



- Features :
 - Universal AC input I Full range (up to 305VAC)
 - Built-in active PFC function
 - Protections: Short circuit I Over current I Over voltage I Over temperature
 - Cooling by free air convection
 - OCP point adjustable through output cable or internal potentiometer
 - IP67 I IP65 design for indoor or outdoor installations
 - Class 2 power unit
 - Three in one dimming function (1-10Vdc or PWM signal or resistance)
 - Suitable for LED lighting and moving sign applications
 - Compliance to worldwide safety regulations for lighting
 - Suitable for dry I damp I wet locations
 - 7 years warranty (Note.10)



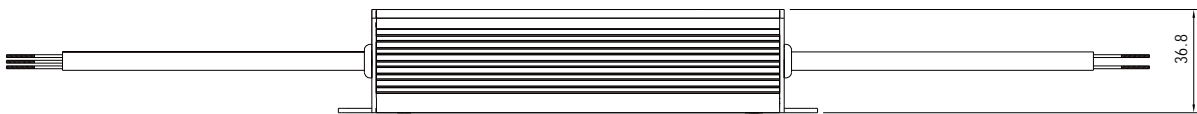
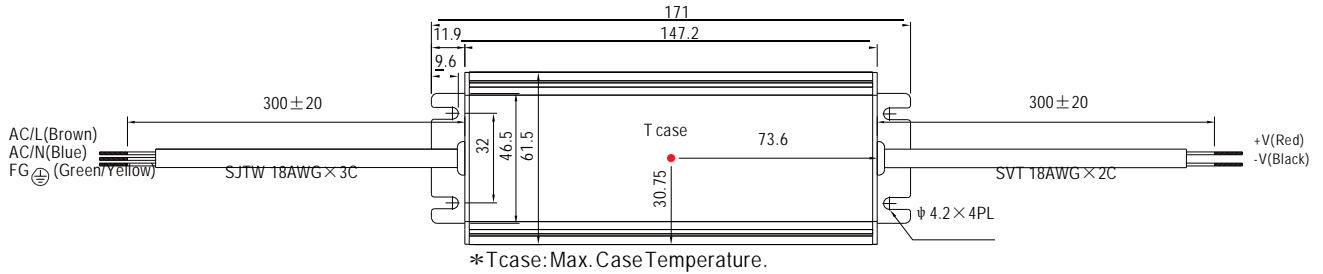
SPECIFICATION

