

Alimentatore Led



Alimentatore 24V 40 W IP65 A-HLG

Cod. 112249



Alimentatore adatto per installazioni da interno ed esterno. Corpo in metallo Tensione e corrente regolabili mediante potenziometro.















Caratteristiche tecniche









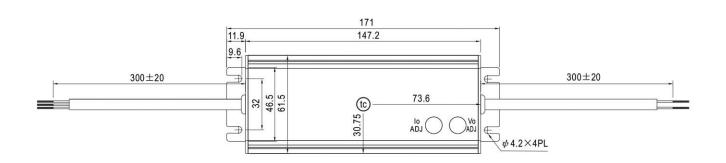






Caratteristiche geometriche





Le immagini del prodotto sono di riferimento

Tutte le indicazioni riportate non sono vincolanti e possono essere soggette a modifiche, anche senza preavviso.









Features

- · Constant Voltage + Constant Current mode output
- Metal housing with class I design
- · Built-in active PFC function
- Class 2 power unit
- IP67 / IP65 rating for indoor or outdoor installations
- Function options: output adjustable via potentiometer;
 3 in 1 dimming; Timer dimming
- Typical lifetime > 62000 hours
- 7 years warranty

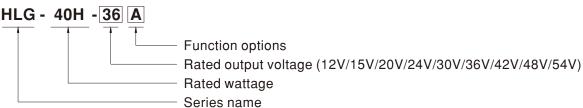
Applications

- · 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.

Description

HLG-40H series is a 40W AC/DC LED driver featuring the dual mode constant voltage and constant current output. HLG-40H operates from 90 ~ 305VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the high efficiency up to 89.5%, with the fanless design, the entire series is able to operate for -40 $^{\circ}$ C ~ +80 $^{\circ}$ C case temperature under free air convection. The design of metal housing and IP67/IP65 ingress protection level allows this series to fit both indoor and outdoor applications. HLG-40H is equipped with various function options, such as dimming methodologies, so as to provide the optimal design flexibility for LED lighting system.

■ Model Encoding



Type	IP Level	Function	Note
Blank	IP67	Io and Vo fixed	In Stock
Α	IP65	Io and Vo adjustable through built-in potentiometer	In Stock
В	IP67	3 in 1 dimming function (1~10VDC, 10V PWM signal and resistance)	In Stock
AB	IP65	Io and Vo adjustable through built-in potentiometer & 3 in 1 dimming function (1~10Vdc, 10V PWM signal and resistance)	In Stock
D	IP67	Timer dimming function, contact MEAN WELL for details(safety pending).	By request

