

# AV12192IP67 - AV24240IP67 - AV48240IP67

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## ■ Features :

- Universal AC input / Full range (up to 305VAC)
- Built-in active PFC function
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- OCP point adjustable through output cable or internal potentiometer
- IP67 design for indoor or outdoor installations
- Suitable for LED lighting and street lighting applications
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations
- 5 years warranty (Note.10)



## SPECIFICATION

MODEL	AV12192IP67	AV24240IP67	AV48240IP67							
OUTPUT	DC VOLTAGE	12V	24V	48V						
	CONSTANT CURRENT REGION Note.4	6 ~12V	12 ~ 24V	24 ~ 48V						
	RATED CURRENT	16A	10A	5A						
	RATED POWER	192W	240W	240W						
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	250mVp-p						
	VOLTAGE ADJ. RANGE Note.6	11.2 ~ 12.8V	22.4 ~ 25.6V	44.8 ~ 51.2V						
	CURRENT ADJ. RANGE	Can be adjusted by internal potentiometer A type and C type only								
		8 ~ 16A	5 ~ 10A	2.5 ~ 5A						
	VOLTAGE TOLERANCE Note.3	±2.5%	±1.0%	±1.0%						
	LINE REGULATION	±0.5%	±0.5%	±0.5%						
LOAD REGULATION Note.8	±2.0%	±0.5%	±0.5%							
SETUP, RISE TIME Note.9	1000ms, 80ms/115VAC	500ms, 80ms/230VAC	at full load							
HOLD UP TIME (Typ.)	15ms at full load	230VAC/115VAC								
INPUT	VOLTAGE RANGE Note.5	90 ~ 305VAC	127 ~ 431VDC							
	FREQUENCY RANGE	47 ~ 63Hz								
	POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.95/230VAC at full load (Please refer to "Power Factor Characteristic" curve)								
	TOTAL HARMONIC DISTORTION	THD< 20% when output loading ≥ 50% at 115VAC/230VAC								
	EFFICIENCY (Typ.)	90%	90%	91.5%	92.5%	92.5%	92.5%	92.5%	93%	93.5%
	AC CURRENT (Typ.)	4A/115VAC	2A/230VAC	1.2A/277VAC						
	INRUSH CURRENT (Typ.)	COLD START 75A (width=570µs measured at 50% Ipeak) at 230VAC								
	LEAKAGE CURRENT	<0.75mA/277VAC								
PROTECTION	OVER CURRENT Note.4	95 ~ 108%								
		Protection type : Constant current limiting, recovers automatically after fault condition is removed								
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	13.5 ~ 18V	17.5 ~ 21.5V	23.5 ~ 27.5V	27 ~ 34V	33 ~ 39V	43 ~ 49V	48 ~ 54V	55 ~ 63V	60 ~ 67V
OVER TEMPERATURE	Protection type : Shut down and latch off o/p voltage, re-power on to recover									
	Shut down o/p voltage, recovers automatically after temperature goes down									
ENVIRONMENT	WORKING TEMP.	-40 ~ +70°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, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes									
SAFETY & EMC	SAFETY STANDARDS Note.7	UL1012, CAN/CSA-C22.2 No. 107.1-01, UL8750, CSAC22.2 No. 250.0-08, TUV EN61347-1, EN61347-2-13 independent (except for HLG-240H C type), UL60950-1, UL8750, TUV EN60950-1, IP65 or IP67, J61347-1, J61347-2-13 approved								
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH								
	EMC EMISSION	Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2 Class C (≥50% load) ; EN61000-3-3								
EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge 4KV), criteria B									
OTHERS	MTBF	207.9Khrs min. MIL-HDBK-217F (25°C)								
	DIMENSION	244.2*68*38.8mm (L*W*H)(HLG-240H-Blank/A/B)			251*68*38.8mm (L*W*H)(HLG-240H-C)					
	PACKING	1.3Kg; 12pcs/16.6Kg/0.84CUFT(HLG-240-Blank/A/B)			1.23Kg; 12pcs/15.8Kg/1.16CUFT(HLG-240-C)					
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 0.1µf &amp; 47µf parallel capacitor.</li> <li>Tolerance : includes set up tolerance, line regulation and load regulation.</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>Derating may be needed under low input voltages. Please check the static characteristics for more details.</li> <li>A type and C type only.</li> <li>Safety and EMC design refer to EN60598-1, subject 8750(UL), CNS15233, GB7000.1, FCC part18.</li> <li>Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.</li> <li>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.</li> <li>Refer to warranty statement.</li> <li>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.</li> </ol>									



