# MIRЯORSTONE

## HLG 240W 0-10v Dimmable Driver



# **Product Description**

If you're looking for something that will power your 1-10V dimming systems, then you've come to the right place - Mean Well's 25W 1-10V Constant Voltage LED Driver is well up to the task.

### **Product Features**

- IP67 design for indoor or outdoor installations
- Built-in 3 in 1 dimming function (1~10VDC, PWM signal, or resistance)
- 5 years warranty
- Protections: Short circuit / Over current / Over voltage /Over temperature
- Universal AC input (up to 305VAC) / Full range
- High efficiency up to 95%
- Output current adjustable through output cable or internal potentiometer
- Cooling by free air convection
- Suitable for LED lighting and street lighting applications
- Meet 4KV surge immunity level (IEC61000-4-5)
- Optional CQC models available
- Built-in active PFC, PF>0.9 for 60% of load or higher







SELV IP66

### Technical Dimensions

#### **%A-Type** 244.2 220.2 9.6 300±20 $300 \pm 20$ T case FG (Green/Yellow) AC/L(Brown) 110.1 -V(Black) 99 (tc) +V(Red) AC/N(Blue) SJOW 17AWG&H05RN-F 1.0mm2\*3C SJOW 17AWG&05RN-F 1.0mm2\*2C 34 (SJOW 14AWG\*2C for 12V~20V) ψ4.2×4PL • (tc): Max. Case Temperature

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# **HLG 192W 0-10v Dimmable Driver**