MODEL	HLG-40H-12	HLG-40H-15	HLG-40H-20	HLG-40H-24	HLG-40H-30	HLG-40H-36	HLG-40H-42	HLG-40H-48	HLG-40H-54	
DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V	
CONSTANT CURRENT REGION Note.4	7.2 - 12V	9 - 15V	12 - 20V	14.4 - 24V	18 - 30V	21.6 - 36V	25.2 - 42V	28.8 - 48V	32.4 - 54V	
RATED CURRENT	3.33A	2.67A	2A	1.67A	1.34A	1.12A	0.96A	0.84A	0.75A	
RATED POWER	39.96W	40.05W	40W	40.08W	40.2W	40.32W	40.32W	40.32W	40.5W	
RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	300mVp-p	300mVp-p	
VOLTAGE ADJ. RANGE Note.6	10.8 - 13.5V	13.5 - 17V	17 - 22V	22 - 27V	27 - 33V	33 - 40V	40 - 46V	44 - 53V	49 - 58V	
CURRENT ADJ. RANGE	Can be adjusted by internal potentiometer A type only									
	2 - 3.33A	1.6 - 2.67A	1.2 - 2A	1 - 1.67A	0.8 - 1.34A	0.67 - 1.12A	0.58 - 0.96A	0.5 - 0.84A	0.45 - 0.75A	
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.8	500ms, 80ms at full load 230VAC /115VAC									
HOLD UP TIME (Typ.)	16ms/230VAC 16ms/115VAC at full load									
VOLTAGE RANGE Note.5	90 - 305VAC 127 - 431VDC									
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)									
TOTAL HARMONIC DISTORTION EFFICIENCY (Typ.)	THD< 20% when output loading ≧ 60% at 115VAC/230VAC input and output loading ≧ 75% at 277VAC input									
AC CURRENT (Typ.)	0.43A / 115VAC	0.24A / 230VAC	0.23A / 277VAC							
INRUSH CURRENT(Typ.)	COLD START 50A(twidth=210µs measured at 50% Ipeak) at 230VAC									
MAX. No. of PSUs on 16A CIRCUIT BREAKER	12 units (circuit breaker of type B) / 20 units (circuit breaker of type C) at 230VAC									
LEAKAGE CURRENT	<0.75mA / 277VAC									
OVER CURRENT Note.4	95 - 108%									
SHORT CIRCUIT	Protection type : Constant current limiting, recovers automatically after fault condition is removed									
OVER VOLTAGE	Hiccup mode, recovers automatically after fault condition is removed									
OVER TEMPERATURE	15 - 21V	18 - 24V	23 - 30V	28 - 35V	35 - 43V	41 - 49V	48 - 58V	54 - 65V	59 - 68V	
	Protection type : Shut down o/p voltage, re-power on to recover									
WORKING TEMP.	Shut down o/p voltage, re-power on to recover									
WORKING HUMIDITY	-40 - +70°C (Refer to "Derating Curve")									
STORAGE TEMP., HUMIDITY	20 - 95% RH non-condensing									
TEMP. COEFFICIENT	-40 - +80°C, 10 - 95% RH									
VIBRATION	±0.03%/°C (0 - 60°C)									
SAFETY STANDARDS Note.7	10 - 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes									
WITHSTAND VOLTAGE	UL8750, CSA C22.2 No. 250.0-08 (except for 48V, 54V), EN61347-1, EN61347-2-13 independent, IP65 or IP67 approved ; optional models for J61347-1, J61347-2-13 ; design refer to UL60950-1, TUV EN60950-1, EN60335-1									
ISOLATION RESISTANCE	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC									
EMC EMISSION	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH									
EMC IMMUNITY	Compliance to EN55015, 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									
DIMENSION	336.5K hrs min. MIL-HDBK-217F (25°C)									
PACKING	171*61.5*36.8mm (L*W*H)									
NOTE	0.73Kg; 20pcs/15.6Kg/0.9CUFT									
	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load 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 0.1µf & 47µf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Please refer to "DRIVING METHODS OF LED MODULE". 5. Derating may be needed under low input voltages. Please check the static characteristics for more details. 6. A type only. 7. Safety and EMC design refer to EN60598-1, CNS15233, GB7000.1, FCC part18. 8. 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. 9. 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. 10. Refer to warranty statement. File Name:HLG-40H-SPEC2015-07-22 11. To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED power supply can only be used behind a switch without permanently connected to the mains.									

Mechanical Specification

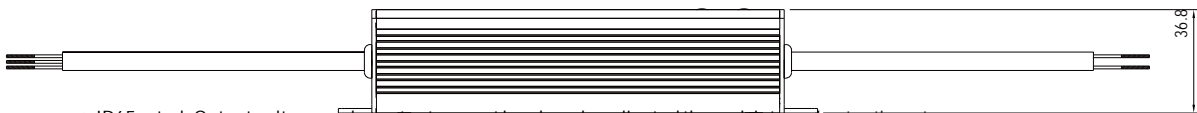
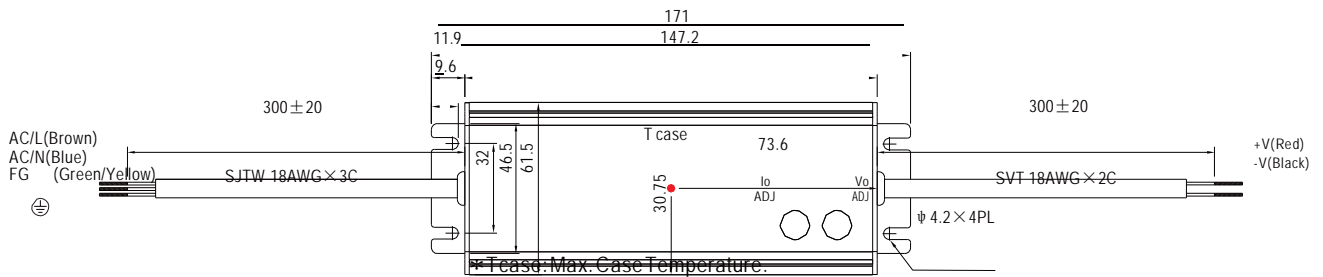
Case No.957B Unit:mm