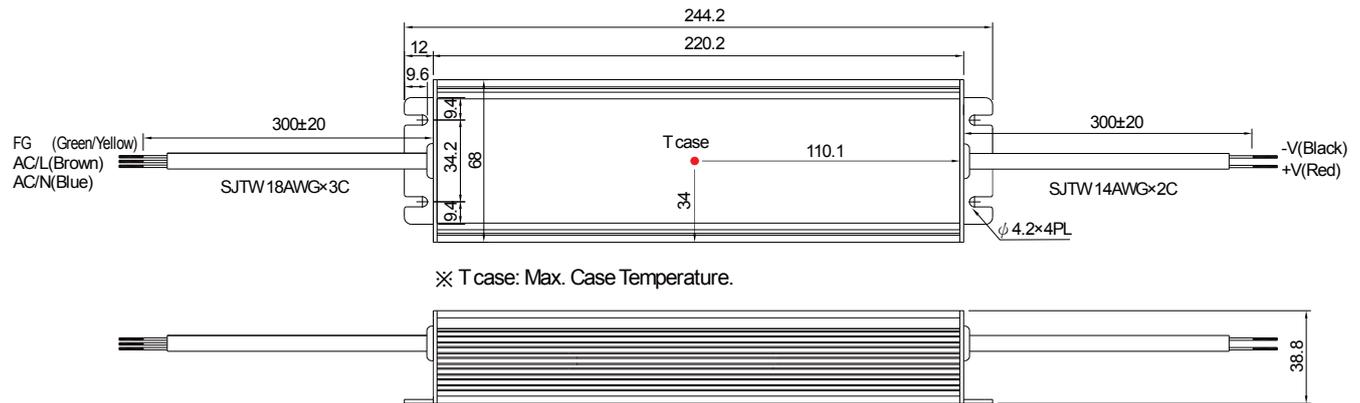
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## Mechanical Specification

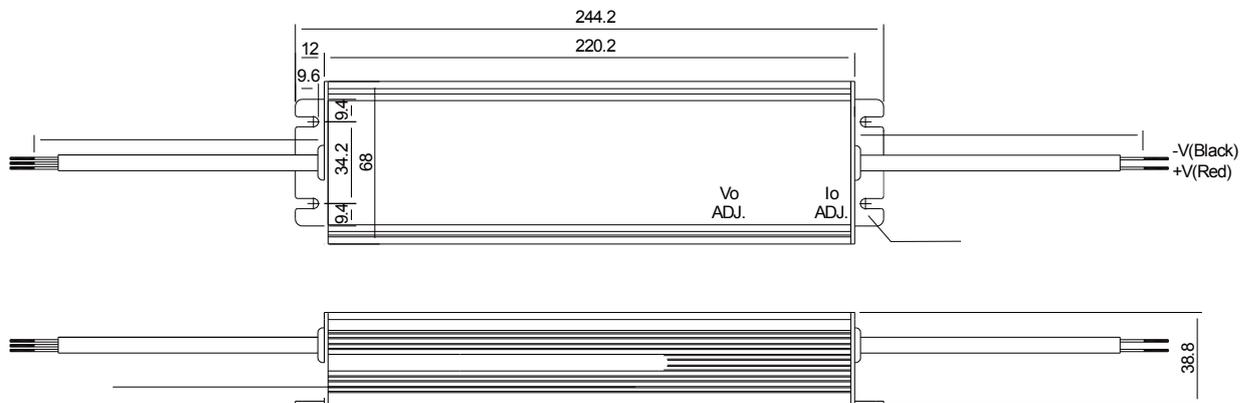
Case No.994C Unit:mm

Blank:(HLG-240H)

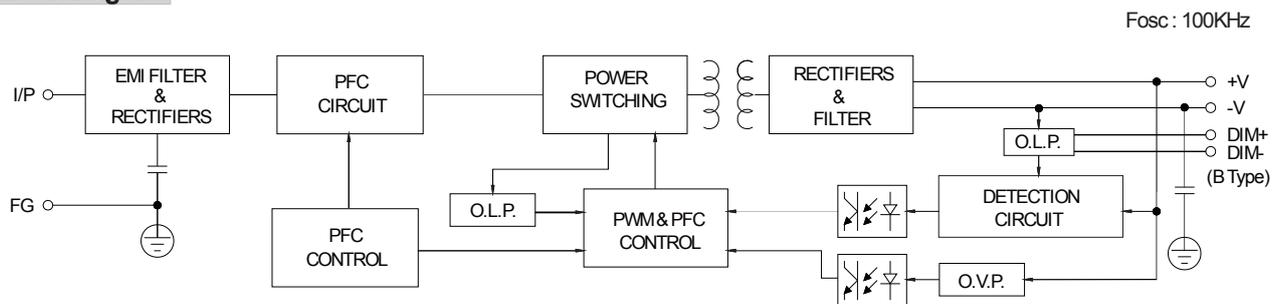


※ T case: Max. Case Temperature.

