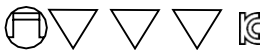




144~200W Constant Voltage + Constant Current LED Driver **ELG-200 series**

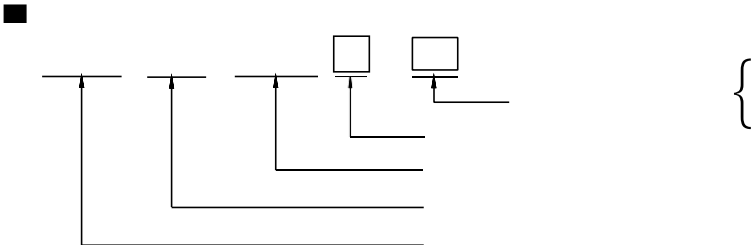
Buy website address:<https://reissopto-led.com/products/meanwell-elg-200-24-elg-200-36-elg-200-48-led-lighting-power-supply>



IS 15085(Part 2/Sec13)  
R-41027766  
Note.13



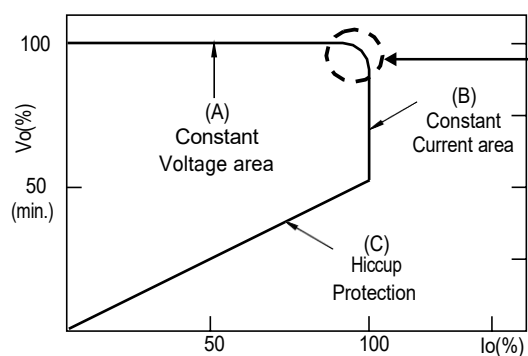
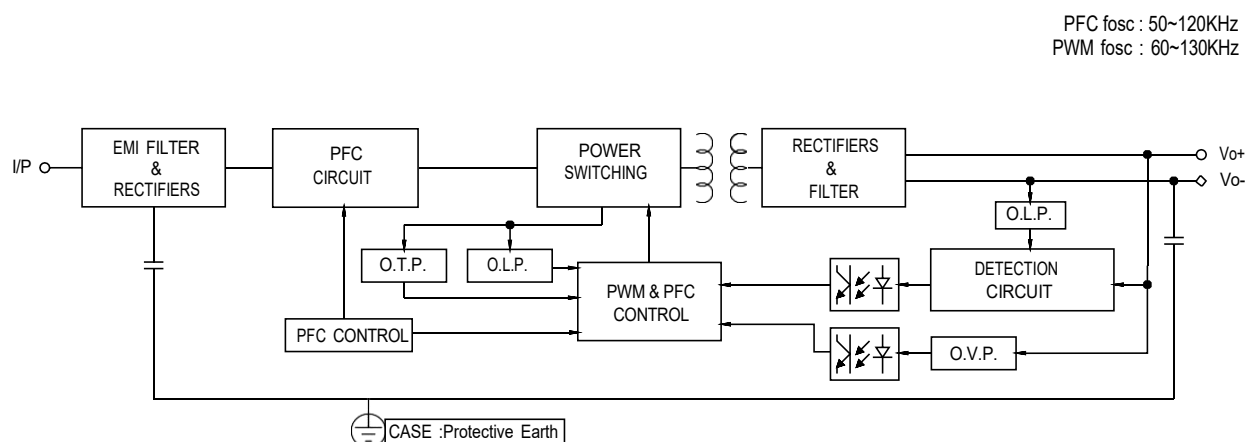
~  
°C      °C



