



### ■ Features

- 2 pole EURO plug , Class II power unit
- Medical safety approved (2 x MOPP) according to EN60601-1
- Extremely low leakage current
- No load power consumption < 0.3W
- Energy efficiency Level V
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- 3 years warranty

### ■ Applications

- Blood glucose meter
- Blood pressure meter
- Nebulizer
- Inhaler
- Portable medical device

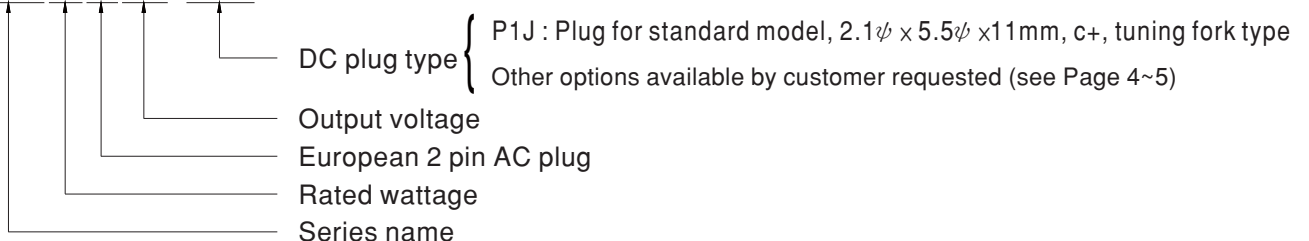
### ■ Description

GSM06E is a highly reliable, 6W wall-mounted style single-output green medical adaptor series. This product is equipped with a 2-pin (no FG) standard European power plug, adopting the input range from 85VAC to 264VAC. The entire series supplies different output voltages between 5VDC and 24VDC that can satisfy the demands for various kinds of miniature medical devices. The circuitry design meets the international medical standards (2 x MOPP), having an ultra low leakage current (<50µA), fitting the medical devices in direct electrical contact with the patients.

With the efficiency up to 82% and the extreme low no-load power consumption below 0.3W. GSM06E is compliant with EU ErP. The supreme feature allows the adaptor to save the energy when it is either under the operating mode or the standby mode. The entire series utilizes the 94V-0 flame retardant plastic case, providing the double insulation that effectively prevents electrical shock. GSM06E is approved with the international medical safety certificates.

