

150W Single Output Switching Power Supply



Features :

- Universal AC input / Full range (up to 305VAC)
- Built-in active PFC function
- High efficiency up to 94%
- · Protections: Short circuit / Over current / Over voltage / Over temperature

HLG-150H series

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- · Cooling by free air convection
- · OCP point adjustable through output cable or internal potentiometer
- IP67 / IP65 design for indoor or outdoor installations
- Three in one dimming function (1~10Vdc or PWM signal or resistance)
- Suitable for LED lighting and street lighting applications
- · Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations



HLG-150H-12 A Blank : IP67 rated. Cable for I/O connection.

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A : IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer.

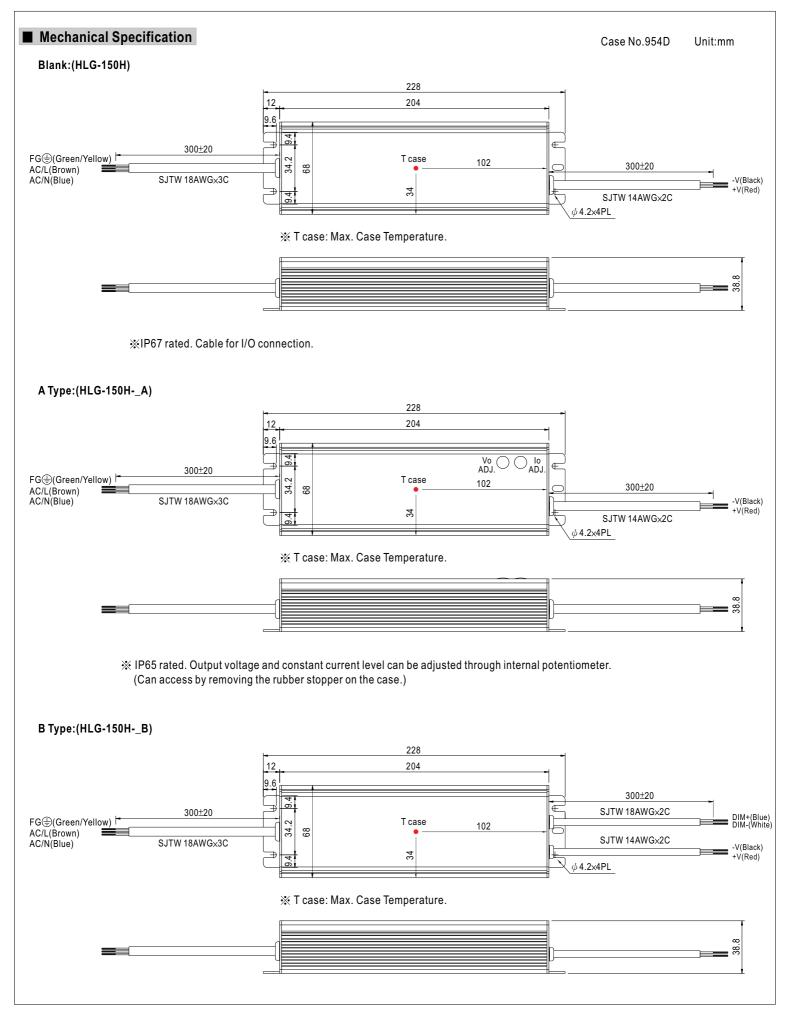
B : IP67 rated. Constant current level adjustable through output cable with 1~10Vdc or 10V PWM signal or resistance. D (option) : IP67 rated. Timer dimming function, contact MEAN WELL for details.