A			
Dx			

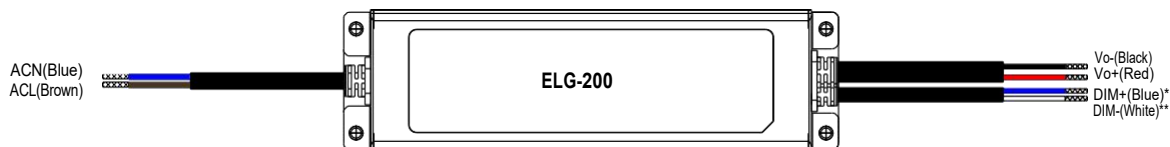
**SPECIFICATION**

MODEL		ELG-200-12 □	ELG-200-24 □	ELG-200-36 □	ELG-200-42 □	ELG-200-48 □	ELG-200-54 □
OUTPUT	DC VOLTAGE	12V	24V	36V	42V	48V	54V
	CONSTANT CURRENT REGION <small>Note.2</small>	6 ~ 12V	12 ~ 24V	18 ~ 36V	21 ~ 42V	24 ~ 48V	27 ~ 54V
	RATED CURRENT	16A	8.4A	5.55A	4.76A	4.16A	3.72A
	RATED POWER	200VAC ~ 305VAC					
		192W	201.6W	199.8W	199.9W	199.68W	200.88W
		100VAC ~ 180VAC					
		144W	150W	149.76W	149.94W	149.76W	150.12W
	RIPPLE & NOISE (max.) <small>Note.3</small>	150mVp-p	200mVp-p	250mVp-p	250mVp-p	250mVp-p	350mVp-p
	VOLTAGE ADJ. RANGE	Adjustable for A/AB-Type only (via built-in potentiometer)					
		11.2 ~ 12.8V	22.4 ~ 25.6V	33.5 ~ 38.5V	39 ~ 45V	44.8 ~ 51.2V	50 ~ 57V
	CURRENT ADJ. RANGE	Adjustable for A/AB-Type only (via built-in potentiometer)					
		8 ~ 16A	4.2 ~ 8.4A	2.78 ~ 5.55A	2.38 ~ 4.76A	2.08 ~ 4.16A	1.86 ~ 3.72A
	VOLTAGE TOLERANCE <small>Note.4</small>	±3.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±2.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
INPUT	SETUP, RISE TIME <small>Note.6</small>	500ms, 100ms/230VAC, 1000ms, 100ms/115VAC					
	HOLD UP TIME (Typ.)	10ms/ 230VAC 10ms/ 115VAC					
	VOLTAGE RANGE <small>Note.5</small>	100 ~ 305VAC 142 ~ 431VDC (Please refer to "STATIC CHARACTERISTIC" section)					
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR	PF ≥ 0.97/115VAC, PF ≥ 0.95/230VAC, PF ≥ 0.92/277VAC@full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)					
	TOTAL HARMONIC DISTORTION	THD< 20%(@load%50%/115VAC, 230VAC; @load%75%/277VAC) (Please refer to "TOTAL HARMONIC DISTORTION(THD)" section)					
	EFFICIENCY (Typ.)	90%	92%	92%	92.5%	93%	93%
	AC CURRENT	1.8A / 115VAC 1.2A / 230VAC 1.0A/277VAC					
	INRUSH CURRENT(Typ.)	COLD START 60A(twidth=510μs measured at 50% Ipeak) at 230VAC; Per NEMA 410					
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	4 units (circuit breaker of type B) / 6 units (circuit breaker of type C) at 230VAC					
	LEAKAGE CURRENT	<0.75mA / 277VAC					
	NO LOAD / STANDBY POWER CONSUMPTION <small>Note.7</small>	No load power consumption <0.5W for Blank / A / Dx / D-Type Standby power consumption <0.5W for B / AB / DA-Type					
PROTECTION	OVER CURRENT	95 ~ 108%					
		Constant current limiting, recovers automatically after fault condition is removed					
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	13.5 ~ 18V	27 ~ 34V	42 ~ 49V	47 ~ 54V	54 ~ 63V	60 ~ 67V
		Shut down output voltage, re-power on to recover					
ENVIRONMENT	OVER TEMPERATURE	Shut down output voltage, re-power on to recover					
	WORKING TEMP.	Tcase=-40 ~ +90℃ (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)					
	MAX. CASE TEMP.	Tcase=+90℃					
	WORKING HUMIDITY	20 ~ 95% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +90℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)					
SAFETY & EMC	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes					
	SAFETY STANDARDS	UL8750(type"HL"), CSA C22.2 No. 250.13-12;IEC/EN/AS/NZS 61347-1, IEC/EN/AS/NZS 61347-2-13 independent, EN62384; EAC TP TC 004;BIS IS15885(for 12/12A/12B/12DA/24/24A/24B/24DA/36/36A/36B/42A/42B/48/48A/48B/54A/54B only); GB19510.14,GB19510.1; IP65 or IP67;KC61347-1,KC61347-2-13 approved					
	DALI STANDARDS	Compliance to IEC62386-101,102,(207 by request) for DA Type only					
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:2.0KVAC O/P-FG:1.5KVAC					
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH					
	EMC EMISSION	Compliance to EN55015,EN61000-3-2 Class C (@load ≥ 50%) ; EN61000-3-3;GB17625.1,GB17743;EAC TP TC 020; KC KN15,KN61547					
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, light industry level (surge immunity Line-Earth 6KV, Line-Line 4KV);EAC TP TC 020; KC KN15,KN61547					
	MTBF	826.7K hrs min. Telcordia SR-332 (Bellcore) ; 200.8Khrs min. MIL-HDBK-217F (25℃)					
	DIMENSION	244*71*37.5mm (L*W*H)					
NOTE	PACKING	1.22Kg; 12pcs / 15.2Kg / 0.72CUFT					
		<div> <div>℃</div> <div>℃</div> <div>℃</div> <div>℃</div> <div>℃</div> <div>℃</div> </div>					



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

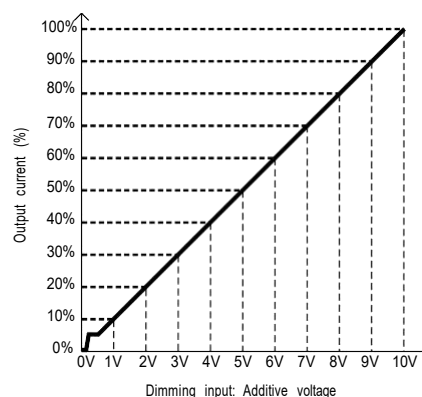
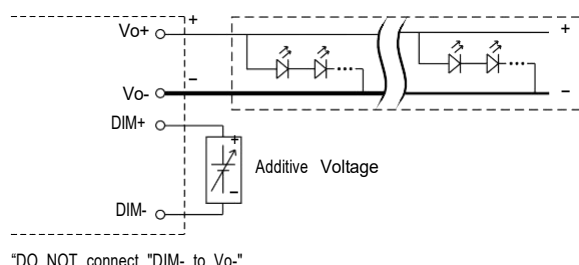
## DIMMING OPERATION