SPECIFICATION

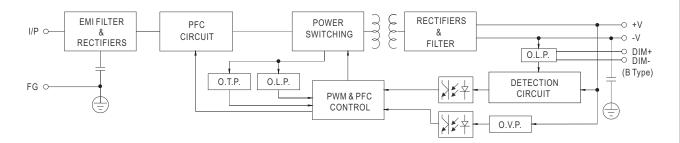
MODEL		HLG-40H-12	HLG-40H-15	HLG-40H-20	HLG-40H-24	HLG-40H-30	HLG-40H-36	HLG-40H-42	HLG-40H-48	HLG-40H-54
WODEL	DC VOLTACE						36V	42V		
	DC VOLTAGE	12V	15V	20V	24V	30V			48V	54V
ОИТРИТ	CONSTANT CURRENT REGION Note.4		9 ~ 15V	12 ~ 20V	14.4 ~ 24V	18 ~ 30V	21.6 ~ 36V	25.2 ~ 42V	28.8 ~ 48V	32.4 ~ 54V
	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 300mVp-p Adjustable for A/AB-Type only (via built-in potentiometer)								
	VOLTAGE ADJ. RANGE	-		, ,	·	T'	T	T.,	T	T
		10.8 ~ 13.5V	l	17 ~ 22V	22 ~ 27V	27 ~ 33V	33 ~ 40V	40 ~ 46V	44 ~ 53V	49 ~ 58V
	CURRENT ADJ. RANGE	Adjustable for A/AB-Type only (via built-in potentiometer) 2 ~ 3.33A								
		2~3.33A		1.2 ~ 2A	1 ~ 1.67A	0.8 ~ 1.34A				0.45 ~ 0.75
	VOLTAGE TOLERANCE Note.3		±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.6	500ms,80ms		0ms,80ms/23	0VAC					
	HOLD UP TIME (Typ.)	16ms / 115VA	C, 230VAC							
-	VOLTAGE RANGE Note.5	90 ~ 305VAC	127 ~ 431							
	TOZINOZ IUNIOZ NOKO	(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								
	TOWERTACTOR (Typ.)	(Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)								
	TOTAL HARMONIC DISTORTION	THD<20% (@ load≥60% / 115VAC,230VAC; @ load≥75% / 277VAC)								
INPUT	TOTAL HARMONIC DISTORTION	(Please refe	r to "TOTAL HA	ARMONIC DIS	STORTION (TH	HD)" section)				
	EFFICIENCY (Typ.)	86.5%	86.5%	88%	88%	88.5%	88.5%	88.5%	89.5%	89.5%
	AC CURRENT (Typ.)	0.43A / 115VA	AC 0.24A	/ 230VAC	0.23A / 277V/	AC				
	INRUSH CURRENT(Typ.)	COLD START	50A(twidth=210	μs measured a	it 50% Ipeak) at	230VAC; Per NE	EMA 410			
	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								
		95 ~ 108%								
	OVER CURRENT	Constant current limiting, recovers automatically after fault condition is removed								
	SHORT CIRCUIT				fault condition					
PROTECTION		15 ~ 21V	18 ~ 24V	23 ~ 30V	28 ~ 35V	35 ~ 43V	41 ~ 49V	48 ~ 58V	54 ~ 65V	59 ~ 68V
	OVER VOLTAGE	Shut down o/i	voltage, re-po	wor on to room						
	OVED TEMPEDATURE	Shut down o/p voltage, re-power on to recover Shut down o/p voltage, re-power on to recover								
		Shut down o/i								
	OVER TEMPERATURE		o voltage, re-po	ower on to reco	over	s TEMPERATI	JRF" section)			
	WORKING TEMP.	Tcase= -40 ~	o voltage, re-po +80°C (Please	ower on to reco	over	s TEMPERATU	JRE" section)			
	WORKING TEMP. MAX. CASE TEMP.	Tcase= -40 ~ Tcase= +80°(voltage, re-po +80°C (Please	ower on to reco	over	s TEMPERATU	JRE" section)			
ENVIRONMENT	WORKING TEMP. MAX. CASE TEMP. WORKING HUMIDITY	Tcase= -40 ~ Tcase= +80°C 20 ~ 95% RH	voltage, re-po +80°C (Please C non-condensir	ower on to reco	over	s TEMPERATU	JRE" section)			
ENVIRONMENT	WORKING TEMP. MAX. CASE TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY	Tcase= -40 ~ Tcase= +80°C 20 ~ 95% RH -40 ~ +80°C,	p voltage, re-po +80°C (Please C non-condensir 10 ~ 95% RH	ower on to reco	over	s TEMPERATU	JRE" section)			
ENVIRONMENT	WORKING TEMP. MAX. CASE TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT	Tcase= -40 ~ Tcase= +80°C 20 ~ 95% RH -40 ~ +80°C, ±0.03%/°C (p voltage, re-po +80°C (Please control of the control of the non-condensire 10 ~ 95% RH $(0 \sim 60^{\circ}\text{C})$	ower on to reco e refer to "OU"	over TPUT LOAD v		,			
