



Features

- 2 pole EURO plug , Class II power unit
- Medical safety approved (2 × MOPP) according to EN60601-1/-1-11
- Extremely low leakage current
- No load power consumption<0.1W
- Energy efficiency Level VI and meet CoC version 5 (except 5~9V for Level V)
- -25~+60°C wide range working temperature
- Protections: Short circuit / Overload / Over voltage
- LED indicator for power on
- Various DC plug quick adapter accessory available (Plug kit sold sperately, please refer to : https://www.meanwell.com/upload/pdf/DC_plug.pdf)
- 3 years warranty

Applications

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

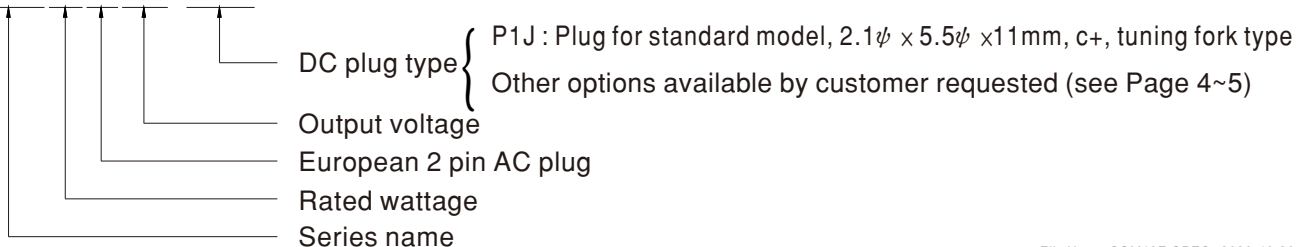
Description

GSM18E is a highly reliable, 18W 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 80VAC to 264VAC. The entire series supplies different output voltages between 5VDC and 48VDC that can satisfy the demands for various kinds of miniature medical devices. The circuitry design meets the international medical standards (2 × MOPP), having an ultra low leakage current (<50 μ A), fitting the medical devices in direct electrical contact with the patients.

With the efficiency up to 88% and the extreme low no-load power consumption below 0.1W, GSM18E is compliant with EU ErP and meet Code of Conduct(CoC) Version 5; 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. GSM18E is approved with the international medical safety certificates.

