



Made in Italy


AV12192IP67 - AV24240IP67 - AV48240IP67

Power supply units and control gear



- **Features:**
- Constant voltage
- Metal housing with Class I design
- IP67 rating for indoor or outdoor installations
- Function options: output adjustable via potentiometer; 3 in dimming
- Typical lifetime > 62000 hours
- 7 years warranty

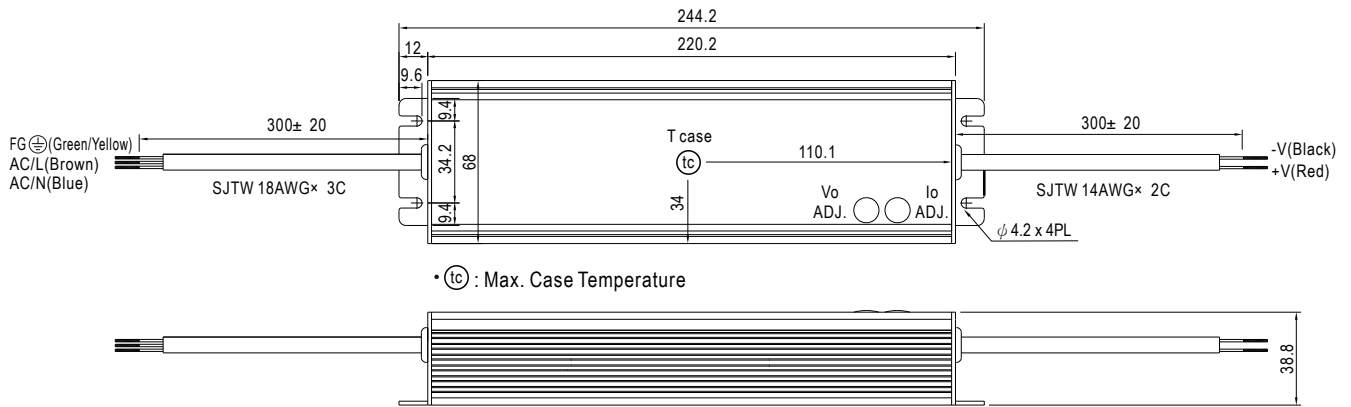
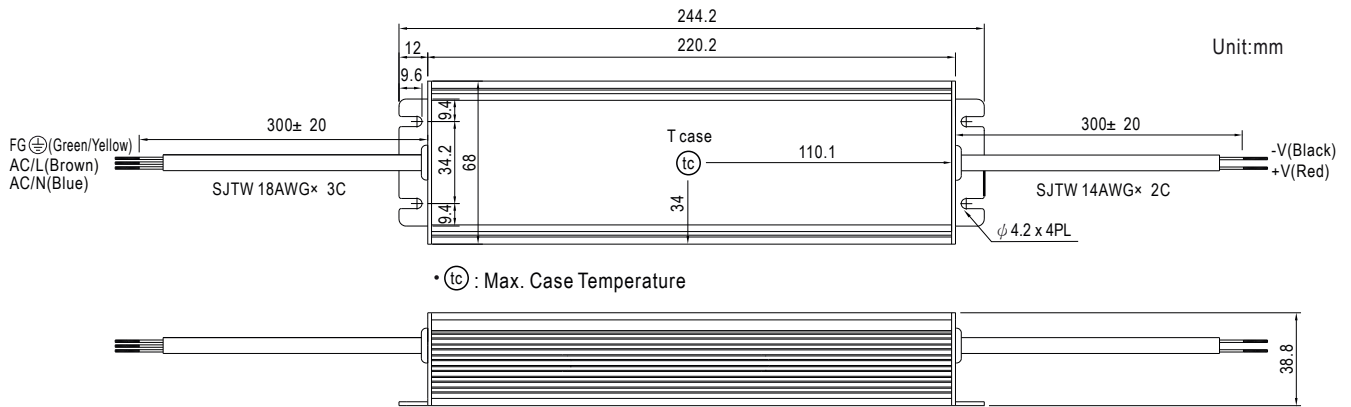
SPECIFICATION

