



### ■ Features

- Universal AC input / Full range (up to 277VAC)
- 2 pole EURO plug
- Built-in active PFC function
- Constant current design
- Protections: Short circuit
- Cooling by free air convection
- Fully isolated plastic case
- Class II power unit, no FG
- No load power consumption < 0.15W
- Low cost, high reliability
- 100% full load burn-in test
- 3 years warranty

### ■ Applications

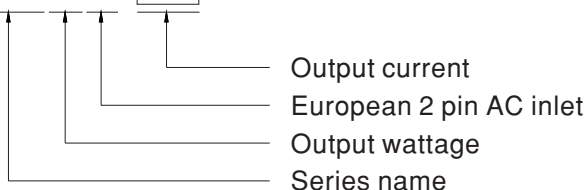
- Indoor LED lighting
- Office lighting
- Commercial lighting
- Indoor LED decorative lighting

### ■ Description

GSC40E series is a 40W external wall-mounted LED power supply with PFC function. The design of this product is based on the “plug and play” concept for adaptors. The AC input side exploits the 2-Pole (Class II, no FG) standard European plug, and the output side is equipped with the highly accepted DC connector (2.1x5.5x11mm) in the market. This product accepts 90~277VAC input and offers various constant current output models with 350mA/500mA/700mA/1050mA/1400mA. The design complies with the lighting requirements of EMI EN55015 and the harmonic current demand per EN61000-3-2 Class C. In addition, the no load power consumption is less than 0.15W, and the setup time is less than 500ms, making GSC40E conform to the ErP regulation required by European Union for lighting systems as well.

