



(Except for L type)



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
- DALI-2 Dimming with minimum level 8%
- India (EESL) version with Input Over Voltage Protection can survive input voltage stress of 440Vac for 48 hours
- Protection functions: SCP/OTP
- Life time >50,000 hrs. and 5 years warranty

Applications

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

Description

XLG-100-DA2 series is a 100W LED AC/DC driver featuring the constant power mode with DALI-2 dimming function. XLG-100-DA2 operates from 100~305VAC and offers models with different rated current ranging between 700mA and 2780mA. Thanks to the high efficiency up to 92.5%, with the fanless design, the entire series is able to operate for -40℃~+90℃ 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-100-DA2 series comply with the latest version of IEC61347/GB19510.1 and UL8750 international safety regulations. The output and dimming circuit are also completely in accordance with the new regulations with isolation to ensure the safety of both user and luminaire system during installation.

Model Encoding

XLG - 100 I - L - DA2

DA2: DALI-2 dimming function

Rated output voltage(L/H types)

{ □: For standard version

{ I: For India version(by request with Input over voltage protection)

Rated wattage

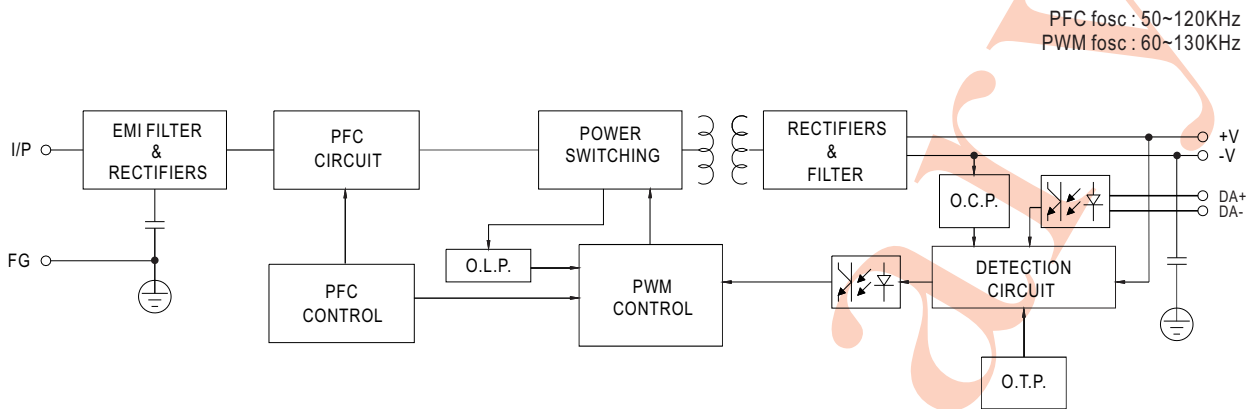
Series name

Type	Function	Note
DA2	DALI-2 control technology with Io adjustable via built-in potentiometer	In Stock