Model Encoding

GSM18E 05 -P1J

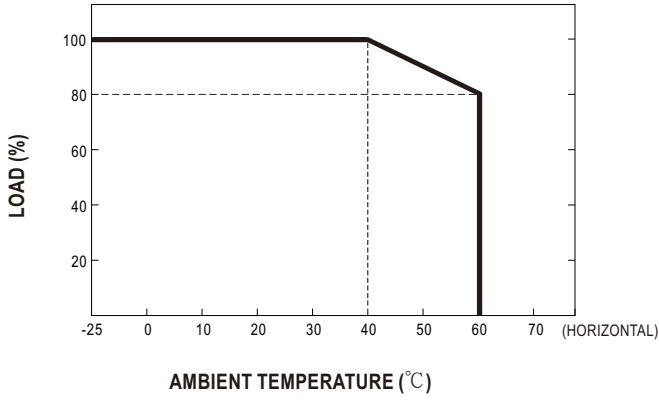




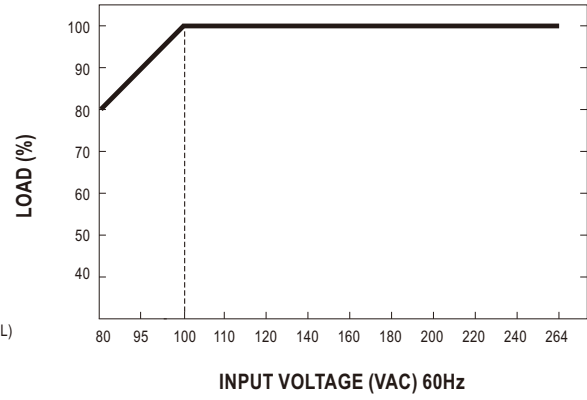
SPECIFICATION

| ORDER NO. | GSM18E05-P1J | GSM18E07-P1J | GSM18E09-P1J | GSM18E12-P1J | GSM18E15-P1J | GSM18E18-P1J | GSM18E24-P1J | GSM18E48-P1J | | |
|---------------------------|---|---|---------------|-------------------|--------------|---|--------------|--|--------------|--|
| OUTPUT | SAFETY MODEL NO. | GSM18E05 | GSM18E07 | GSM18E09 | GSM18E12 | GSM18E15 | GSM18E18 | GSM18E24 | GSM18E48 | |
| | DC VOLTAGE Note.2 | 5V | 7.5V | 9V | 12V | 15V | 18V | 24V | 48V | |
| | RATED CURRENT | 3A | 2A | 2A | 1.5A | 1.2A | 1A | 0.75A | 0.375A | |
| | CURRENT RANGE | 0 ~ 3A | 0 ~ 2A | 0 ~ 2A | 0 ~ 1.5A | 0 ~ 1.2A | 0 ~ 1A | 0 ~ 0.75A | 0 ~ 0.375A | |
| | RATED POWER (max.) | 15W | 15W | 18W | 18W | 18W | 18W | 18W | 18W | |
| | RIPPLE & NOISE (max.) Note.3 | 60mVp-p | 80mVp-p | 80mVp-p | 120mVp-p | 120mVp-p | 150mVp-p | 180mVp-p | 240mVp-p | |
| | VOLTAGE TOLERANCE Note.4 | ±5.0% | ±5.0% | ±5.0% | ±3.0% | ±3.0% | ±3.0% | ±2.0% | ±2.0% | |
| | LINE REGULATION Note.5 | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | |
| | LOAD REGULATION | ±5.0% | ±5.0% | ±5.0% | ±3.0% | ±3.0% | ±3.0% | ±2.0% | ±2.0% | |
| | SETUP, RISE TIME Note.6 | 500ms, 30ms / 230VAC 100ms, 30ms / 115VAC at full load | | | | | | | | |
| HOLD UP TIME (Typ.) | 16ms / 230VAC 16ms / 115VAC at full load | | | | | | | | | |
| INPUT | VOLTAGE RANGE Note.7 | 80 ~ 264VAC 113 ~ 370VDC | | | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | | | |
| | EFFICIENCY (Typ.) | 80% | 83% | 84% | 85% | 85.5% | 86% | 87% | 88% | |
| | AC CURRENT (Typ.) | 0.5A / 115VAC | | 0.25A / 230VAC | | | | | | |
| | INRUSH CURRENT (Typ.) | 55A / 230VAC | | 30A / 115VAC | | | | | | |
| | LEAKAGE CURRENT(max.) | Touch current < 50µA/264VAC | | | | | | | | |
| PROTECTION | OVERLOAD | 105 ~ 170% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | | |
| | OVER VOLTAGE | 5.25 ~ 7.5V | 7.88 ~ 10.13V | 9.45 ~ 12.6V | 12.6 ~ 17.2V | 15.75 ~ 20.25V | 18.9 ~ 24.3V | 25.2 ~ 32.4V | 50.4 ~ 64.8V | |
| | | Protection type : Shut down o/p voltage, re-power on to recover | | | | | | | | |
| ENVIRONMENT | WORKING TEMP. | -25 ~ +60°C (Refer to "Derating Curve") | | | | | | | | |
| | WORKING HUMIDITY | 20% ~ 90% RH non-condensing | | | | | | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH non-condensing | | | | | | | | |
| | TEMP. COEFFICIENT | ±0.03% / °C (0~40°C) | | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | | | | | |
| SAFETY & EMC (Note. 8) | SAFETY STANDARDS | TUV EN60601-1 / EN60601-1-11, EAC TP TC 004 approved | | | | | | | | |
| | ISOLATION LEVEL | Primary-Secondary: 2xMOPP | | | | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:4KVAC | | | | | | | | |
| | 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 | 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) 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 3, 10V | | | | |
| Magnetic field immunity | | EN61000-4-8 | | | | Level 4, 30A/m | | | | |
| Voltage dip, interruption | | EN61000-4-11 | | | | 100% dip 1 periods, 30% dip 25 periods, 100% interruptions 250 periods | | | | |
| OTHERS | MTBF | 796.7K hrs min. MIL-HDBK-217F(25°C) | | | | | | | | |
| | DIMENSION | 79*54*33mm (L*W*H) | | | | | | | | |
| | PACKING | 200g ; 60pcs / 13Kg / 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 & 50% load.</p> <p>3. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1µf & 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. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.</p> <p>7. Derating may be needed under low input voltage. Please check the derating curve for more details.</p> <p>8. 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." (as available on http://www.meanwell.com)</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p> | | | | | | | | | |