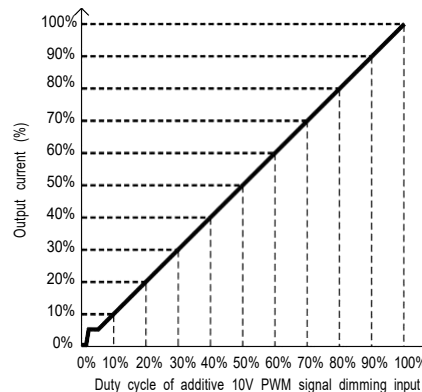
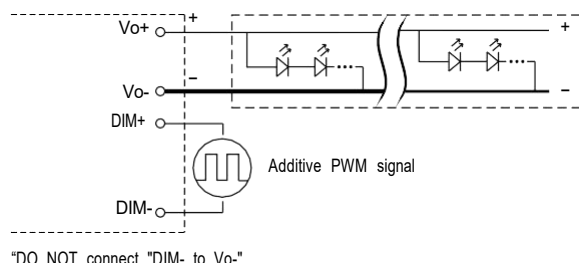
### ※ 3 in 1 dimming function (for B/AB-Type)

- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-:  
0 ~ 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.)

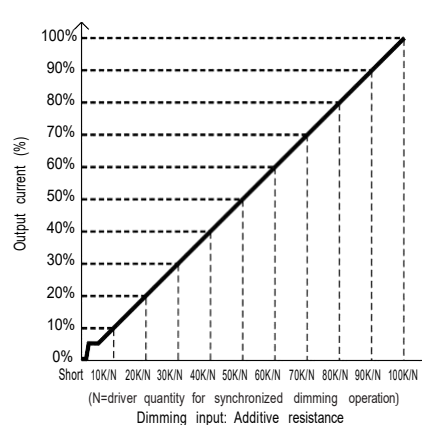
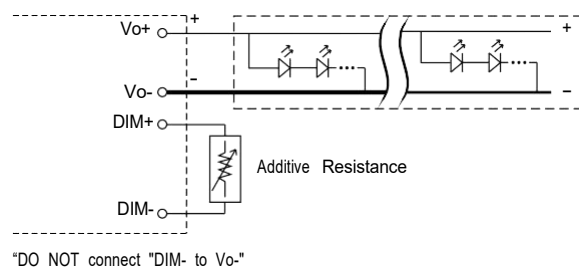
#### ◎ Applying additive 0 ~ 10VDC



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



#### ◎ Applying additive resistance:



Note : 1. Min. dimming level is about 8% and the output current is not defined when  $0\% < I_{out} < 8\%$ .

2. The output current could drop down to 0% when dimming input is about 0k $\Omega$  or 0Vdc, or 10V PWM signal with 0% duty cycle.

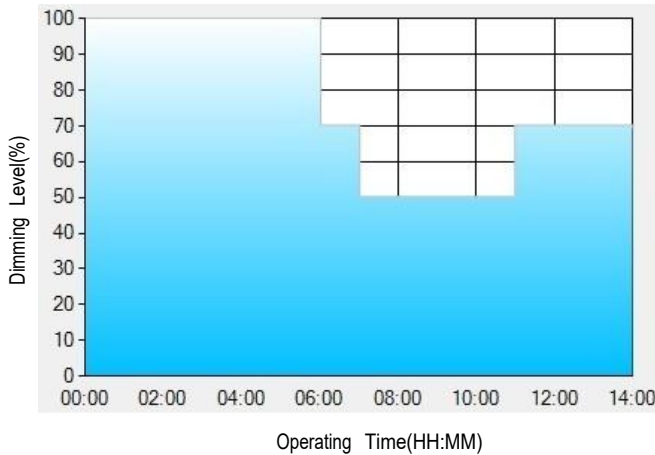
## ※ DALI Interface (primary side; for DA-Type)

- Apply DALI signal between DA+ and DA-.
- DALI protocol comprises 16 groups and 64 addresses.
- First step is fixed at 8% of output.

## ※ Smart timer dimming function (for Dxx-Type by User definition)

MEAN WELL Smart timer dimming primarily provides the adaptive proportion dimming profile for the output constant current level to perform up to 14 consecutive hours. 3 dimming profiles hereunder are defined accounting for the most frequently seen applications. If other options may be needed, please contact MEAN WELL for details.

Ex : ● D01-Type: the profile recommended for residential lighting



Set up for D01-Type in Smart timer dimming software program:

	T1	T2	T3	T4
TIME**	06:00	07:00	11:00	---
LEVEL**	100%	70%	50%	70%

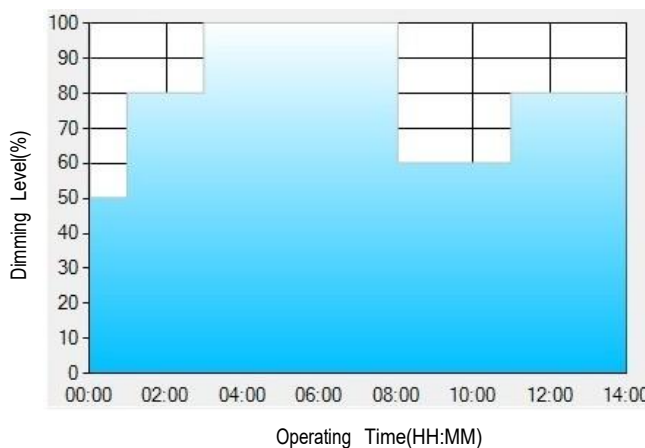
\*\* : TIME matches Operating Time in the diagram whereas LEVEL matches Dimming Level.