SPECIFICATION

MODEL		XLG-100□-L-DA2		XLG-100□-H-DA2	
OUTPUT	RATED CURRENT	700mA		2100mA	
	RATED POWER	100W		100W	
	CONSTANT CURRENT REGION <small>Note.2</small>	71 ~ 142V		27 ~ 56V	
	FULL POWER CURRENT RANGE	700~1050mA		1750~2780mA	
	OPEN CIRCUIT VOLTAGE (max.)	158V		65V	
	CURRENT ADJ. RANGE	(Via the built-in potentiometer)			
		350~1050mA		875~2780mA	
	CURRENT RIPPLE	4.0%(@ full load)			
	CURRENT TOLERANCE	± 5%			
SET UP TIME	500ms/230VAC, 1200ms/115VAC				
INPUT	VOLTAGE RANGE <small>Note.4</small>	100 ~ 305VAC 142VDC ~ 431VDC (Please refer to "STATIC CHARACTERISTIC" ang " DRIVING METHODS OF LED MODULE"section)			
	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR (Typ.)	PF ≥ 0.97 / 115VAC, PF ≥ 0.95 / 230VAC, PF ≥ 0.92 / 277VAC at full load (Please refer to "Power Factor Characteristic" section)			
	TOTAL HARMONIC DISTORTION	THD< 10% (@ load ≥ 50% at 115VAC/230VAC, @load ≥ 75% at 277VAC) Please refer to "TOTAL HARMONIC DISTORTION (THD)" section			
	EFFICIENCY (Typ.)	92.5%		91%	
	AC CURRENT (Typ.)	1.1A/ 115VAC 0.5A/ 230VAC 0.42A/277VAC			
	INRUSH CURRENT(Typ.)	COLD START 45A(twidth=330μs measured at 50% Ipeak) at 230VAC; Per NEMA 410			
	MAX. NO. of PSUs on 16A CIRCUIT BREAKER	8 unit(circuit breaker of type B) / 14 units(circuit breaker of type C) at 230VAC			
	LEAKAGE CURRENT	<0.75mA / 277VAC			
	STANDBY POWER CONSUMPTION	Standby power consumption <0.5W (Dimming OFF)			
PROTECTION	SHORT CIRCUIT	Hiccup mode or Constant current limiting, recovers automatically after fault condition is removed			
	INPUT OVER VOLTAGE <small>Note.7</small>	320 ~ 390VAC (Shut down output voltage when the input voltage 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	Stage 1: Derating to 75% loading; stage 2: Derating to 50% loading. recovers automatically after fault condition is removed			
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 non-condensing			
	TEMP. COEFFICIENT	± 0.06%/°C (0 ~ 60°C)			
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes			
	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				
SAFETY & EMC	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≥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
		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
		OTHERS	MTBF	hrs min. Telcordia SR-332 (Bellcore) ; hrs min. MIL-HDBK-217F (25°C)	
DIMENSION	140*63*32mm (L*W*H)				
PACKING	0.58Kg;24pcs/15Kg/0.85CUFT				
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature. 2. Please refer to "DRIVING METHODS OF LED MODULE". 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details. 5. 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. 6. Based on IEC 62386-101/102 DALI power on timing and interruption regulations,the set up time needs to test with a DALI controller which can support for DALI power on function,otherwise the set up time will be longer than 500ms. 7. Input over voltage only for XLG-100 I series,and I series 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. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft). 10. Please refer to the warranty statement on MEAN WELL's website at http://www.meanwell.com 11. This series meets the typical life expectancy of >50,000 hours of operation when Tcase, particularly (Tc) point (or TMP, per DLC), is about 75°C or less. 12. Products sourced from the Americas regions may not have the CCC/PSE/BIS/KC logo. Please contact your MEAN WELL sales for more information. 13. 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 ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx				

