME:**  
10 mSEC MIN AT NOMINAL INPUT AND FULL LOAD

**INRUSH CURRENT:**  
30 A TYPICAL AT COLD START FOR N.A. (40A FOR EURO)

**EFFICIENCY:**  
75 % TYPICAL

**SWITCHING FREQUENCY:**  
100 KHZ TYPICAL

**OVER-VOLTAGE PROTECTION:**  
VOLTAGE LIMITED LESS 130% OF NOMINAL VOLTAGE

**OVER-CURRENT / SHORT CIRCUIT:**  
HICCUP WITH AUTO RECOVERY TO 1.1 - 1.3 IO

**OTHER PROTECTION:**  
INPUT LINE AND NEUTRAL FUSING

**SAFETY APPROVALS:**  
**MEDICAL MODELS:**  
UL 60601-1, CUL TO 22.2 NO. 601, TUV EN60601, AND cTUVus TO UL 60601 FOR CLASS I AND CLASS II;  
CE FOR EMC, PSE TO J60950, PSE TO J60950

**DIELECTRIC WITHSTAND VOLTAGE:**  
5656 VDC (4000 VAC) PRIMARY-SECONDARY  
2121 VDC (1500 VAC) PRIMARY- GROUND



**LEAKAGE CURRENT:**  
< 300µA at 264Vac INPUT VOLTAGE

**LINE SURGE:**  
EN 61000-4-5 LEVEL 4

**EMI:**  
COMPLIES WITH EN55022 AND EN55011, CLASS B AND FCC PART 15 CLASS B WHEN TESTED WITH A RESISTIVE LOAD, BOTH CONDUCTED AND RADIATED

**CE MARK:**  
EN55011, Group 1, Class B, EN5022 Class B, EN55011, Group 1, Class B; EN55024 / EN60601-1-2 / IEC 61000-4-3:2002; EN55024 / EN60601-1-2 / IEC 61000-4-6:2001 ; EN55024 / EN60601-1-2 / IEC 61000-4-8:2001; EN55024 / EN60601-1-2 / IEC 61000-4-11:2001; EN55024 / EN60601-1-2 / IEC 61000-4-4:2001; EN55024 / EN60601-1-2 / IEC 61000-4-2:2001; EN55024 / EN60601-1-2 / IEC 61000-4-5:2001; EN55024 / EN 61000-3-3 A1: 2001 / EN 61000-3-3 A1: 2001; EN55024 / EN 61000-3-2:2001 / EN 61000-3-2:2001. UNIT IS ELIGIBLE FOR CE MARK.

**MTBF:**  
GREATER THAN 200,000 HOURS AT 25°C AMBIENT TEMPERATURE, AND NOMINAL LINE AT FULL LOAD PER MIL-217.

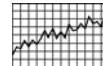
**OPERATING TEMPERATURE:**  
0° C TO 40° C

**STORAGE TEMPERATURE:**  
-40° C TO 80° C

**HUMIDITY:**  
0% TO 90% RELATIVE HUMIDITY

**MODEL NUMBER CODE:**  
GT-2: INTERNAL CODE;  
M: MEDICAL MODEL  
1089: FAMILY DESIGNATION;  
1003 TO 1948: POWER/INPUT VOLTAGE;  
T: DESKTOP;  
3: CLASS II WITH FUNCTIONAL EARTH (3 PRONGS)  
2: CLASS II, DOUBLE INSULATED;

- NOTES:**
1. EACH OUTPUT CURRENT MAY VARY WITHIN IT'S DESIGNATION RANGE, AS LONG AS OUTPUT POWER IS NOT EXCEEDED.
  2. OUTPUTS ARE AVAILABLE FROM 3.3V-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.