### ■ Model Encoding

**GSM06E 05 -P1J**

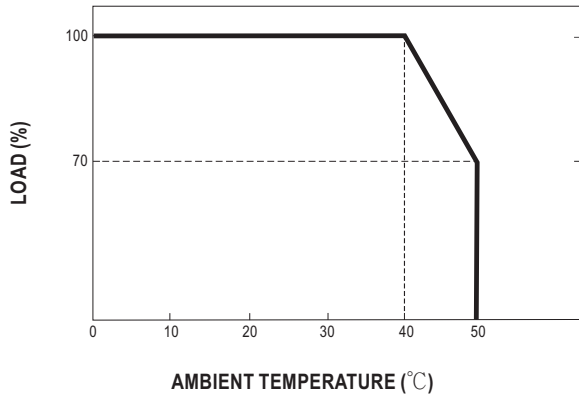




**SPECIFICATION**

| ORDER NO.                 | GSM06E05-P1J   | GSM06E06-P1J   | GSM06E07-P1J      | GSM06E09-P1J | GSM06E12-P1J | GSM06E15-P1J  | GSM06E18-P1J   | GSM06E24-P1J   |           |  |
|---------------------------|--|--|-------------------|--------------|--------------|---|----------------|--|-----------|--|
| OUTPUT                    | SAFETY MODEL NO.   | GSM06E05   | GSM06E06          | GSM06E07     | GSM06E09     | GSM06E12  | GSM06E15       | GSM06E18   | GSM06E24  |  |
|                           | DC VOLTAGE <span style="float:right">Note.2</span>   | 5V   | 6V                | 7.5V         | 9V           | 12V   | 15V            | 18V  | 24V       |  |
|                           | RATED CURRENT  | 1.2A   | 1A                | 0.8A         | 0.66A        | 0.5A  | 0.4A           | 0.33A  | 0.25A     |  |
|                           | CURRENT RANGE  | 0 ~ 1.2A   | 0 ~ 1A            | 0 ~ 0.8A     | 0 ~ 0.66A    | 0 ~ 0.5A  | 0 ~ 0.4A       | 0 ~ 0.33A  | 0 ~ 0.25A |  |
|                           | RATED POWER  | 6W   | 6W                | 6W           | 6W           | 6W  | 6W             | 6W   | 6W        |  |
|                           | RIPPLE & NOISE (max.) <span style="float:right">Note.3</span>  | 50mVp-p  | 50mVp-p           | 80mVp-p      | 80mVp-p      | 100mVp-p  | 120mVp-p       | 150mVp-p   | 180mVp-p  |  |
|                           | VOLTAGE TOLERANCE <span style="float:right">Note.4</span>  | ±5.0%  | ±5.0%             | ±5.0%        | ±5.0%        | ±5.0%   | ±5.0%          | ±5.0%  | ±4.0%     |  |
|                           | LINE REGULATION <span style="float:right">Note.5</span>  | ±0.5%  | ±0.5%             | ±0.5%        | ±0.5%        | ±0.5%   | ±0.5%          | ±0.5%  | ±0.5%     |  |
|                           | LOAD REGULATION <span style="float:right">Note.6</span>  | ±5.0%  | ±5.0%             | ±5.0%        | ±5.0%        | ±3.0%   | ±3.0%          | ±3.0%  | ±2.0%     |  |
| SETUP, RISE, HOLD UP TIME | 1000ms, 50ms, 12ms at full load  |  |                   |              |              |   |                |  |           |  |
| INPUT                     | VOLTAGE RANGE  | 85 ~ 264VAC 120 ~ 370VDC   |                   |              |              |   |                |  |           |  |
|                           | FREQUENCY RANGE  | 47 ~ 63Hz  |                   |              |              |   |                |  |           |  |
|                           | EFFICIENCY (Typ.)  | 68%  | 74%               | 74%          | 76%          | 77%   | 79%            | 80%  | 82%       |  |
|                           | AC CURRENT   | 0.18A / 100VAC   |                   |              |              |   |                |  |           |  |
|                           | INRUSH CURRENT (max.)  | Cold start 15A/ 115VAC 30A / 230VAC  |                   |              |              |   |                |  |           |  |
|                           | LEAKAGE CURRENT(max.)  | Touch current < 50µA/264VAC  |                   |              |              |   |                |  |           |  |
| PROTECTION                | OVERLOAD   | >105% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |                   |              |              |   |                |  |           |  |
|                           | OVER VOLTAGE   | 110 ~ 140% rated output power<br>Protection type : Clamp by zener diode  |                   |              |              |   |                |  |           |  |
|                           | WORKING TEMP.  | 0 ~ +50°C (Refer to "Derating Curve")  |                   |              |              |   |                |  |           |  |
| ENVIRONMENT               | WORKING HUMIDITY   | 20% ~ 90% RH non-condensing  |                   |              |              |   |                |  |           |  |
|                           | STORAGE TEMP., HUMIDITY  | -20 ~ +85°C, 10 ~ 95% RH non-condensing  |                   |              |              |   |                |  |           |  |
|                           | TEMP. COEFFICIENT  | ±0.04% / °C (0 ~ 40°C)   |                   |              |              |   |                |  |           |  |
|                           | VIBRATION  | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes  |                   |              |              |   |                |  |           |  |
|                           | SAFETY STANDARDS   | TUV EN60601-1, EN60601-1-11, EAC TP TC 004 approved  |                   |              |              |   |                |  |           |  |
| SAFETY & EMC (Note. 7)    | ISOLATION LEVEL  | Primary - Secondary: 2 x MOPP  |                   |              |              |   |                |  |           |  |
|                           | WITHSTAND VOLTAGE  | I/P-O/P:565VDC   |                   |              |              |   |                |  |           |  |
|                           | ISOLATION RESISTANCE   | I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH  |                   |              |              |   |                |  |           |  |
|                           | EMC EMISSION   | Parameter  | Standard          |              |              |   |                | Test Level / Note  |           |  |
|                           |  | Conducted emission   | EN55011 (CISPR11) |              |              |   |                | Class B  |           |  |
|                           |  | Radiated emission  | EN55011 (CISPR11) |              |              |   |                | Class B  |           |  |
|                           |  | Harmonic current   | EN61000-3-2       |              |              |   |                | Class A  |           |  |
|                           |  | Voltage flicker  | EN61000-3-3       |              |              |   |                | -----  |           |  |
|                           | EMC IMMUNITY   | EN55024 , EN60601-1-2, EN61204-3   |                   |              |              |   |                |  |           |  |
|                           |  | Parameter  | Standard          |              |              |   |                | Test Level / Note  |           |  |
|                           |  | ESD  | EN61000-4-2       |              |              |   |                | Level 4, 15KV air ; Level 4, 8KV contact                         |           |  |
|                           |  | RF field susceptibility  | EN61000-4-3       |              |              |   |                | Level 3, 10V/m(80MHz~2.7GHz)<br>Table 9, 9~28V/m(385MHz~5.78GHz) |           |  |
|                           |  | EFT bursts   | EN61000-4-4       |              |              |   |                | Level 3, 2KV   |           |  |
|                           |  | Surge susceptibility   | EN61000-4-5       |              |              |   |                | Level 3, 1KV/Line-Line   |           |  |
| Conducted susceptibility  |  | EN61000-4-6  |                   |              |              |   | Level 2, 3V    |  |           |  |
| Magnetic field immunity   |  | EN61000-4-8  |                   |              |              |   | Level 4, 30A/m |  |           |  |
| Voltage dip, interruption | EN61000-4-11   |  |                   |              |              | >95% dip 0.5 periods, 30% dip 25 periods,<br>>95% interruptions 250 periods |                |  |           |  |
| OTHERS                    | MTBF   | 500Khrs min. MIL-HDBK-217F(25°C)   |                   |              |              |   |                |  |           |  |
|                           | DIMENSION  | 32*66*42.5mm (L*W*H)   |                   |              |              |   |                |  |           |  |
|                           | PACKING  | 100g ; 90pcs / 10Kg / CARTON   |                   |              |              |   |                |  |           |  |
| CONNECTOR                 | PLUG   | See page 4~5 ; Other type available by customer requested  |                   |              |              |   |                |  |           |  |
|                           | CABLE  | See page 4~5 ; Other type available by customer requested  |                   |              |              |   |                |  |           |  |
| NOTE                      | <p>1.All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.</p> <p>2.DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</p> <p>3.Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1µf &amp; 47µf capacitor.</p> <p>4.Tolerance: includes set up tolerance, line regulation, load regulation.</p> <p>5.Line regulation is measured from low line to high line at rated load.</p> <p>6.Load regulation is measured from 0% to 100% rated load.</p> <p>7.The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."<br/>(as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</p> |  |                   |              |              |   |                |  |           |  |