ENVIRONMENT	WORKING TEMP. MAX. CASE TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY	Tcase= -40 ~ Tcase= +80°C 20 ~ 95% RH -40 ~ +80°C, ±0.03%/°C (10 ~ 500Hz, 5 UL8750(type GB19510.1,(o voltage, re-pc +80°C (Please non-condensir 10 ~ 95% RH 0 ~ 60°C) 6G 12min./1cyc "HL"), CSA C2 GB19510.14,E	ower on to recce e refer to "OU" ng sele, period for 7 22.2 No. 250.0	TPUT LOAD v 72min. each al 0-08, EN/AS/N 4,KC61347-1,	ong X, Y, Z axe IZS 61347-1,E KC61347-2-13	s N/AS/NZS 613 (except for AB	-type), IP65 oi		ed;
	WORKING TEMP. MAX. CASE TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.8	Tcase= -40 ~ Tcase= +80°C 20 ~ 95% RH -40 ~ +80°C, ±0.03%/°C (10 ~ 500Hz, 5 UL8750(type GB19510.1,0 J61347-1,J6	o voltage, re-pc +80°C (Please Concordensin 10 ~ 95% RH 0 ~ 60°C) 5G 12min./1cyc "HL"), CSA C2 GB19510.14,E 1347-2-13 (ex	ower on to recover refer to "OU" ng cle, period for 122.2 No. 250.0 AC TP TC 004 cept for B,AB	72min. each al 0-08, EN/AS/N 4,KC61347-1, and D-type);	ong X, Y, Z axe IZS 61347-1,E KC61347-2-13 design refer to	s N/AS/NZS 613 (except for AB	-type), IP65 oi		ed;
SAFETY &	WORKING TEMP. MAX. CASE TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.8	Tcase= -40 ~ Tcase= +80°C 20 ~ 95% RH -40 ~ +80°C, ±0.03%/°C (10 ~ 500Hz, § UL8750(type GB19510.1, (J61347-1, J6 I/P-O/P:3.75	o voltage, re-pc +80°C (Please non-condensir 10 ~ 95% RH 0 ~ 60°C) GG 12min./1cyc "HL"), CSA C2 GB19510.14,E 1347-2-13 (ex	ower on to recce e refer to "OU" ng cle, period for 122.2 No. 250.0 AC TP TC 004 cept for B,AB G:2KVAC 0	72min. each al 0-08 , EN/AS/N 4, KC61347-1, and D-type) ; v	ong X, Y, Z axe IZS 61347-1,E KC61347-2-13 design refer to AC	s N/AS/NZS 613 (except for AB	-type), IP65 oi		ed;
SAFETY &	WORKING TEMP. MAX. CASE TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.8 WITHSTAND VOLTAGE ISOLATION RESISTANCE	Tcase= -40 ~ Tcase= +80°C 20 ~ 95% RH -40 ~ +80°C, ±0.03%°C (10 ~ 500Hz, § UL8750(type GB19510.1,(J61347-1,J6 I/P-O/P:3.75	o voltage, re-pc +80°C (Please C non-condensir 10 ~ 95% RH 0 ~ 60°C) 5G 12min./1cyc ""HL"), CSA C2 5B19510.14,E 1347-2-13 (ex KVAC I/P-F6	over on to recorder refer to "OU" Dele, period for 122.2 No. 250.0 ACC TP TC 004 ACC	72min. each al 0-08, EN/AS/N 4,KC61347-1, and D-type); of b/P-FG:1.5KVA	ong X, Y, Z axe NZS 61347-1,E KC61347-2-13 design refer to AC 70% RH	s N/AS/NZS 613 (except for AB EN60335-1(b)	-type), IP65 or y request)	r IP67 approve	,
SAFETY &	WORKING TEMP. MAX. CASE TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.8	Tcase= -40 ~ Tcase= +80°C 20 ~ 95% RH -40 ~ +80°C, ±0.03%/°C (10 ~ 500Hz, 5 UL8750(type GB19510.1, 0 J61347-1, J6 I/P-O/P: 3.75 I/P-O/P, I/P-F Compliance to	o voltage, re-pc +80°C (Please C non-condensir 10 ~ 95% RH 0 ~ 60°C) 6G 12min./1cyc "HL"), CSA C2 GB19510.14,E 1347-2-13 (ex KVAC I/P-FC G, O/P-FG:10 D EN55015, EN D EN61000-4-2	by the period for 22.2 No. 250.0 AC TP TC 004 Cept for B,AB G:2KVAC 000M Ohms / 5061000-3-2 Cla 2,3,4,5,6,8,11;	72min. each al 0-08, EN/AS/N 4,KC61347-1, and D-type); i/P-FG:1.5KVA 00VDC / 25°C/ ass C (@ load≧ EN61547, EN8	ong X, Y, Z axe IZS 61347-1,E KC61347-2-13 design refer to AC 70% RH 60%); EN6100	s N/AS/NZS 613 (except for AB EN60335-1(by	-type), IP65 or y request)	r IP67 approve	,
