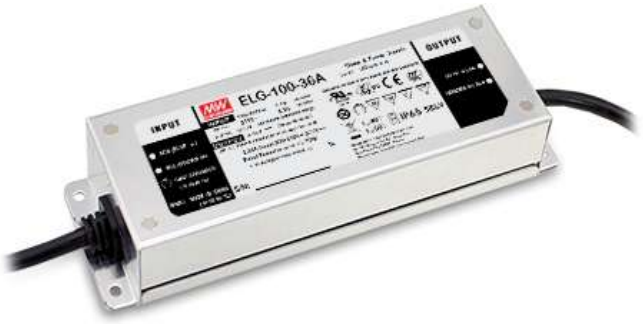
70~100W Constant Voltage + Constant Current LED Driver ELG-100 series

User's Manual



IS 15885(Part 2/Sec13)
R-41027766
(Please refer safety description)

(for DA-Type only) SELV IP65 IP67 Type HL

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

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℃ ~ +90℃ 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

ELG - 100 - 24 A -

- Series Name: ELG
- Rated Wattage: 100
- Rated Output Voltage (24V): 24
- Function Mode Option: A
- Input Wiring Type:
  - Blank: 2-wire input for standard model
  - 3Y: 3-wire input for standard model

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SPECIFICATION

MODEL		ELG-100-24
OUTPUT	DC VOLTAGE	24V
	CONSTANT CURRENT REGION Note.2	12 ~ 24V
	RATED CURRENT	4.0A
	RATED POWER	200VAC ~ 305VAC
		96W
		100VAC ~ 180VAC
		70W
	RIPPLE & NOISE (max.) Note.3	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 Note.4	±3.0%
	LINE REGULATION	±0.5%
	LOAD REGULATION	±1.0%
	SETUP, RISE TIME Note.6	1000ms, 80ms/115VAC 500ms, 100ms/230VAC
	HOLD UP TIME (Typ.)	15ms/115VAC 10ms/230VAC
INPUT	VOLTAGE RANGE Note.5	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%/115VC; @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
	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
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	28 ~ 34V
		Shut down output voltage, re-power on to recover
	OVER TEMPERATURE	Shut down output voltage, re-power on to recover
ENVIRONMENT	WORKING TEMP.	Tcase=-40 ~ +90℃ (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)
	MAX. CASE TEMP.	Tcase=+90℃
	WORKING HUMIDITY	20 ~ 95% RH non-condensing
	STORAGE TEMP., HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 60℃)
	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; 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℃/ 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
	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
OTHERS	MTBF	2920.8K hrs min. Telcordia SR-332 (Bellcore) 282.9Khrs min. MIL-HDBK-217F (25℃)
	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℃ 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 https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf) 8. This series meets the typical life expectancy of >50,000 hours of operation when Tcase, particularly tc point (or TMP, per DLC), is about 80℃ or less. 9. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). 10. 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 11. D2 models need to be programmed in the state of loading. 12. 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 https://www.meanwell.com/serviceDisclaimer.aspx	