



## ■ Features :

- Universal AC input / Full range (up to 295VAC)
- Built-in active PFC function
- High efficiency up to 89%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- IP67 design for indoor or outdoor installations
- Class 2 power unit
- Pass LPS
- 100% full load burn-in test
- High reliability
- Suitable for LED lighting and moving sign applications (Note.2)
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations
- 3 years warranty

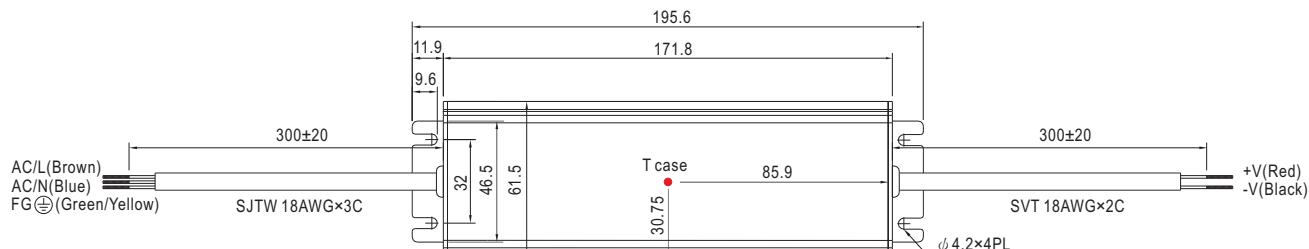


## SPECIFICATION

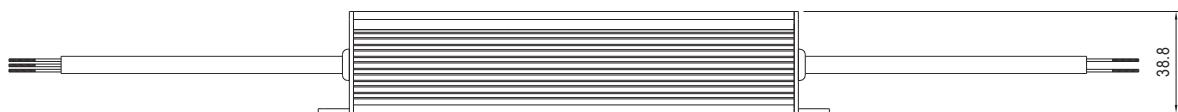
MODEL	CLG-60-12	CLG-60-15	CLG-60-20	CLG-60-24	CLG-60-27	CLG-60-36	CLG-60-48
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	27V	36V
	CONSTANT CURRENT REGION Note.5	8.4 ~ 12V	10.5 ~ 15V	14 ~ 20V	16.8 ~ 24V	18.9 ~ 27V	25.2 ~ 36V
	RATED CURRENT	5A	4A	3A	2.5A	2.3A	1.7A
	CURRENT RANGE	0 ~ 5A	0 ~ 4A	0 ~ 3A	0 ~ 2.5A	0 ~ 2.3A	0 ~ 1.7A
	RATED POWER	60W	60W	60W	60W	62.1W	62.4W
	RIPPLE & NOISE (max.) Note.2	2Vp-p	2.4Vp-p	1.8Vp-p	2.7Vp-p	2.7Vp-p	3.6Vp-p
	VOLTAGE ADJ. RANGE	11.5 ~ 13V	14.5 ~ 16.2V	19.5 ~ 22V	24 ~ 26V	25 ~ 30V	32.5 ~ 39V
		Fixed can be modified between the range above					
	CURRENT ADJ. RANGE	Fixed. Can be modified between 3% ~ -25% rated output current					
	VOLTAGE TOLERANCE Note.3	±10%					
INPUT	LINE REGULATION	±3.0%					
	LOAD REGULATION	±5.0%					
	SETUP TIME	500ms / 230VAC 3000ms / 115VAC at full load					
	VOLTAGE RANGE Note.4	90 ~ 295VAC 127 ~ 417VDC					
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR (Typ.)	PF>0.94/115VAC, PF>0.9/230VAC, PF>0.9/277VAC at full load (Please refer to "Power Factor Characteristic" curve)					
	TOTAL HARMONIC DISTORTION	THD< 20% when output loading≥70% at 115VAC/230VAC input and output loading≥75% at 277VAC input					
	EFFICIENCY (Typ.)	85%	86%	87.5%	87%	88%	89%
PROTECTION	AC CURRENT (Typ.)	0.8A/115VAC	0.4A/230VAC	0.3A/277VAC			
	INRUSH CURRENT(Typ.)	COLD START 35A(twidth=45μs measured at 50% Ipeak) at 230VAC					
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	32 units (circuit breaker of type B) / 32 units (circuit breaker of type C) at 230VAC					
	LEAKAGE CURRENT	<0.75mA / 240VAC					
	OVER CURRENT	95 ~ 110%					
		Protection type : Constant current limiting, recovers automatically after fault condition is removed					
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed					
ENVIRONMENT	OVER VOLTAGE	13.8 ~ 16V	17.5 ~ 21V	23 ~ 28V	28 ~ 32V	31 ~ 35V	41 ~ 46V
		Protection type : Shut down o/p voltage, re-power on to recover					
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down					
	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")					
SAFETY & EMC	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, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes					
OTHERS	SAFETY STANDARDS	UL879, UL8750, UL1310, TUV EN61347-1, EN61347-2-13 independent, CAN/CSA C22.2 No. 223-M91(except for 48V), CSA C22.2 No. 250.0-08(except for 48V), CSA C22.2 No. 207-M89(except for 48V), IP67, J61347-1, J61347-2-13 approved					
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC					
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH					
	EMC EMISSION	Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2 Class C (≥75% load) ; EN61000-3-3					
NOTE	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61547, light industry level (surge 4KV), criteria A					
	MTBF	495.7Khrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	195.6*61.5*38.8mm (L*W*H)					
	PACKING	0.86Kg; 16pcs/14.8Kg/0.54CUFT					
		1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C 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. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Derating may be needed under low input voltage. Please check the static characteristics for more details. 5. Please refer to "DRIVING METHODS OF LED MODULE". 6. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again. 7. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers. 8. To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED power supply can only be used behind a switch without permanently connected to the mains.					