MODEL	AV12192IP67	AV24240IP67	AV48240IP67	
OUTPUT	DC VOLTAGE	12V	24V	48V
	CONSTANT CURRENT REGION Note.4	6 ~ 12V	18 ~ 24V	36 ~ 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	Adjustable for A/C type only (via built-in potentiometer)		
		11.2 ~ 12.8V	22.4 ~ 25.6V	44.8 ~ 51.2V
	CURRENT ADJ. RANGE	Adjustable for A/C type only (via built-in potentiometer)		
		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	±2.0%	±0.5%	±0.5%	
SETUP, RISE TIME Note.6	1000ms, 80ms/115VAC 500ms, 80ms/230VAC			
HOLD UP TIME (Typ.)	15ms/115VAC, 230VAC			
INPUT	VOLTAGE RANGE Note.5	90 ~ 305VAC 127 ~ 431VDC (Please refer to "STATIC CHARACTERISTIC" section)		
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR (Typ.)	PF ≥ 0.98/115VAC, PF ≥ 0.95/230VAC @full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)		
	TOTAL HARMONIC DISTORTION	THD < 20% (@load ≥ 50% / 115VAC, 230VAC; @load ≥ 75% / 277VAC) (Please refer to "TOTAL HARMONIC DISTORTION (THD)" section)		
	EFFICIENCY (Typ.)	90%	92.5%	93%
	AC CURRENT	4A/115VAC 2A/230VAC 1.2A/277VAC		
	INRUSH CURRENT (Typ.)	COLD START 75A (t _{width} = 570µs measured at 50% I _{peak}) at 230VAC; Per NEMA 410		
	MAX. No. of PSU on 16A CIRCUIT BREAKER	2 units (circuit breaker of type B) / 4 units (circuit breaker of type C) at 230VAC		
LEAKAGE CURRENT	< 0.75mA/277VAC			
PROTECTION	OVER CURRENT	95 ~ 108% 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	27 ~ 34V	55 ~ 63V
	OVER TEMPERATURE	Shut down and latch off o/p voltage, re-power on to recover		
ENVIRONMENT	WORKING TEMP.	Tcase = -40 ~ +90°C (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)		
	MAX. CASE TEMP.	Tcase = +90°C		
	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.8	TUV EN61347-1, EN61347-2-13 independent, TUV EN60950-1; IP67		
	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 (@load ≥ 50%); EN61000-3-3		
	EMC IMMUNITY	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547, EN55024, light industry level (surge immunity Line-Earth 4KV, Line-Line 2KV)		
OTHERS	MTBF	207.9K hrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	244.2*68*38.8mm (L*W*H)		
	PACKING	1.3Kg		

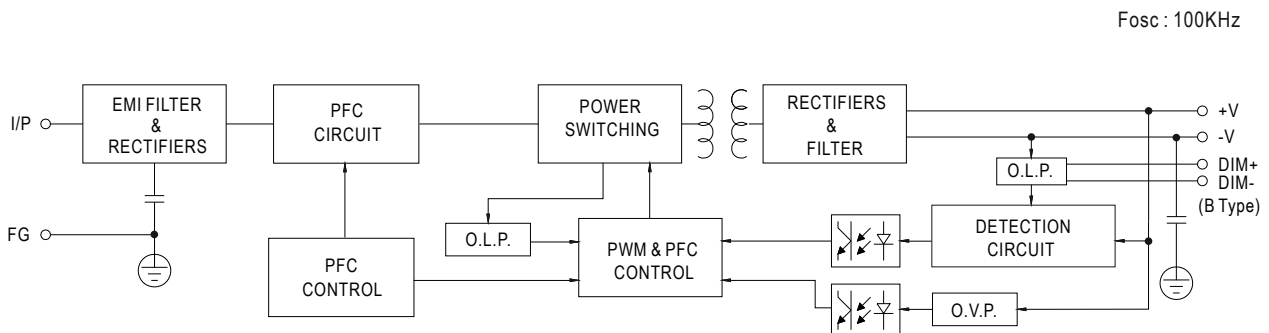
NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated current 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 0.1µf & 47µf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. Please refer to "DRIVING METHODS OF LED MODULE".
5. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERIC" sections for details.
6. Length of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time.
7. The driver is considered 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 be re-qualify EMC Directive on the complete installation again.
8. To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED driver can be used behind a switch without permanently connected to the mains.
9. This series meets the typical life expectancy of >62000 hours of operation when Tcase, particularly (tc) point (or TMP, per DLC), is about 75 °C or less.

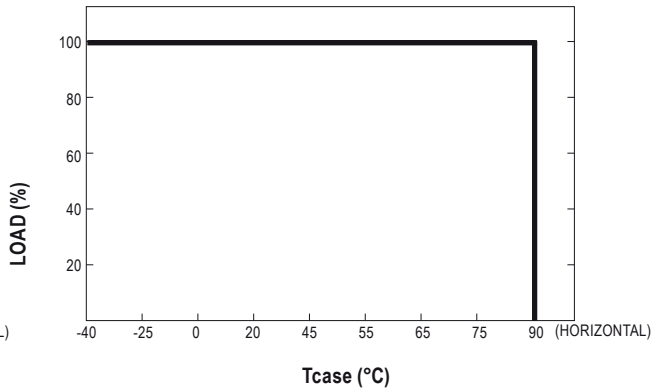
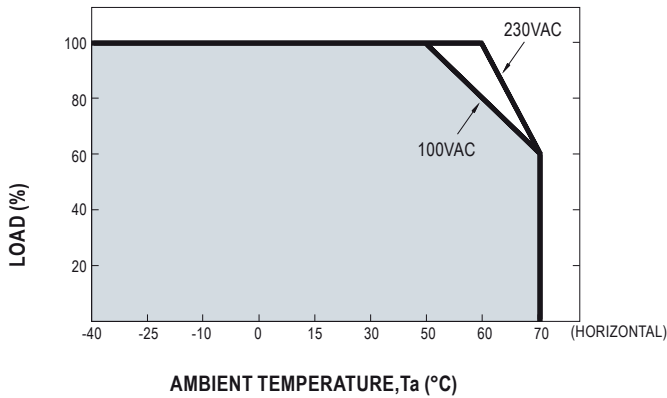
MECHANICAL SPECIFICATION



