E-Star Power Development Co., Ltd. (E-STAR)
1F., No.40, Juren Ln., Sec. 2, Sanmin Rd., Banciao Dist., New Taipei City 22069, Taiwan (R.O.C.)
Phone : 886-2-2957 5580 Fax : 886-2-2957 7473

25W LED Driver power supply < GSC25U

■ Features :

- Universal AC input / Full range (up to 277VAC)
- 2 pole USA 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
- 100% full load burn-in test
- No load power consumption<0.15W
- Low cost, high reliability
- Suitable for indoor LED lighting and moving sign applications
- 3 years warranty

IP30 (for 350mA~700mA only) (for 1050mA/1400mA only)

SPECIFICATION

MODEL		GSC25U-350	GSC25U-500	GSC25U-700	GSC25U-1050	GSC25U-1400
OUTPUT	RATED CURRENT	350mA	500mA	700mA	1050mA	1400mA
	OPERATING VOLTAGE RANGE Note.4	36 ~ 72V	26 ~ 52V	18 ~ 36V	12 ~ 24V	9 ~ 18V
	CURRENT ACCURACY Note.3	±8.0%				
	RATED POWER	25.2W	26W	25.2W	25.2W	25.2W
	RIPPLE & NOISE (max.) Note.2	7.2Vp-p	5Vp-p	3.6Vp-p	2.4Vp-p	1.8Vp-p
	NO LOAD OUTPUT VOLTAGE (max.)	82V	63V	50V	35V	25V
	SETUP TIME	500ms / 230VAC 500ms / 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.)	88%	87%	86%	85%	84%
	AC CURRENT (Typ.)	0.6A/115VAC 0.3A/230VAC 0.2A/277VAC				
	INRUSH CURRENT(max.)	COLD START 15A(twidth=75μs measured at 50% Ipeak) at 230VAC				
	LEAKAGE CURRENT	<0.5mA / 240VAC				
PROTECTION	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed.				
ENVIRONMENT	WORKING TEMP.	-30 ~ +50℃ (Refer to "Derating Curve")				
	WORKING HUMIDITY	20 ~ 95% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)				
	VIBRATION	10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes				
SAFETY & EMC	SAFETY STANDARDS	UL8750 listed, CSA C22.2 No. 250.13-12(except for 350~700mA)				
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC				
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH				
	EMC EMISSION	Compliance to FCC part 15 non-consumer equipment				
OTHERS	MTBF	K hrs min. MIL-HDBK-217F (25℃)				
	DIMENSION	79*54*33mm (L*W*H)				
	PACKING	Kg				
CONNECTOR	PLUG	2.1φ * 5.5φ * 11mm, tuning fork type, center positive for stock				
	CABLE	See page 2 ; Other type available by customer requested				
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. 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. 5. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers.					

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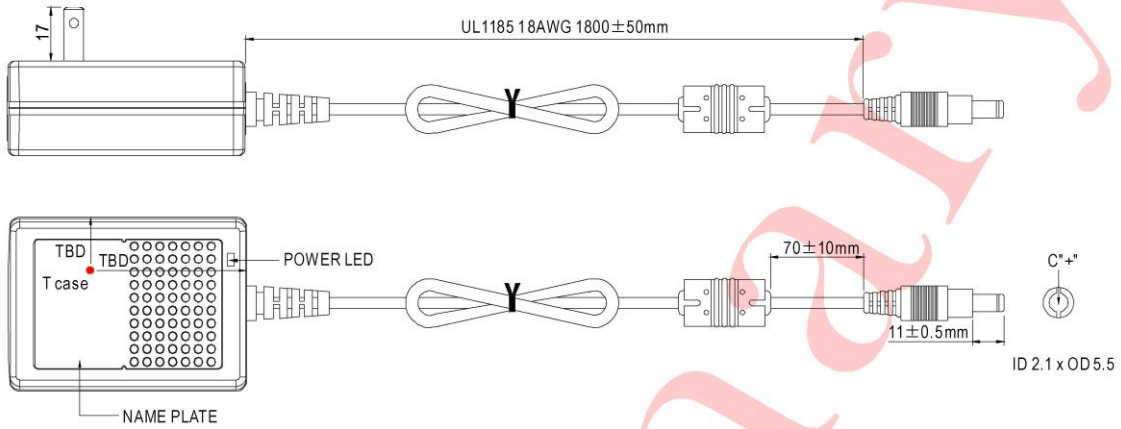
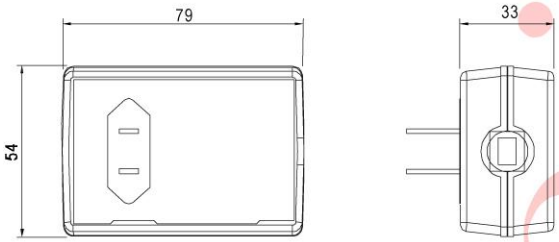
■ Mechanical Specification

Unit:mm

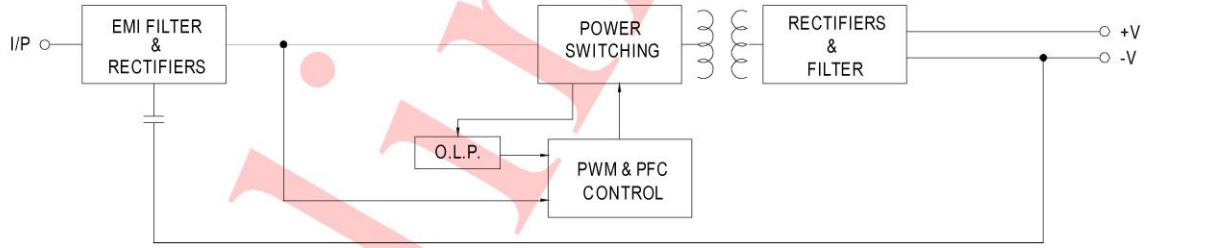


※ T case: Max. Case Temperature.

