

ORLRPV24120-HLG-A

ITEM NO. DRIVER - 15202

Features

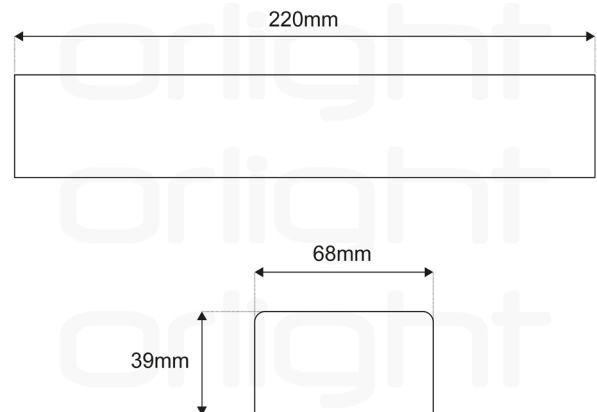
- Constant Voltage + Constant Current mode output
- Metal housing with class I design
- Built-in active PFC function
- IP67 / IP65 rating for indoor or outdoor installations
- Typical lifetime > 62000 hours

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		5A
	Rated Power		120W
	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) 2.5 ~ 5A
	Voltage Tolerance	Note. 3	±1.0%
	Line Regulation		±0.5%
	Load Regulation		±0.5%
	Setup, Rise Time	Note. 6	1200ms,50ms/115VAC 500ms,50ms/230VAC
	Hold Up Time (Typ.)		12 ms / 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 _≥ 0.93/277VAC @ full load (Please refer to "Power Factor (PF) Characteristic" section)

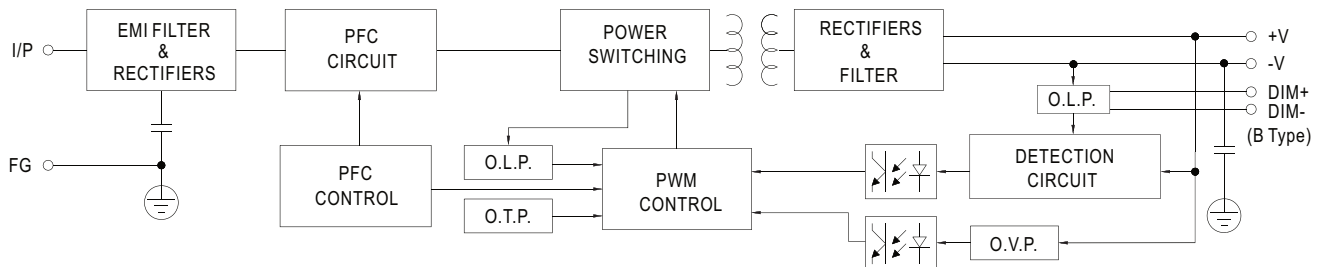
Technical Specification Continued

Input	Total Harmonic Distortion	THD< 20% (@ load $\geq$ 50% / 115VAC,230VAC; @ load $\geq$ 75% / 277VAC) (Please refer to "Total Harmonic Distortion (THD)" section)
	Efficiency (Typ.)	93%
	AC Current (Typ.)	1.4A / 115VAC 0.6A / 230VAC 0.55A / 277VAC
	Inrush Current (Typ.)	COLD START 60A(twidth=375 s measured at 50% Ipeak) at 230VAC; Per NEMA 410
	Max. No. of PSUs on 16A Circuit Breaker	5 units (circuit breaker of type B) / 9 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 ~ +80°C (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)
	Max. Case Temp.	Tcase= +80°C
	Working Humidity	20 ~ 95% RH non-condensing
	Storage Temp. Humidity	-40 ~ +80°C, 10 ~ 95% RH
	Temp. Coefficient	$\pm 0.03\%/^{\circ}\text{C}$ (0 ~ 60°C)
	Vibration	10 ~ 500Hz, 5G 12min./1 cycle, 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),BIS IS15885(for 12B,24B,36A,54A only), 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 Class B, EN61000-3-2 Class C (@ load $\geq$ 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	559.5K hrs min. Telcordia SR-332 (Bellcore); 167.1Khrs min. MIL-HDBK-217F (25°C)
	Dimension	220 x 68 x 39mm
	Packing	1.12Kg; 12pcs/14.4Kg/0.8CUFT
Note	- All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature. - Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. - Tolerance : includes set up tolerance, line regulation and load regulation. - Please refer to "DRIVING METHODS OF LED MODULE". - De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details. - 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. - 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. - 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. - 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. - 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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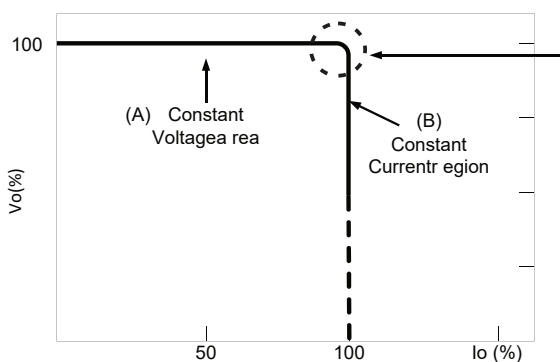
Block Diagram