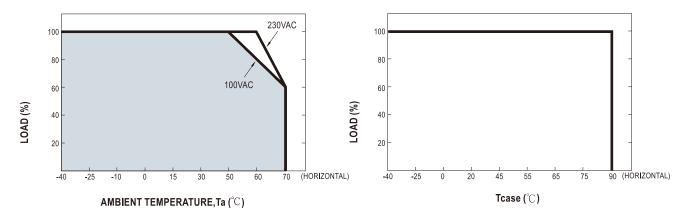
# **Technical Specifications**

	DC VOLTAGE	24V
	CONSTANT CURRENT REGION Note.4	12 ~ 24V
	RATED CURRENT	10A
	RATED POWER	240W
	RIPPLE & NOISE (max.) Note.2	
OUTPUT	THI I LE & HOIDE (Max.) Note:2	Adjustable for A/AB/C-Type only (via built-in potentiometer)
	VOLTAGE ADJ. RANGE	
		22.4 ~ 25.6V
	CURRENT ADJ. RANGE	Adjustable for A/AB/C-Type only (via built-in potentiometer)
		5~10A
	VOLTAGE TOLERANCE Note.3	±1.0%
	LINE REGULATION	±0.5%
	LOAD REGULATION	±0.5%
	SETUP, RISE TIME Note.6	1000ms,80ms/115VAC 500ms,80ms/230VAC
	HOLD UP TIME (Typ.)	15ms / 115VAC, 230VAC
	noes or rime (typi)	90 ~ 305VAC 127 ~ 431VDC
	VOLTAGE RANGE Note.5	(Please refer to "STATIC CHARACTERISTIC" section)
INPUT	FREQUENCY RANGE	47 ~ 63Hz
	POWER FACTOR (Typ.)	PF≧0.98/115VAC, PF≧0.95/230VAC @ full load
	- CWERTACTOR (Typ.)	(Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)
		THD< 20% (@ load≥50% / 115VAC,230VAC; @ load≥75% / 277VAC)
	TOTAL HARMONIC DISTORTION	(Please refer to "TOTAL HARMONIC DISTORTION (THD)" section)
	EFFICIENCY (Typ.)	92.5%
	AC CURRENT (Typ.)	4A / 115VAC 2A / 230VAC 1.2A / 277VAC
	1	COLD START 75A(twidth=570µs measured at 50%  peak) at 230VAC; Per NEMA 410
	INRUSH CURRENT (Typ.)	COLD START 75A(twidth=570/x)s Measured at 50% Ipeak) at 250VAC, Per Nelvia 410
	MAX. No. of PSUs on 16A	2 units (circuit breaker of type B) / 4 units (circuit breaker of type C) at 230VAC
	CIRCUIT BREAKER	
	LEAKAGE CURRENT	<0.75mA/277VAC
	OVER CURRENT	95~108%
PROTECTION	OVER CORRENT	Constant current limiting, recovers automatically after fault condition is removed
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed
		27 ~ 34V
	OVER VOLTAGE	Shut down and latch off o/p voltage, re-power on to recover
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover
	OVER TEMPERATURE	
	WORKING TEMP.	Tcase= -40 ~ +90°C (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)
	MAX. CASE TEMP.	Tcase=+90°C
ENVIRONMENT	WORKING HUMIDITY	20 ~ 95% RH non-condensing
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)
	VIBRATION	10 ~ 500Hz, 5G 12min,/1cycle, period for 72min, each along X, Y, Z axes
		UL1012, CAN/CSA-C22.2 No. 107.1-01, UL8750(type"HL"), CSA C22.2 No. 250.0-08; EN/AS/NZS 61347-1, EN/AS/NZS 61347-2-13
		OLTOTZ, CAN/OSA-022.2 NO. TOT. 1-01, OLOTSO(TYPE TIL.), OSA 022.2 NO. 250.0-00, LIN/AS/NZS 01547-1,LIN/AS/NZS 01547-2-15
	SAFETY STANDARDS	independent (except for HLG-240H C type); IEC/UL/EN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for
	SAFETY STANDARDS	independent (except for HLG-240H C type); IEC/ÜL/EN 62368-1 (except for AB,D type), UL8750; GB19510.1, GB19510.14 (except for C-type); IP65 or IP67; J61347-1, J61347-2-13 (except for B,AB and D-type), BIS IS15885 (for 48V only), EAC TP TC 004,
	SAFETY STANDARDS	independent (except for HLG-240H C type); IEC/UL/EN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for
SAFETY &	SAFETY STANDARDS WITHSTAND VOLTAGE	independent (except for HLG-240H C type); IEC/ÜL/EN 62368-1 (except for AB,D type), UL8750; GB19510.1, GB19510.14 (except for C-type); IP65 or IP67; J61347-1, J61347-2-13 (except for B,AB and D-type), BIS IS15885 (for 48V only), EAC TP TC 004,
SAFETY &		independent (except for HLG-240H C type); IEC/ÜL'EN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J61347-1,J61347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved
	WITHSTAND VOLTAGE ISOLATION RESISTANCE	independent (except for HLG-240H C type); IEC/ÜL'EN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J61347-1,J61347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC  I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH
	WITHSTAND VOLTAGE	independent (except for HLG-240H C type); IEC/ÜL/EN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J61347-1,J61347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC
	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION	independent (except for HLG-240H C type); IEC/ÜL/EN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J61347-1,J61347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  //P-O/P:3.75KVAC //P-FG:2KVAC O/P-FG:1.5KVAC  //P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH  Compliance to EN55015, EN55032 (CISPR32) Class B, EN61000-3-2 Class C (@ load≥50%); EN61000-3-3, GB17743 and GB17625.1,EAC TP TC 020;KC KN15,KN61547(except for AB,C,D-type)
	WITHSTAND VOLTAGE ISOLATION RESISTANCE	independent (except for HLG-240H C type); IEC/ÜLÉN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J61347-1,J61347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  //P-O/P:3.75KVAC //P-FG:2KVAC O/P-FG:1.5KVAC  //P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH  Compliance to EN55015, EN55032 (CISPR32) Class B, EN61000-3-2 Class C (@ load≥50%) ; EN61000-3-3,
	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY	independent (except for HLG-240H C type); IEC/ÜL/EN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J61347-1,J61347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  //P-O/P:3.75KVAC //P-FG:2KVAC O/P-FG:1.5KVAC  //P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH  Compliance to EN55015, EN55032 (CISPR32) Class B, EN61000-3-2 Class C (@ load≥50%); EN61000-3-3, GB17743 and GB17625.1,EAC TP TC 020;KC KN15,KN61547(except for AB,C,D-type)  Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge immunity Line-Earth 4KV, Line-Line 2KV) EAC TP TC 020;KC KN15,KN61547(except for AB,C,D-type)
EMC	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY MTBF	independent (except for HLG-240H C type); IEC/ÜLÉN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J61347-1,J61347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  //P-O/P:3.75KVAC
	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY MTBF DIMENSION	independent (except for HLG-240H C type); IEC/ÜLÉN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J81347-1,J81347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  //P-O/P:3.75KVAC
EMC	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY MTBF DIMENSION PACKING	independent (except for HLG-240H C type); IEC/ÜLÉN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J61347-1,J61347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  //P-O/P:3.75KVAC
EMC	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY MTBF DIMENSION PACKING 1. All parameters NOT specia	independent (except for HLG-240H C type); IEC/ÜLÉN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J61347-1,J61347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  I/P-O/P:3.75KVAC
OTHERS	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY MTBF DIMENSION PACKING 1. All parameters NOT specia 2. Ripple & noise are measure	independent (except for HLG-240H C type); IEC/ÜLÉN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J61347-1-J61347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  I/P-O/P:3.75KVAC
OTHERS	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY MTBF DIMENSION PACKING 1. All parameters NOT specia 2. Ripple & noise are measure 3. Tolerance: includes set up	independent (except for HLG-240H C type); IEC/ÜL/EN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J81347-1-J81347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  WP-O/P:3.75KVAC
OTHERS	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY MTBF DIMENSION PACKING 1. All parameters NOT specia 2. Ripple & noise are measure 3. Tolerance: includes set up 4. Please refer to "DRIVING N	independent (except for HLG-240H C type); IEC/ÜL'EN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J81347-1-J81347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  WP-O/P:3.75KVAC
OTHERS	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY MTBF DIMENSION PACKING  1. All parameters NOT specia 2. Ripple & noise are measure 3. Tolerance: includes set up 4. Please refer to "DRIVING N 5. De-rating may be needed up	independent (except for HLG-240H C type); IEC/ÜL/EN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J81347-1-J81347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  WP-O/P:3.75KVAC
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OTHERS	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION EMC IMMUNITY MTBF DIMENSION PACKING 1. All parameters NOT specia 2. Ripple & noise are measure 3. Tolerance: includes set up 4. Please refer to "DRIVING No. 1. De-rating may be needed up 6. Length of set up time is me 7. The driver is considered as	independent (except for HLG-240H C type); IEC/ÜL/EN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J81347-1-J81347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  WP-O/P:3.75KVAC
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OTHERS	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION  EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters NOT specia 2. Ripple & noise are measure 3. Tolerance: includes set up 4. Please refer to "DRIVING N 5. De-rating may be needed u 6. Length of set up time is me 7. The driver is considered as complete installation, the fir 8. To fulfill requirements of the connected to the mains. 9. This series meets the typica	independent (except for HLG-240H C type); IEC/ÜL/EN 62368-1(except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J81347-1-J81347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2-13(except for AB,C,D-type) approved  WP-O/P:3.75KVAC
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OTHERS	WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION  EMC IMMUNITY  MTBF DIMENSION PACKING  1. All parameters NOT specia 2. Ripple & noise are measure 3. Tolerance: includes set up 4. Please refer to "DRIVING N 5. De-rating may be needed u 6. Length of set up time is me 7. The driver is considered as complete installation, the fin 8. To fulfill requirements of the connected to the mains. 9. This series meets the typica 10. Please refer to the warran 11. The ambient temperature	independent (except for HLG-240H C type); IEC/ÜL/EN 62368-1 (except for AB,D type),UL8750;GB19510.1,GB19510.14(except for C-type);IP65 or IP67;J61347-1,J61347-2-13(except for B,AB and D-type),BIS IS15885( for 48V only), EAC TP TC 004, KC61347-1,KC61347-2,C31 (except for AB,C,D-type) approved  II/P-O/P:3.75KVAC