SPECIFICATION

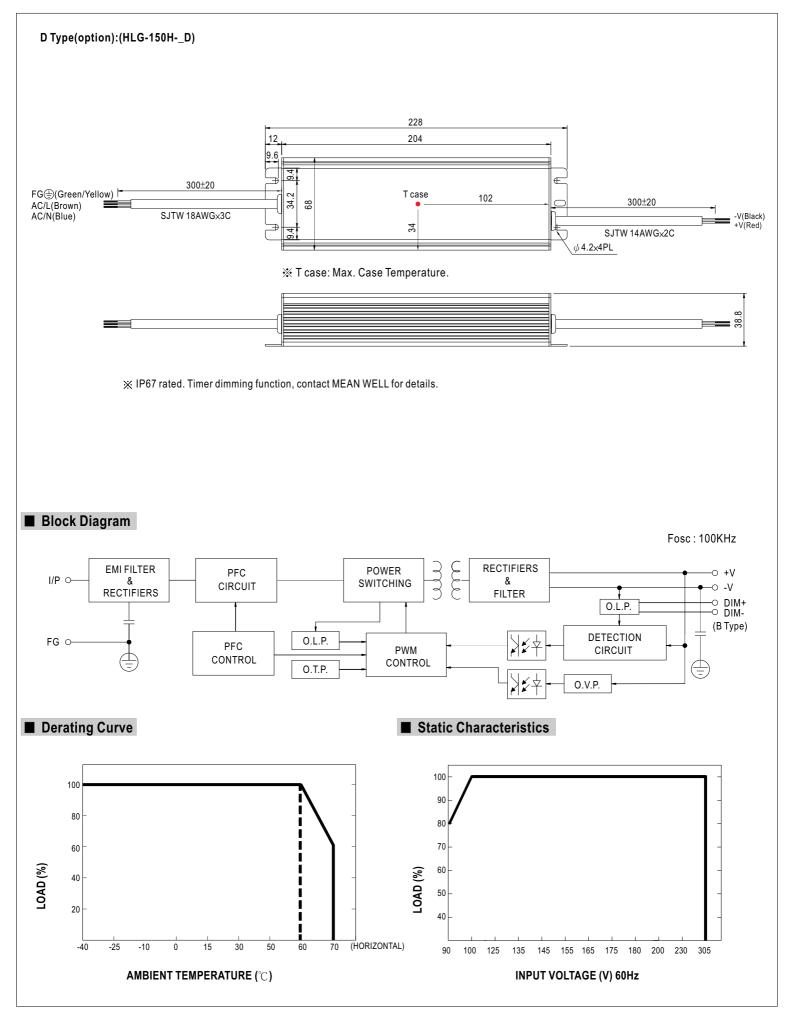
MODEL		HLG-150H-12	HLG-150H-15	HLG-150H-20	HLG-150H-24	HLG-150H-30	HLG-150H-36	HLG-150H-42	HLG-150H-48	HLG-150H-54				
	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V				
OUTPUT	RATED CURRENT	12.5A	10A	7.5A	6.3A	5A	4.2A	3.6A	3.2A	2.8A				
	RATED POWER	150W	150W	150W	151.2W	150W	151.2W	151.2W	153.6W	151.2W				
	RIPPLE & NOISE (max.) Note.2		150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p				
	VOLTAGE ADJ. RANGE Note.5		13.5 ~ 17V	17~22V	22~27V	27~33V	33~40V	38~46V	43 ~ 53V	49 ~ 58V				
		Can be adjusted by internal potentiometer or through output cable												
	CURRENT ADJ. RANGE	7.5 ~ 12.5A	6 ~ 10A	4.5 ~ 7.5A	3.8 ~ 6.3A	3~5A	2.5~4.2A	2.16 ~ 3.6A	1.92 ~ 3.2A	1.68 ~ 2.84				
	VOLTAGE TOLERANCE Note.3	±2.5%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%				
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%				
	LOAD REGULATION	±2.0%	±1.5%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%				
	SETUP, RISE TIME Note.7	2500ms, 80ms at full load 230VAC / 115VAC ; B type 2500ms, 200ms at 95% load 230VAC / 115VAC												
	HOLD UP TIME (Typ.)	16ms at full load 230VAC / 115VAC												
	VOLTAGE RANGE Note.4													
	FREQUENCY RANGE	47 ~ 63Hz												
	POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.95/230VAC, PF>0.92/277VAC at full load (Please refer to "Power Factor Characteristic" curve)												
INPUT	EFFICIENCY (Typ.)	91.5%	92%	93%	93%	93.5%	93.5%	94%	94%	94%				
	AC CURRENT (Typ.)	1.7A/115VAC 0.75A/230VAC 0.7A/277VAC												
	INRUSH CURRENT (Typ.)	COLD START 75A/230VAC												
	LEAKAGE CURRENT	<0.75mA / 277VAC												
	OVER CURRENT	95 ~ 108%												
		Protection type : Constant current limiting, recovers automatically after fault condition is removed												
	SHORT CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed												
PROTECTION		14~17V	18~21V	23 ~ 27V	28 ~ 34V	34 ~ 38V	41~46V	47~53V	54 ~ 60V	59 ~ 65V				
PROTECTION	OVER VOLTAGE	Protection type : Shut down o/p voltage with auto-recovery or re-power on to recovery												
		100°C ±10°C (RTH2)												
	OVER TEMPERATURE	Protection type : Shut down o/p voltage, recovers automatically after temperature goes down												
	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")												
		20 ~ 95% RH non-condensing												
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH												
	TEMP. COEFFICIENT	±0.03%/℃ (0~50℃)												
	VIBRATION	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes												
	VIDICATION	UL8750. CSA C22.2 No. 250.0-08. EN61347-1. EN61347-2-13 independent IP65 or IP67. J61347-1. J61347-2-13 approved												
	SAFETY STANDARDS Note.6	design refer to UL60950-1, TUV EN60950-1												
SAFETY &	WITHSTAND VOLTAGE													
EMC	ISOLATION RESISTANCE	I/P-O/P:3.75KVAC I/P-FG:1.88KVAC 0/P-FG:0.5KVAC												
	EMC EMISSION	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH												
		Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2 Class C (≧60% load) ; EN61000-3-3												
	MTBF	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge 4KV), criteria A												
OTHERS		192.2Khrs min. MIL-HDBK-217F (25°C)												
	DIMENSION	228*68*38.8mm 1.15Kg; 12pcs/14.8Kg/0.74CUFT												
	PACKING		-		aut vatad laga	land OF [®] C of	anahiant tanan a	web we						
NOTE	 Ripple & noise are measure Tolerance : includes set up Derating may be needed ur Type A only. Safety and EMC design ref Length of set up time is me The power supply is consid 	NT specially mentioned are measured at 230VAC input, rated load and 25 [°] C of ambient temperature. reasured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uf & 47uf parallel capacitor. as set up tolerance, line regulation and load regulation. teeded under low input voltages. Please check the static characteristics for more details. lesign refer to EN60598-1, subject 8750(UL), CNS15233, GB7000.1, FCC part18. me is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time. is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the on, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.												



