



Note 9



■ Features

- Wide input range 100~305VAC(class I)
- Full power output at 75~100% constant power mode operation
- Metal case with IP67,suitable for outdoor application
- Surge protection with 6KV/4KV
- 3 in 1 dimming (Dim-to-off and Isolation design)
- Protection Functions : OLP / SCP / OVP / OTP
- Typical lifetime>50,000 hours and 5 years warranty

■ Applications

- Bay lighting
- Stage lighting
- Floodlight lighting
- Fishing lighting
- Horticulture lighting
- Stadium lighting
- DMX power supply
- Type "HL" for use in class I , Division 2

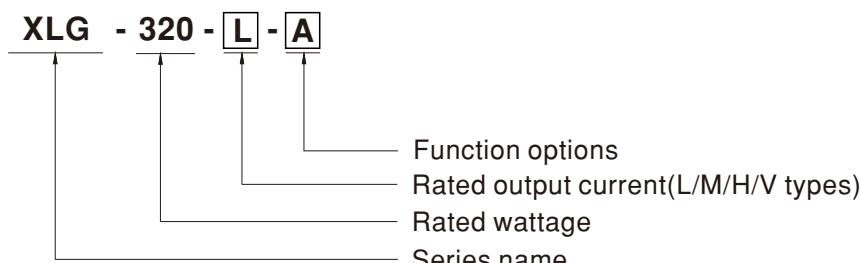
■ GTIN CODE

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

■ Description

XLG-320 series is a 315W LED AC/DC driver featuring the constant power mode and high voltage output. XLG-320 operates from 100~305VAC and offers models with different rated current ranging between 1050mA and 18000mA. Thanks to the high efficiency up to 94.5%, with the fanless design, the entire series is able to operate for -40°C~+85°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-320 series comply 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 and isolation to ensure the safety of both user and luminaire system during installation.

■ Model Encoding



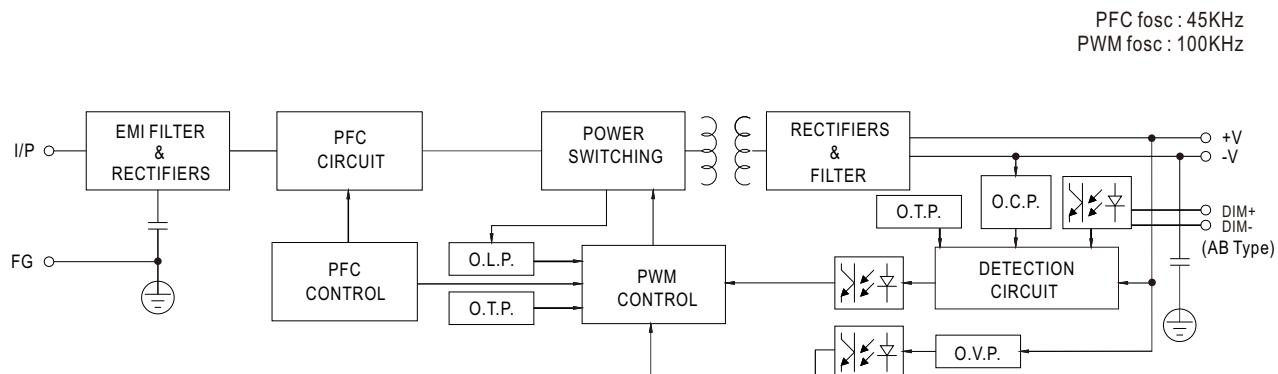
Type	IP Level	Function	Note
Blank	IP67	Io and Vo fixed.(For harsh environment)	By request
A	IP67	Output constant power adjustable via built-in Io potentiometer	In Stock
AB	IP67	Output constant power adjustable via built-in Io potentiometer + 3 in 1 dimming function (0~10Vdc, 10V PWM signal and resistance)	In Stock