■ Derating Curve

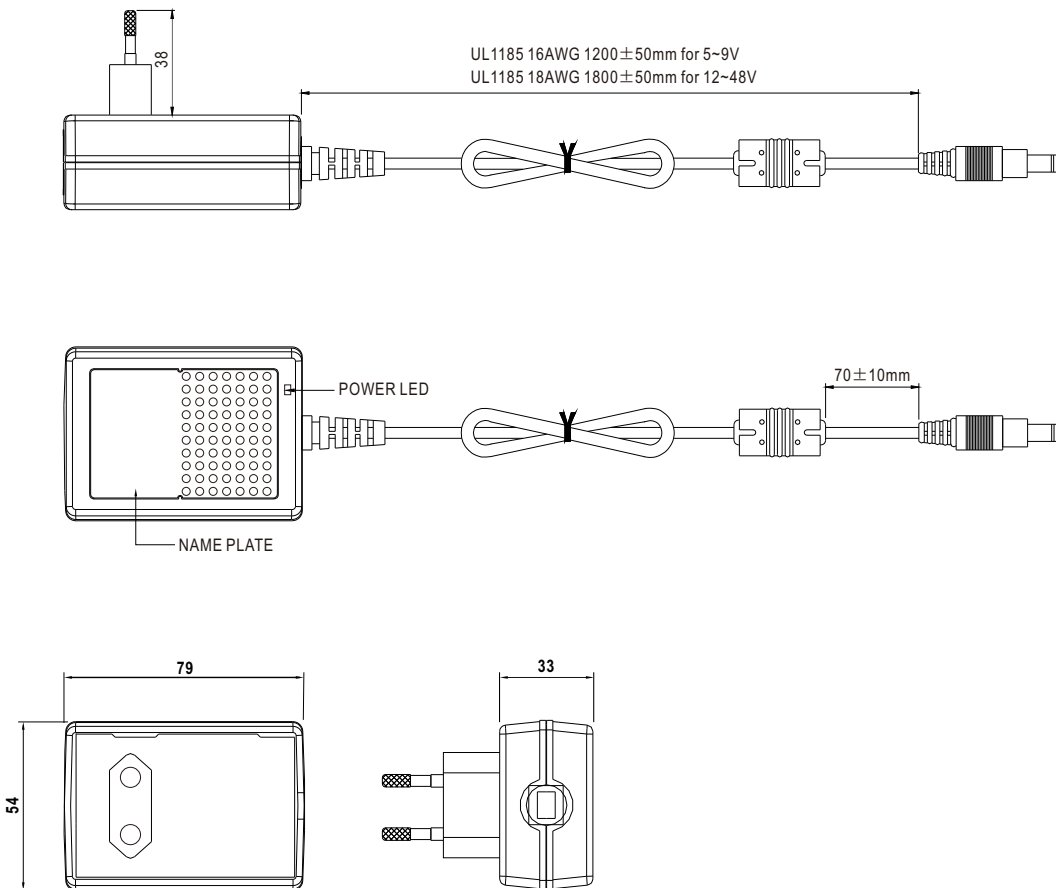


■ Static Characteristics



■ Mechanical Specification

Unit:mm



■ DC output plug

◎ Standard plug: P1J

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

◎ DC plug changeable through:

- (1) Customization of the standard part with an optional DC plug according to the table (MOQ applicable)
- (2) Quick adapter accessory (sold separately without MOQ)