Example: If a residential lighting application adopts D01-Type, when turning on the power supply at 6:00pm, for instance:

- [1] The power supply will switch to the constant current level at 100% starting from 6:00pm.
- [2] The power supply will switch to the constant current level at 70% in turn, starting from 0:00am, which is 06:00 after the power supply turns on.
- [3] The power supply will switch to the constant current level at 50% in turn, starting from 1:00am, which is 07:00 after the power supply turns on.
- [4] The power supply will switch to the constant current level at 70% in turn, starting from 5:00am, which is 11:00 after the power supply turns on.

The constant current level remains till 8:00am, which is 14:00 after the power supply turns on.

Ex : ● D02-Type: the profile recommended for street lighting



Set up for D02-Type in Smart timer dimming software program:

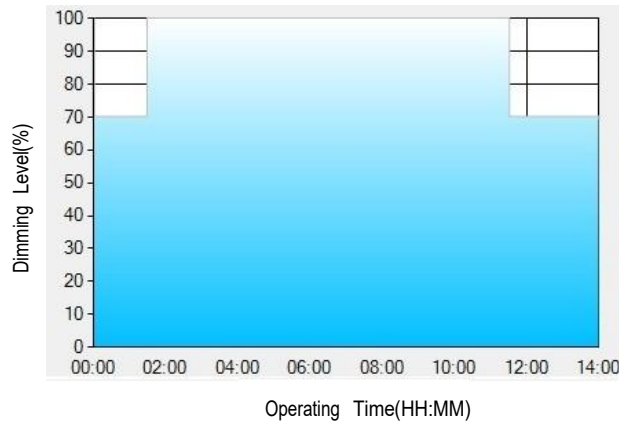
	T1	T2	T3	T4	T5
TIME**	01:00	03:00	8:00	11:00	---
LEVEL**	50%	80%	100%	60%	80%

\*\* : TIME matches Operating Time in the diagram whereas LEVEL matches Dimming Level.

Example: If a street lighting application adopts D02-Type, when turning on the power supply at 5:00pm, for instance:

- [1] The power supply will switch to the constant current level at 50% starting from 5:00pm.
- [2] The power supply will switch to the constant current level at 80% in turn, starting from 6:00pm, which is 01:00 after the power supply turns on.
- [3] The power supply will switch to the constant current level at 100% in turn, starting from 8:00pm, which is 03:00 after the power supply turns on.
- [4] The power supply will switch to the constant current level at 60% in turn, starting from 1:00am, which is 08:00 after the power supply turns on.
- [5] The power supply will switch to the constant current level at 80% in turn, starting from 4:00am, which is 11:00 after the power supply turns on. The constant current level remains till 6:30am, which is 14:00 after the power supply turns on.

Ex: ○ D03-Type: the profile recommended for tunnel lighting



Set up for D03-Type in Smart timer dimming software program:

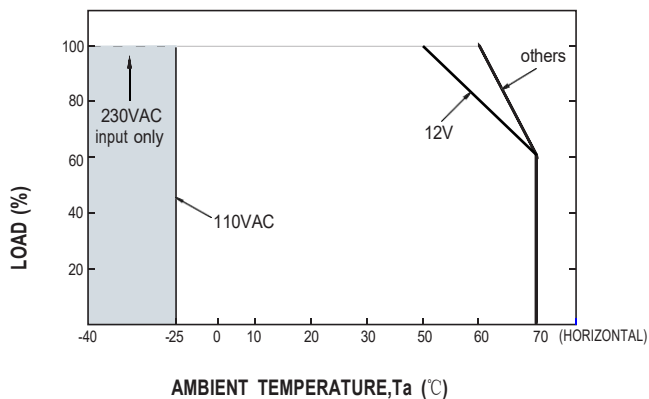
	T1	T2	T3
TIME**	01:30	11:00	---
LEVEL**	70%	100%	70%

\*\* : TIME matches Operating Time in the diagram whereas LEVEL matches Dimming Level.

