





























## Features

- Wide input range 100~305V AC( Class I)
- Full power output at 70~100% Constant power mode operation
- Metal case with IP67, suitable for outdoor application
- Surge protection with 6KV/4KV (10KV/6KV optional)
- 3 in 1 dimming function (Dim to off and Isolation design)
- India (EESL) version, can survive input voltage stress of 440Vac for 48 hours
- Protection functions: OVP/SCP/OCP/OTP
- Life time >50,000 hrs. and 5 years warranty

# Applications

- · Skyscraper lighting
- Street lighting
- Floodlight Lighting
- Stage lighting
- · Fishing lighting
- Horticulture lighting
- Bay lighting
- · Type HL for use in class I, Division 2

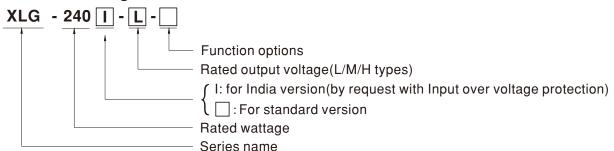
# ■ GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

# Description

XLG-240 series is a 240W LED AC/DC driver featuring the constant power mode. XLG-240 operates from 100~305 VAC and offers models with different rated current ranging between 700mA and 6.66A. Thanks to the high efficiency up to 93%, with the fanless design, the entire series is able to operate for -40 $^{\circ}$ C ~+90 $^{\circ}$ C case temperature under free air convection . The design of metal housing and IP67 ingress protection level allows this series to fit both indoor and outdoor applications. Moreover the innovative environment-adaptive capability allows this series to reliably light on the LEDs for all kinds of application environments in almost any spots that may install LED luminaires in the world. XLG-240 is designed with the latest version of IEC61347/GB7000.1-2015 and UL8750 international safety regulations. The output and dimming circuit are also completely in accordance with the new regulations with isolation to ensure the user and luminaire system safety durng installation.

# Model Encoding



Type	Function	Note
Blank	Io and Vo fixed.(For harsh environment)	By request
Α	lo adjustable via built-in potentiometer	In Stock
AB	Io adjustable via built-in potentiometer + 3 in 1 dimming function (0~10Vdc, 10V PWM signal and resistance)	In Stock

