

ORLRPV24185-HLG-A

ITEM NO. DRIVER - 15207

Features

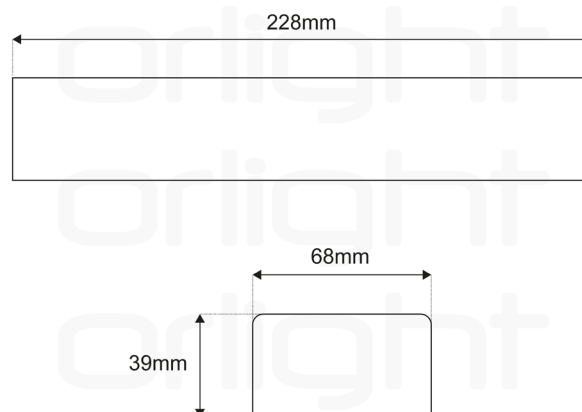
- Constant Voltage + Constant Current mode output
- Metal housing with class I design
- Built-in active PFC function
- IP67 / IP65 rating for indoor or outdoor installations
- Typical lifetime > 62000 hours

Applications

- LED street lighting
- LED high-bay lighting
- Parking space lighting
- LED fishing lamp
- LED greenhouse lighting
- Type "HL" for use in Class I, Division 2 hazardous (Classified) location



Dimension



Technical Specification

Output	DC Voltage	24V
	Constant Current Region Note. 4	12 ~ 24V
	Rated Current	7.8A
	Rated Power	187.2W
	Ripple & Noise (max.) Note. 2	150mVp-p
	Voltage Adj. Range	Adjustable for A/AB-Type only (via built-in potentiometer) 22 ~ 27V
	Current Adj. Range	Adjustable for A/AB- Type only (via built-in potentiometer) 3.9 ~ 7.8A
	Voltage Tolerance Note. 3	±1.0%
	Line Regulation	±0.5%
	Load Regulation	±0.5%
	Setup, Rise Time Note. 6	1000ms,200ms/115VAC 500ms,200ms/230VAC
	Hold Up Time (Typ.)	16ms / 115VAC, 230VAC
Input	Voltage Range Note.5	90 ~ 305VAC 127 ~ 431VDC (Please refer to "Static Characteristic" section)
	Frequency Range	47 ~ 63Hz
	Power Factor (Typ.)	PF _≥ 0.98/115VAC, PF _≥ 0.95/230VAC, PF _≥ 0.92/277VAC @ full load (Please refer to "Power Factor (PF) Characteristic" section)

