





- Universal AC input / Full range
- · Built-in active PFC function
- High efficiency up to 94%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- · 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
- 5 years warranty (Note.9)



















HLG-185-12 A Blank: IP67 rated. Cable for I/O connection.

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.

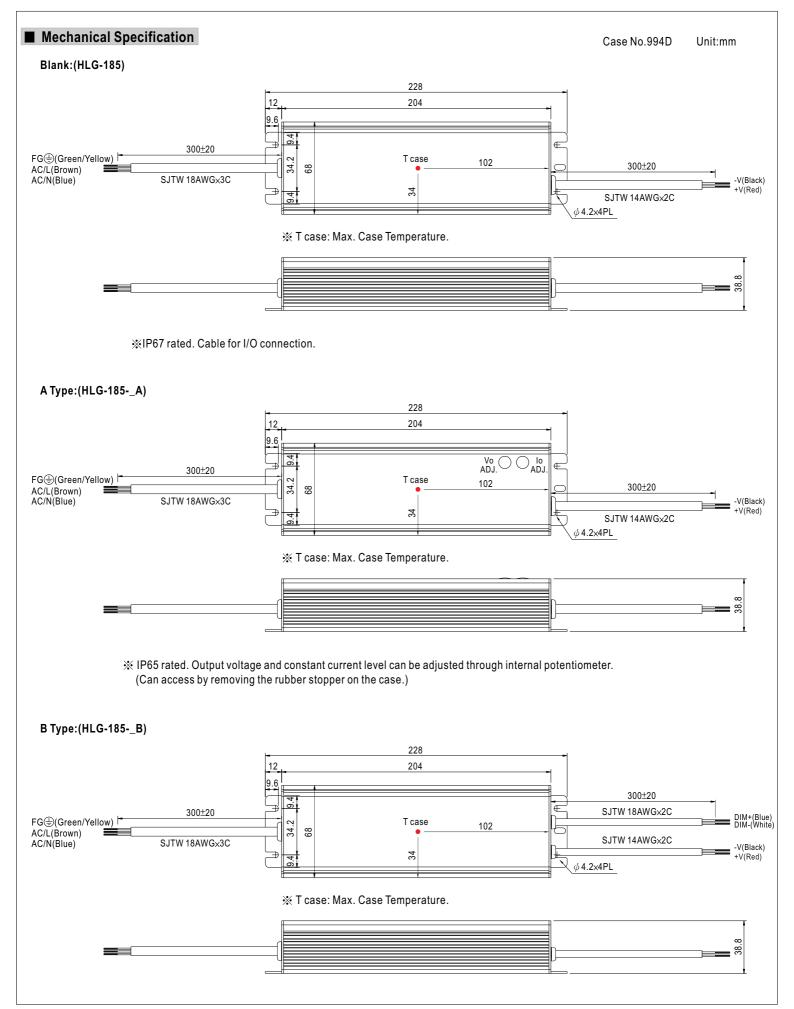
D (option): IP67 rated. Timer dimming function, contact MEAN WELL for details.