Fosc : 100KHz



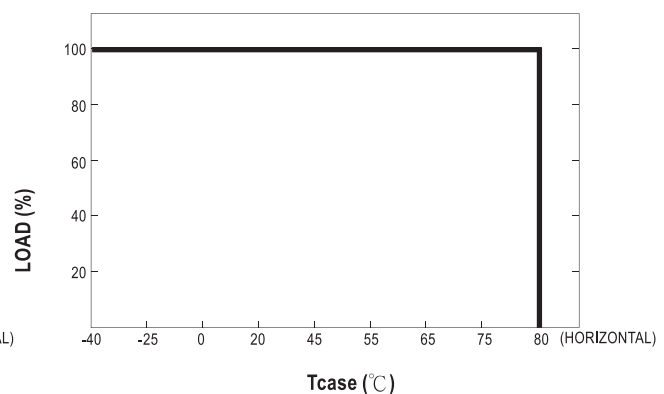
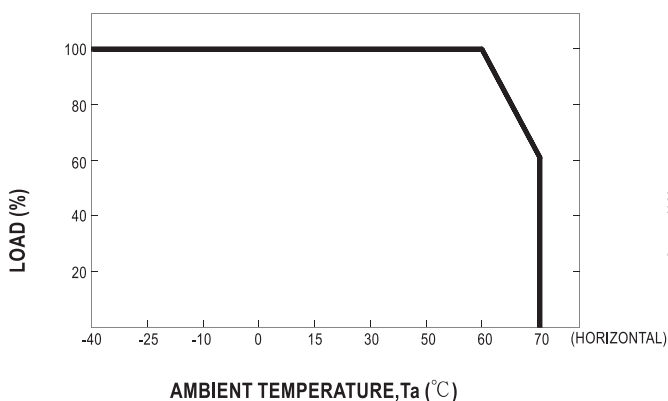
Driving Methods of LED Module

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.



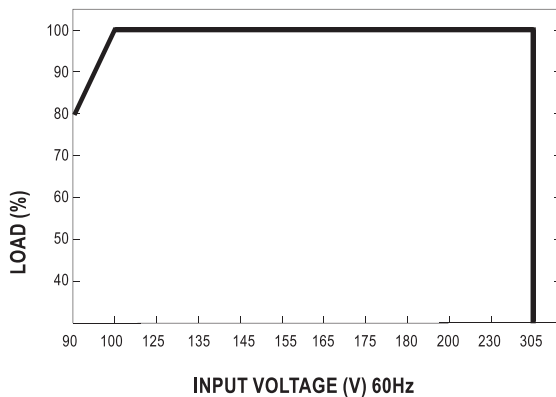
In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.

Output Load vs Temperature



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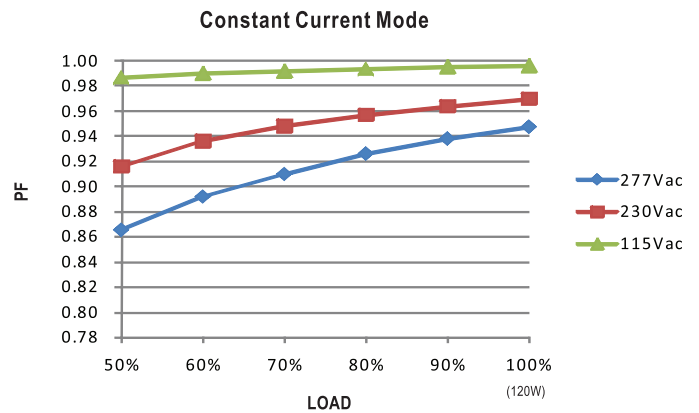
Static Characteristics



※ De-rating is needed under low input voltage.