SAFETY &	WORKING TEMP. MAX. CASE TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.8 WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION Note.8	Tcase= -40 $^{\circ}$ Tcase= +80 $^{\circ}$ (20 $^{\circ}$ 95% RH -40 $^{\circ}$ +80 $^{\circ}$ C, \pm 0.03%/ $^{\circ}$ C (10 $^{\circ}$ 500Hz, § UL8750(type GB19510.1, J61347-1, J6 I/P-O/P:3.75 I/P-O/P, I/P-F Compliance to Compliance to light industry	o voltage, re-pc +80°C (Please non-condensir 10 ~ 95% RH 0 ~ 60°C) 6G 12min./1cyc "HL"), CSA C2 GB19510.14,E 1347-2-13 (ex KVAC I/P-FC FG, O/P-FG:10 0 EN55015, ENI 0 EN61000-4-2 level (surge im	over on to recce e refer to "OU" 19 19 10 10 11 12 12 13 14 15 16 16 17 17 18 18 18 18 18 18 18 18	72min. each al 0-08, EN/AS/N 4,KC61347-1, and D-type); //P-FG:1.5KVP 00VDC / 25°C / ass C (@ load ≥ EN61547, EN6 arth 4KV, Line-	ong X, Y, Z axe NZS 61347-1,E KC61347-2-13 design refer to AC 70% RH 60%); EN6100 55024, Line 2KV), EAC	s N/AS/NZS 613 (except for AB EN60335-1(b)	-type), IP65 or y request) 3 and GB17625	r IP67 approve	,
SAFETY & EMC	WORKING TEMP. MAX. CASE TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.8 WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION Note.8 EMC IMMUNITY MTBF	Tcase= -40 $^{\circ}$ Tcase= +80 $^{\circ}$ C 20 $^{\circ}$ 95% RH -40 $^{\circ}$ +80 $^{\circ}$ C, \pm 0.03%/ $^{\circ}$ C (10 $^{\circ}$ 500Hz, $^{\circ}$ 5 UL8750(type GB19510.1, J61347-1,J6 I/P-O/P:3.75 I/P-O/P, I/P-F Compliance to Compliance to Light industry 1131.9K hrs n	o voltage, re-pc +80°C (Please	over on to recce e refer to "OU" 19 19 10 10 11 12 12 13 14 15 16 16 17 17 18 18 18 18 18 18 18 18	72min. each al 0-08, EN/AS/N 4,KC61347-1, and D-type); i/P-FG:1.5KVA 00VDC / 25°C/ ass C (@ load≧ EN61547, EN8	ong X, Y, Z axe NZS 61347-1,E KC61347-2-13 design refer to AC 70% RH 60%); EN6100 55024, Line 2KV), EAC	s N/AS/NZS 613 (except for AB EN60335-1(by	-type), IP65 or y request) 3 and GB17625	r IP67 approve	,
SAFETY & EMC	WORKING TEMP. MAX. CASE TEMP. WORKING HUMIDITY STORAGE TEMP., HUMIDITY TEMP. COEFFICIENT VIBRATION SAFETY STANDARDS Note.8 WITHSTAND VOLTAGE ISOLATION RESISTANCE EMC EMISSION Note.8	Tcase= -40 $^{\circ}$ Tcase= +80 $^{\circ}$ C 20 $^{\circ}$ 95% RH -40 $^{\circ}$ +80 $^{\circ}$ C, \pm 0.03%/ $^{\circ}$ C (10 $^{\circ}$ 500Hz, $^{\circ}$ 5 UL8750(type GB19510.1, J61347-1,J6 I/P-O/P:3.75 I/P-O/P, I/P-F Compliance to Compliance to Iight industry 1131.9K hrs in 171°61.5°36.	o voltage, re-pc +80°C (Please non-condensir 10 ~ 95% RH 0 ~ 60°C) 6G 12min./1cyc "HL"), CSA C2 GB19510.14,E 1347-2-13 (ex KVAC I/P-FC FG, O/P-FG:10 0 EN55015, ENI 0 EN61000-4-2 level (surge im	cle, period for 22.2 No. 250.0 CAC TP TC 004 Cept for B,AB G:2KVAC 0 00M Ohms / 50 61000-3-2 Cla 2,3,4,5,6,8,11; munity Line-Ea	72min. each al 0-08, EN/AS/N 4,KC61347-1, and D-type); //P-FG:1.5KVP 00VDC / 25°C / ass C (@ load ≥ EN61547, EN6 arth 4KV, Line-	ong X, Y, Z axe NZS 61347-1,E KC61347-2-13 design refer to AC 70% RH 60%); EN6100 55024, Line 2KV), EAC	s N/AS/NZS 613 (except for AB EN60335-1(b)	-type), IP65 or y request) 3 and GB17625	r IP67 approve	,