Note: V model is constant voltage operation without the AB type

SPECIFICATION

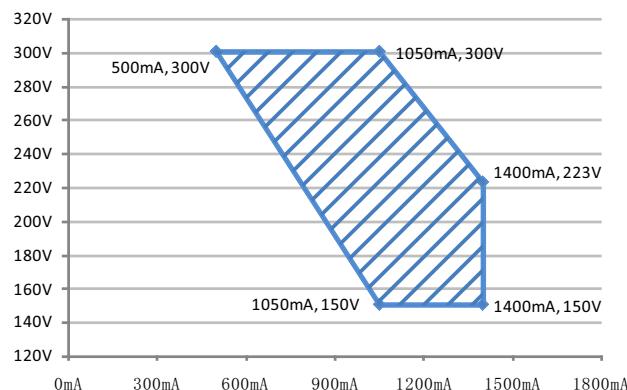
MODEL	XLG-320-L-□	XLG-320-M-□	XLG-320-H-□	XLG-320-V-□
OUTPUT	DEFAULT CURRENT 1400mA	2800mA	5600mA	13A/24V
	RATED POWER Note.10 315W	310.8W	312W	24V/312W, 12V/216W
	CONSTANT CURRENT REGION 150~300V	74 ~ 148V	30 ~ 56V	NC
	OUTPUT VOLTAGE ADJ. RANGE NC	NC	NC	24V or 12V
	FULL POWER CURRENT RANGE 1050~1400mA	2100~2800mA	5570~7420mA	13~18A(24V/13A,12V/18A)
	OPEN CIRCUIT VOLTAGE (max.) 340V	180V	60V	NC
	CURRENT ADJ. RANGE 500~1400mA	1050~2800mA	2800~7420mA	NC
	CURRENT RIPPLE 5.0% max. @rated current	5.0 max. @rated current	5.0% max. @rated current	NC
	CURRENT TOLERANCE $\pm 5\%$	$\pm 5\%$	$\pm 5\%$	NC
	RIPPLE & NOISE(max.) NC	NC	NC	240mV p-p
	VOLTAGE TOLERANCE NC	NC	NC	$\pm 3\%$
	LINE REGULATION NC	NC	NC	$\pm 0.5\%$
	LOAD REGULATION NC	NC	NC	$\pm 2\%$
	SET UP TIME Note.9 500ms/230VAC, 1200ms/115VAC			
	RISE TIME, HOLD UP TIME (Typ.) 160ms,10ms/230VAC/115VAC(only for V-type)			
INPUT	VOLTAGE RANGE Note.2 100 ~ 305VAC 142VDC ~ 431VDC (Please refer to "STATIC CHARACTERISTIC" and "DRIVING METHODS OF LED MODULE" section)			
	FREQUENCY RANGE 47 ~ 63Hz			
	POWER FACTOR (Typ.) $PF \geq 0.98 / 115VAC, PF \geq 0.95 / 230VAC, PF \geq 0.92 / 277VAC$ at full load (Please refer to "Power Factor Characteristic" section)			
	TOTAL HARMONIC DISTORTION THD< 10% @ load $\geq 50\%$ at 115VAC/230VAC, THD<15% @ Load>75% at 277VAC; Please refer to "TOTAL HARMONIC DISTORTION (THD)" section			
	EFFICIENCY (Typ.) 94.5% 93.5% 92.5% 93%			
	AC CURRENT (Typ.) 3A / 120VAC 1.6A / 230VAC 1.3A / 277VAC			
	INRUSH CURRENT(Typ.) COLD START 45A(twidth=1200 μ s measured at 50% I_{peak}) at 230VAC; Per NEMA 410			
	MAX. NO. of PSUs on 16A CIRCUIT BREAKER 2 unit(circuit breaker of type B) / 4 units(circuit breaker of type C) at 230VAC			
PROTECTION	LEAKAGE CURRENT <0.75mA / 277VAC			
	STANDBY POWER CONSUMPTION Note.5 Standby power consumption <0.5W for AB-Type(Dimming OFF)			
	SHORT CIRCUIT Hiccup mode or Constant current limiting, recovers automatically after fault condition is removed			
	OVER VOLTAGE 350 ~ 380V 190 ~ 220V 63 ~ 78V 27 ~ 34V Shut down output voltage, re-power on to recover			
ENVIRONMENT	OVER TEMPERATURE Note.11 L/M/H-Type: $T_{case} > 85^\circ\text{C} \pm 5^\circ\text{C}$, derate power automatically V-Type: Shut down output voltage, re-power on to recover			
	OVER LOAD Note.10 108~135%(only for V-type)			
	Hiccup mode or Constant current limiting, recovers automatically after fault condition is removed			
EMC	WORKING TEMP. $T_{case} = -40 \sim +85^\circ\text{C}$ (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)			
	MAX. CASE TEMP. $T_{case} = +85^\circ\text{C}$			
	WORKING HUMIDITY 20 ~ 95% RH non-condensing			
	STORAGE TEMP., HUMIDITY -40 ~ +80°C, 10 ~ 95% RH non-condensing			