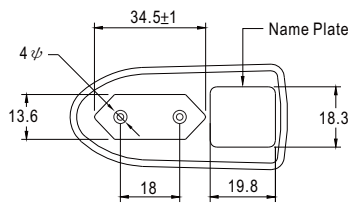
■ Derating Curve



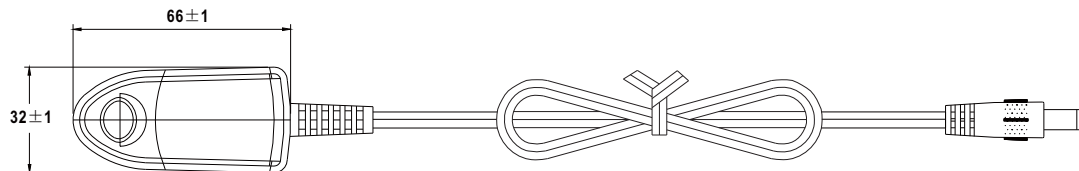
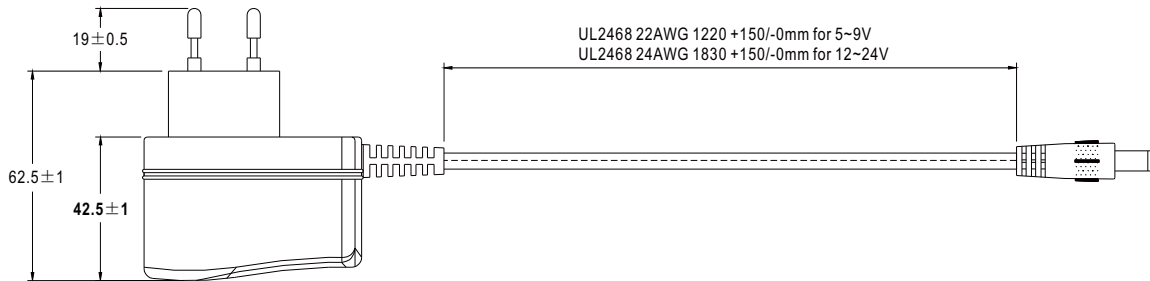
■ Static Characteristics



■ Mechanical Specification



2 pole EURO plug



■ DC output plug

◎ Standard plug: P1J

Unit:mm

| P1J | Pin Assignment  |
|-----|-----------------|
|     |                 |
|     | Outside  Inside |