Blank:(HLG-40H)



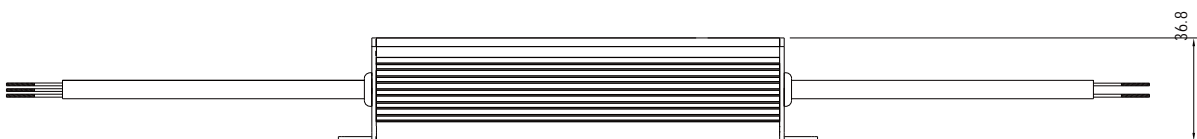
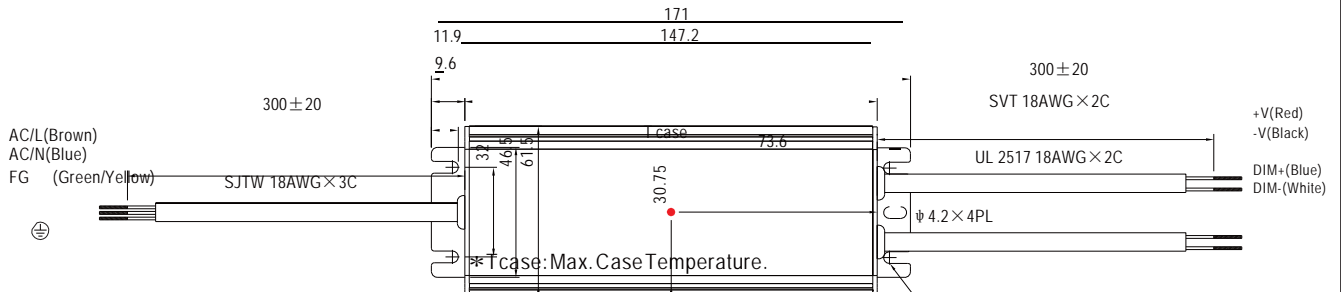
※IP67 rated. Cable for I/O connection.

A Type:(HLG-40H_A)

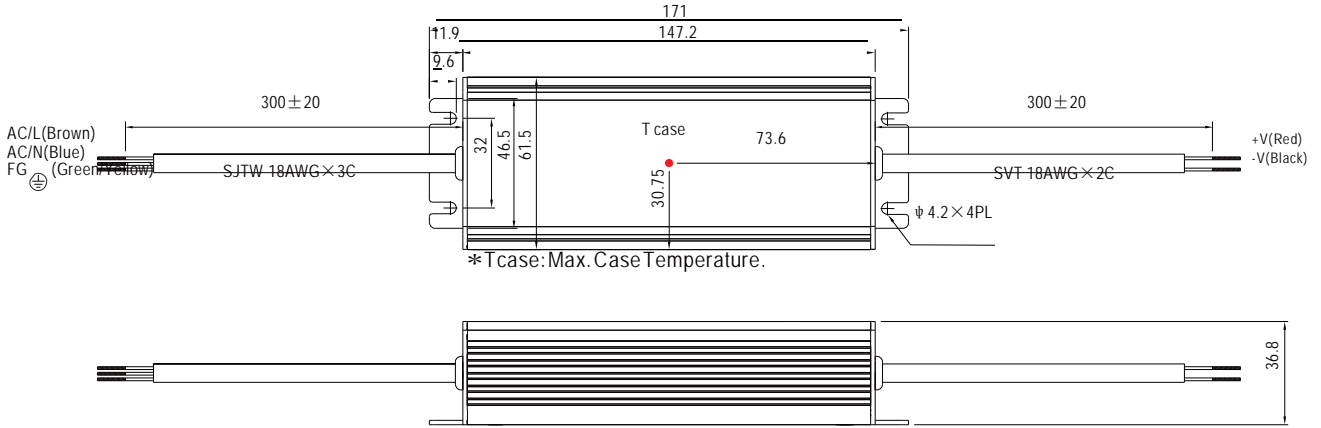


※IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer.
(Can access by removing the rubber stopper on the case.)

