



### ■ Features

- Universal AC input / Full range (up to 277VAC)
- 2 pole EURO plug
- Built-in active PFC function
- Constant voltage design
- Protections: Short circuit / Overload
- Cooling by free air convection
- Fully isolated plastic case
- Class II power unit, no FG
- No load power consumption<0.3W
- Low cost, high reliability
- 100% full load burn-in test
- 3 years warranty

### ■ Applications

- LED strip lighting
- Indoor LED lighting
- LED decorative lighting
- Architecture lighting
- Commercial lighting

### ■ Description

GSV40E series is an 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 (2.1x5.5x1.1mm) in the market. This product accepts 90~277VAC input and offers constant voltage output models with 12V/24V. 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 0.3W, and the setup time is less than 500ms, making GSV40E conform to the ErP regulation required by European Union for lighting systems as well.

### ■ Model Encoding

**GSV 40 E - 12**





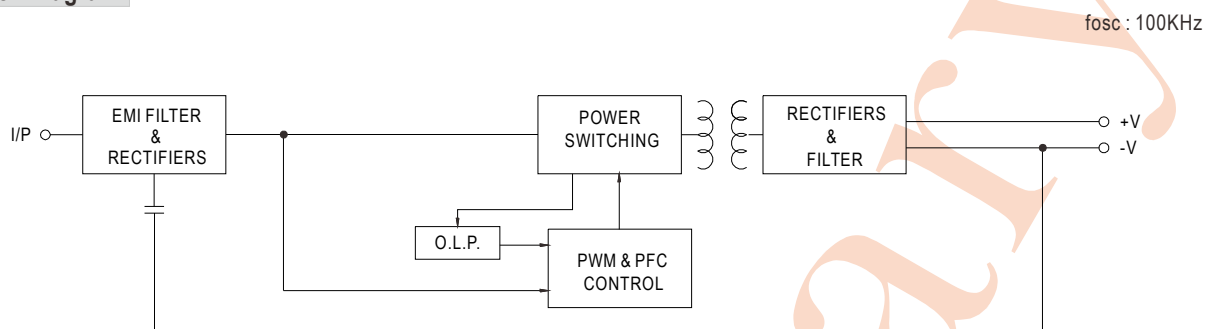
## 40W Single Output LED Power Supply

## GSV40E series

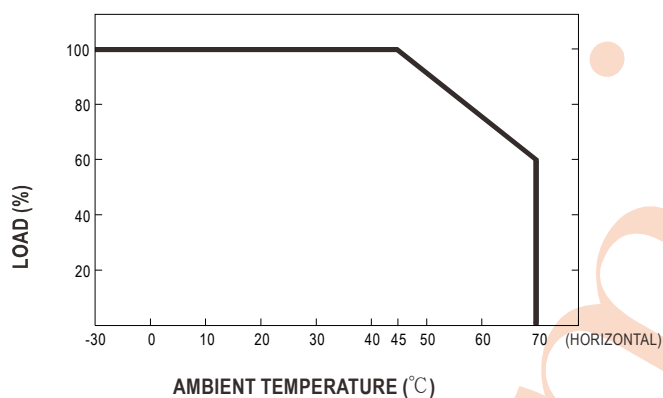
### SPECIFICATION

MODEL		GSV40E-12		GSV40E-24	
OUTPUT	DC VOLTAGE	12V		24V	
	OPERATING VOLTAGE RANGE <small>Note.4</small>	6 ~ 12V		12 ~ 24V	
	RATED CURRENT REGION <small>Note.3</small>	3.3A		1.7A	
	RATED POWER	39.6W		40.8W	
	RIPPLE & NOISE (max.) <small>Note.2</small>	1.2Vp-p		2.4Vp-p	
	VOLTAGE TOLERANCE <small>Note.3</small>	± 10%			
	LINE REGULATION	± 2.0%			
	LOAD REGULATION	± 5.0%			
	SETUP, RISE, HOLD UP TIME	500ms, 30ms/230VAC		1000ms, 50ms/115VAC at full load	
HOLD UP TIME (Typ.)	16ms/230VAC	16ms/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.)	84%		86%	
	AC CURRENT (Typ.)	0.7A/115VAC	0.35A/230VAC	0.25A/277VAC	
	INRUSH CURRENT(max.)	COLD START 17A(twidth=75μs measured at 50% Ipeak) at 230VAC			
	LEAKAGE CURRENT	<0.5mA / 240VAC			
PROTECTION	OVER LOAD	108 ~ 120% rated output power Protection type : Shut down o/p voltage, re-power on to recover			
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed.			
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 95% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	± 0.03%/℃ (0 ~ 45℃)			
	VIBRATION	10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes			
SAFETY & EMC	SAFETY STANDARDS	TUV/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℃/ 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, EN55024,EN61547, light industry level, criteria A			
OTHERS	MTBF	358.9K hrs min. MIL-HDBK-217F (25℃)			
	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 2			
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Please see "AC input voltage drop vs. output current characteristics" table. 4. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers. 5. 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.				