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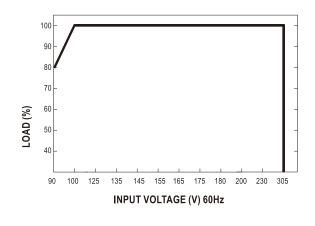
# **HLG 192W 0-10v Dimmable Driver**

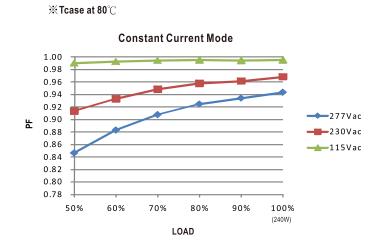
# Output Load vs Temperature



### Static Characteristic

Power Factor(PF) Characteristic

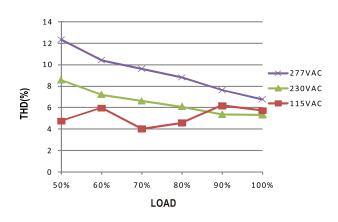




 $\frak{\%}$  De-rating is needed under low input voltage.

## Total Harmonic Distortion

¾ 48V Model, Tcase at 80°C



# Efficiency vs Load

HLG-240H series possess superior working efficiency that up to 93.5% can be reached in field applications.

¾ 48V Model, Tcase at 80°C