	TEMP. COEFFICIENT $\pm 0.03\% / ^\circ\text{C}$ (0 ~ 60°C)			
	VIBRATION 10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes			
SAFETY & EMC	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; 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			
	EMC EMISSION	Parameter	Standard	Test Level / Note
		Conducted	BS EN/EN55015(CISPR15),GB/T17743	-----
		Radiated	BS EN/EN55015(CISPR15),GB/T17743	-----
		Harmonic Current	BS EN/EN61000-3-2, GB/T17625.1	Class C @load $\geq 50\%$
		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
		Conducted	BS EN/EN61000-4-6	Level 2
OTHERS	Magnetic Field	BS EN/EN61000-4-8	Level 4	
	Voltage Dips and Interruptions	BS EN/EN61000-4-11	>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods	
NOTE	MTBF 1476.4K hrs min. Telcordia SR-332(Bellcore) ; 168.1 K hrs min. MIL-HDBK-217F (25°C)			
	DIMENSION 246*77*39.5mm (L*W*H)			
	PACKING 1.45Kg;9pcs/14Kg/0.76CUFT			
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature. 2. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details. 3. 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. 4. This series meets the typical life expectancy >50,000 hours of operation when T_{case} , particularly \textcircled{C} point (or TMP, per DLC), is 70°C or less. 5. To fulfill requirements of the latest ErP regulation for lighting fixture, this LED driver can only be used behind a switch without permanently connected to the mains. 6. Please refer to the warranty statement on MEAN WELL's website at http://www.meanwell.com 7. The ambient temperature derating of 3.5°C/100m with fanless models and of 5°C/100m with fan models for operating altitude higher than 2000m(6500ft). 8. 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 9. Products sourced from the Americas regions may not have the ENEC/CCC/KC logo. Please contact your MEAN WELL sales for more information. 10. The output voltage of the V Type can be adjusted by the SVR, with the default voltage is 24V, and 12V output should twist clockwise to the end. Please twist VR to the end, otherwise the OLP will be beyond specification. 11. When the secondary OTP fails, there is also a primary OTP, which is protected by Shut down output voltage, re-power on to recovery for the H/M/L-type. 12. When the current adjustment is more than 110% of the rated current, it will be enter the Protection state. 13. It may has an over-shoot status at output current when AC On/Off operate with lower V_f and lower loading conditions. 14. If you need the NOM (Mexico) certificate, Please contact MEAN WELL sales representative for details. 15. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 16. Please refer to "DRIVING METHODS OF LED MODULE".			
	※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx			