#### 240W Constant Power Mode LED Driver

#### **SPECIFICATION**

MODEL		XLG-240L	XLG-240 -M-	XLG-240□ -H-□	
	RATED CURRENT (Default)	700mA	1400mA	4900mA	
ОИТРИТ	RATED POWER	239.4W	239.4W	239.6W	
	CONSTANT CURRENT REGION Note.2	178~ 342V	90 ~171V	27 ~ 56V	
	FULL POWER CURRENT RANGE	700~1050mA	1400~2100mA	4280~6660mA	
	OPEN CIRCUIT VOLTAGE (max.)	370V	186V	60V	
	CURRENT ADJ. RANGE	Adjustable for A/AB-Type only (via the b	puilt-in potentiometer)		
		350~1050mA	700~2100mA	2400~6660mA	
	CURRENT RIPPLE	5.0%(@ Load≥50% rated voltage)			
	CURRENT TOLERANCE	±4%			
	SET UP TIME Note.6	500ms/230VAC, 1200ms/115VAC			
	VOLTAGE RANGE Note.5	100 ~ 305VAC 142 ~ 431VDC			
	VOLIAGE NAME NOTE.S	(Please refer to "STATIC CHARACTERISTIC" and " DRIVING METHODS OF LED MODULE"section)			
	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR (Typ.)	$PF \ge 0.97$ / 115VAC, $PF \ge 0.95$ / 230VAC, $PF \ge 0.92$ / 277VAC at full load			
	TOTAL TROTOR (1) p.)	(Please refer to "Power Factor Characteristic" section)			
	TOTAL HARMONIC DISTORTION	THD<10% (@ load≥50% at 115VAC/230VAC ,@load≥75% at 277VAC)			
	TO IAE TIARMIONIO DIOTORTION	Please refer to "TOTAL HARMONIC D	ISTORTION (THD)" section		
NPUT	EFFICIENCY (Typ.)	93%	92.5%	91%	
	AC CURRENT (Typ.)	2.7A / 115VAC 1.3A / 230VAC	1.1A / 277VAC		
	INRUSH CURRENT(Typ.)	COLD START 85A(twidth=500µs measure	ed at 50% Ipeak) at 230VAC; Per NEMA 410		
	MAX. NO. of PSUs on 16A	2 unit(circuit breaker of type B) / 4 units(circuit breaker of type C) at 230VAC			
	CIRCUIT BREAKER	. ,	(constant broader or type of at 200 tries		
	LEAKAGE CURRENT	<0.75mA / 277VAC			
	STANDBY POWER CONSUMPTION	Standby power consumption <0.5\	N for AB-Type(Dimming OFF)(for standard	d version)	
	SHORT CIRCUIT	Hiccup mode or constant current limitin	g, recovers automatically after fault condition is	removed	
	OVERVOLTAGE	380 ~ 450V	190~ 240V	61 ~ 85V	
ROTECTION	OVER VOLTAGE	Shut down output voltage, re-power on to recovery			
PROTECTION	INPUT OVER VOLTAGE Note.7	320 ~ 390VAC (Shut down output when the input exceeds protection voltage, recovers automatically after fault condition is removed)			
		Can survive input voltage stress of 440Vac for 48 hours @ tc 75°C max			
	OVER TEMPERATURE	Shut down output voltage, re-power on to recover			
ENVIRONMENT :	WORKING TEMP.	,	JTPUT 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 non-condensing			
	TEMP. COEFFICIENT	±0.03%/°C (0~60°C)			
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes			
SAFETY & EMC (Note 8)	SAFETY STANDARDS	UL8750(type"HL"), CSA C22.2 No. 250.13-12; ENEC BS EN/EN61347-1, BS EN/EN61347-2-13 independent, BS EN/EN62384; GB19510.1, GB19510.14; EAC TP TC 004; J61347-1(H29), J61347-2-13(H29), KC61347-1, KC61347-2-13, IS15885(Part2/Sec13); NOM-058-SCFI-2017(except for Blank type); IP67 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		
		Parameter	Standard	Test Level / Note	
	EMC EMISSION	Conducted	BS EN/EN55015(CISPR15), GB/T17743	3	
		Radiated	BS EN/EN55015(CISPR15),GB/T17743		
		Harmonic Current	BS EN/EN61000-3-2 , GB/T17625.1	Class C @load≥50%	
		Voltage Flicker	BS EN/EN61000-3-3		
	EMC IMMUNITY	BS EN/EN61547			
		Parameter	Standard	Test Level / Note	
		ESD	BS EN/EN61000-4-2	Level 3, 8KV air ; Level 2, 4KV contact	
		Radiated	BS EN/EN61000-4-3	Level 2	
		EFT / Burst	BS EN/EN61000-4-4	Level 3	
		Surge	BS EN/EN61000-4-5	4KV/Line-Line 6KV/Line-Earth(6K/10K option)	
		Conducted	BS EN/EN61000-4-6	Level 2	
		Magnetic Field	BS EN/EN61000-4-8	Level 4	
			BS EN/EN61000-4-11	>95% dip 0.5 periods, 30% dip 25 period	
		Voltage Dips and Interruptions		>95% interruptions 250 periods	
	MTBF	Voltage Dips and Interruptions  2496.2K hrs min. Telcordia SR-332(			
THERS	MTBF DIMENSION				

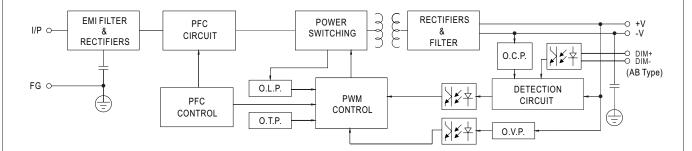
- 2. Please refer to "DRIVING METHODS OF LED MODULE".
- 3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
- 4. Tolerance: includes set up tolerance, line regulation and load regulation.
- 5. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details. If continually operate with AC on/off in short time , it may causes PWM driver IC into protection status.
- 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. Only for XLG-240 I series, and Iseries without UL/CSA certificate.
- 8. The driver 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.
- 9. This series meets the typical life expectancy of >50,000 hours of operation when Tcase, particularly to point (or TMP, per DLC), is about 75°C or less.
- 10. Please refer to the warranty statement on MEAN WELL's website at http://www.meanwell.com
- 11. To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED driver can only be used behind a switch without permanently connected to the mains.
- 12. The ambient temperature derating of  $3.5^{\circ}$ C/1000m with fanless models and of  $5^{\circ}$ C/1000m with fan models for operating altitude higher than 2000m(6500ft).
- 13. Products sourced from the Americas regions may not have the CCC/PSE/BIS/KC logo. Please contact your MEAN WELL sales for more information.
- 14. For any application note and IP water proof function installation caution, please refer our user manual before using. https://www.meanwell.com/Upload/PDF/LED\_EN.pdf
- 15. When the current adjustment is more than 110% of the rated current, it will be enter the Protection state.
- 16. It may has an over-shoot status at output current when AC On/Off operate with lower Vf and lower loading conditions.