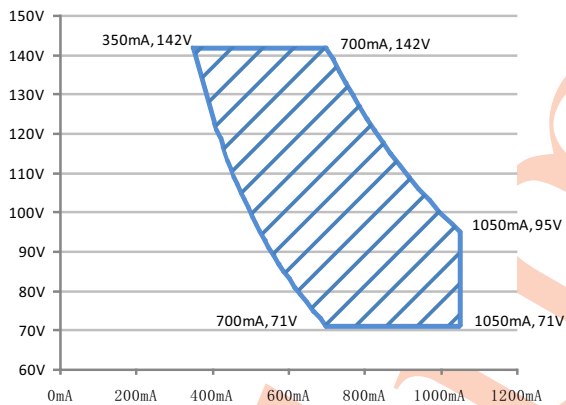
BLOCK DIAGRAM



DRIVING METHODS OF LED MODULE

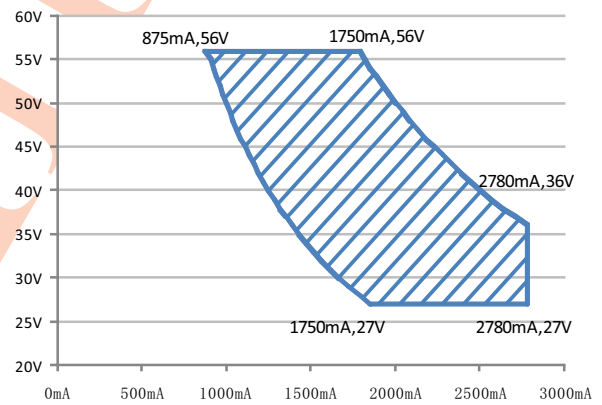
※ I-V Operating Area

◎ XLG-100-L-DA2



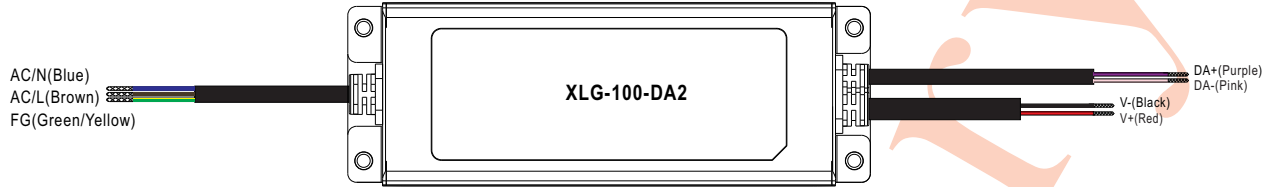
Recommend Performance Region

◎ XLG-100-H-DA2



Recommend Performance Region

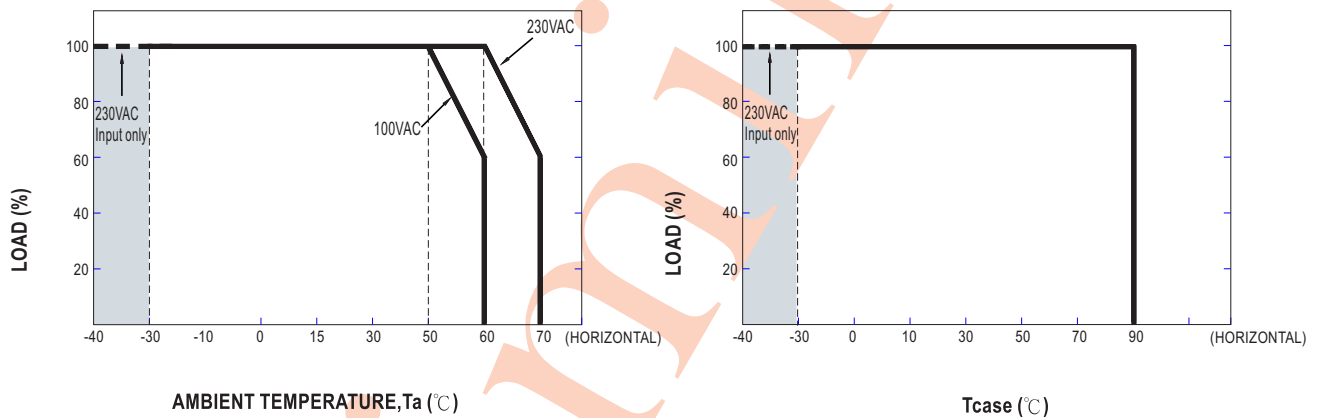
DIMMING OPERATION



※ DALI Interface

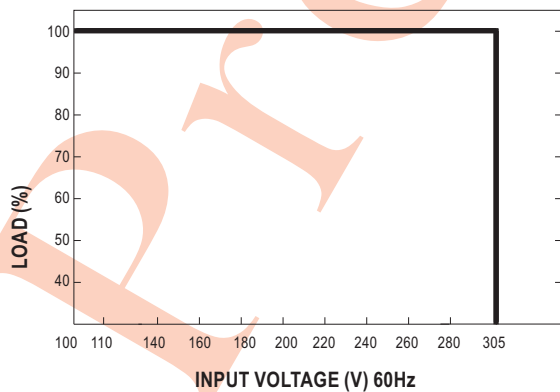
- Apply DALI signal between DA+ and DA-.
- DALI protocol comprises 16 groups and 64 addresses.
- First step is fixed at 8% of output.