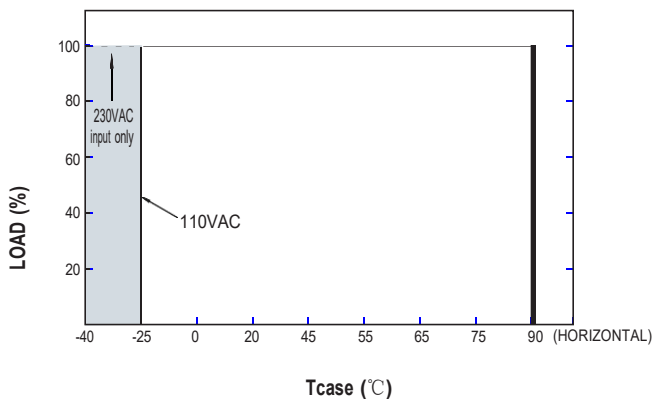
Example: If a tunnel lighting application adopts D03-Type, when turning on the power supply at 4:30pm, for instance:

- [1] The power supply will switch to the constant current level at 70% starting from 4:30pm.
  - [2] The power supply will switch to the constant current level at 100% in turn, starting from 6:00pm, which is 01:30 after the power supply turns on.
  - [3] The power supply will switch to the constant current level at 70% in turn, starting from 5:00am, which is 11:00 after the power supply turns on.
- The constant current level remains till 6:30am, which is 14:00 after the power supply turns on.

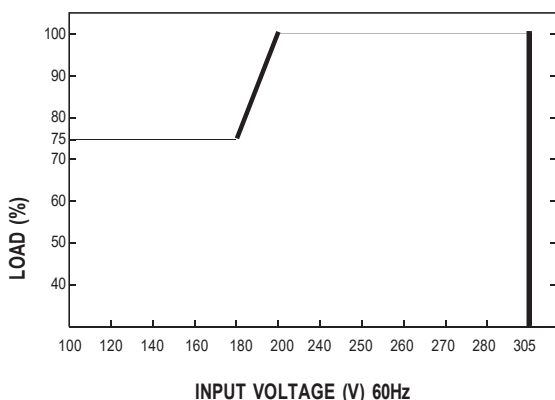
### ■ OUTPUT LOAD vs TEMPERATURE(Note.10)



- If ELG-200 operates in Constant Current mode with the rated current, the maximum workable  $T_a$  is 50°C for 12V-model whereas 60°C for other models.



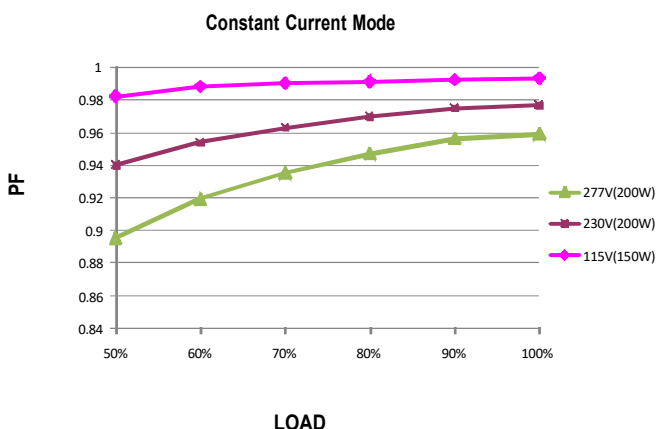
### ■ STATIC CHARACTERISTIC



※De-rating is needed under low input voltage.