■ BLOCK DIAGRAM

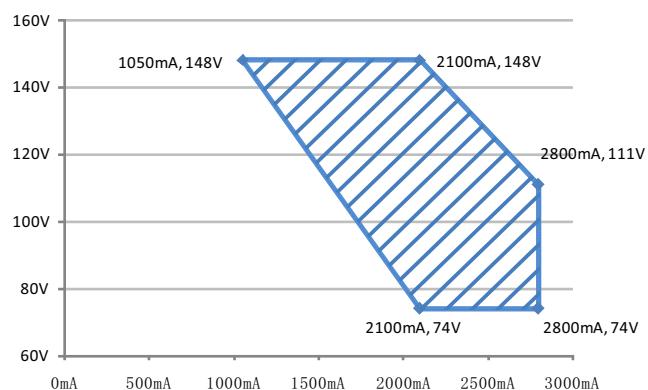


■ DRIVING METHODS OF LED MODULE

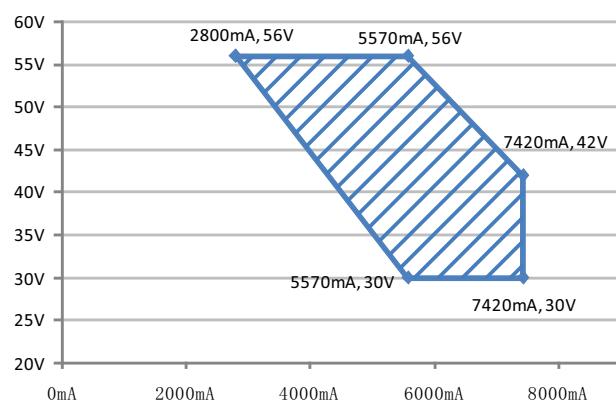
◎ XLG-320-L



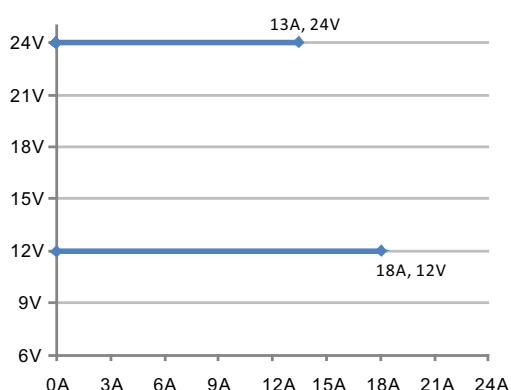
◎ XLG-320-M



◎ XLG-320-H

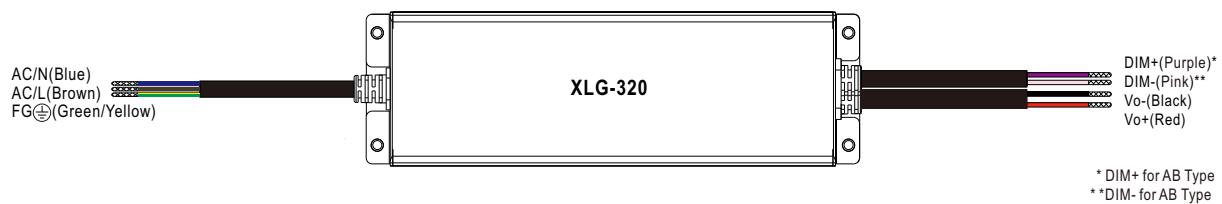


◎ XLG-320-V



※ V type output voltage adjustable via built-in potentiometer

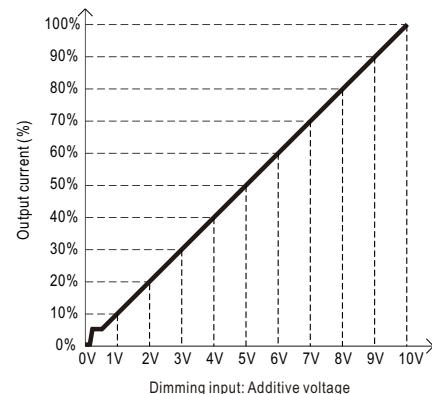
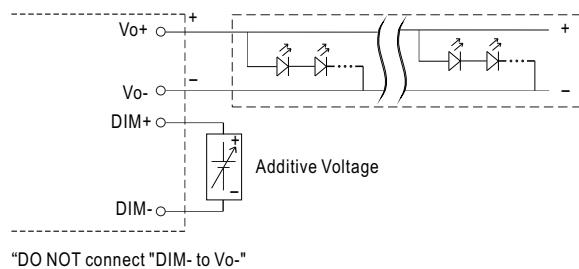
■ DIMMING OPERATION