  17. If you need the NOM (Mexico) certificate, Please contact MEAN WELL sales representative for details.
- Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx



## ■ BLOCK DIAGRAM

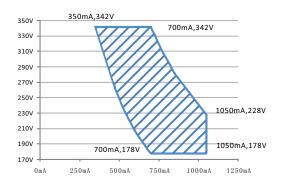
PFC fosc: 50~120KHz PWM fosc: 60~130KHz



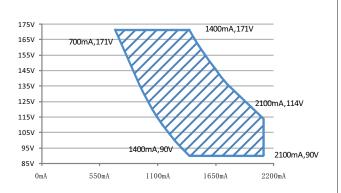
## ■ DRIVING METHODS OF LED MODULE

#### ¾ I-V Operating Area

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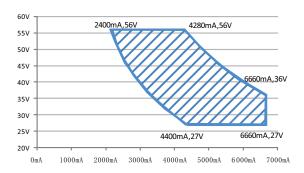
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#### Recommend Performance Region

Recommend Performance Region

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Recommend Performance Region

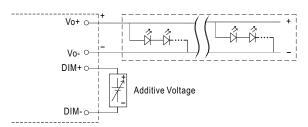


#### **■ DIMMING OPERATION**

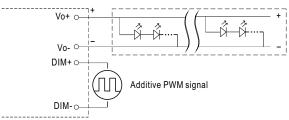


#### ※ 3 in 1 dimming function (for AB-Type)

- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-:
   0 ~ 10VDC, or 10V PWM signal or resistance.
- Direct connecting to LEDs is suggested. It is not suitable to be used with additional drivers.
- Dimming source current from power supply: 100  $\mu$  A (typ.)

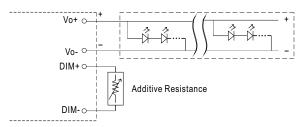


"DO NOT connect "DIM- to Vo-"

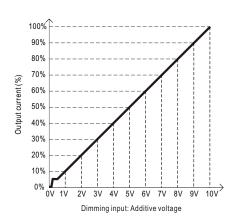


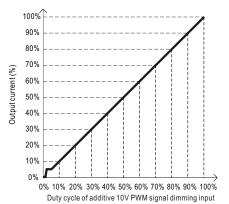
"DO NOT connect "DIM- to Vo-"

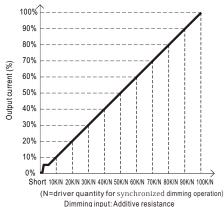
Applying additive resistance:



"DO NOT connect "DIM- to Vo-"





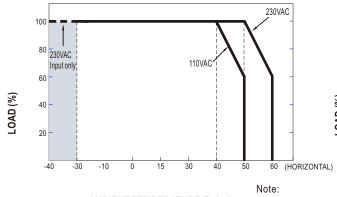


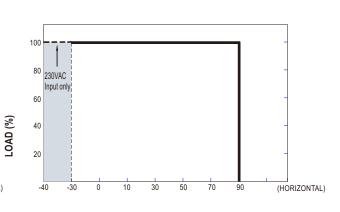
Note: 1. Min. dimming level is about 8% and the output current is not defined when 0% < Iout < 8%.

- 2. The output current could drop down to 0% when dimming input is about 0k $\Omega$  or 0Vdc, or 10V PWM signal with 0% duty cycle.
- 3. When PWM frequency >2K HZ ,the lighting will be triggered at 10~15% PWM duty .



## ■ OUTPUT LOAD vs TEMPERATURE



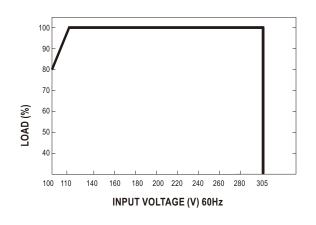


Tcase (°C)

AMBIENT TEMPERATURE, Ta (°C)

Note:1.If XLG-240 operates in Constant Power mode with the rated current the maximum workable Ta is  $50^{\circ}$ C (Typ. 230VAC) or  $40^{\circ}$ C (Typ. 110VAC) 2.It may has a soft-start status when operation at -30°C full load and 110VAC input condition.