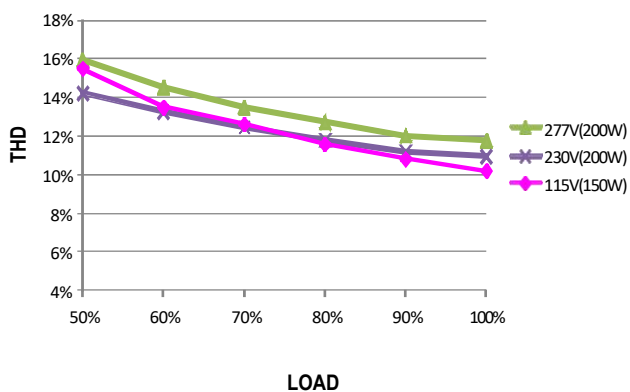
### ■ POWER FACTOR (PF) CHARACTERISTIC

※  $T_{case}$  at 80°C



### ■ TOTAL HARMONIC DISTORTION (THD)

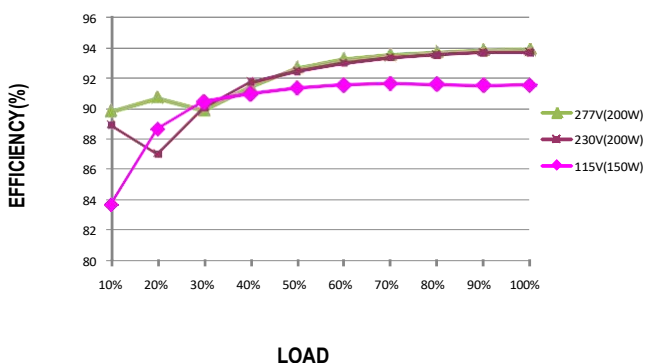
※ 48V Model,  $T_{case}$  at 80°C



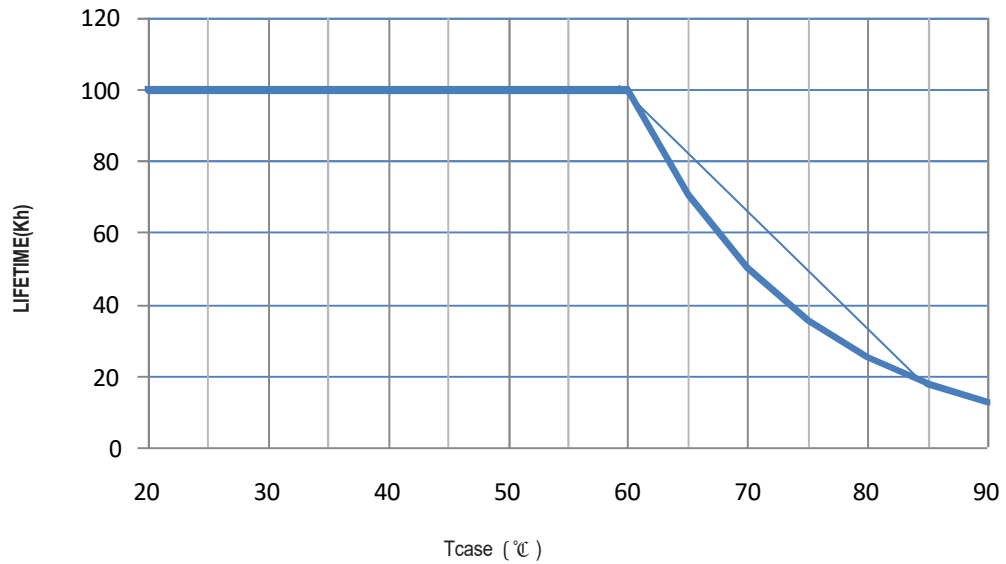
### ■ EFFICIENCY vs LOAD

ELG-200 series possess superior working efficiency that up to 93% can be reached in field applications.

※ 48V Model,  $T_{case}$  at 80°C



■ LIFE TIME

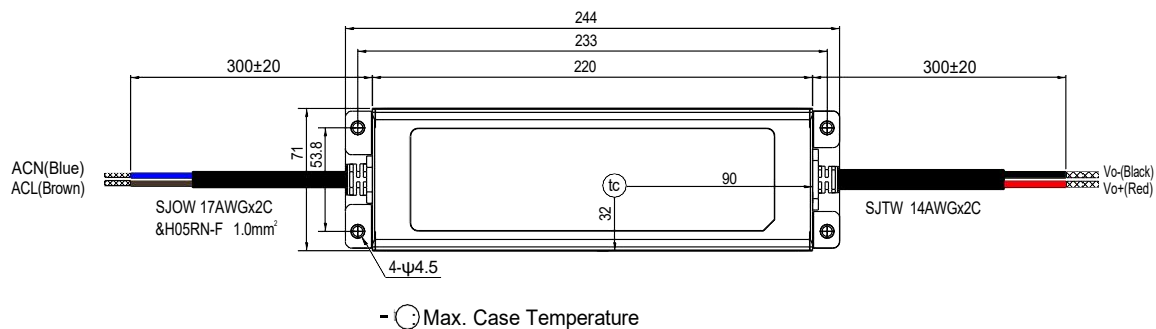




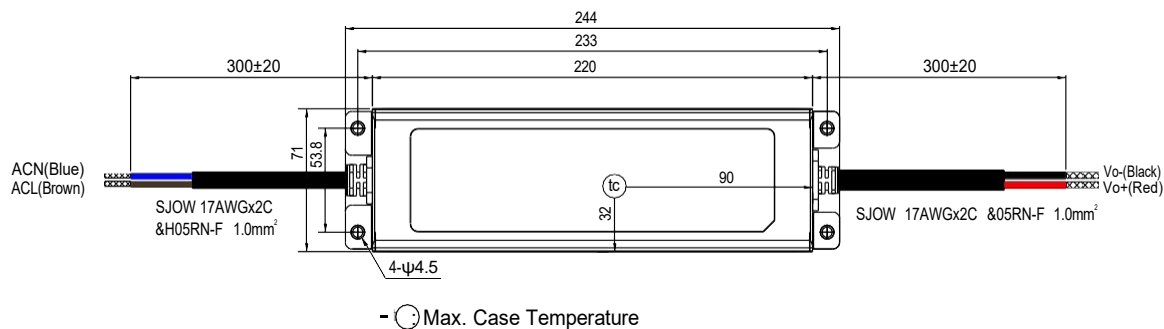
## MECHANICAL SPECIFICATION

※ Blank-Type (for 12V model)