SEE APPENDIX "C" FOR ELECTRICAL PERFORMANCE CURVES

#### OUTPUT VOLTAGE / CURRENT: CLASS I MODELS, PROTECTIVE GROUND

MODEL NUMBER	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (A)	RATED OUTPUT POWER (W)
GTM21089-1003-T3	+3.3	0 - 2.6	0-9
GTM21089-1305-1.0-T3	+4.0	0 - 2.6	0-10
GTM21089-1305-X.X-T3	+5.0	0 - 2.6	0-13
GTM21089-1506-X.X-T3	+6.0	0 - 2.5	0-15
GTM21089-1509-2.0-T3	+7.0	0 - 2.0	0-15
GTM21089-1509-1.0-T3	+8.0	0 - 1.8	0-15
GTM21089-1509-X.X-T3	+9.0	0 - 1.7	0-15
GTM21089-1512-2.0-T3	+10.0	0 - 1.5	0-15
GTM21089-1512-1.0-T3	+11.0	0 - 1.3	0-15

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INDOOR USE ONLY

**OUTPUT VOLTAGE / CURRENT:  
CLASS I MODELS, FUNCTIONAL GROUND**

MODEL NUMBER	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (A)	RATED OUTPUT POWER (W)
GTM21089-1512-X.X-T3	+12.0	0 - 1.25	0-15
GTM21089-1815-2.0-T3	+13.0	0 - 1.15	0-15
GTM21089-1815-1.2-T3	+13.8	0 - 1.09	0-15
GTM21089-1815-1.0-T3	+14.0	0 - 1.07	0-15
GTM21089-1815-X.X-T3	+15.0	0 - 1.2	0-18
GTM21089-1818-2.0-T3	+16.0	0 - 1.2	0-18
GTM21089-1818-1.0-T3	+17.0	0 - 1.0	0-18
GTM21089-1818-X.X-T3	+18.0	0 - 1.0	0-18
GTM21089-1824-5.0-T3	+19.0	0 - 0.95	0-18
GTM21089-1824-4.0-T3	+20.0	0 - 0.90	0-18
GTM21089-1824-X.X-T3	+24.0	0 - .75	0-18
GTM21089-1948-20.4-T3 (TUV/NRTL REPLACES UL/NRTL)	+27.6	0 - 0.65	0-18
GTM21089-1940-18.0-T3 (TUV/NRTL REPLACES UL/NRTL)	+30.0	0 - 0.6	0-18
GTM21089-1948-12.0-T3 (TUV/NRTL REPLACES UL/NRTL)	+36.0	0 - 0.5	0-19
GTM21089-1948-X.X-T3 (TUV/NRTL REPLACES UL/NRTL)	+48.0	0 - 0.4	0-19

**OUTPUT VOLTAGE / CURRENT:  
CLASS II MODELS, DOUBLE INSULATED**

GTM21089-1003-T2	+3.3	0 - 2.6	0-9
GTM21089-1505-1.0-T2	+4.0	0 - 2.6	0-9
GTM21089-1505-X.X-T2	+5.0	0 - 2.6	0-13
GTM21089-1506-X.X-T2	+6.0	0 - 2.5	0-15
GTM21089-1509-2.0-T2	+7.0	0 - 2.0	0-15
GTM21089-1509-1.0-T2	+8.0	0 - 1.8	0-15
GTM21089-1509-X.X-T2	+9.0	0 - 1.7	0-15
GTM21089-1512-2.0-T2	+10.0	0 - 1.5	0-15
GTM21089-1512-1.0-T2	+11.0	0 - 1.3	0-15
GTM21089-1512-X.X-T2	+12.0	0 - 1.25	0-15
GTM21089-1815-3.0-T2	+13.0	0 - 1.15	0-15
GTM21089-1815-2.0-T3	+13.8	0 - 1.09	0-15
GTM21089-1815-1.0-T2	+14.0	0 - 1.07	0-15
GTM21089-1815-X.X-T2	+15.0	0 - 1.2	0-18
GTM21089-1818-2.0-T2	+16.0	0 - 1.2	0-18
GTM21089-1818-1.0-T2	+17.0	0 - 1.0	0-18
GTM21089-1818-X.X-T2	+18.0	0 - 1.0	0-18
GTM21089-1824-5.0-T2	+19.0	0 - 0.95	0-18
GTM21089-1824-4.0-T2	+20.0	0 - 0.90	0-18
GTM21089-1824-X.X-T2	+24.0	0 - .75	0-18
GTM21089-1948-20.4-T3 (TUV/NRTL REPLACES UL/NRTL)	+27.6	0 - 0.65	0-18
GTM21089-1940-18.0-T2 (TUV/NRTL REPLACES UL/NRTL)	+30.0	0 - 0.6	0-18
GTM21089-1948-12.0-T2 (TUV/NRTL REPLACES UL/NRTL)	+36.0	0 - 0.5	0-19
GTM21089-1948-X.X-T2 (TUV/NRTL REPLACES UL/NRTL)	+48.0	0 - 0.4	0-19