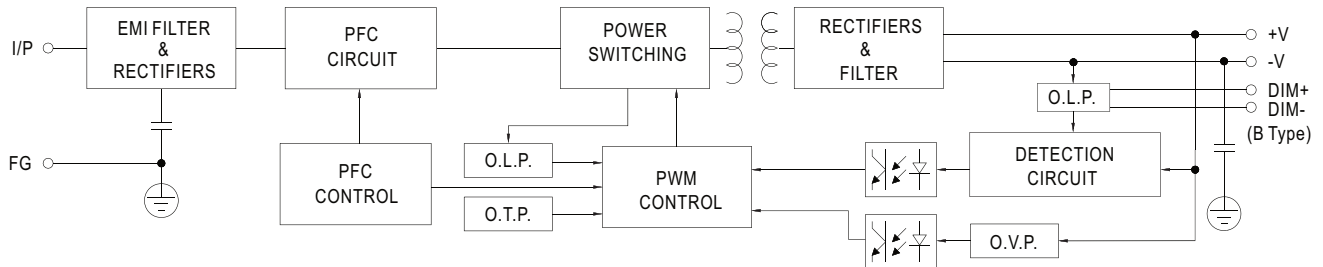
Technical Specification Continued

Input	Total Harmonic Distortion		THD< 20% (@ load≥50% / 115VAC,230VAC; @ load≥75% / 277VAC) (Please refer to “Total Harmonic Distortion (THD)” section)		
	Efficiency (Typ.)		93.5%		
	AC Current (Typ.)	12V	1.8A / 115VAC	0.8A / 230VAC	0.7A / 277VAC
		15V ~ 54V	2.1A / 115VAC	0.9A / 230VAC	0.8A / 277VAC
	Inrush Current (Typ.)		COLD START 65A(twidth=445μ s measured at 50% Ipeak) at 230VAC; Per NEMA 410		
	Max. No. of PSUs on 16A Circuit Breaker		4 units (circuit breaker of type B) / 7 units (circuit breaker of type C) at 230VAC		
	Leakage Current		<0.75mA / 277VAC		
Protection	Over Current		95 ~ 108% Constant current limiting, recovers automatically after fault condition is removed		
	Short Circuit		Constant current limiting, recovers automatically after fault condition is removed		
	Over Voltage		28 ~ 34V Shut down o/p voltage with auto-recovery or re-power on to recovery		
	Over Temperature		Shut down o/p voltage, recovers automatically after temperature goes down		
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		
	Temp. Coefficient		±0.03%/°C (0 ~ 60°C)		
	Vibration		10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes		
Safety & EMC	Safety Standards	Note.8	UL8750(type“HL”),CSA C22.2 No. 250.0-08;EN/AS/NZS 61347-1,EN/AS/NZS 61347-2-13 independent;GB19510.1,GB19510.14 ; IP65 or IP67; J61347-1, J61347-2-13(except for B,AB and D-type), EAC TP TC 004, KC61347-1, KC61347-2-13(except for D-type) approved; design refer to UL60950-1, TUV EN60950-1		
	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	Note.8	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		
	EMC Immunity		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		
Others	MTBF		757.2K hrs min. Telcordia SR-332 (Bellcore) ; 192.2K hrs min. MIL-HDBK-217F (25°C)		
	Dimension		228 x 68 x 39mm		
	Packing		1.15Kg; 12pcs/14.8Kg/0.8CUFT		
Note	1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Please refer to "DRIVING METHODS OF LED MODULE". 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. 8. To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED driver can only be used behind a switch without permanently connected to the mains. 9. This series meets the typical life expectancy of >62,000 hours of operation when Tcase, particularly tc point (or TMP, per DLC), is about 80-C or less. 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).				

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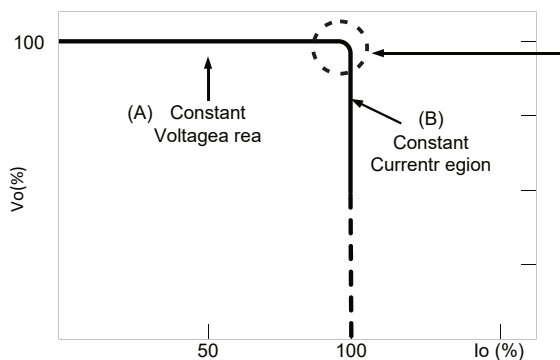
Block Diagram

Fosc : 100KHz



Driving Methods of LED Module

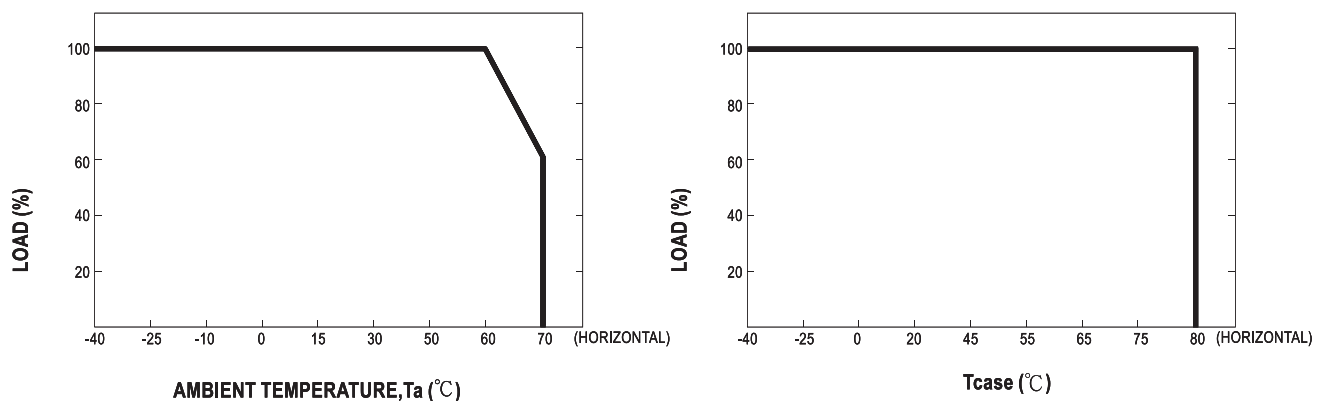
This series is able to work in either Constant Current mode (a direct drive way) or Constant Voltage mode (usually through additional DC/DC driver) to drive the LEDs.