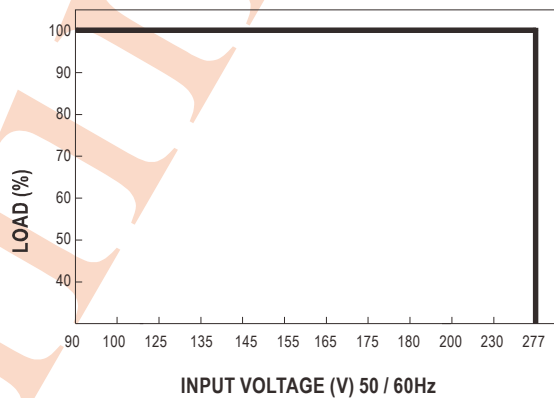
### ■ Block Diagram



### ■ Derating Curve

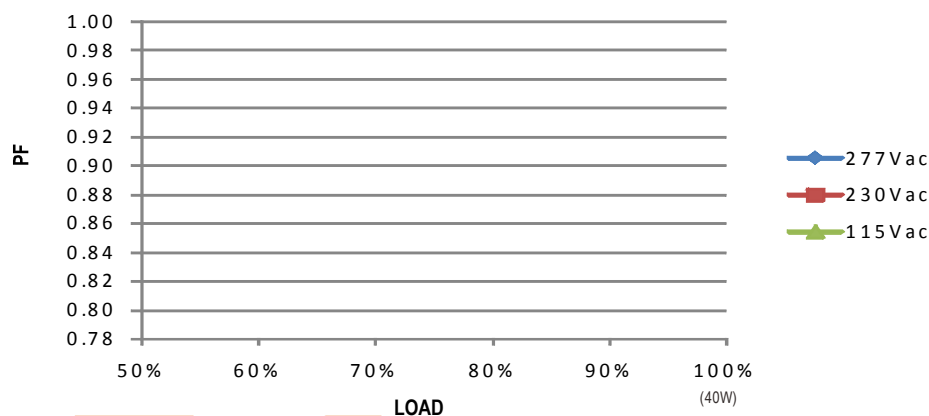


### ■ Static Characteristics



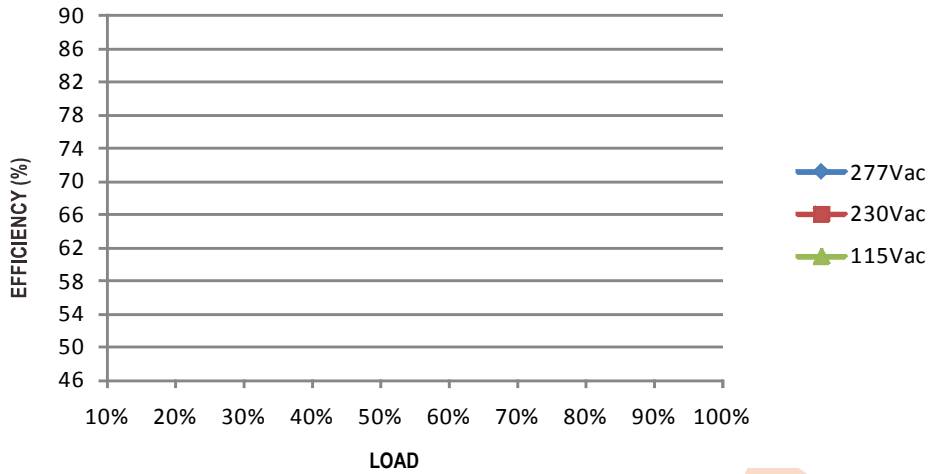
### ■ Power Factor Characteristic

#### Constant Current Mode



### ■ EFFICIENCY vs LOAD (GSV40E-24)

GSV40E series possess superior working efficiency that up to 86% can be reached in field applications.



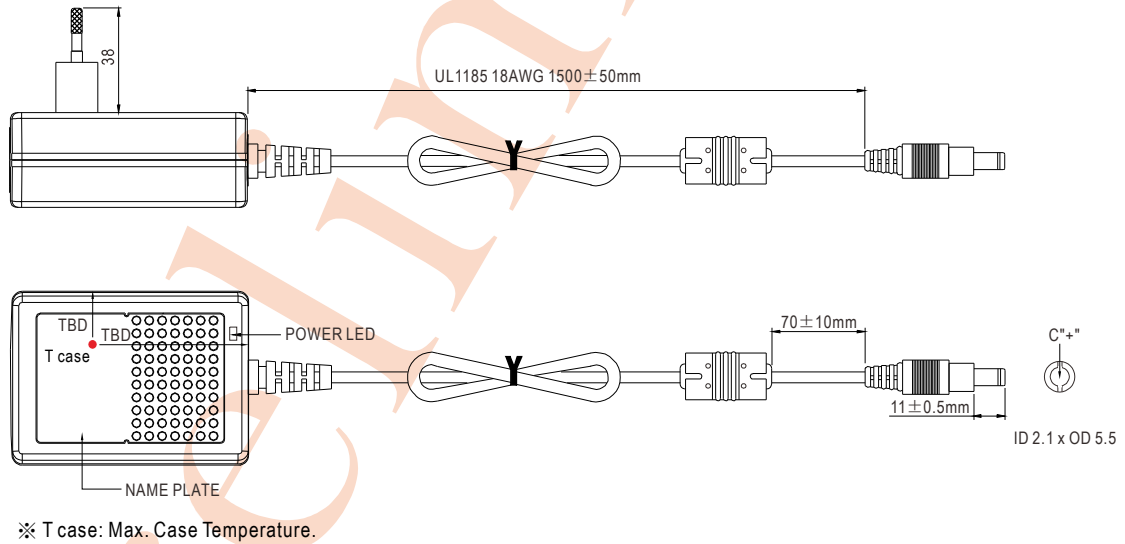
### ■ AC input voltage drop vs. Output current characteristics

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>