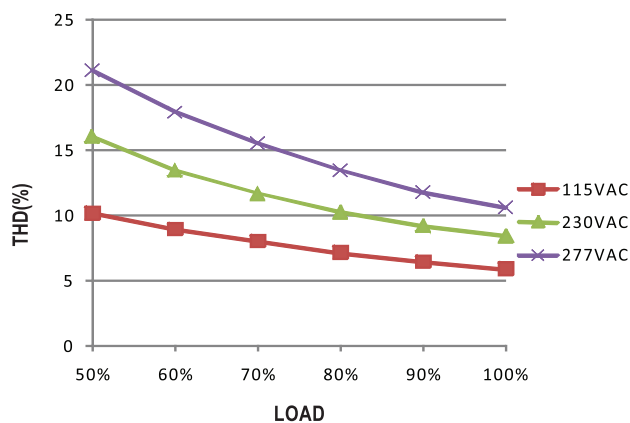
Power Factor (PF) Characteristic

※ Tcase at 70°C



Total Harmonic Distortion (THD)

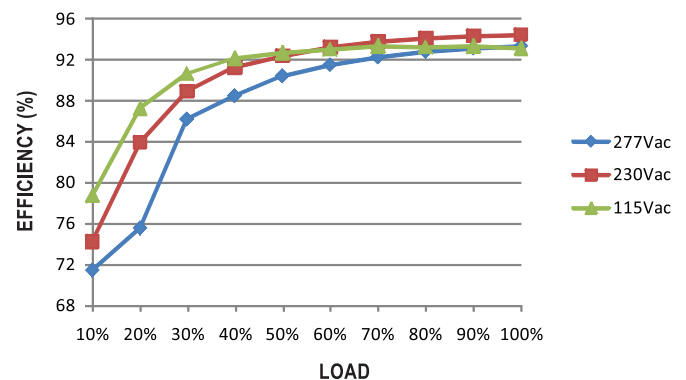
※ 48V Model, Tcase at 70°C



Efficiency vs Load

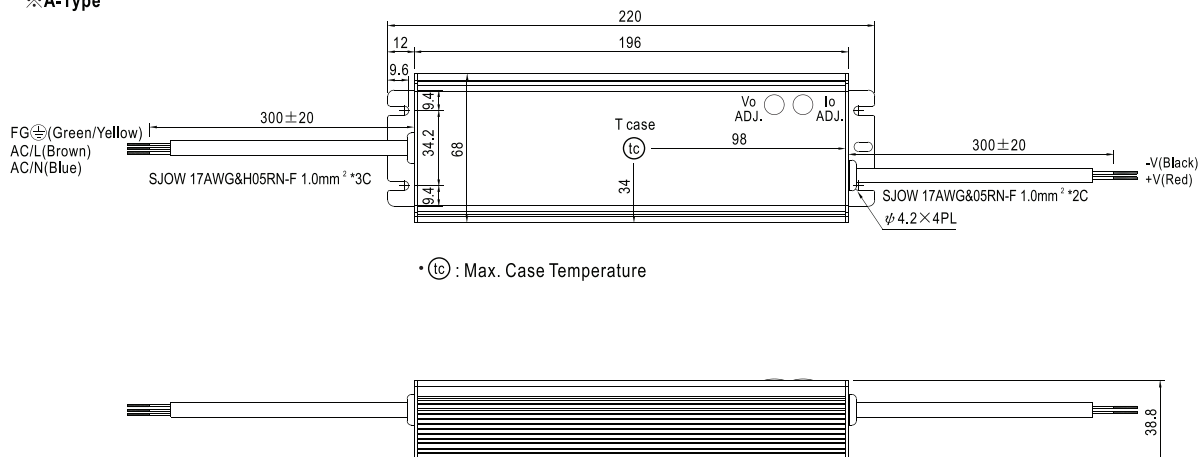
HLG-120H series possess superior working efficiency that up to 93.5% can be reached in field applications.