Typical output current normalized by rated current (%)

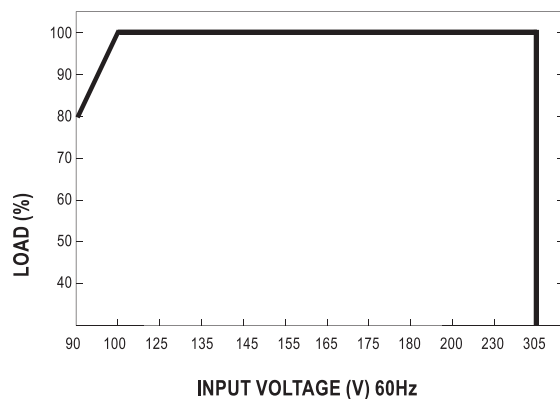
In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.

Output Load vs Temperature



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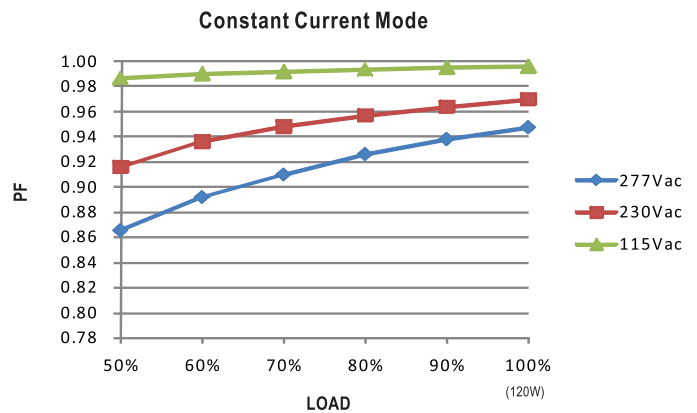
Static Characteristics



※ De-rating is needed under low input voltage.

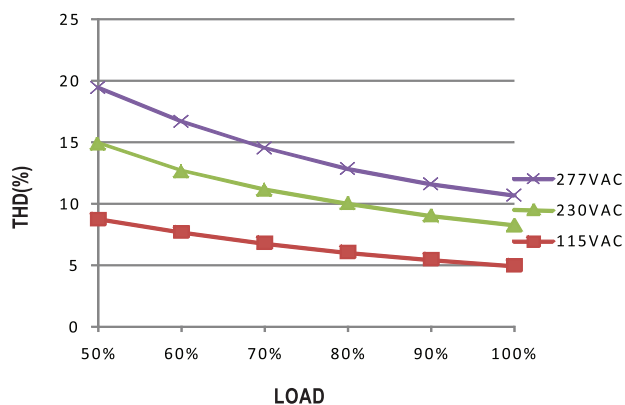
Power Factor (PF) Characteristic

※ Tcase at 70°C



Total Harmonic Distortion (THD)