◎ Optional DC plug:

| Tuning Fork Style                      |                | Type No.   | A<br>OD | B<br>ID | C<br>L |
|--|----------------|------------|---------|---------|--------|
|  | (Straight)     | P1I        | 5.5     | 2.1     | 9.5    |
|  |                | P1L        | 5.5     | 2.5     | 9.5    |
|  |                | P1M        | 5.5     | 2.5     | 11.0   |
|  | (Right-angled) | P1IR       | 5.5     | 2.1     | 9.5    |
|  |                | P1JR       | 5.5     | 2.1     | 11.0   |
|  |                | P1LR       | 5.5     | 2.5     | 9.5    |
|  |                | P1MR       | 5.5     | 2.5     | 11.0   |
| Barrel Style                           |                | Type No.   | A<br>OD | B<br>ID | C<br>L |
|  | (Straight)     | P2I        | 5.5     | 2.1     | 9.5    |
|  |                | P2J        | 5.5     | 2.1     | 11.0   |
|  |                | P2L        | 5.5     | 2.5     | 9.5    |
|  |                | P2M        | 5.5     | 2.5     | 11.0   |
|  | (Right-angled) | P2IR       | 5.5     | 2.1     | 9.5    |
|  |                | P2JR       | 5.5     | 2.1     | 11.0   |
|  |                | P2LR       | 5.5     | 2.5     | 9.5    |
|  |                | P2MR       | 5.5     | 2.5     | 11.0   |
| Lock Style                             |                | Type No.   | A<br>OD | B<br>ID | C<br>L |
| <br>SWITCHCRAFT original or equivalent | Locking        | P2S(S761K) | 5.53    | 2.03    | 12.06  |
|  |                | P2K(761K)  | 5.53    | 2.54    | 12.06  |
|  |                | P2C(S760K) | 5.53    | 2.03    | 9.52   |
|  |                | P2D(760K)  | 5.53    | 2.54    | 9.52   |
| Min. Pin Style                         |                | Type No.   | A<br>OD | B<br>ID | C<br>L |
| <br>EIAJ equivalent                    |                | P3A        | 2.35    | 0.7     | 11.0   |
|  |                | P3B        | 4.0     | 1.7     | 11.0   |
|  |                | P3C        | 4.75    | 1.7     | 11.0   |

| Center Pin Style  | Type No.    | A   | B           | C              | D          |  |  |
|---|-------------|---|-------------|----------------|------------|--|--|
|   |             | OD  | ID          | L              | Center Pin |  |  |
|   | P4A         | 5.5   | 3.4         | 11.0           | 1.0        |  |  |
|   | P4B         | 6.5   | 4.4         | 11.0           | 1.4        |  |  |
|   | P4C         | 7.4   | 5.1         | 11.0           | 0.6        |  |  |
| Min. DIN 3 Pin with Lock (male)   | Type No.    | Pin Assignment  |             |                |            |  |  |
|   | R6B         | PIN No.   | Output      |                |            |  |  |
|   |             | 1   | +Vo         |                |            |  |  |
|   |             | 2   | -Vo         |                |            |  |  |
|   | R6B         | 3   | +Vo         |                |            |  |  |
|   |             | Min. DIN 4 Pin with Lock (male)   | Type No.    | Pin Assignment |            |  |  |
|   |             |   | R7B         | PIN No.        | Output     |  |  |
| 1   | +Vo         |   |             |                |            |  |  |
| 2   | -Vo         |   |             |                |            |  |  |
| 3   | -Vo         |   |             |                |            |  |  |
|   | R7B         | 4   | +Vo         |                |            |  |  |
|   |             | Min. DIN 4 Pin with Lock (female)   | Type No.    | Pin Assignment |            |  |  |
|   |             |   | R7BF        | PIN No.        | Output     |  |  |
|   |             |   |             | 1              | +Vo        |  |  |
| 2   | -Vo         |   |             |                |            |  |  |
| 3   | -Vo         |   |             |                |            |  |  |
|   | R7BF        | 4   | +Vo         |                |            |  |  |
|   |             | Stripped and tinned leads   | Type No.    | Pin Assignment |            |  |  |
|   |             | <p>Length of Land L1 by request<br/>(MW's standard length, L: <u>25</u> mm, L1: <u>10</u> mm)</p> | by customer | PIN No.        | Output     |  |  |
|   |             |   |             | 1<br>(Ribbed)  | +Vo        |  |  |
| <p>Length of Land L1 by request<br/>(MW's standard length, L: <u>25</u> mm, L1: <u>10</u> mm)</p> | by customer | 2<br>(Letter)   | -Vo         |                |            |  |  |

■ **Installation Manual**

Please refer to : <http://www.meanwell.com/manual.html>