※ 48V Model, Tcase at 70°C



Mechanical Specification

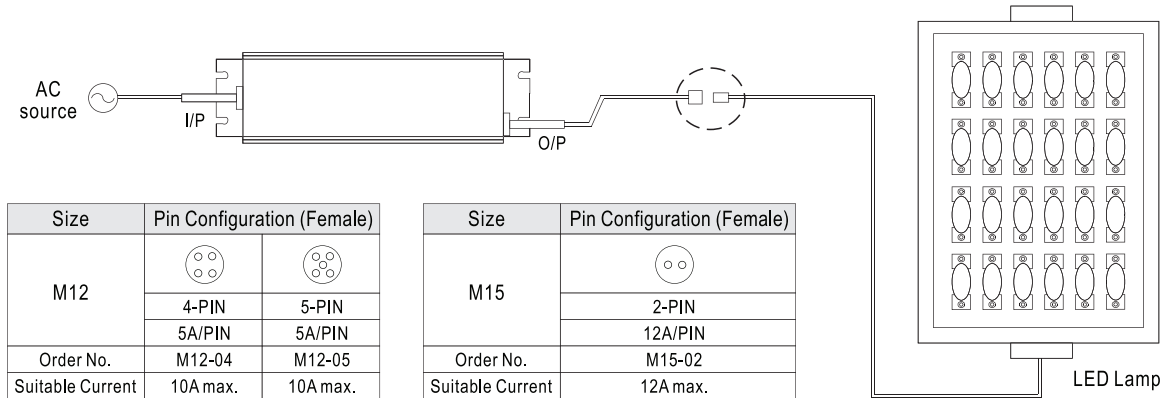
※ A-Type



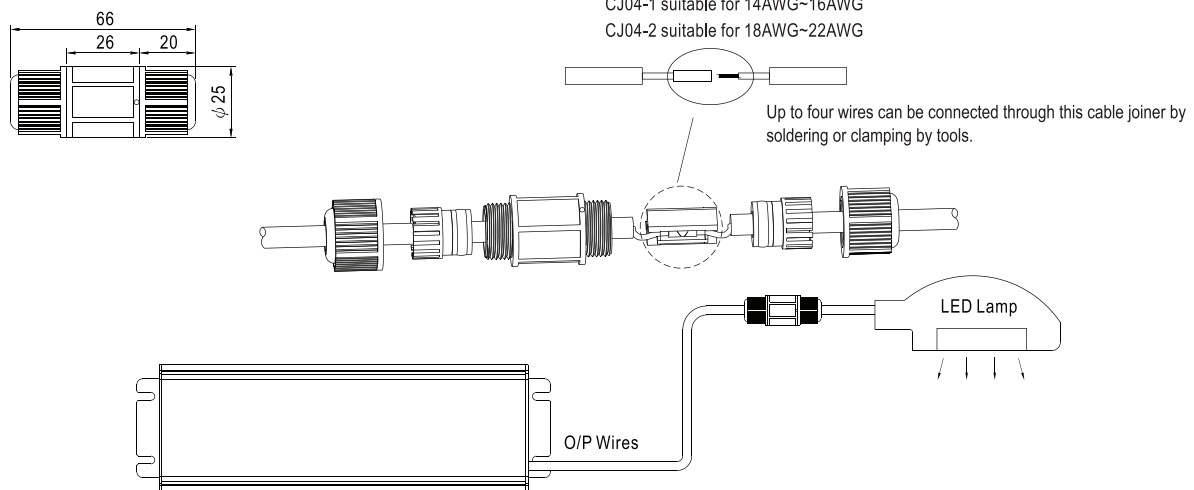
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Waterproof Connection

Waterproof connector can be assembled on the output cable of HLG-120H to operate in dry/wet/damp or outdoor environment.

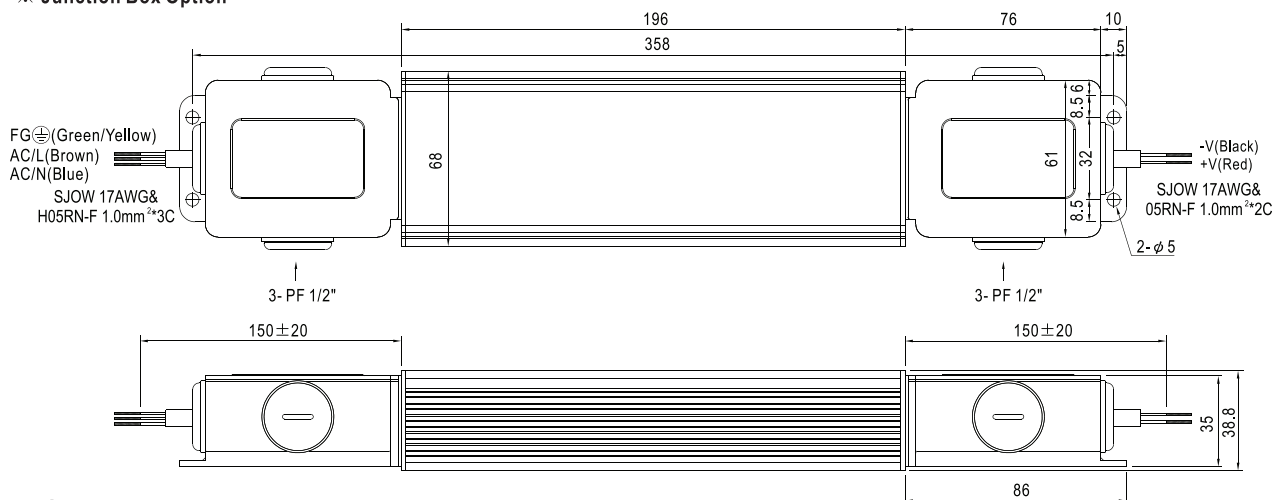


※ Cable Joiner



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

※ Junction Box Option



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