OUTPUT LOAD vs TEMPERATURE



- Note: 1. The output current must be derated at ultra-high ambient temperature.
 2. It may have a restart situation within 5S after power-on at -30°C full load and 120V AC input conditions.

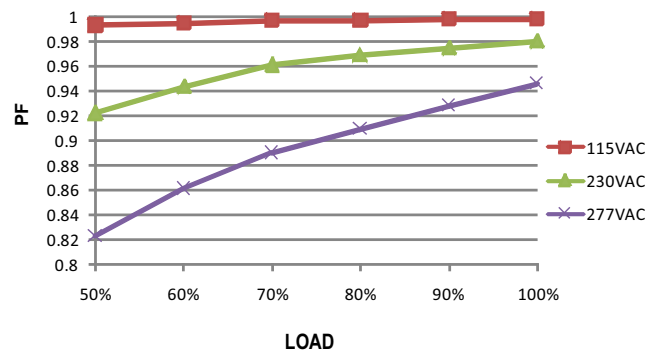
STATIC CHARACTERISTIC



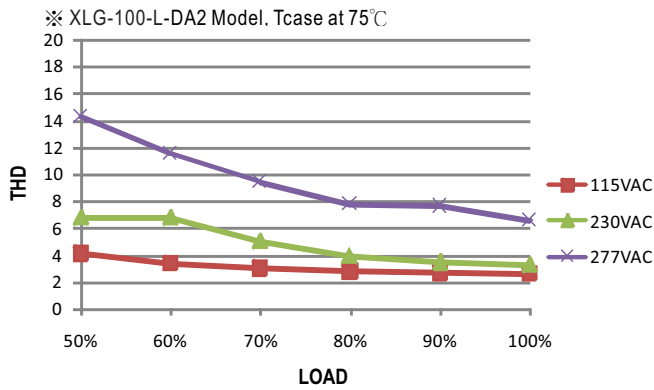
POWER FACTOR (PF) CHARACTERISTIC

※ Tcase at 75°C

Constant Current Mode



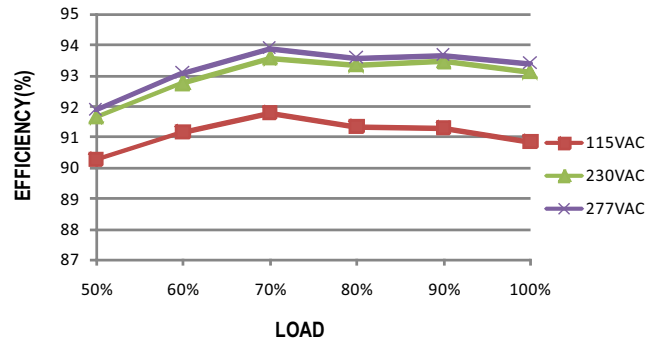
TOTAL HARMONIC DISTORTION (THD)