### ■ Model Encoding

**GSC 40 E - 350**



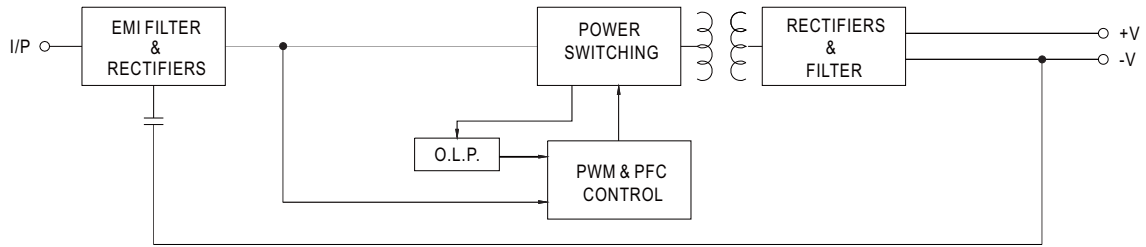


**SPECIFICATION**

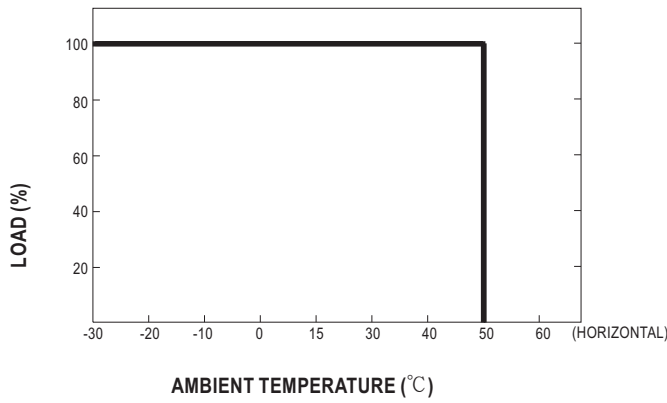
| MODEL           | GSC40E-350  | GSC40E-500  | GSC40E-700   | GSC40E-1050  | GSC40E-1400 |          |
|-----------------|---|---|--------------|--------------|-------------|----------|
| OUTPUT          | RATED CURRENT   | 350mA   | 500mA        | 700mA        | 1050mA      | 1400mA   |
|                 | OPERATING VOLTAGE RANGE <small>Note.4</small>   | 50 ~ 100V   | 40 ~ 80V     | 29 ~ 58V     | 19 ~ 38V    | 14 ~ 28V |
|                 | CURRENT ACCURACY <small>Note.3</small>  | ± 8.0%  |              |              |             |          |
|                 | RATED POWER   | 35W   | 40W          | 40.4W        | 39.6W       | 39.2W    |
|                 | RIPPLE & NOISE (max.) <small>Note.2</small>   | 11.6Vp-p  | 8Vp-p        | 5.8Vp-p      | 3.8Vp-p     | 2.9Vp-p  |
|                 | NO LOAD OUTPUT VOLTAGE (max.)   | 120V  | 100V         | 80V          | 55V         | 40V      |
| SETUP TIME      | 500ms / 230VAC 1000ms / 115VAC at full load   |   |              |              |             |          |
| INPUT           | VOLTAGE RANGE   | 90 ~ 277VAC 127 ~ 392VDC  |              |              |             |          |
|                 | FREQUENCY RANGE   | 47 ~ 63Hz   |              |              |             |          |
|                 | POWER FACTOR (Typ.)   | PF>0.98/115VAC, PF>0.92/230VAC, PF>0.91/277VAC at full load (Please refer to "Power Factor Characteristic" curve) |              |              |             |          |
|                 | TOTAL HARMONIC DISTORTION   | Total harmonic distortion will be lower than 20% when output loading is 75% or higher                             |              |              |             |          |
|                 | EFFICIENCY (Typ.)   | 89.5%   | 89.5%        | 88.5%        | 87.5%       | 87%      |
|                 | AC CURRENT (Typ.)   | 0.7A/115VAC   | 0.35A/230VAC | 0.25A/277VAC |             |          |
|                 | INRUSH CURRENT(max.)  | COLD START 17A(t <sub>width</sub> =110μs measured at 50% I <sub>peak</sub> ) at 230VAC                            |              |              |             |          |
| LEAKAGE CURRENT | <0.5mA / 240VAC   |   |              |              |             |          |
| PROTECTION      | SHORT CIRCUIT   | Hiccup mode, recovers automatically after fault condition is removed.   |              |              |             |          |
| ENVIRONMENT     | WORKING TEMP.   | -30 ~ +50°C (Refer to "Derating Curve")   |              |              |             |          |
|                 | WORKING HUMIDITY  | 20 ~ 95% RH non-condensing  |              |              |             |          |
|                 | STORAGE TEMP., HUMIDITY   | -40 ~ +80°C, 10 ~ 95% RH  |              |              |             |          |
|                 | TEMP. COEFFICIENT   | ±0.03%/°C (0 ~ 50°C)  |              |              |             |          |
|                 | VIBRATION   | 10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes   |              |              |             |          |
| SAFETY & EMC    | SAFETY STANDARDS  | Dekra GS/ENEC EN61347-1, EN61347-2-13 listed, EN62384 approved  |              |              |             |          |
|                 | WITHSTAND VOLTAGE   | I/P-O/P:3.75KVAC  |              |              |             |          |
|                 | ISOLATION RESISTANCE  | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH  |              |              |             |          |
|                 | EMC EMISSION  | Compliance to EN55015, EN61000-3-2 Class C (≥50% load) ; EN61000-3-3  |              |              |             |          |
|                 | EMC IMMUNITY  | Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, light industry level, criteria A                                 |              |              |             |          |
| OTHERS          | MTBF  | 358.9K hrs min. MIL-HDBK-217F (25°C)  |              |              |             |          |
|                 | DIMENSION   | 79*54*33mm (L*W*H)  |              |              |             |          |
|                 | PACKING   | 275g ; 60pcs / 17.5kg / CARTON  |              |              |             |          |
| CONNECTOR       | PLUG  | 2.1φ * 5.5φ * 11mm, tuning fork type, center positive for stock   |              |              |             |          |
|                 | CABLE   | See page 4  |              |              |             |          |
| NOTE            | <ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>Please see "AC input voltage drop vs. output current characteristics" table.</li> <li>Constant current operation region is within 50% ~100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.</li> <li>Direct connecting to LEDs is suggested, but is not suitable for using additional drivers.</li> </ol> |   |              |              |             |          |