B Type:(HLG-40H_B)

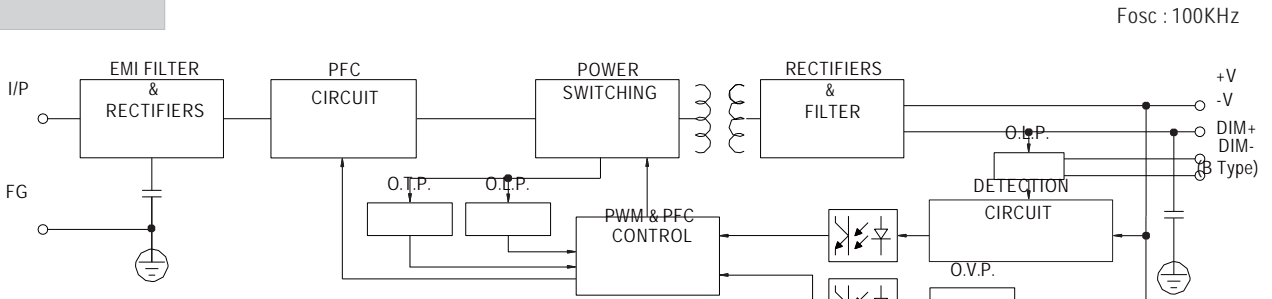


D Type(option):(HLG-40H_D)

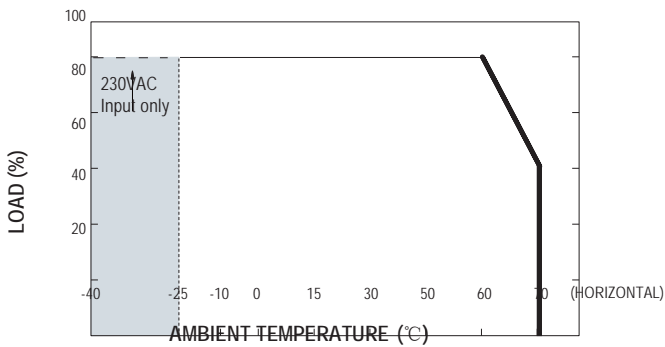


※ IP67 rated. Timer dimming function, contact MEAN WELL for details.

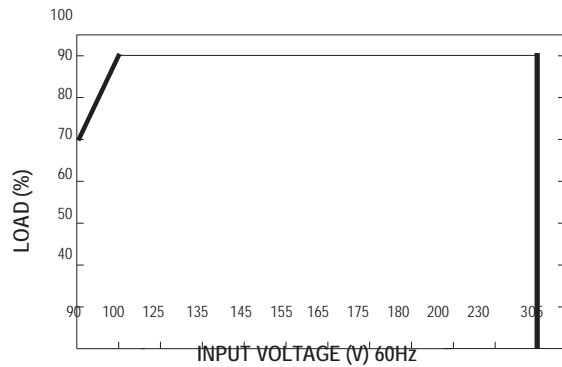
Block Diagram



Derating Curve

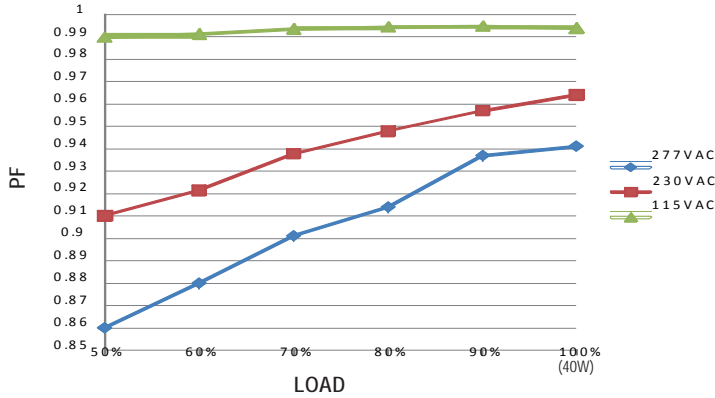


Static Characteristics



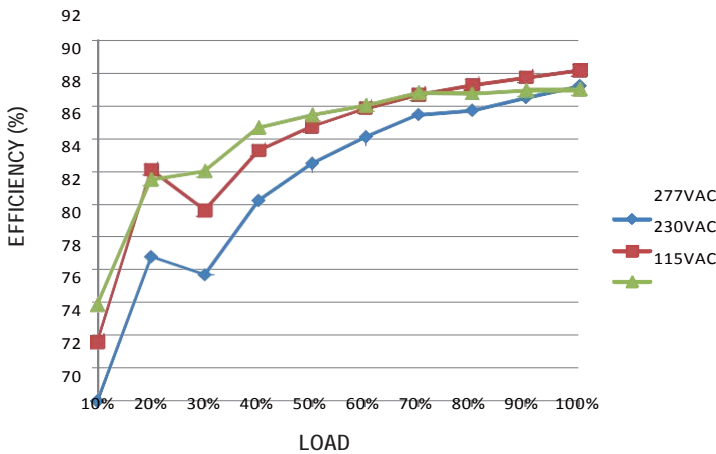
Power Factor Characteristic

Constant Current Mode



EFFICIENCY vs LOAD (48V Model)

