



## ■ Features

- Universal AC input / Full range
- 2 pole EURO plug
- No load power consumption < 0.075W
- **Energy efficiency Level VI**
- Comply with EU ErP and CoC Version 5
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- Pass LPS
- High operating temperature up to +70°C
- LED indicator for power on
- 3 years warranty

## ■ Applications

- Consumer electronic devices
- Telecommunication devices
- Office facilities
- Industrial equipments

## ■ Description

GST18E is a highly reliable, 18W wall-mounted style single-output green adaptor series. This product is a class II power unit (without FG), equipped with a 2-Pin standard European AC power plug, adopting the input range from 85VAC to 264VAC. The entire series supplies different models with output voltages ranging between 5VDC and 48VDC that can satisfy the demands for various types of consumer electronic devices. With the efficiency up to 89% and the extremely low no-load power consumption below 0.075W, GST18E is compliant with EU ErP, and 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. GST18E is certified for the international safety regulations.

## ■ Model Encoding

**GST 18 E 05 - P1J**

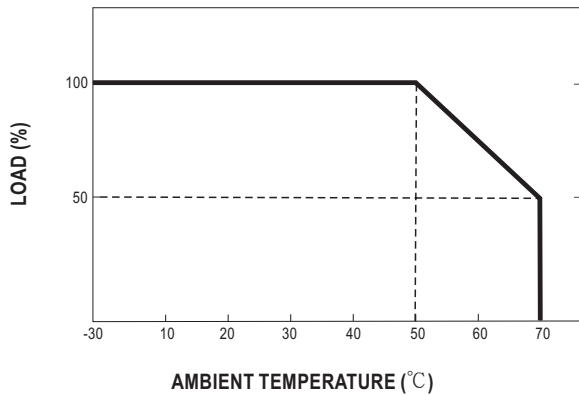
- Series name
- Output wattage
- European 2 pin AC plug
- Output voltage
- DC plug type
  - P1J : Plug for standard model, 2.1ψ × 5.5ψ × 11mm, c+, tuning fork type
  - Optional plug type available by customer requested