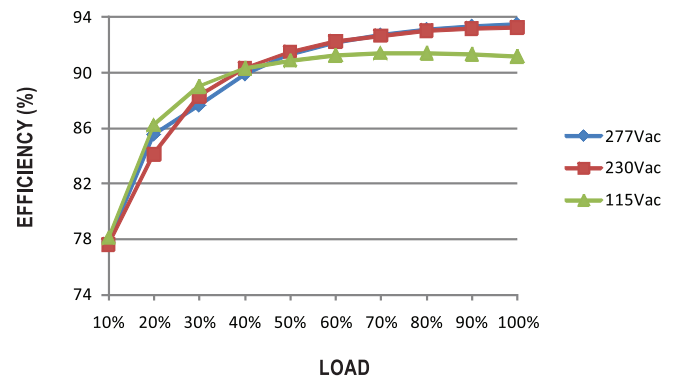
※ 48V Model, Tcase at 80°C



Efficiency vs Load

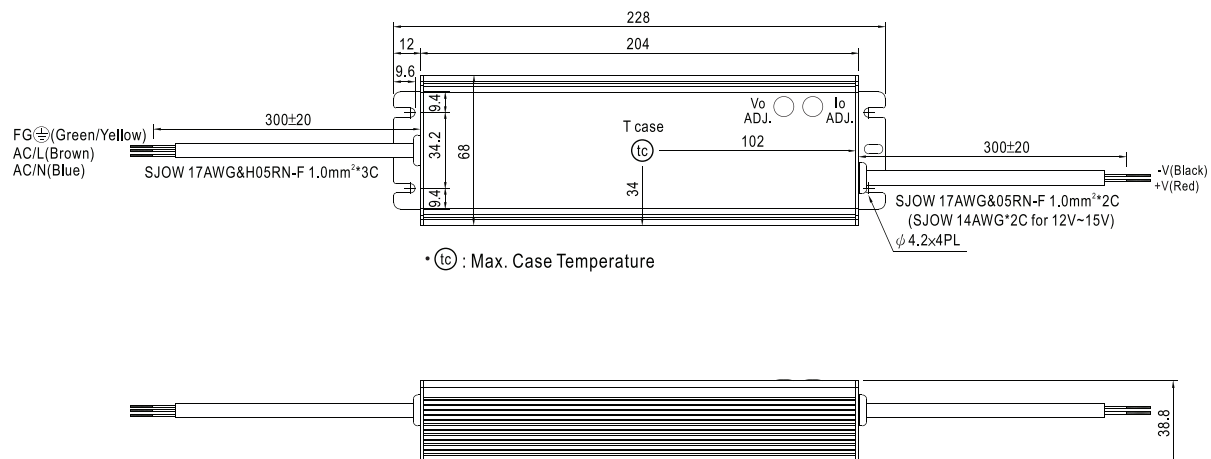
HLG-185H series possess superior working efficiency that up to 94% can be reached in field applications.