- 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 (© point (or TMP, per DLC), is about 75°C or less.
- 10. Please refer to the warranty statement on MEAN WELL's website at http://www.meanwell.com.
- 11. 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).
- 12. For any application note and IP water proof function installation caution, please refer our user manual before using. https://www.meanwell.com/Upload/PDF/LED_EN.pdf
- X Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx



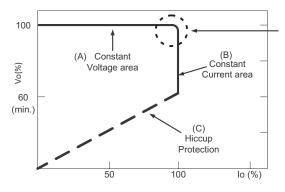
■ BLOCK DIAGRAM

Fosc: 100KHz



■ DRIVING METHODS OF LED MODULE

X 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.



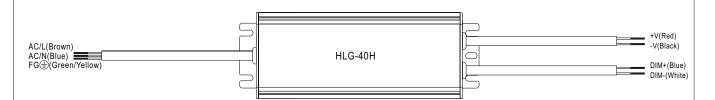
Typical output current normalized by rated current (%)

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

Should there be any compatibility issues, please contact MEAN WELL.

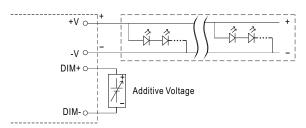


■ DIMMING OPERATION



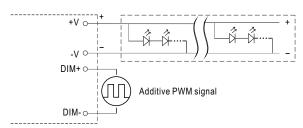
imes 3 in 1 dimming function (for B/AB-Type)

- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-:
 - 1 ~ 10VDC, or 10V PWM signal or resistance.
- Direct connecting to LEDs is suggested. It is not suitable to be used with additional drivers.
- Dimming source current from power supply: $100\mu A$ (typ.)
- O Applying additive 1 ~ 10VDC



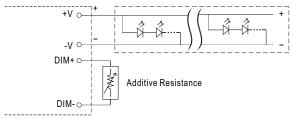
"DO NOT connect "DIM- to -V"

O Applying additive 10V PWM signal (frequency range 100Hz ~ 3KHz):

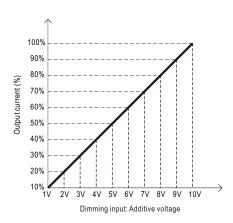


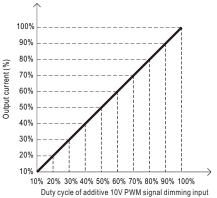
"DO NOT connect "DIM- to -V"

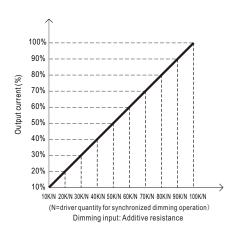
Applying additive resistance:



"DO NOT connect "DIM- to -V"