SPECIFICATION

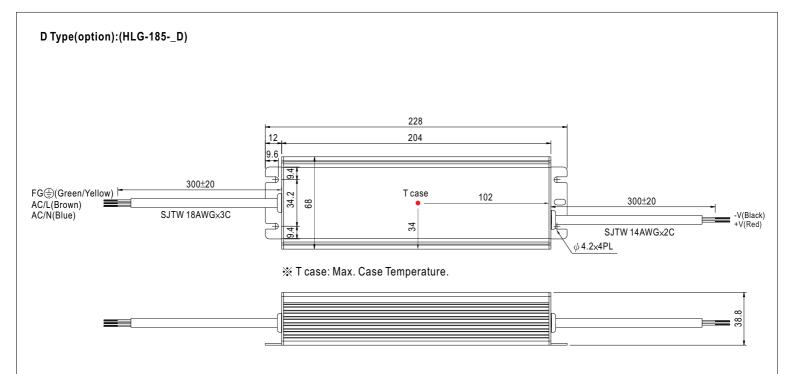
MODEL			HLG-185-12	HLG-185-15	HLG-185-20	HLG-185-24	HLG-185-30	HLG-185-36	HLG-185-42	HLG-185-48	HLG-185-54			
	DC VOLTAGE		12V	15V	20V	24V	30V	36V	42V	48V	54V			
OUTPUT	RATED CURRENT		13A	11.5A	9.3A	7.8A	6.2A	5.2A	4.4A	3.9A	3.45A			
	RATED POWER		156W	172.5W	186W	187.2W	186W	187.2W	184.8W	187.2W	186.3W			
	RIPPLE & NOISE (max.) Note.2		150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p			
	VOLTAGE ADJ. RANGE Note.5		10.8 ~ 13.5V	13.5 ~ 17V	17 ~ 22V	22 ~ 27V	27 ~ 33V	33 ~ 40V	38 ~ 46V	43 ~ 53V	49 ~ 58V			
	CURRENT ADJ. RANGE		Can be adjusted by internal potentiometer or through output cable											
			6.5 ~ 13A	5.75 ~ 11.5A	4.65 ~ 9.3A	3.9 ~ 7.8A	3.1 ~ 6.2A	2.6 ~ 5.2A	2.2 ~ 4.4A	1.95 ~ 3.9A	1.72 ~ 3.45A			
	VOLTAGE TOLERANCE Note.3		±2.5%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%			
	LINE REGULATION	ON	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%			
	LOAD REGULATI	ION	±2.0%	±1.5%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%			
	SETUP, RISE TIM	E Note.7	2500ms, 80ms at full load 230VAC / 115VAC ; B type 2500ms, 200ms at 95% load 230VAC / 115VAC											
	HOLD UP TIME (1	Гур.)	16ms at full lo	ad 230VAC	/ 115VAC									
	VOLTAGE RANG	E Note.4	90 ~ 264VAC 127 ~ 370VDC											
	FREQUENCY RANGE		47 ~ 63Hz											
	POWER FACTOR	(Typ.)	PF>0.98/115V	AC, PF>0.95/2	230VAC (Pleas	e refer to "Pow	er Factor Char	acteristic" curv	re)					
INDUT	EFFICIENCY (Typ	o.)	92%	93%	93.5%	94%	94%	94%	94%	94%	94%			
INPUT	AC CURRENT	12V	1.8A / 115VA	0.8A/2	30VAC						•			
	(Typ.)	15V ~ 54V	2.1A / 115VAC	2.1A / 115VAC 0.9A / 230VAC										
	INRUSH CURREN	NT (Typ.)	COLD START 75A/230VAC											
	LEAKAGE CURRENT		<0.75mA / 240VAC											
	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	OVER VOLTAGE		14 ~ 17V	18 ~ 21V	23 ~ 27V	28 ~ 34V	34 ~ 38V	41 ~ 46V	47 ~ 53V	54 ~ 60V	59 ~ 65V			
			Protection type: Shut down o/p voltage with auto-recovery or re-power on to recovery											
	OVER TEMPERATURE		100°C ±10°C (RTH2)											
			Protection type: Shut down o/p voltage, recovers automatically after temperature goes down											
	WORKING TEMP.		-40 ~ +70°C (Refer to "Derating Curve")											
	WORKING HUMIE	DITY	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											
	SAFETY STANDARDS Note.6		UL8750, CSA C22.2 No. 250.0-08, EN61347-1, EN61347-2-13 independent IP65 or IP67, J61347-1, J61347-2-13 approved;											
			design refer to UL60950-1, TUV EN60950-1											
SAFETY &	WITHSTAND VOLTAGE		I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC											
EMC	ISOLATION RESISTANCE		I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH											
	EMC EMISSION		Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2 Class C (≥50% load) ; EN61000-3-3											
	EMC IMMUNITY		Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge 4KV), criteria A											
	MTBF		192.2Khrs min. MIL-HDBK-217F (25°C)											
OTHERS	DIMENSION		228*68*38.8n	nm (L*W*H)										
	PACKING		1.15Kg; 12pcs	s/14.8Kg/0.740	CUFT									
NOTE	1. All parameters													
NOIE	2. Ripple & noise	are measure	d at 20MHz of	bandwidth by	using a 12" tv	visted pair-wire	e terminated w	ith a 0.1uf & 4	7uf parallel ca	pacitor.				

- 3. Tolerance: includes set up tolerance, line regulation and load regulation.
- Derating may be needed under low input voltages. Please check the static characteristics for more details.
 Type A only.
- 6. Safety and EMC design refer to EN60598-1, CNS15233, GB7000.1, FCC part18.
- 7. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.
- 8. The power supply 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.
- 9. Refer to warranty statement.