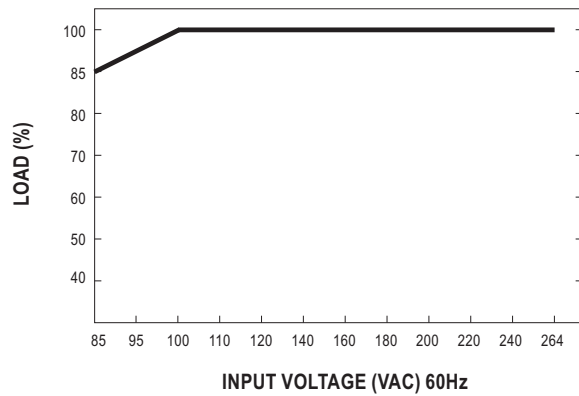
## SPECIFICATION

| ORDER NO.                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | GST18E05-P1J                                                                                                            | GST18E07-P1J | GST18E09-P1J | GST18E12-P1J | GST18E15-P1J | GST18E18-P1J | GST18E24-P1J | GST18E28-P1J | GST18E48-P1J |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| OUTPUT                    | SAFETY MODEL NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | GST18E05                                                                                                                | GST18E07     | GST18E09     | GST18E12     | GST18E15     | GST18E18     | GST18E24     | GST18E28     | GST18E48     |
|                           | DC VOLTAGE <span>Note.2</span>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 5V                                                                                                                      | 7.5V         | 9V           | 12V          | 15V          | 18V          | 24V          | 28V          | 48V          |
|                           | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.0A                                                                                                                    | 2.0A         | 2.0A         | 1.50A        | 1.20A        | 1.0A         | 0.75A        | 0.64A        | 0.375A       |
|                           | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0 ~ 3.0A                                                                                                                | 0 ~ 2.0A     | 0 ~2.0A      | 0 ~ 1.50A    | 0 ~ 1.20A    | 0 ~ 1.0A     | 0 ~ 0.75A    | 0 ~ 0.64A    | 0 ~ 0.375A   |
|                           | RATED POWER (max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 15W                                                                                                                     | 15W          | 18W          | 18W          | 18W          | 18W          | 18W          | 18W          | 18W          |
|                           | RIPPLE & NOISE (max.) <span>Note.3</span>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 80mVp-p                                                                                                                 | 80mVp-p      | 80mVp-p      | 80mVp-p      | 100mVp-p     | 150mVp-p     | 180mVp-p     | 240mVp-p     | 240mVp-p     |
|                           | VOLTAGE TOLERANCE <span>Note.4</span>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ± 5.0%                                                                                                                  | ± 5.0%       | ± 5.0%       | ± 3.0%       | ± 3.0%       | ± 3.0%       | ± 2.0%       | ± 2.0%       | ± 2.0%       |
|                           | LINE REGULATION <span>Note.5</span>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ± 1.0%                                                                                                                  | ± 1.0%       | ± 1.0%       | ± 1.0%       | ± 1.0%       | ± 1.0%       | ± 1.0%       | ± 1.0%       | ± 1.0%       |
|                           | LOAD REGULATION <span>Note.6</span>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ± 5.0%                                                                                                                  | ± 5.0%       | ± 5.0%       | ± 3.0%       | ± 3.0%       | ± 3.0%       | ± 2.0%       | ± 2.0%       | ± 2.0%       |
| SETUP, RISE, HOLD UP TIME |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1000ms, 30ms, 50ms/230VAC      1500ms, 30ms, 15ms/115VAC at full load                                                   |              |              |              |              |              |              |              |              |
| INPUT                     | VOLTAGE RANGE <span>Note.7</span>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 85 ~ 264VAC                                                                                                             |              |              |              |              |              |              |              |              |
|                           | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 47 ~ 63Hz                                                                                                               |              |              |              |              |              |              |              |              |
|                           | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 81%                                                                                                                     | 85%          | 85%          | 86%          | 87%          | 88%          | 88%          | 88.5%        | 89%          |
|                           | AC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.5A / 115VAC      0.3A / 230VAC                                                                                        |              |              |              |              |              |              |              |              |
|                           | INRUSH CURRENT (max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 35A / 115VAC      65A / 230VAC                                                                                          |              |              |              |              |              |              |              |              |
|                           | LEAKAGE CURRENT(max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0.25mA / 240VAC                                                                                                         |              |              |              |              |              |              |              |              |
| PROTECTION                | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 110 ~ 150% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |              |              |              |              |              |              |              |              |
|                           | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 110 ~ 140% rated output voltage<br>Protection type : Clamp by zener diode, output short                                 |              |              |              |              |              |              |              |              |
| ENVIRONMENT               | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -30 ~ +70℃ (Refer to "Derating Curve")                                                                                  |              |              |              |              |              |              |              |              |
|                           | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 20% ~ 90% RH non-condensing                                                                                             |              |              |              |              |              |              |              |              |
|                           | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -40 ~ +85℃, 10 ~ 95% RH                                                                                                 |              |              |              |              |              |              |              |              |
|                           | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ± 0.03% / °C (0 ~ 50℃)                                                                                                  |              |              |              |              |              |              |              |              |
|                           | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                 |              |              |              |              |              |              |              |              |
| SAFETY & EMC<br>(Note. 8) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | TUV EN60950-1 approved                                                                                                  |              |              |              |              |              |              |              |              |
|                           | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | I/P-O/P:4242VDC                                                                                                         |              |              |              |              |              |              |              |              |
|                           | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | I/P-O/P:100M Ohms / 500VDC / 25℃ / 70% RH                                                                               |              |              |              |              |              |              |              |              |
|                           | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Compliance to EN55022 class B, EN61000-3-2,3                                                                            |              |              |              |              |              |              |              |              |
|                           | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A                                                |              |              |              |              |              |              |              |              |
| OTHERS                    | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 500Khrs min. MIL-HDBK-217F(25℃)                                                                                         |              |              |              |              |              |              |              |              |
|                           | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 79*54*33mm (L*W*H)                                                                                                      |              |              |              |              |              |              |              |              |
|                           | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 202.5g; 60pcs/13.2Kg/1.22CUFT                                                                                           |              |              |              |              |              |              |              |              |
| CONNECTOR                 | PLUG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | See page 3 ; Other type available by customer requested                                                                 |              |              |              |              |              |              |              |              |
|                           | CABLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | See page 3 ; Other type available by customer requested                                                                 |              |              |              |              |              |              |              |              |
| NOTE                      | 1.All parameters are specified at 230VAC input, rated load, 25℃ 70% RH ambient.<br>2.DC voltage: The output voltage set at point measure by plug terminal & 50% load.<br>3.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.<br>4.Tolerance: includes set up tolerance, line regulation, load regulation.<br>5.Line regulation is measured from low line to high line at rated load.<br>6.Load regulation is measured from 10% to 100% rated load.<br>7.Derating may be needed under low input voltage. Please check the derating curve for more details.<br>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."<br>(as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> ) |                                                                                                                         |              |              |              |              |              |              |              |              |