## ■ Mechanical Specification

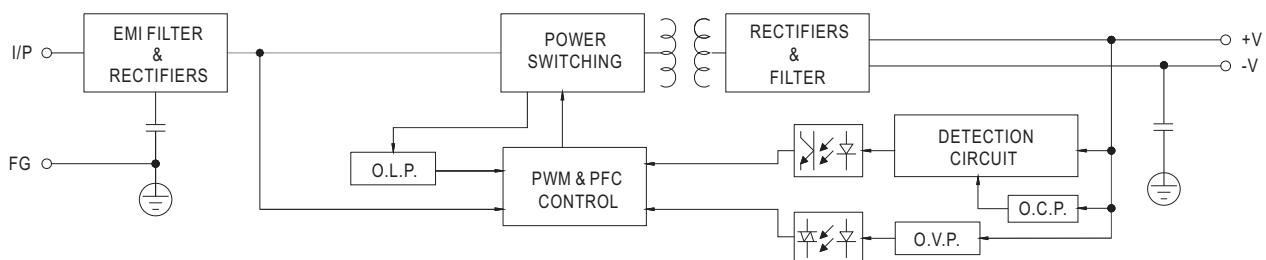
Case No. 957A Unit:mm



※ T case: Max. Case Temperature.

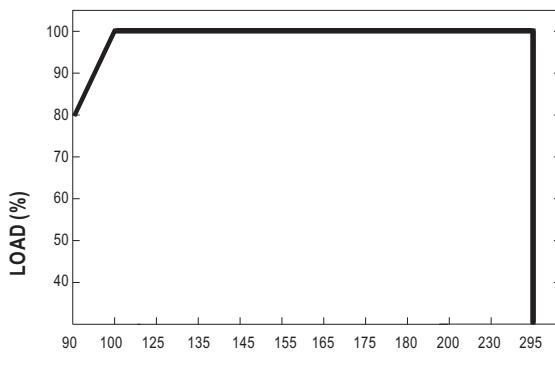
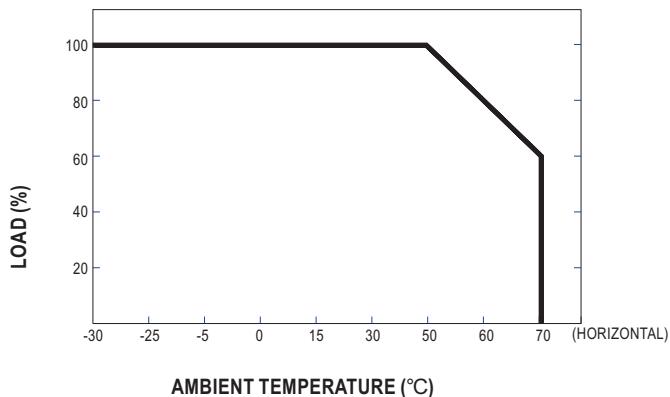