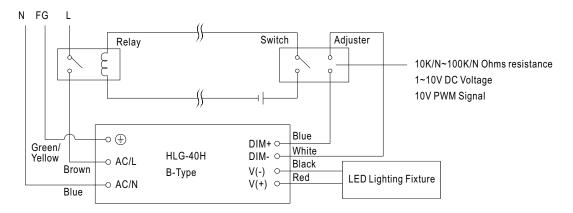






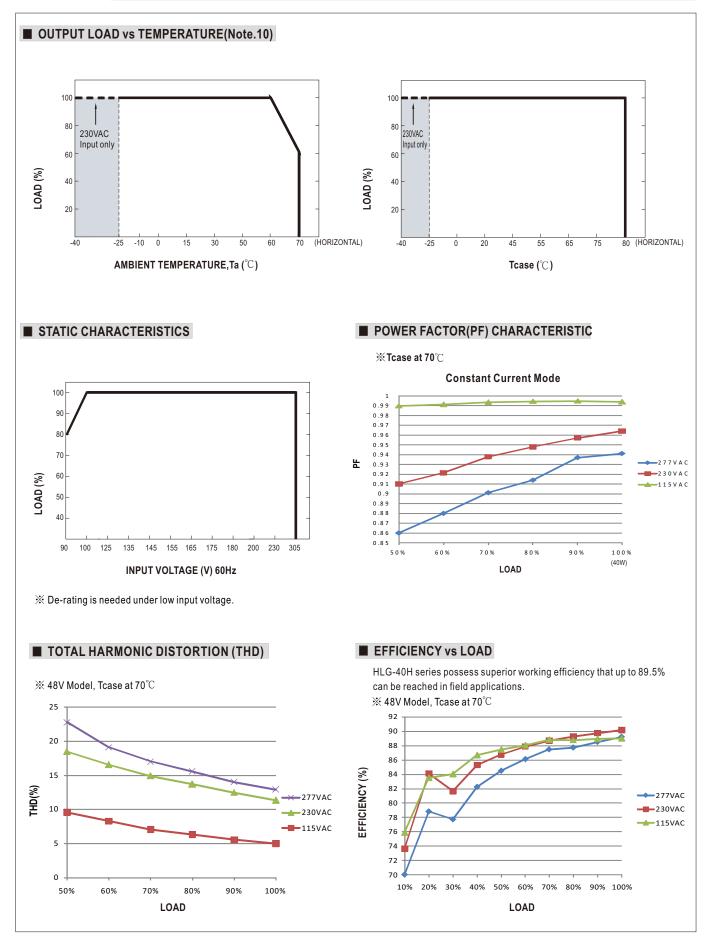


Note: In the case of turning the lighting fixture down to 0% brightness, please refer to the configuration as follow, or please contact MEAN WELL for other options.



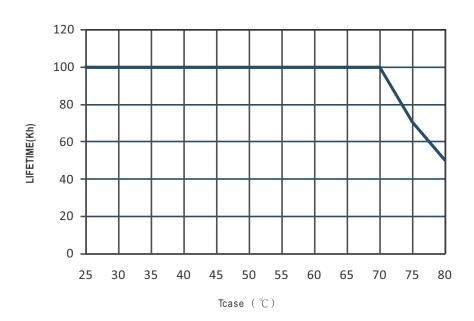
Using a switch and relay can turn ON/OFF the lighting fixture.