### Derating Curve

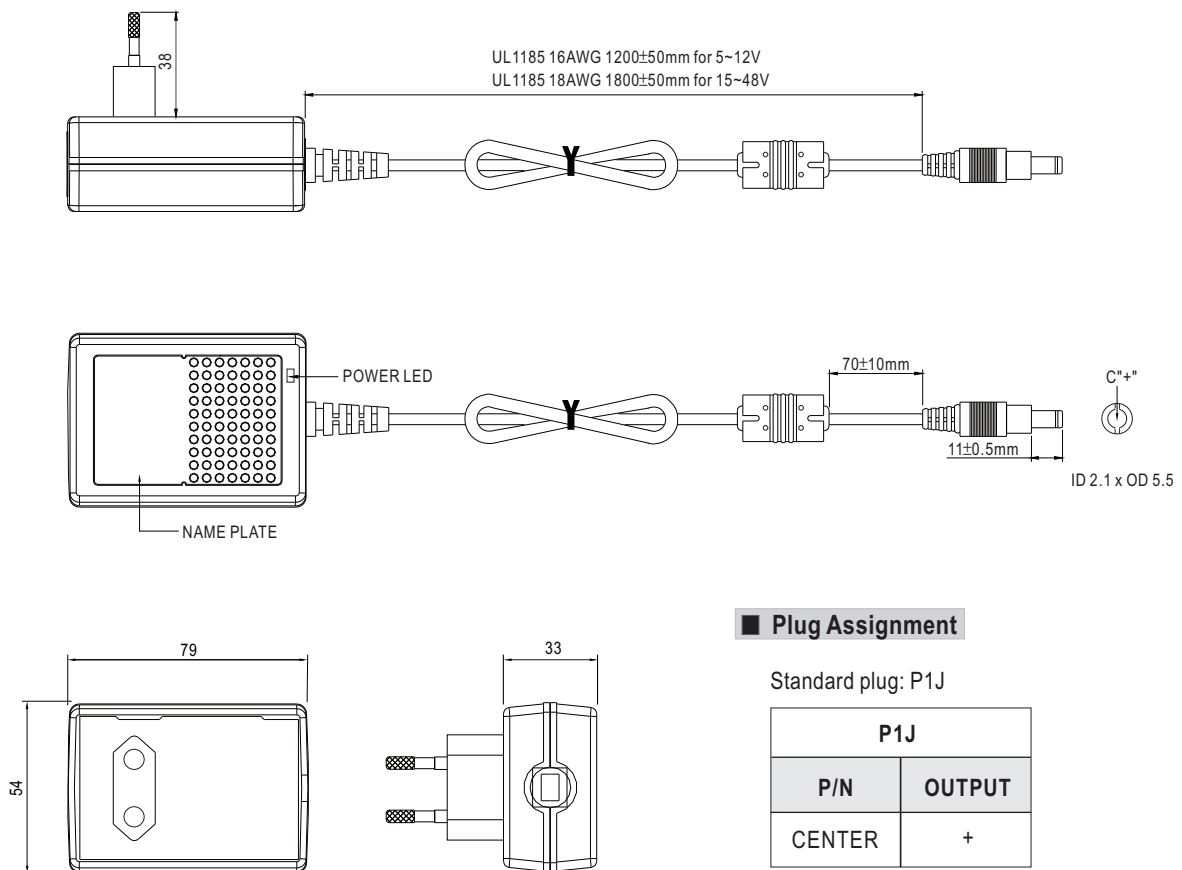


### Static Characteristics



### Mechanical Specification

Unit:mm



### Installation Manual

Please refer to : <http://www.meanwell.com/webnet/search/InstallationSearch.html>