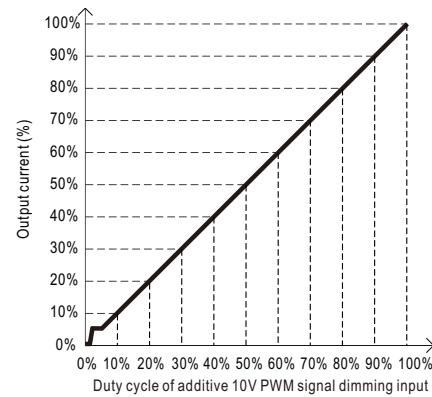
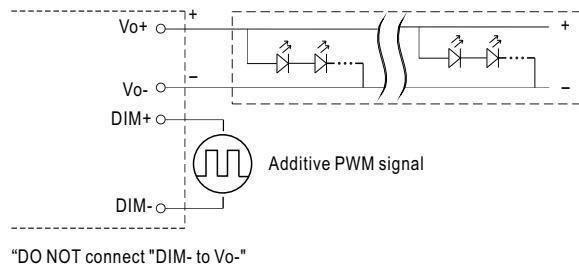
※ 3 in 1 dimming function (for AB-Type)

- 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 μ A (typ.)

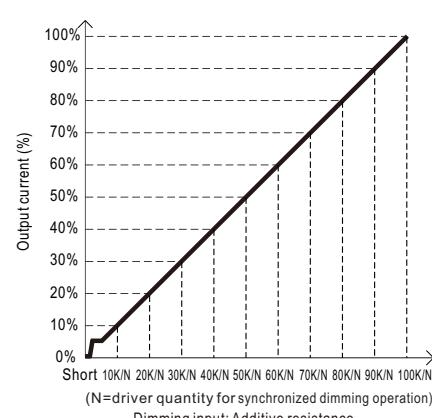
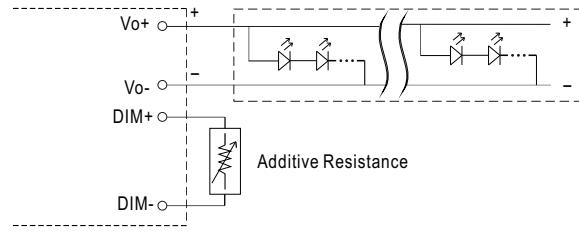
◎ Applying additive 0 ~ 10VDC



◎ Applying additive 10V PWM signal (frequency range 100Hz ~ 3KHz):



◎ Applying additive resistance:

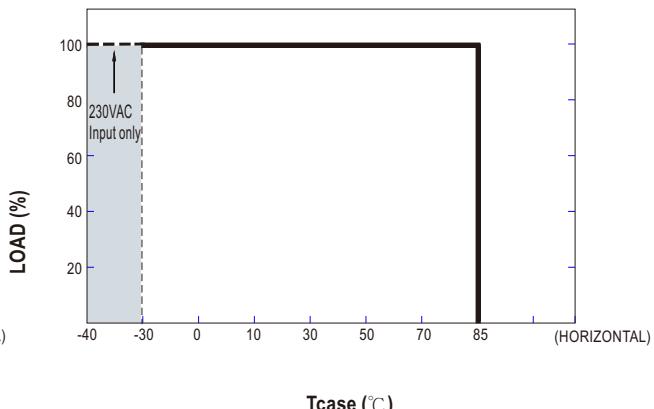
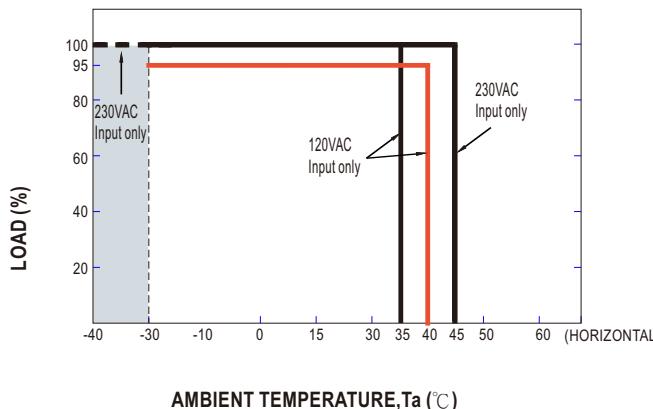


Note : 1. Min. dimming level is about 8% and the output current is not defined when 0% < lout < 8%.