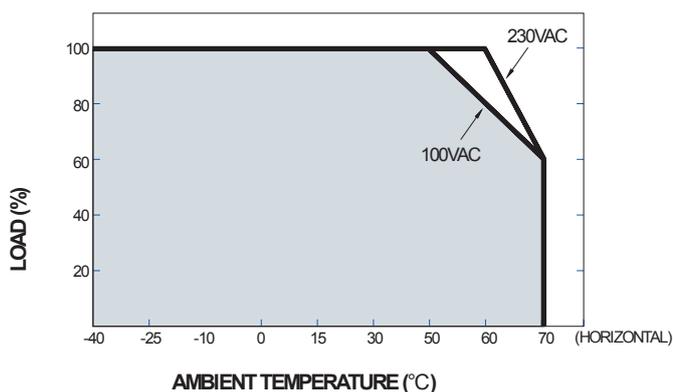
※IP67 rated. Cable for I/O connection.



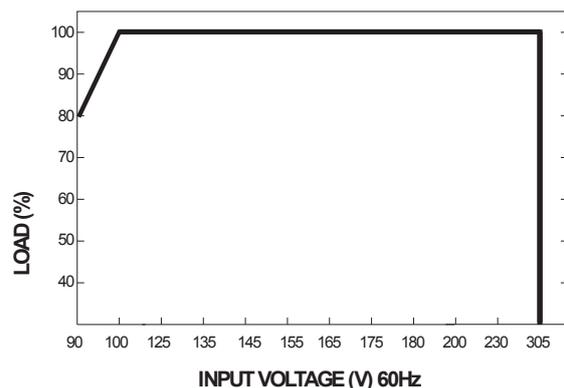
## Block Diagram



## Derating Curve



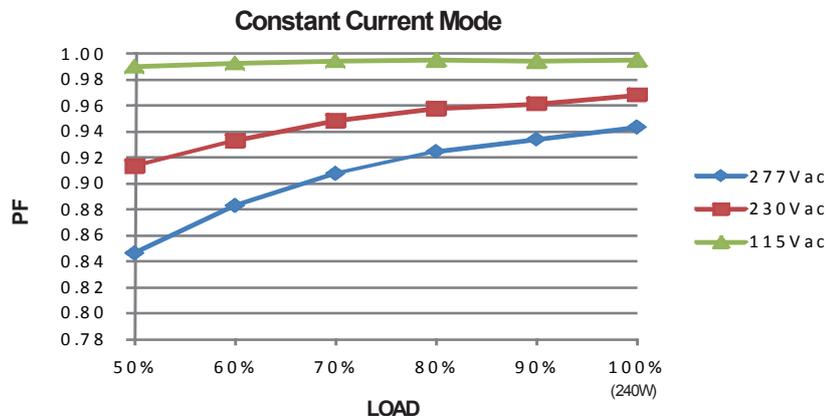
## Static Characteristics



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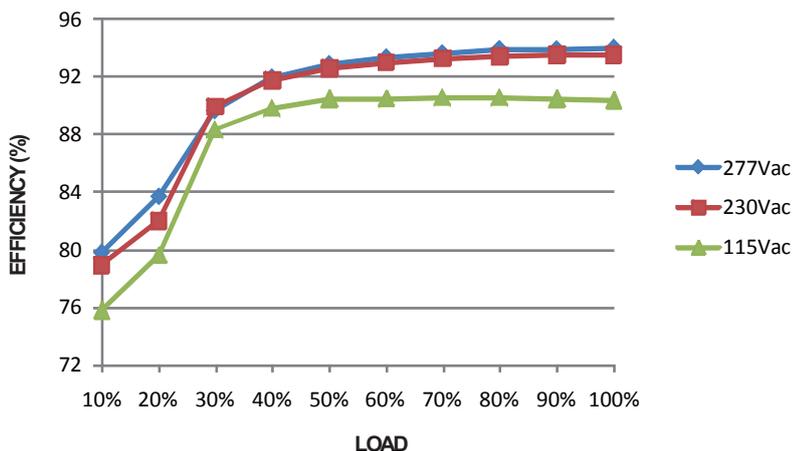
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## Power Factor Characteristic



## EFFICIENCY vs LOAD (48V Model)

H LG-240H series possess superior working efficiency that up to 93.5% can be reached in field applications.

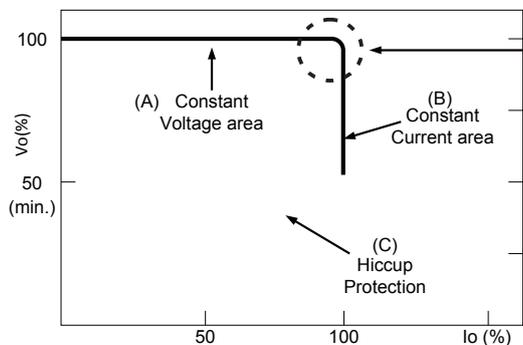


## DRIVING METHODS OF LED MODULE

There are two major kinds of LED drive method "direct drive" and "with LED driver".

A typical LED power supply may either work in "constant voltage mode (CV) or constant current mode (CC)" to drive the LEDs.

Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode (with LED driver, at area (A) and CC mode (direct drive, at area (B).



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



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