HLG-40H series possess superior working efficiency that up to 89.5% can be reached in field applications.

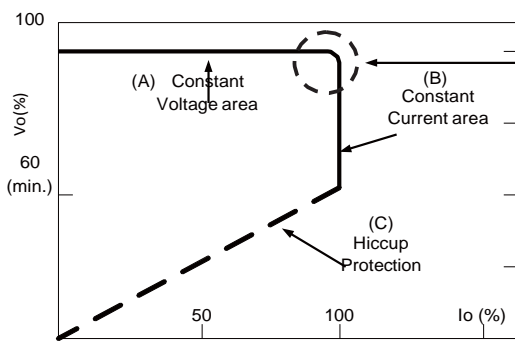


DRIVING METHODS OF LED MODULE

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)).

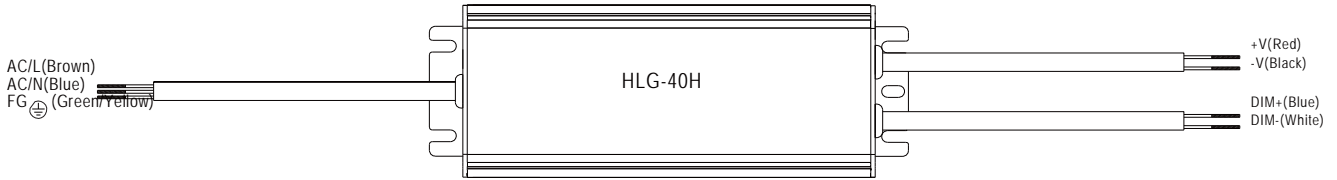


Typical LED power supply I-V curve

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

Should there be any compatibility issues, please contact MEANWELL.

DIMMING OPERATION (for B-type only)



※ 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	Single driver	10K Ω	20K Ω	30K Ω	40K Ω	50K Ω	60K Ω	70K Ω	80K Ω	90K Ω	100K Ω	OPEN
	Multiple drivers (N=driver quantity for synchronized dimming operation)	10K Ω /N	20K Ω /N	30K Ω /N	40K Ω /N	50K Ω /N	60K Ω /N	70K Ω /N	80K Ω /N	90K Ω /N	100K Ω /N	-----
Percentage of rated current		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%~108%

* 1 ~ 10V dimming function for output current adjustment (Typical)

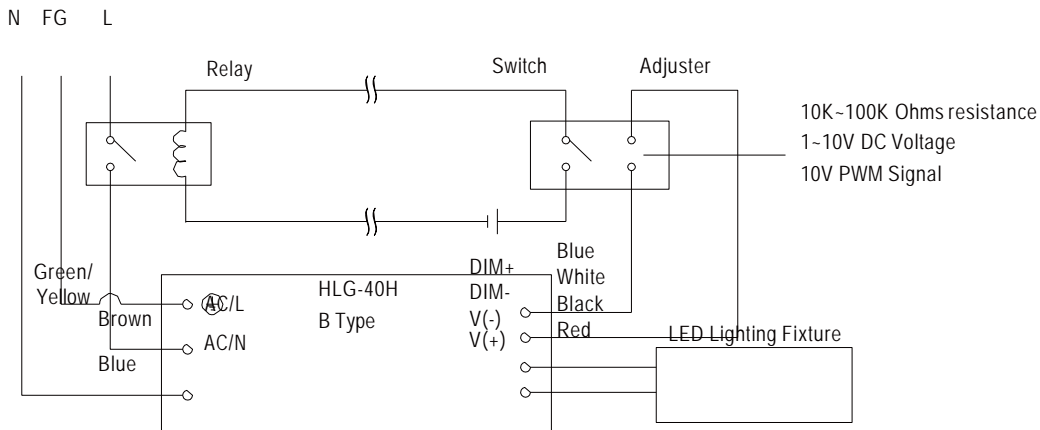
Dimming value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%~108%

※ 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%	95%~108%

※ Using 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.