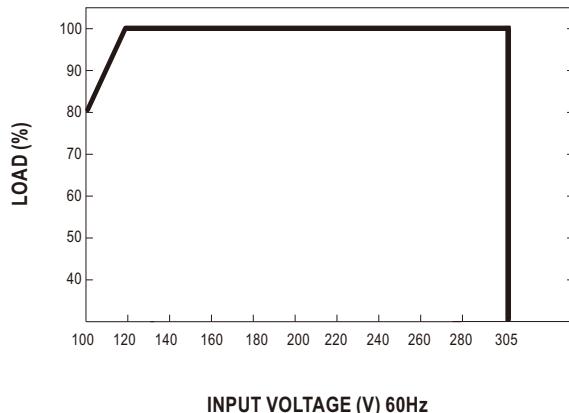
2. The output current could drop down to 0% when dimming input is about 0Ω or 0Vdc, or 10V PWM signal with 0% duty cycle.

3. When PWM frequency >2K HZ ,the lighting will be triggered at 10~15% PWM duty .

■ OUTPUT LOAD vs TEMPERATURE



■ STATIC CHARACTERISTIC

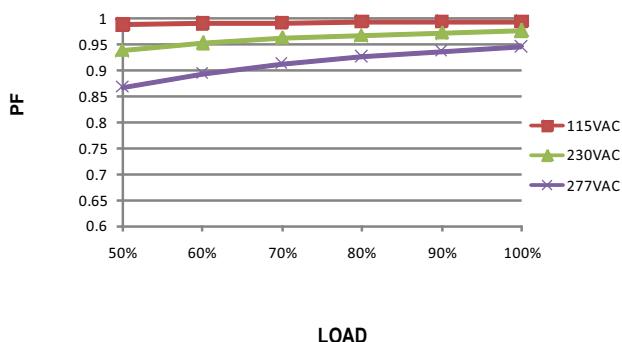


INPUT VOLTAGE (V) 60Hz

■ POWER FACTOR (PF) CHARACTERISTIC

※ Tcase at 75°C

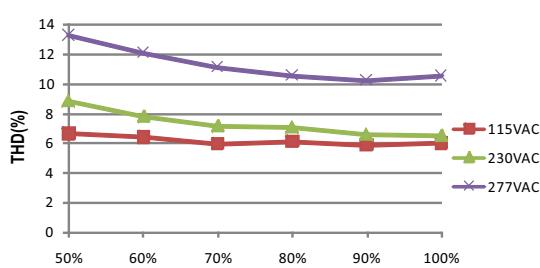
Constant Current Mode



LOAD

■ TOTAL HARMONIC DISTORTION (THD)

