

Model: GP-LS60P Series

■ Features

- Universal AC Input 90~305VAC.
- Built-in Active PFC Function.
- Protections: OVP / OCP / SCP / OTP.
- No Load Consumption <0.5W.
- Set up Time: < 0.5 Sec at 230VAC.
- Constant Current Mode.
- IP67 Rated.
- Compliant with ErP EU_1194_2012, Stage 3 Directives for Energy Related Products.

■ Approvals

CE FC IP67 SELV EQUIVALENT



■ Size

199.3 x 49.5 x 40.5 mm



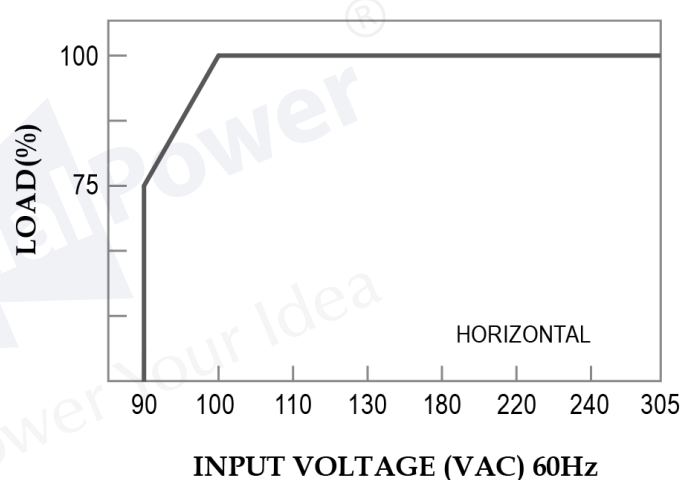
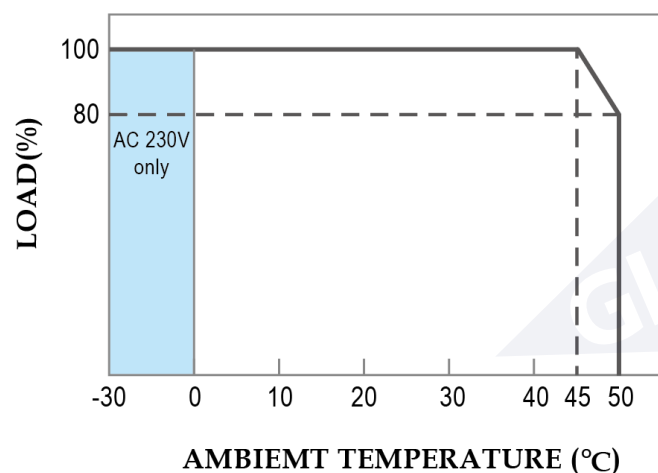
■ Specifications

A : 3-in-1 Dimming.

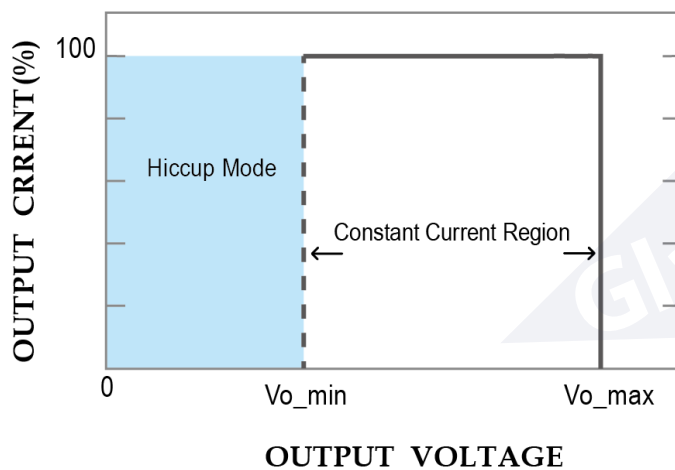
Model No.		GP-LS60P-12C(A)	GP-LS60P-24C(A)	GP-LS60P-36C(A)	GP-LS60P-42C(A)	GP-LS60P-48C(A)	GP-LS60P-57C(A)
Output	DC Voltage	12V	24V	36V	42V	48V	57V
	Constant Current Region Note.3	9 ~ 12V	16 ~ 24V	24 ~ 36V	33 ~ 42V	33 ~ 48V	40 ~ 57V
	Rated Current	4.2A	2.5A	1.65A	1.4A	1.2A	1.05A
	Current Tolerance	± 5%					
	Rated Power	50.4W	60W	59.4W	58.8W	57.6W	59.8W
	Ripple&Noise(Max.) Note.2	200mV	200mV	250mV	250mV	250mV	250mV
	Efficiency at 240Vac(Typ.)	86%	86%	87%	87%	88%	88%
	Voltage Tolerance Note.4	-1% ~ +5%					
	DC Dimming (Optional)	DC 0-10V or Electronic Potentiometer 0-10V					
	PWM Dimming (Optional)	Puls: Hi=10V Low=0V,Duty: 0%-100%,Fsw:0.5-3KHZ					
	Resistance Dimming (Optional)	0K-100KΩ					
	Set up time (Max.)	< 0.5 Sec / 230VAC / full load					
	No Load Consumption (Max.)	< 0.5W at 230VAC					
Input	Voltage Range	90 ~ 305VAC					
	Rated Voltage	100 ~ 240VAC/ 277VAC(for North American Only)					
	Frequency Range	47 ~ 63 Hz					
	AC Current (Max.)	0.8A at 100 ~ 240VAC/ 0.4A at 277VAC for North American Only					
	Power Factor	≥ 0.98 at 120VAC / ≥ 0.94 at 240VAC / ≥ 0.92 at 277VAC, at full load					
	Inrush Current (Max.)	COLD START 70A at 240VAC					
	Leakage Current	< 0.5mA / 240VAC					