※ Direct connecting to LEDs is suggested, but is not suitable for using additional drivers. Dimming connection diagram for turning the lighting fixture ON/OFF :



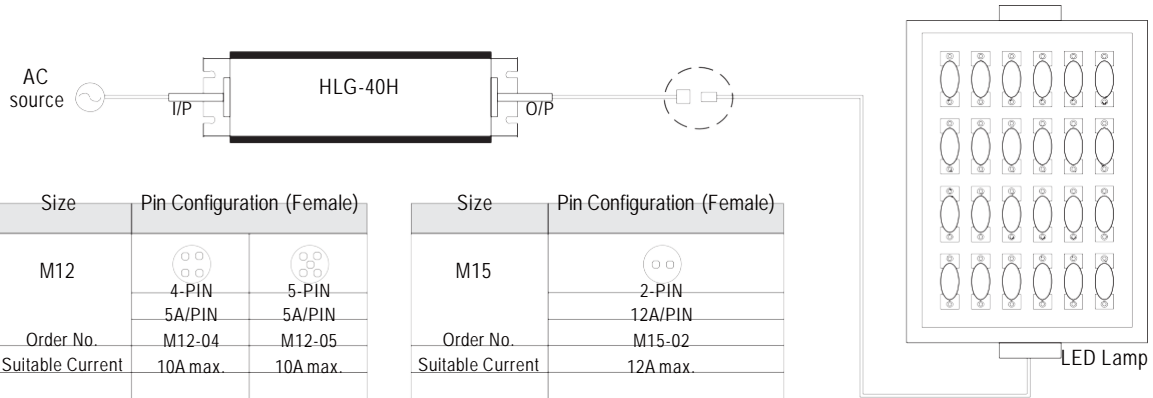
Using a switch and relay can turn ON/OFF the lighting fixture.

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.

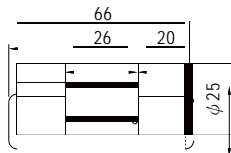
WATERPROOF CONNECTION

© Waterproof connector

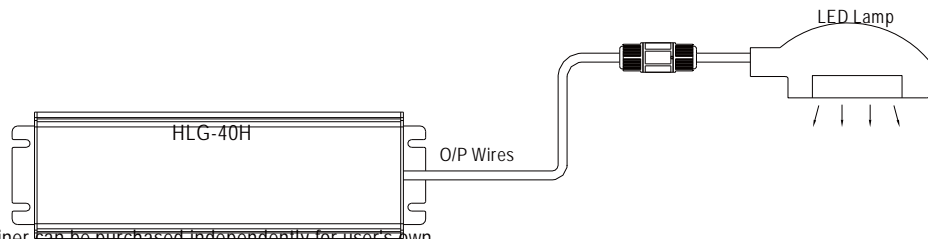
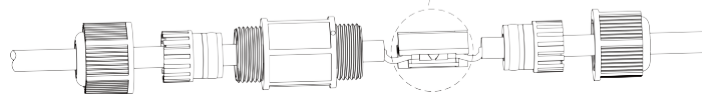
Waterproof connector can be assembled on the output cable of HLG-40H to operate in dry/wet/damp or outdoor environment.



© Cable Joiner



CJ04-1 suitable for 14AWG-16AWG
 CJ04-2 suitable for 18AWG-22AWG



※CJ04 cable joiner can be purchased independently for user's own assembly. MEAN WELL order No. : CJ04-1, CJ04-2.



40W Single Output Switching Power Supply

HLG-40H series

RS Part Number	Mean Well Part Number	RS Part Number	Mean Well Part Number
7381823	HLG-40H-12B	7382242	HLG-40H-12A
7381826	HLG-40H-15B	7382249	HLG-40H-20A
7381820	HLG-40H-20B	7382258	HLG-40H-24A
7381839	HLG-40H-24B	7382251	HLG-40H-30A
7381836	HLG-40H-36B	7382255	HLG-40H-36A
7381845	HLG-40H-42B	7382267	HLG-40H-48A
7381842	HLG-40H-54B		