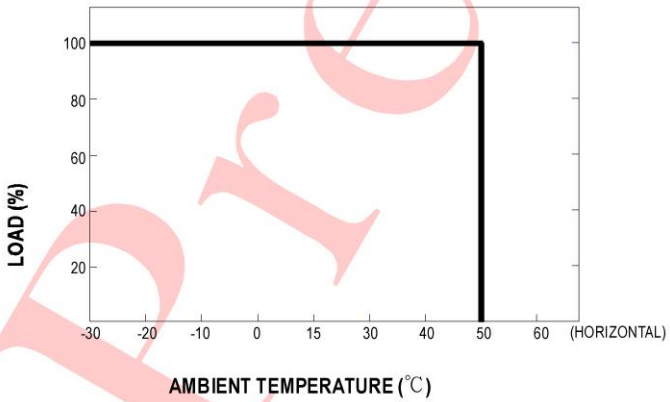


■ Block Diagram

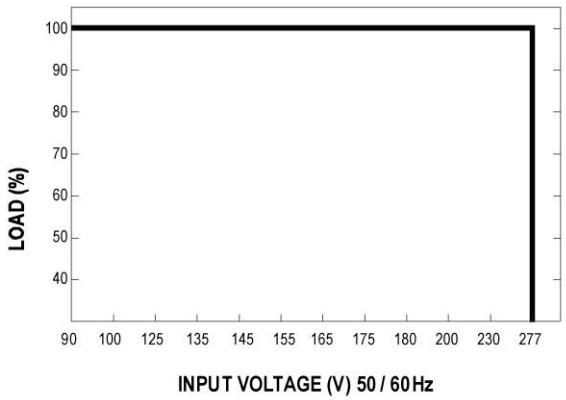
fosc : 67KHz



■ Derating Curve



■ Static Characteristics



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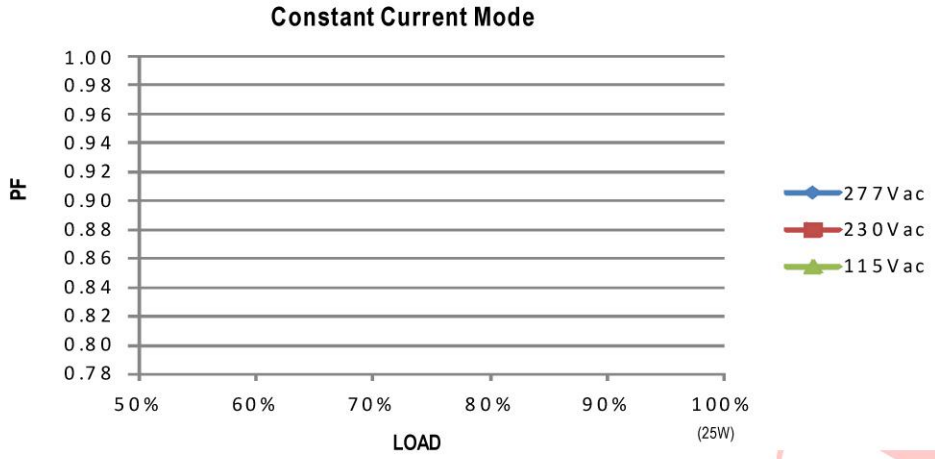
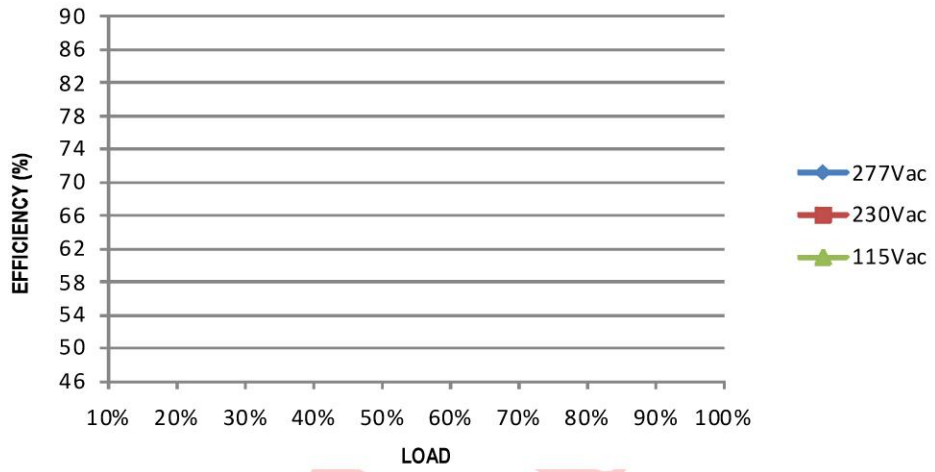
■ Power Factor Characteristic



■ EFFICIENCY vs LOAD (GSC25U-350)

GSC25U series possess superior working efficiency that up to 88% can be reached in field applications.



■ AC input voltage drop vs. Output current characteristics

AC input drop	10%	8%	5%	3%
Io drop	<18%	<13%	<8%	<6%

Note : Output current will return to the rated value within 40ms