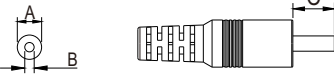

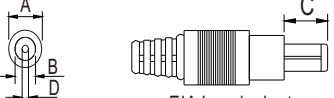









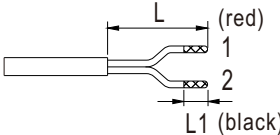
Please refer to below table and online selection guide : https://www.meanwell.com/upload/pdf/DC_plug.pdf

Example quick adapter accessory:



◎ Optional DC plug: (Available in customized cable or quick adapter)

| Tuning Fork Style | Type No. | A | B | C | Quick Adapter Accessory |
|-------------------|---------------------|------|------|-------|--|
| | | OD | ID | L | |
| | P1I (Straight) | 5.5 | 2.1 | 9.5 | Available (Current rating: 7.5A max.) |
| | P1L (Straight) | 5.5 | 2.5 | 9.5 | |
| | P1M (Straight) | 5.5 | 2.5 | 11.0 | |
| | P1IR (Right-angled) | 5.5 | 2.1 | 9.5 | |
| | P1JR (Right-angled) | 5.5 | 2.1 | 11.0 | |
| | P1LR (Right-angled) | 5.5 | 2.5 | 9.5 | |
| | P2I (Straight) | 5.5 | 2.1 | 9.5 | None |
| | P2J (Straight) | 5.5 | 2.1 | 11.0 | |
| | P2L (Straight) | 5.5 | 2.5 | 9.5 | |
| | P2M (Straight) | 5.5 | 2.5 | 11.0 | |
| | P2IR (Right-angled) | 5.5 | 2.1 | 9.5 | |
| | P2JR (Right-angled) | 5.5 | 2.1 | 11.0 | |
| | P2S(S761K) | 5.53 | 2.03 | 12.06 | None |
| | 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 | B | C | Quick Adapter Accessory | |
|---|-------------|----------------|--------|---|---|---|
| | | OD | ID | L | | |
|   <p>EIAJ equivalent</p> | P3A | 2.35 | 0.7 | 11.0 | Available (Current rating: 5A max.) | |
| | P3B | 4.0 | 1.7 | 11.0 | | |
| | P3C | 4.75 | 1.7 | 11.0 | | |
| Center Pin Style | Type No. | A | B | C | D | Available (Current rating: 7.5A max.) |
|   <p>EIAJ equivalent</p> | 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 | | Available (Current rating: 7.5A max.) | | |
|   <p>KYCON KPPX-3P equivalent</p> | R6B | PIN No. | Output | | | |
| | | 1 | +Vo | | | |
| | | 2 | -Vo | | | |
| 3 | +Vo | | | | | |
| Min. DIN 4 Pin with Lock (male) | Type No. | Pin Assignment | | Available (Current rating: 7.5A max.) | | |
|   <p>KYCON KPPX-4P equivalent</p> | R7B | PIN No. | Output | | | |
| | | 1 | +Vo | | | |
| | | 2 | -Vo | | | |
| | | 3 | -Vo | | | |
| 4 | +Vo | | | | | |
| Min. DIN 4 Pin with Lock (female) | Type No. | Pin Assignment | | None | | |
|   <p>KYCON KPJX-CM-4S equivalent</p> | R7BF | PIN No. | Output | | | |
| | | 1 | +Vo | | | |
| | | 2 | -Vo | | | |
| | | 3 | -Vo | | | |
| 4 | +Vo | | | | | |
| DIN 5 Pin (male) | Type No. | Pin Assignment | | Available (Current rating: 7.5A max.) | | |
|   | R1B | PIN No. | Output | | | |
| | | 1 | -Vo | | | |
| | | 2 | -Vo | | | |
| | | 3 | +Vo | | | |
| | | 4 | -Vo | | | |
| 5 | +Vo | | | | | |
| Stripped and tinned leads | Type No. | Pin Assignment | | None | | |
|   <p>Length of Land L1 by request (MW's standard length, L: 25 mm, L1: 5 mm)</p> | by customer | PIN No. | Output | | | |
| | | 1 | +Vo | | | |
| 2 | -Vo | | | | | |

■ **Installation Manual**

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