■ Block Diagram

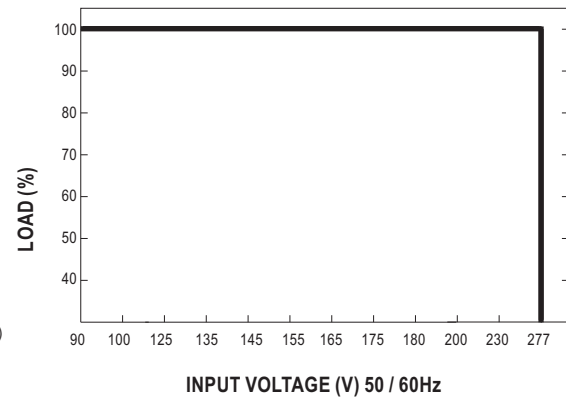
fosc : 100KHz



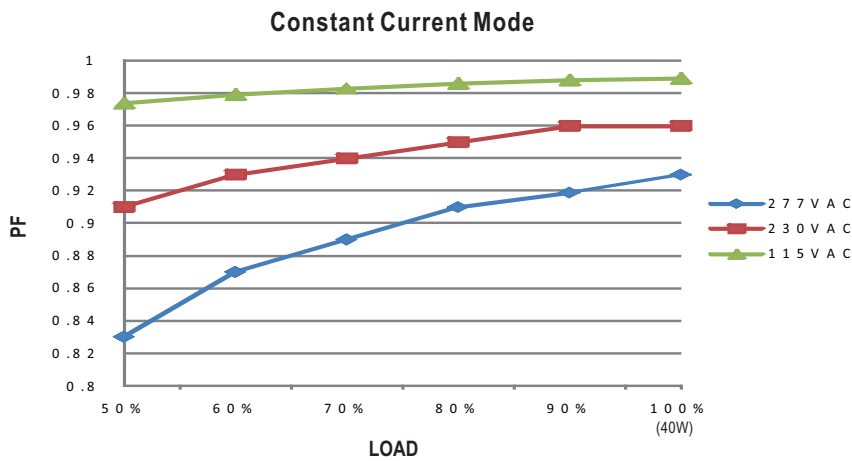
■ Derating Curve



■ Static Characteristics



■ Power Factor Characteristic



**EFFICIENCY vs LOAD (GSC40E-350)**

GSC40E series possess superior working efficiency that up to 89.5% can be reached in field applications.



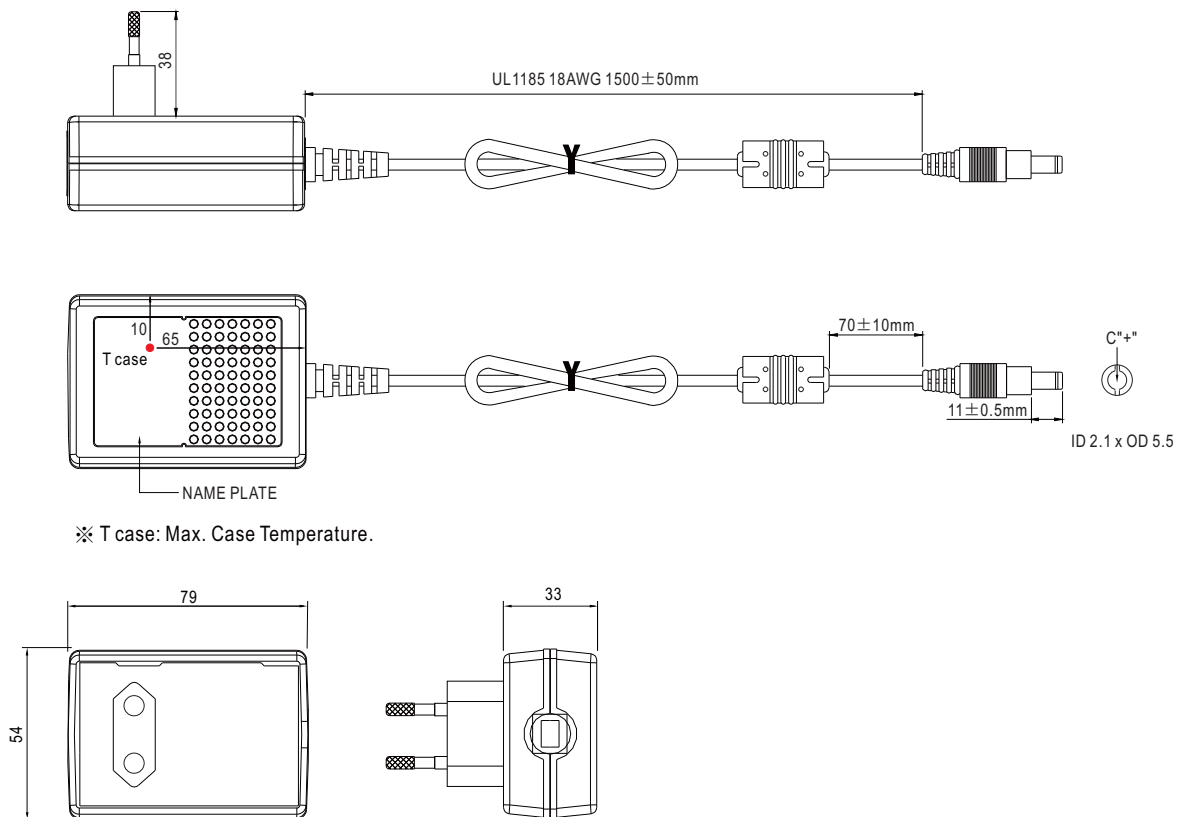
**AC input voltage drop vs. Output current characteristics**

|               |      |      |      |      |
|---------------|------|------|------|------|
| AC input drop | 10%  | 8%   | 5%   | 3%   |
| Io drop       | <25% | <23% | <15% | <10% |

Note : Output current will return to the rated value within 80ms

**Mechanical Specification**

Unit:mm



**Installation Manual**

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