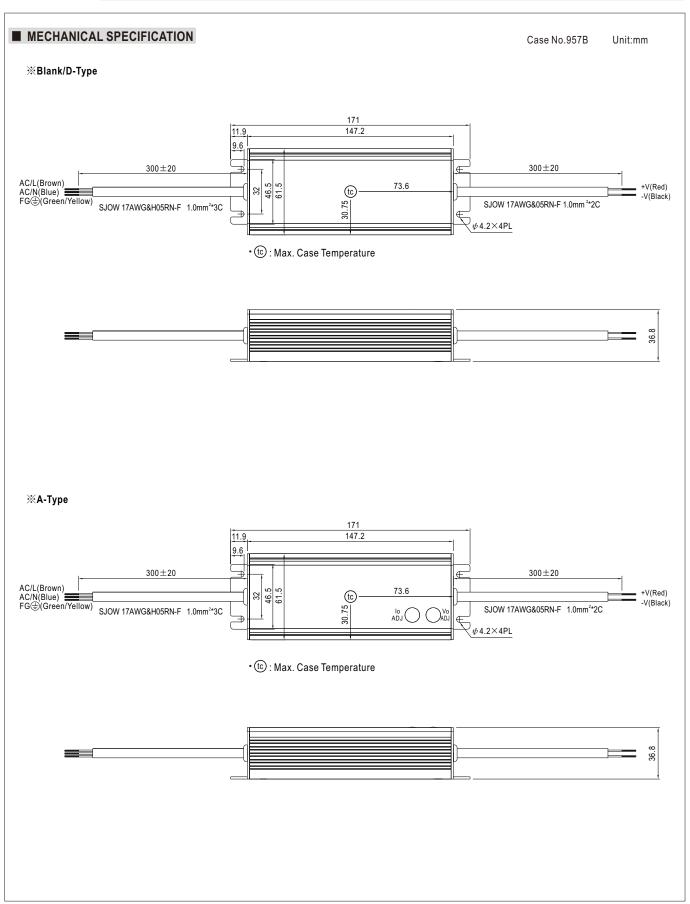




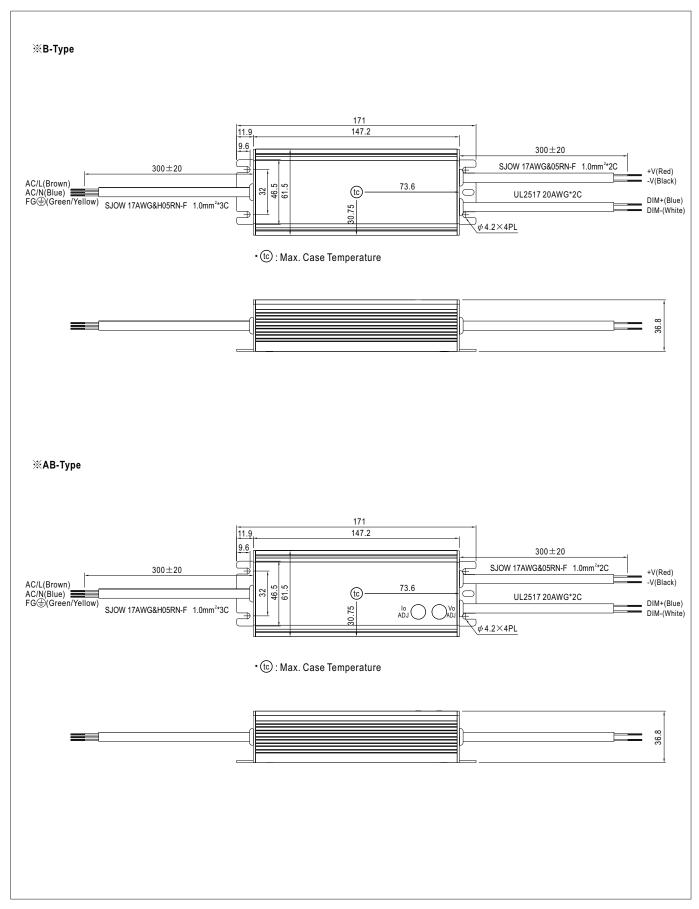
■ LIFE TIME









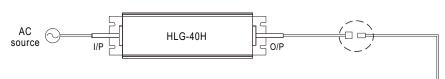




■ WATERPROOF CONNECTION

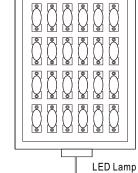
Waterproof connector

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

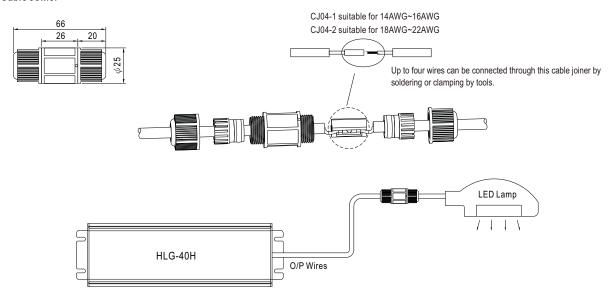


Size	Pin Configuration (Female)			
M12	000	000		
IVITZ	4-PIN	5-PIN		
	5A/PIN	5A/PIN		
Order No.	M12-04	M12-05		
Suitable Current	10A max.	10A max.		

Size	Pin Configuration (Female)
M15	00
IVITS	2-PIN
	12A/PIN
Order No.	M15-02
Suitable Current	12A max.



※ Cable Joiner



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

■ INSTALLATION MANUAL

Please refer to: http://www.meanwell.com/manual.html