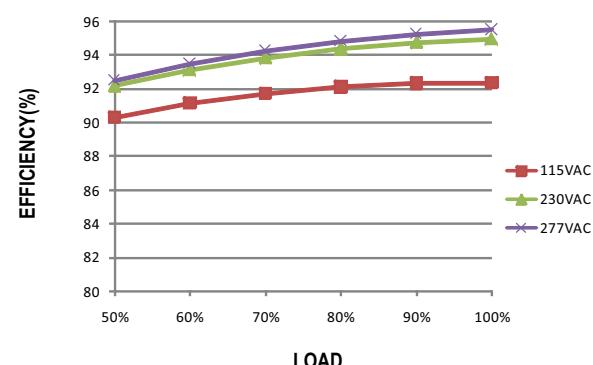
※ XLG-320-L Model, Tcase at 75°C

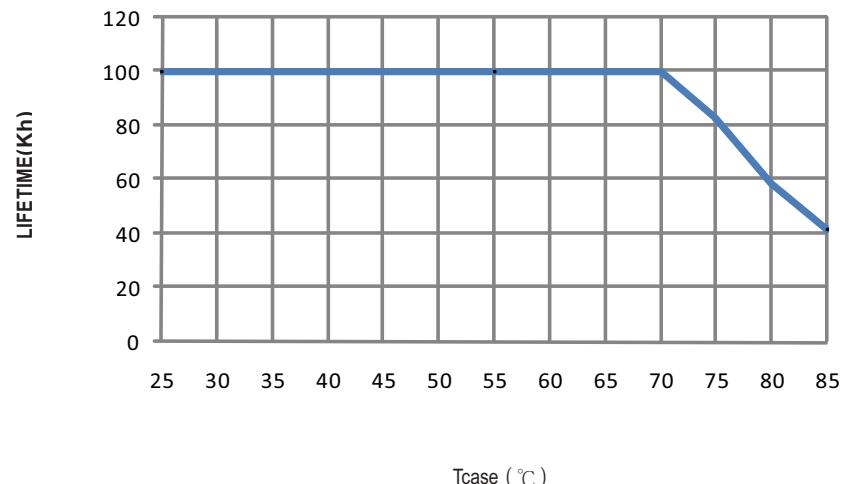


■ EFFICIENCY vs LOAD

XLG-320 series possess superior working efficiency that up to 94.5% can be reached in field applications.