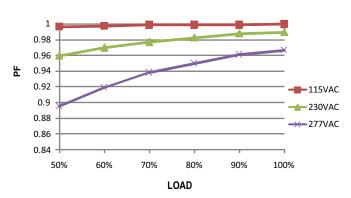
### ■ STATIC CHARACTERISTIC



## **■ POWER FACTOR (PF) CHARACTERISTIC**

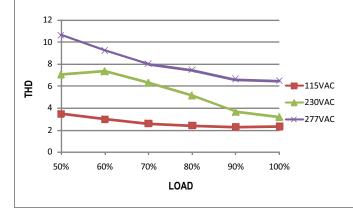
★ Tcase at 75°C

#### **Constant Current Mode**



## ■ TOTAL HARMONIC DISTORTION (THD)

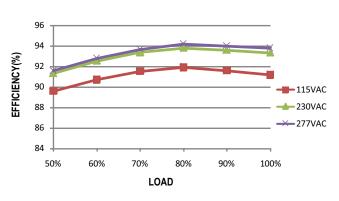
## ※ XLG-240-L Model, Tcase at 75°C



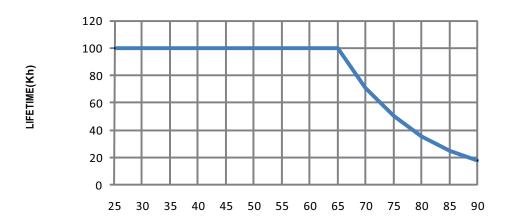
#### **■** EFFICIENCY vs LOAD

XLG-240 series possess superior working efficiency that up to 93% can be reached in field applications.

※ XLG-240-L Model, Tcase at 75°C

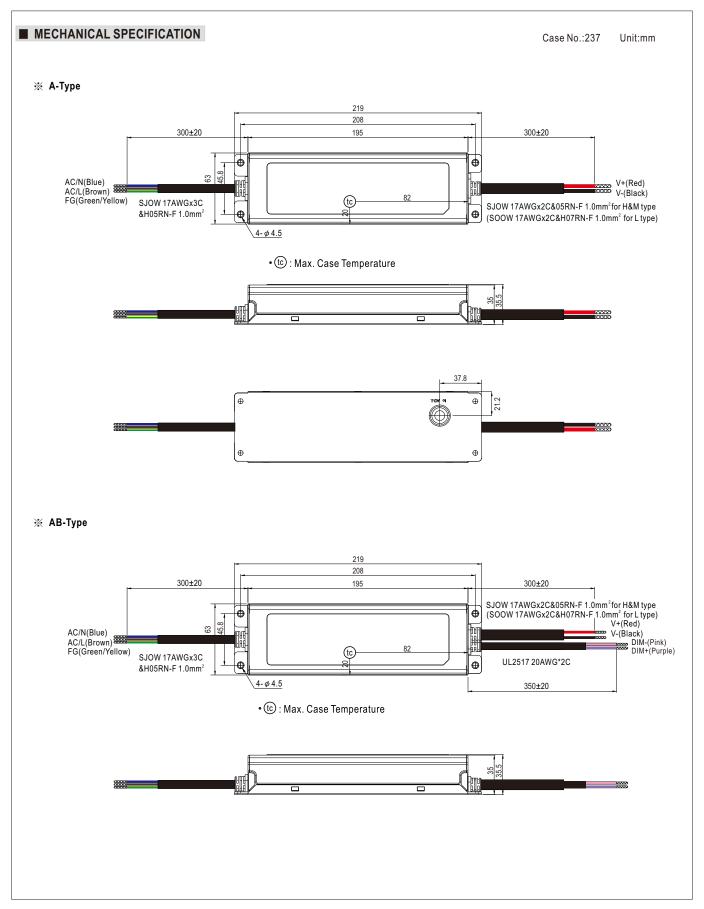


# **■** LIFE TIME

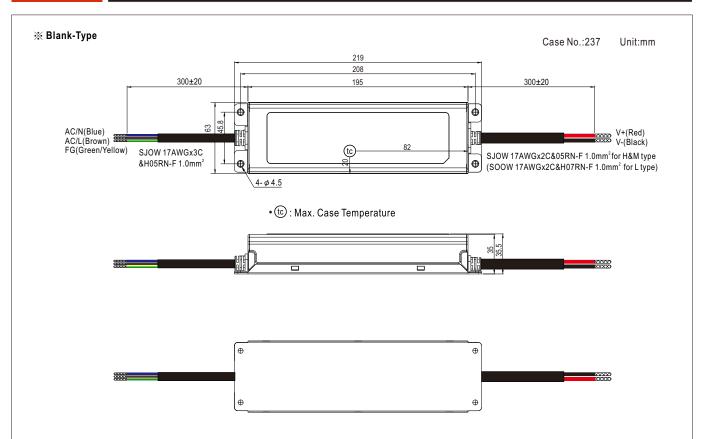


Tcase(°℃)









## **■ INSTALLATION MANUAL**

Please refer to: http://www.meanwell.com/manual.html