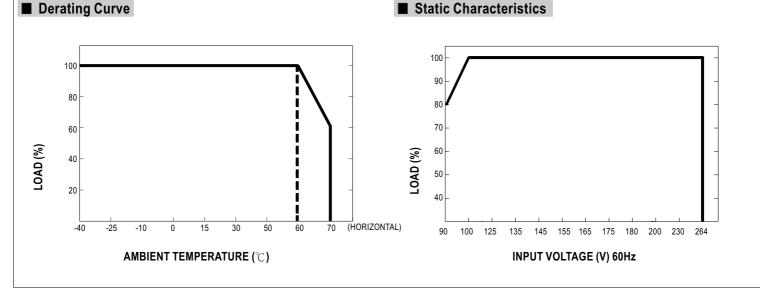






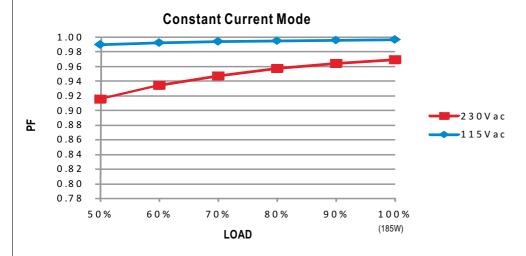


■ Block Diagram Fosc: 100KHz **RECTIFIERS EMI FILTER POWER** PFC I/P ○ **SWITCHING** CIRCUIT -⊙ -V **RECTIFIERS FILTER** O.L.P. → DIM+ → DIM-(B Type) **DETECTION** 0.L.P. FG O PFC PWM CIRCUIT CONTROL CONTROL O.T.P. 0.V.P.



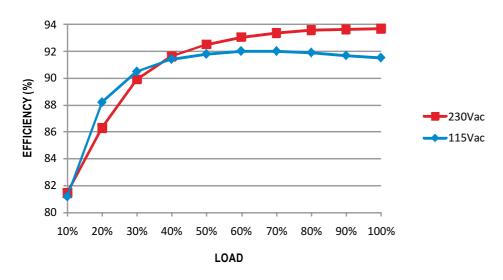


■ Power Factor Characteristic



■ EFFICIENCY vs LOAD (48V Model)

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

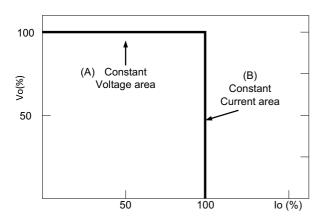


■ DRIVING METHODS OF LED MODULE

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.

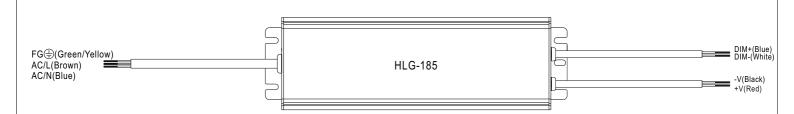
Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode (with LED driver, at area (A) and CC mode (direct drive, at area (B).



Typical LED power supply I-V curve



■ DIMMING OPERATION



- ※ Please DO NOT connect "DIM-" to "-V".
- X Reference resistance value for output current adjustment (Typical)

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

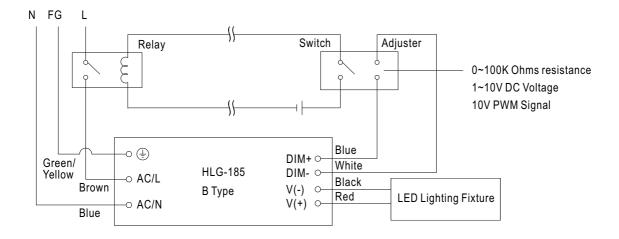
Dimming value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%

* 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.

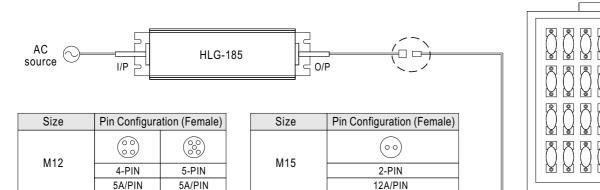
LED Lamp



■ WATERPROOF CONNECTION

Waterproof connector

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



Order No.

Suitable Current

Cable Joiner

Order No.

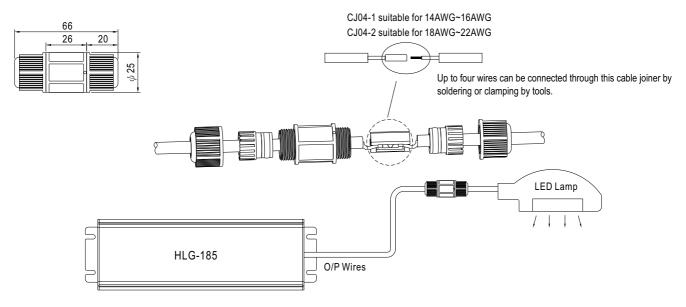
Suitable Current

M12-04

10A max

M12-05

10A max.



M15-02

12A max