※ XLG-320-L Model, Tcase at 75°C

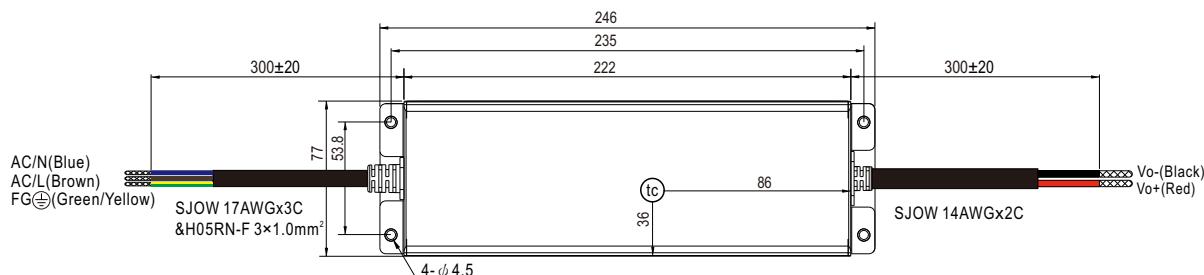


LIFE TIME

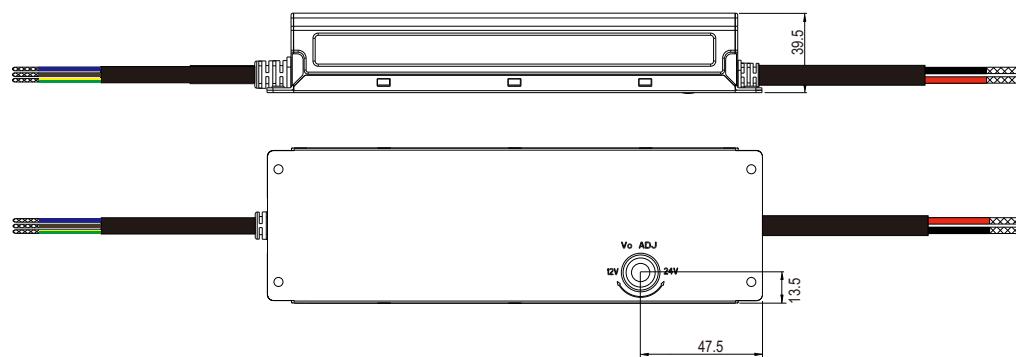
■ MECHANICAL SPECIFICATION

Case No.:266A Unit:mm

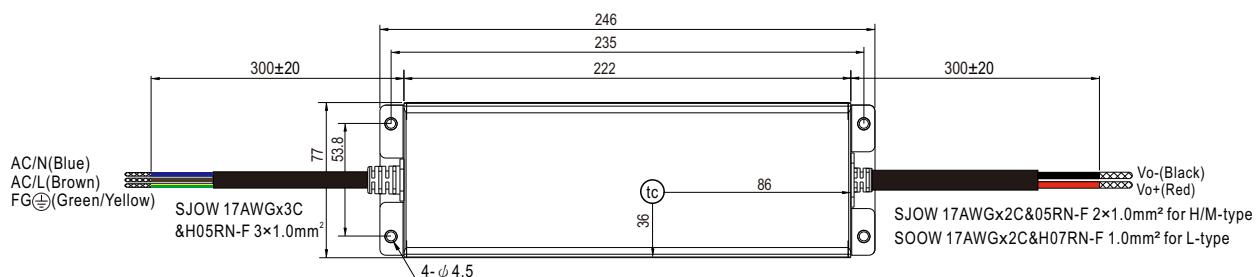
※ V-A-Type



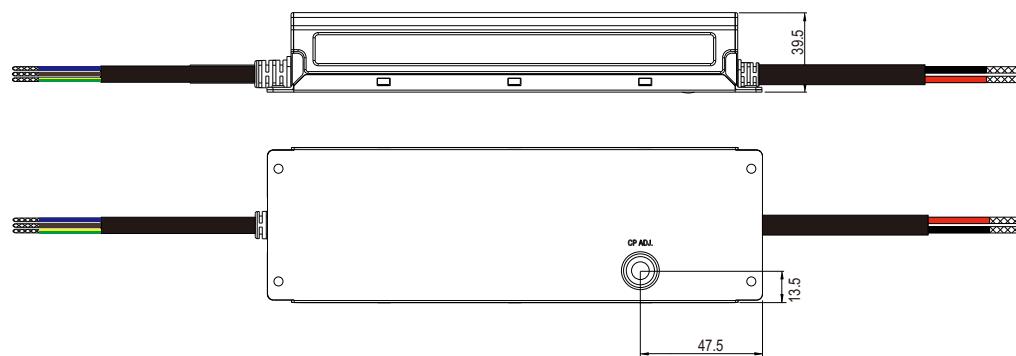
• (tc) : Max. Case Temperature



※ H/L/M-A-Type



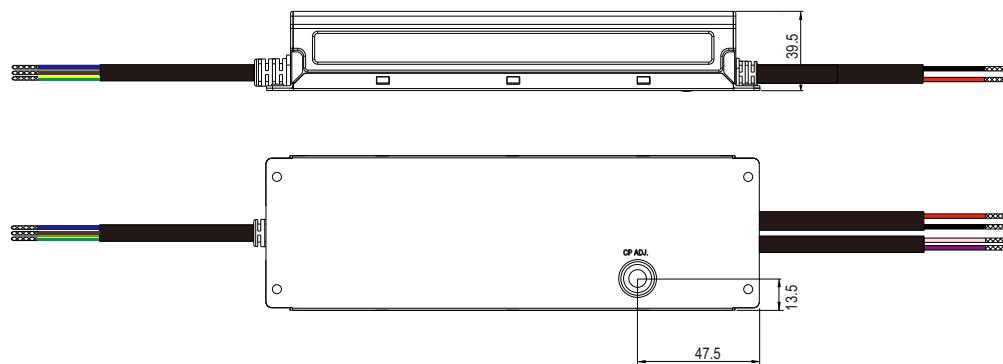
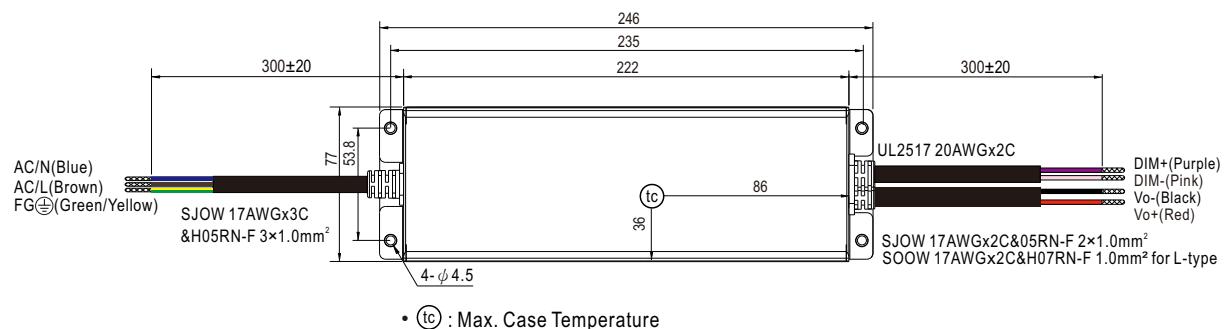
• (tc) : Max. Case Temperature



■ MECHANICAL SPECIFICATION

Case No.:266A Unit:mm

※ AB-Type



■ INSTALLATION MANUAL

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