HLG-150H series

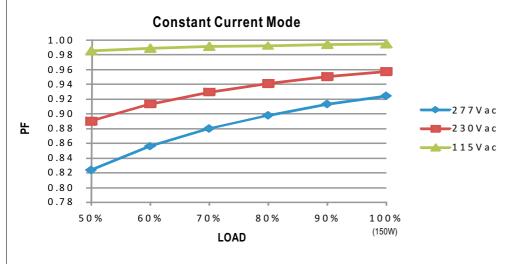






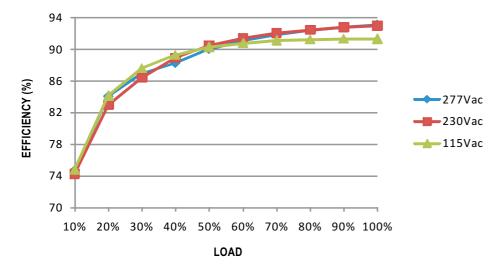


Power Factor Characteristic



■ EFFICIENCY vs LOAD (48V Model)

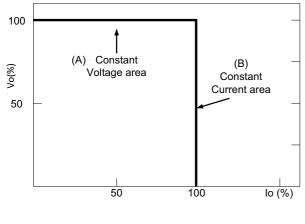
HLG-150H series possess superior working efficiency that up to 94% can be reached in field applications.



DRIVING METHODS OF LED MODULE

There are two major kinds of LED drive method "direct drive" and "with LED driver".

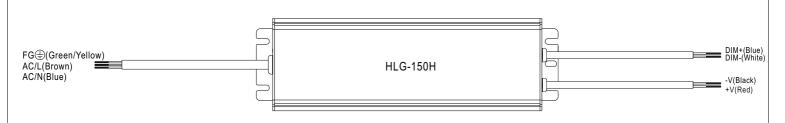
A typical LED power supply may either work in "constant voltage mode (CV) or constant current mode (CC)" to drive the LEDs. Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode (with LED driver, at area (A) and CC mode (direct drive, at area (B).



Typical LED power supply I-V curve



■ DIMMING OPERATION



※ Built-in 3 in 1 dimming function, IP67 rated. Output constant current level can be adjusted through output cable by connecting a resistance or 1 ~ 10Vdc or 10V PWM signal between DIM+ and DIM-.

※ Please DO NOT connect "DIM-" to "-V".

※ Reference resistance value for output current adjustment (Typical)

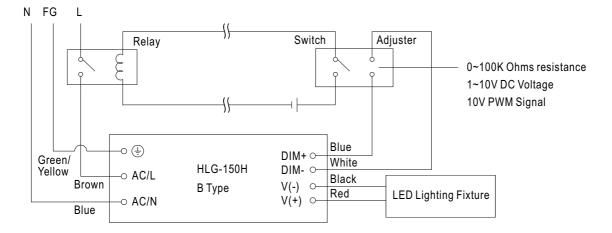
Resistance value	10K Ω	20K Ω	30Κ Ω	40K Ω	50Κ Ω	60K Ω	70Κ Ω	80K Ω	90Κ Ω	100K Ω	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%
× 1 ~ 10V dimming function for output current adjustment (Typical)											
Dimming value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%
× 10V PWM signal for output current adjustment (Typical): Frequency range :100Hz ~ 3KHz											

Duty value	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%

XUsing the built-in dimming function on B-type model can't turn the lighting fixture totally dark. Please refer to the connection method below to achieve 0% brightness of the lighting fixture connecting to the LED power supply unit.

XDirect connecting to LEDs is suggested, but is not suitable for using additional drivers.

Dimming connection diagram for turning the lighting fixture ON/OFF :

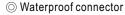


Using a switch and relay can turn ON/OFF the lighting fixture.

1. Output constant current level can be adjusted through output cable by connecting a resistance or 1~10Vdc or 10V PWM signal between DIM+ and DIM-. 2. The LED lighting fixture can be turned ON/OFF by the switch.



■ WATERPROOF CONNECTION



Waterproof connector can be assembled on the output cable of HLG-150H to operate in dry/wet/damp or outdoor environment.