※ 48V Model, Tcase at 80°C



Mechanical Specification

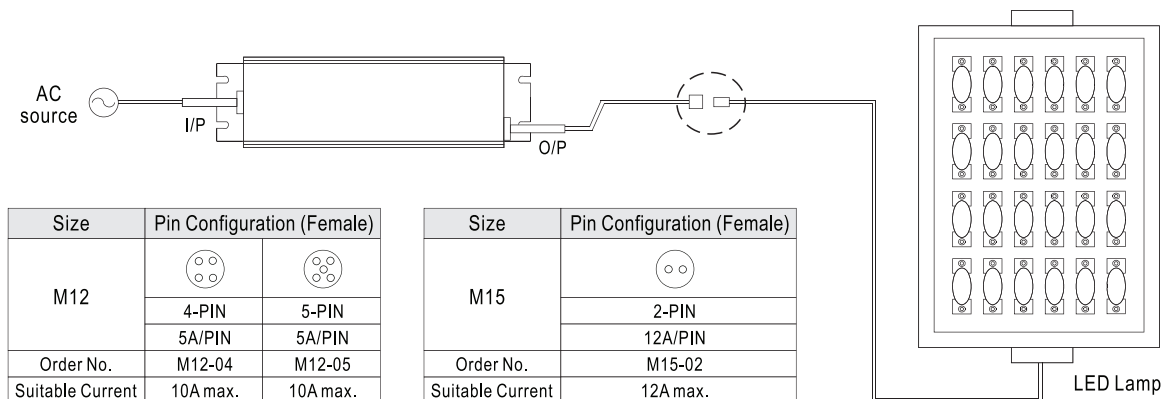
※ A-Type



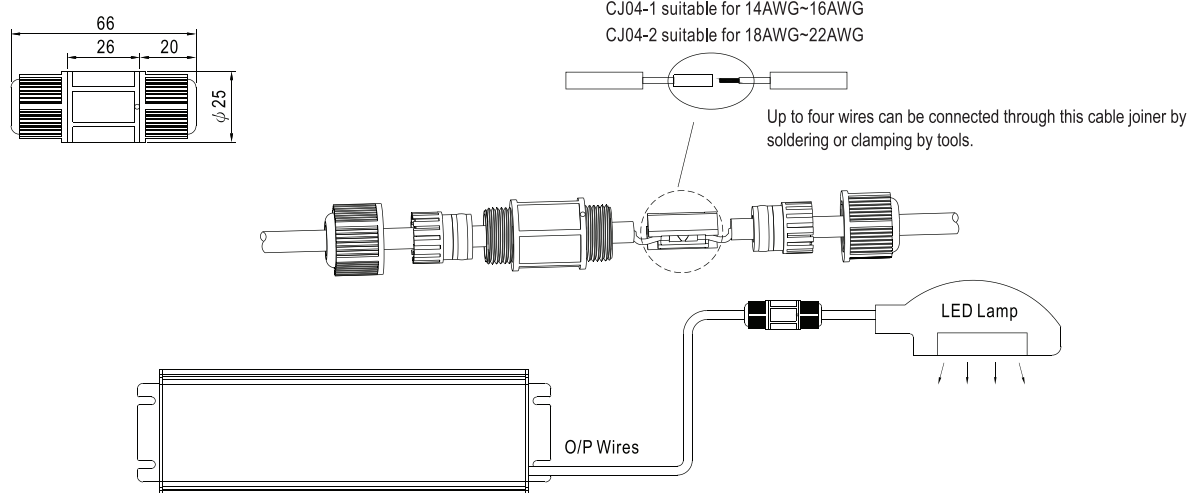
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Waterproof Connection

Waterproof connector can be assembled on the output cable of HLG-185H to operate in dry/wet/damp or outdoor environment.

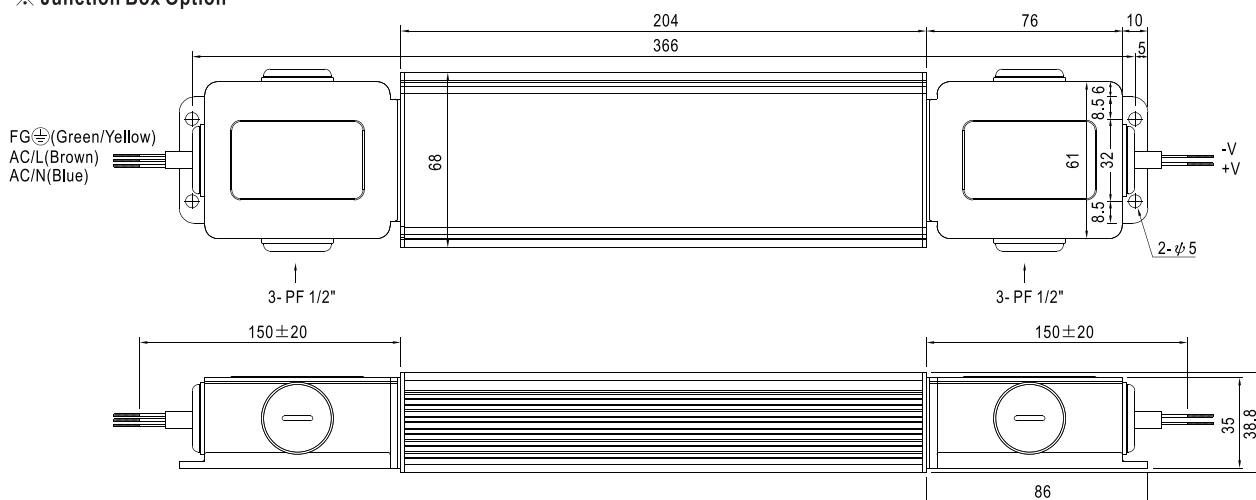


※ Cable Joiner



◎ CJ04 cable joiner can be purchased independently for user's own assembly.

※ Junction Box Option



◎ Junction box option is available for A / Blank - Type.