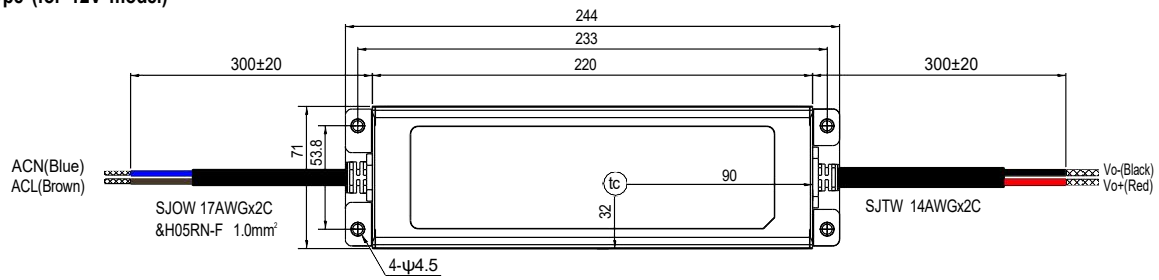
CASE NO.: 262A Unit:mm



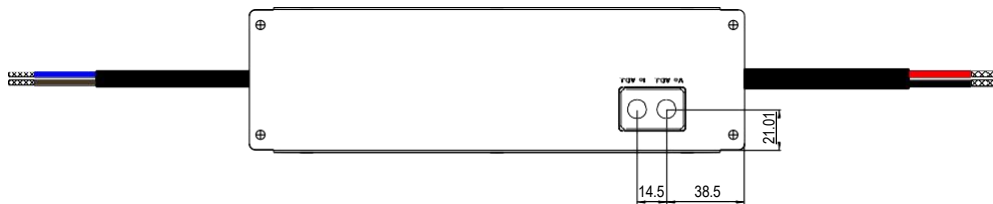
※ Blank-Type (for other models)



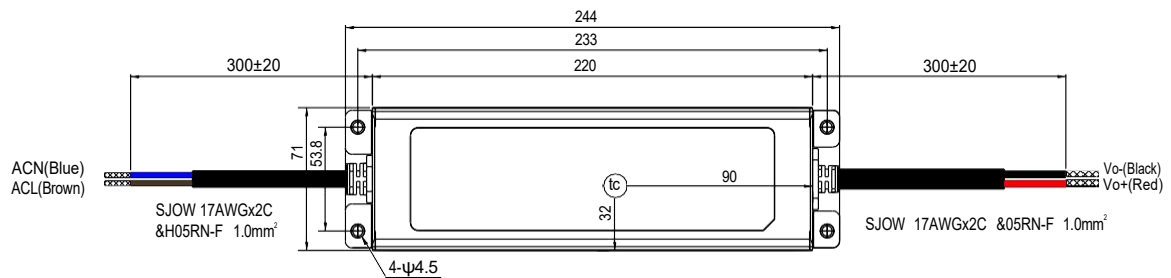
※ A-Type (for 12V model)



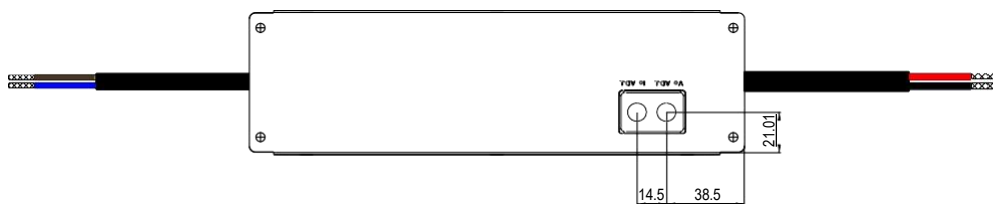
- ○ Max. Case Temperature



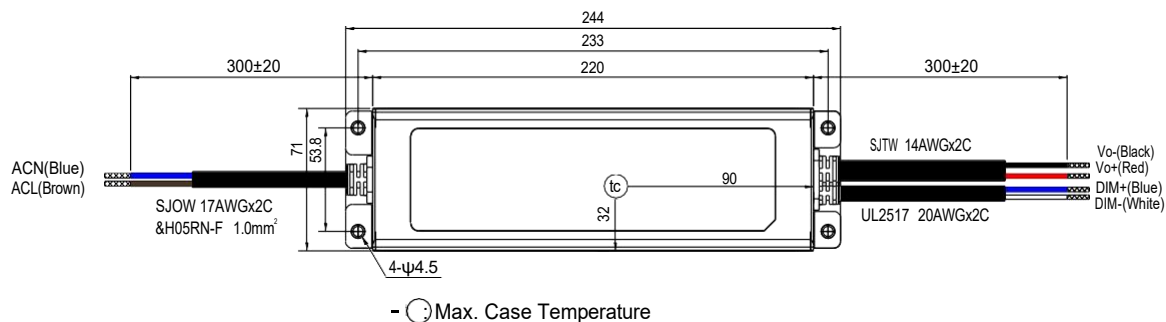
※ A-Type (for other models)



