



# 70~100W Constant Voltage + Constant Current LED Driver **ELG-100** series

User's Manual



IS 15885(Part 2/Sec13)



R-41027766

(Please refer safety description)



(for DA-Type only)



SELV IP65 IP67



## ■ Features

- Constant Voltage + Constant Current mode output
- Metal housing design with functional Ground
- Built-in active PFC function
- Class 2 power unit
- No load / Standby power consumption <0.5W
- IP67 / IP65 rating for indoor or outdoor installations
- Function options: output adjustable via potentiometer; 3 in 1 dimming (dim-to-off); Smart timer dimming; DALI
- Typical lifetime>50000 hours
- 5 years warranty

## ■ Applications

- LED street lighting
- LED architectural lighting
- LED bay lighting
- LED floodlighting
- Type "HL" for use in Class I, Division 2 hazardous (Classified) location.

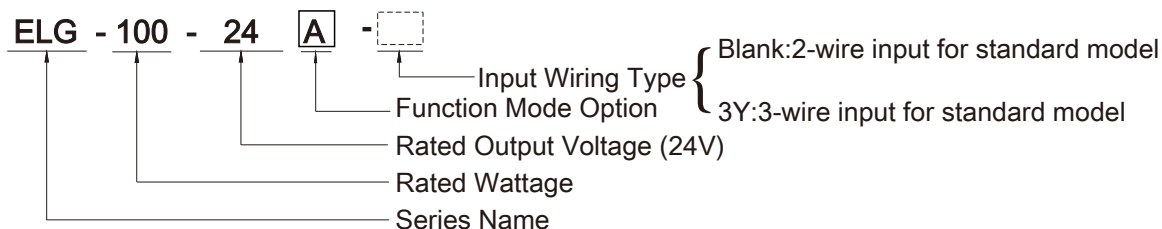
## ■ GTIN CODE

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

## ■ Description

ELG-100 series is a 100W AC/DC LED driver featuring the dual mode constant voltage and constant current output. ELG-100 operates from 100~360VAC and offers models with different rated voltage ranging between 24V and 54V. Thanks to the high efficiency up to 91%, with the fanless design, the entire series is able to operate for -40°C ~ +90°C case temperature under free air convection. The design of metal housing and IP67/IP65 ingress protection level allows this series to fit both indoor and outdoor applications. ELG-100 is equipped with various function options, such as dimming methodologies, so as to provide the optimal design flexibility for LED lighting system

## ■ Model Encoding



**SPECIFICATION**

MODEL		ELG-100-24
OUTPUT	DC VOLTAGE	24V
	CONSTANT CURRENT REGION <small>Note.2</small>	12 ~ 24V
	RATED CURRENT	4.0A
	RATED POWER	200VAC ~ 305VAC
		96W
		100VAC ~ 180VAC
		70W
	RIPPLE & NOISE (max.) <small>Note.3</small>	200mVp-p
	VOLTAGE ADJ. RANGE	Adjustable for A/AB-Type only (via the built-in potentiometer) 21.6 ~ 26.4V
	CURRENT ADJ. RANGE	Adjustable for A/AB-Type only (via the built-in potentiometer) 2 ~ 4A
	VOLTAGE TOLERANCE <small>Note.4</small>	±3.0%
	LINE REGULATION	±0.5%
	LOAD REGULATION	±1.0%
INPUT	SETUP, RISE TIME <small>Note.6</small>	1000ms, 80ms/115VAC      500ms, 100ms/230VAC
	HOLD UP TIME (Typ.)	15ms/115VAC      10ms/230VAC
	VOLTAGE RANGE <small>Note.5</small>	100 ~ 305VAC      142 ~ 431VDC    continue, 320VAC for 24Hrs; 360VAC for 1Hr (Please refer to "STATIC CHARACTERISTIC" section)
	FREQUENCY RANGE	47 ~ 63Hz
	POWER FACTOR	PF ≥ 0.97/115VAC, PF ≥ 0.95/230VAC, PF ≥ 0.92/277VAC@full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)
	TOTAL HARMONIC DISTORTION	THD < 20% (@load ≥ 50%/115VAC; @load ≥ 60%/230VAC; @load ≥ 75%/277VAC) (Please refer to "TOTAL HARMONIC DISTORTION(THD)" section)
	EFFICIENCY (Typ.)	88%
	AC CURRENT	1.1A / 115VAC      0.6A / 230VAC      0.5A/277VAC
	INRUSH CURRENT(Typ.)	COLD START 60A(twidth=850μs measured at 50% Ipeak) at 230VAC; Per NEMA 410
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	3 units (circuit breaker of type B) / 6 units (circuit breaker of type C) at 230VAC
PROTECTION	LEAKAGE CURRENT	<0.75mA / 277VAC
	NO LOAD / STANDBY POWER CONSUMPTION	No load power consumption <0.5W for Blank / A / Dx / D2-Type Standby power consumption <0.5W for B / AB / DA-Type
	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	28 ~ 34V Shut down output voltage, re-power on to recover
ENVIRONMENT	OVER TEMPERATURE	Shut down output voltage, re-power on to recover
	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 ~ 60°C)
SAFETY & EMC	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; IEC/BS EN/EN/AS/NZS 61347-1, IEC/BS EN/EN/AS/NZS 61347-2-13 independent, BS EN/EN62384; EAC TP TC 004; BIS IS15885(for 24/24A/24B/24DA/36/36A/36B/42/42A/42ADA/42B/48/48B/54/54A/54ADA/54B only); GB19510.1, GB19510.14; IP65 or IP67; KC61347-1, KC61347-2-13 approved
	DALI STANDARDS	Compliance to IEC62386-101,102,(207 by request) for DA Type only
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC    I/P-FG:2.0KVAC    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 BS EN/EN55015, BS EN/EN61000-3-2 Class C (@load ≥ 60%); BS EN/EN61000-3-3; GB/T 17743, GB17625.1; EAC TP TC 020; KC KN15,KN61547
OTHERS	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11; BS EN/EN61547, light industry level (surge immunity Line-Earth 6KV, Line-Line 4KV); EAC TP TC 020; KC KN15, KN61547
	MTBF	2920.8K hrs min. Telcordia SR-332 (Bellcore)      282.9Khrs min.      MIL-HDBK-217F (25°C)
	DIMENSION	199*63*35.5mm (L*W*H)
	PACKING	0.85kg; 16pcs/14.2kg/0.72CUFT
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". For DA-Type, Constant Current region is 60%~100% of maximum voltage under rated power delivery. 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. 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 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. (as available on <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a> ) 8. This series meets the typical life expectancy of >50,000 hours of operation when Tcase, particularly $\textcircled{\text{Tc}}$ point (or TMP, per DLC), is about 80°C or less. 9. Please refer to the warranty statement on MEAN WELL's website at <a href="http://www.meanwell.com">http://www.meanwell.com</a> 10. 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). 11. For any application note and IP water proof function installation caution, please refer our user manual before using. <a href="https://www.meanwell.com/Upload/PDF/LED_EN.pdf">https://www.meanwell.com/Upload/PDF/LED_EN.pdf</a> 12. D2 models need to be programmed in the state of loading. 13.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. ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>	