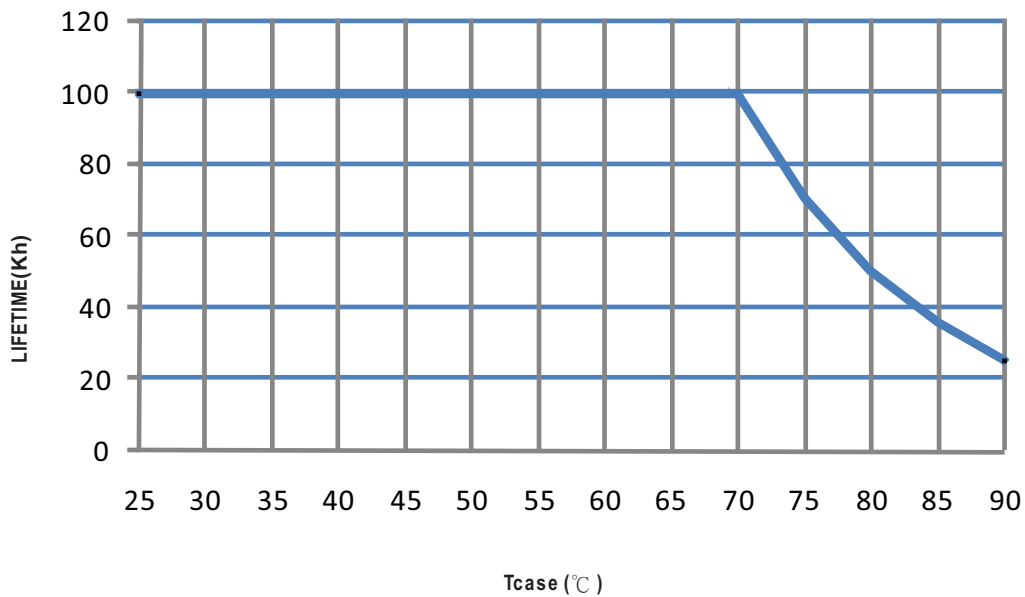
EFFICIENCY vs LOAD

XLG-100-DA2 series possess superior working efficiency that up to 92.5% can be reached in field applications.

XLG-100-L-DA2 Model, Tcase at 75°C



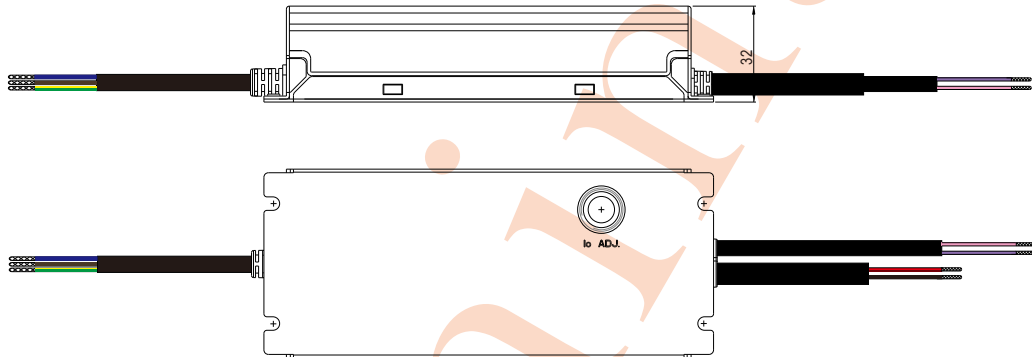
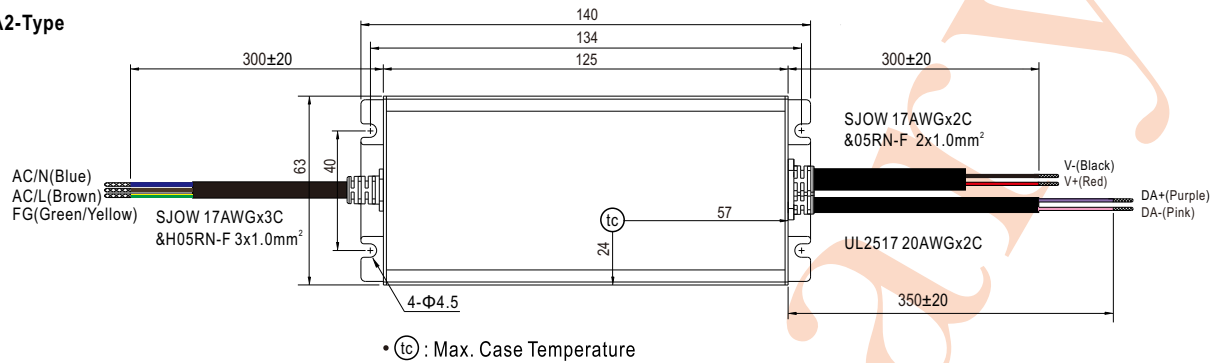
LIFE TIME



MECHANICAL SPECIFICATION

Case No.: 275B Unit:mm

※ DA2-Type



INSTALLATION MANUAL

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