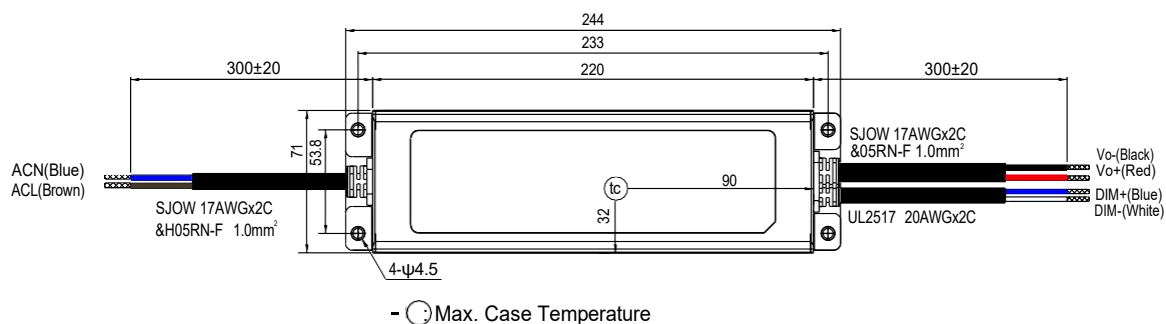
- ○ Max. Case Temperature



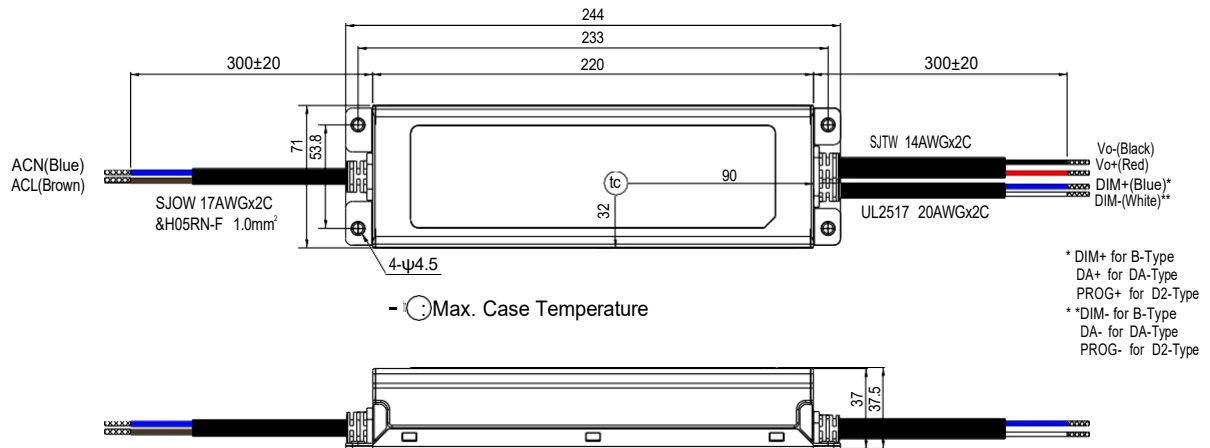
※ AB-Type (for 12V model)



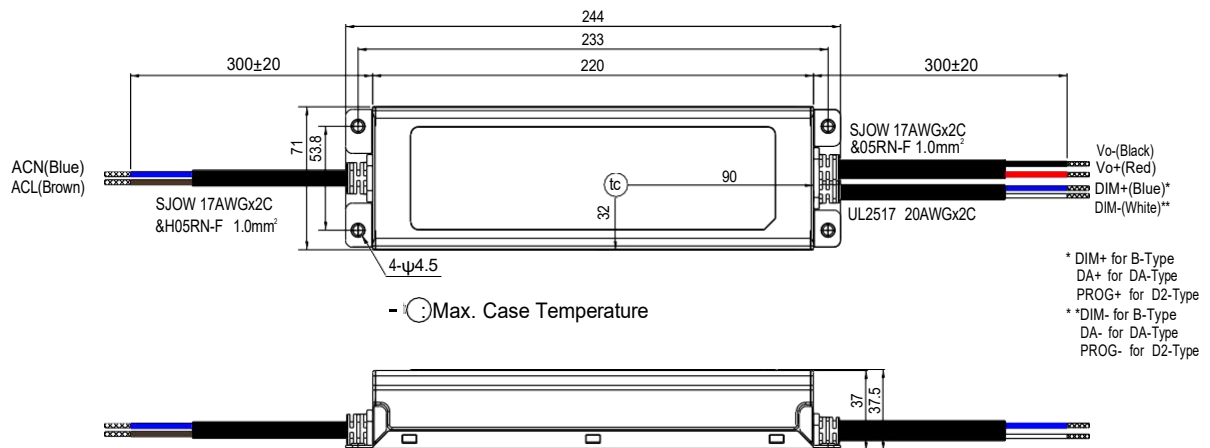
※ AB-Type (for other models)



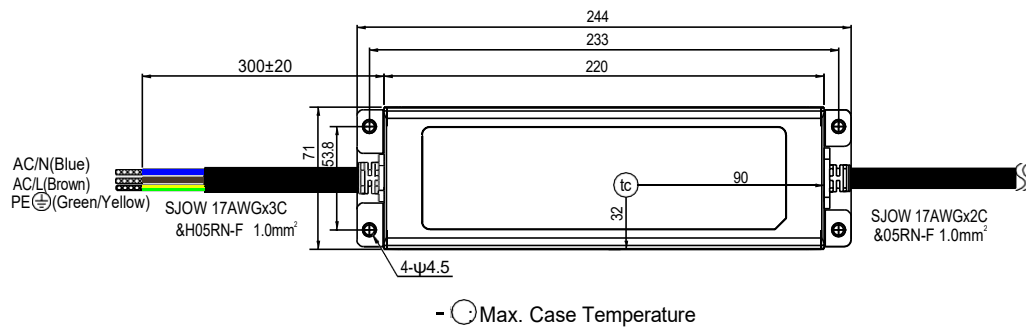
※ B/DA/D2-Type (for 12V model)



※ B/DA/D2-Type (for other models)



※ 3Y Model (3-wire input)



- ◎ Note1: Please connect the case to PE for the complete EMC deliverance and safety use.
- ◎ Note2: Please contact MEAN WELL for input wiring option with PE.

## ■ INSTALLATION MANUAL

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