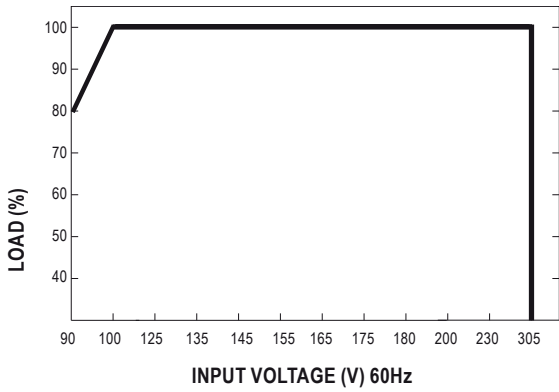
BLOCK DIAGRAM



OUTPUT LOAD vs TEMPERATURE



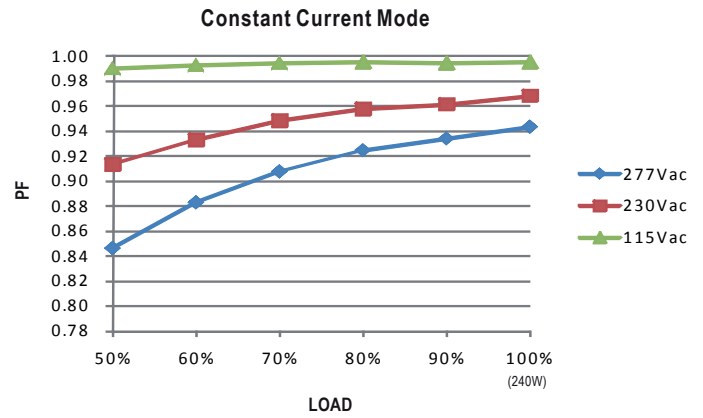
STATIC CHARACTERISTIC



Derating is needed under low input voltage

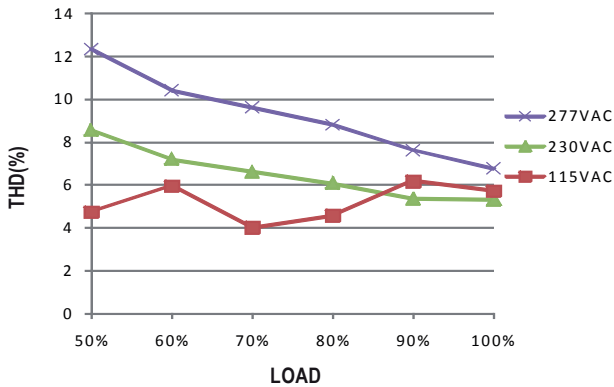
POWER FACTOR (PF) CHARACTERISTIC

Tcase at 80°C



TOTAL HARMONIC DISTORTION (THD)

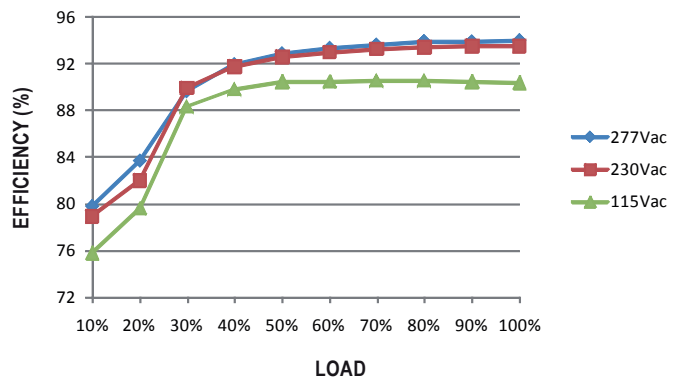
48 V Model, Tcase at 80°C



EFFICIENCY vs LOAD

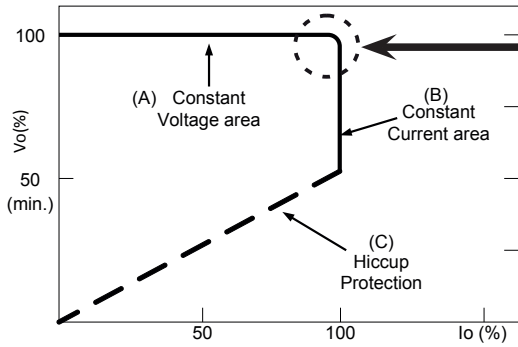
The power supply unit possess superior working efficiency that up to 93.5% can be reached in field applications.

48 V Model, Tcase at 80°C



DRIVING METHODS OF LED MODULE

This series is able to work in either Constant Current mode (a directive drive way) or Constant Voltage mode (usually through additional DC/DC driver) 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 L&L.

Typical output current normalized by rated current (%)

LIFE TIME