## ■ Block Diagram

 fosc: 90KHz(115VAC)  
120KHz(230VAC)


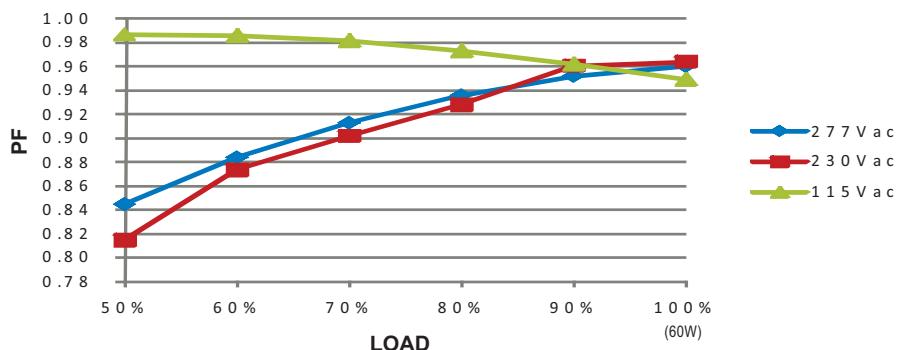
## ■ Derating Curve

## ■ Static Characteristics



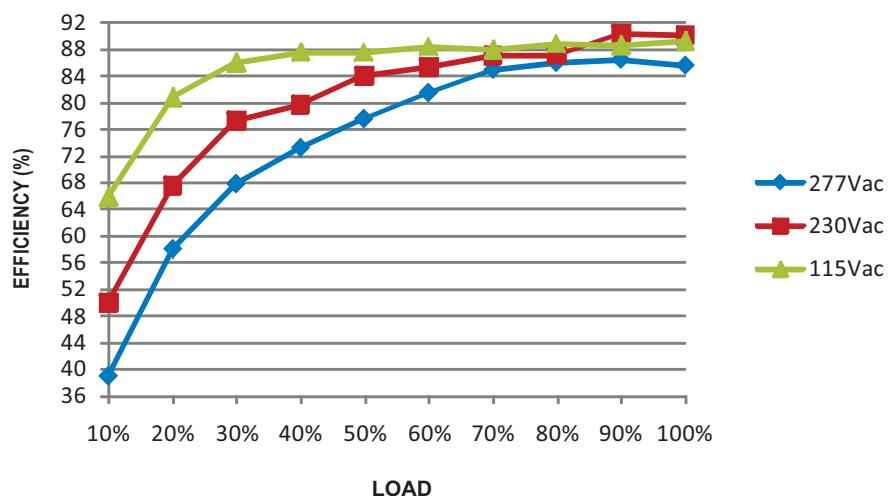
### ■ Power Factor Characteristic

#### Constant Current Mode



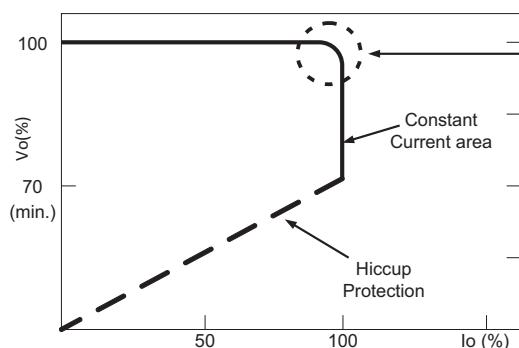
### ■ EFFICIENCY vs LOAD (48V Model)

CLG-60 series possess superior working efficiency that up to 89% can be reached in field applications.



### ■ DRIVING METHODS OF LED MODULE

This LED power supply is suggested to work in constant current mode area (CC) to drive the LEDs.



In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.

Should there be any compatibility issues, please contact MEAN WELL.

Typical LED power supply I-V curve

# Mouser Electronics

Authorized Distributor

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Mean Well:

[CLG-60-48](#) [CLG-60-27](#) [CLG-60-36](#) [CLG-60-12](#) [CLG-60-15](#) [CLG-60-20](#) [CLG-60-24](#)