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**ENCLOSURES**

HOUSING: HIGH IMPACT PLASTIC, 94V0 POLYCARBONATE, NON-VENTED, COLOR BLACK



**DESKTOP CLASS I: T3**

**SIZE:**

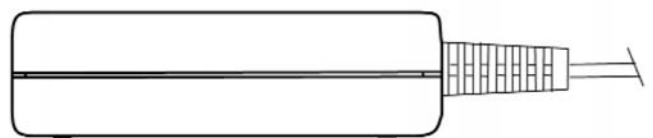
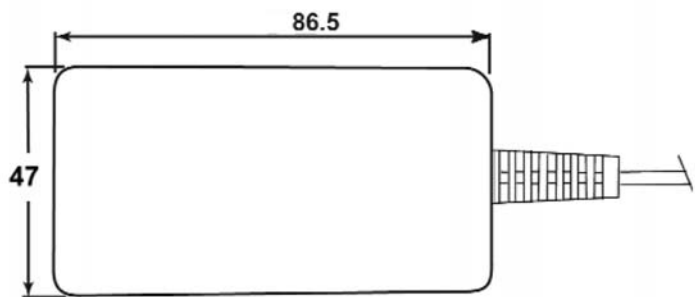
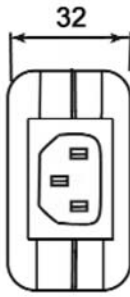
86.5 x 47 x 32 ± 0.5 mm

**INPUT CONNECTOR:**

CONFIGURATION:

CLASS I FE MODEL IEC60320 / C14, AC

POWER RECEPTACLE WITH  
3 MALE PINS.



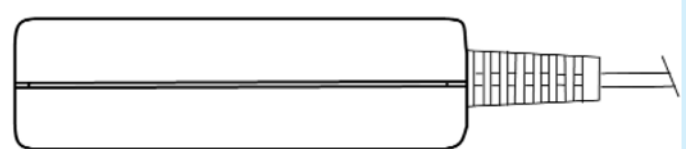
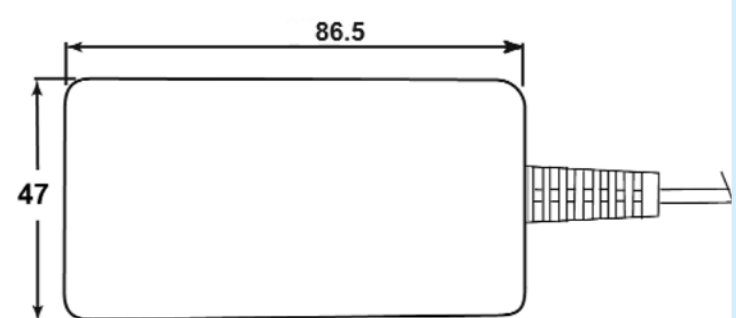
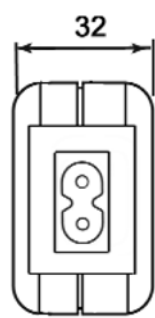
**DESKTOP CLASS II: T2**

**SIZE:**

86.5 x 47 x 32 ± 0.5 mm

**INPUT CONNECTOR:**

CONFIGURATION: CLASS II FE MODEL  
IEC60320 / C8, AC POWER RECEPTACLE  
(NON-POLARIZED, SHAVER STYLE)  
WITH 2 MALE PINS.



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