Protection	Short Circuit	Type: Hiccup mode & recovers after fault condition disappeared.					
	Over Current	95 ~ 105% rated current. Type: Auto-recovery after fault condition disappeared.					
	Over Voltage	13.2 ~ 15.6V	26.4 ~ 31.2V	39.6 ~ 46.8V	46.2 ~ 54.6V	52.8 ~ 62.4V	62.7 ~ 70V
		Type: Latch mode (Re-power on to recover).					
	Over Temperature	RT2: 105 ± 10°C					
		Type: Latch mode (Re-power on to recover).					
Environment	Operation Temp. Note.5	-30°C ~ 50°C, refer derating curve.					
	Operation Humidity	20% ~ 90% RH non-condensing.					
	Storage Temp.	-40 ~ + 60°C					
	Storage Humidity	10% ~ 90% RH					
	Vibration	10~500 Hz, 2G 10 min./1 cycle, period for 60 min. each along X, Y, Z axes.					
Safety & EMC	Safety Standards	UL8750, EN61347-1, EN61347-2-13, IP67 Approved.					
	Withstand Voltage	I/P-O/P: 3750VAC					
	Isolation Resistance	I/P-O/P :100M ohms / 500VDC at 25°C					
	EMI Conduction & Radiation	Compliance to EN55015,FCC Part 15					
	Harmonic Current	Compliance to EN61000-3-2 Class C, EN61000-3-3					
	EMS Immunity	Compliance to EN61000-4-2, 3, 4, 5, 6,11; EN61547					
Others	MTBF	200K hours min. MIL-HDBK-217F(25°C)					
	Dimension(L*W*H)	199.3 x 49.5 x 40.5mm; 762g/pcs					
Note	1. All specifications not specially mentioned are measured at 240VAC and 25°C ambient temperature. 2. Ripple & Noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with 0.1uf & 47uf parallel capacitor. 3. Constant current operation region is suitable for LED related applications, but please reconfirm special electrical requirements for some specific system design. 4. Voltage Tolerance: includes line regulation, load regulation and set-up tolerance. 5. Please refer to derating curve.						

■ Derating Curve



■ Constant Voltage / Constant Current Curve



■ 3-in-1 Dimming Control (DC/ PWM/ Resistance)

3-in-1 Dimmable Function Description

(1) 0-100KΩ Resistance Dimmable (Typical):

Resistor	Single-driver	Short	10K	20K	30K	40K	50K	60K	70K	80K	90K	100K
	Multi-driver	Short/N	10K/N	20K/N	30K/N	40K/N	50K/N	60K/N	70K/N	80K/N	90K/N	100K/N
Iout (%)		0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

※ The length of extended wire for DIM+/- shall not exceed 20 meters. (Wire $\leq 20m$)

※ N=The number of dimmer drivers should not exceed 15. (N ≤ 15)

※ DIM+/- < 7K or 7K/N, Iout 0%

(2) DC: 0-10V Dimmable (Typical):

DIM(Voltage)	0V	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V
Iout (%)	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

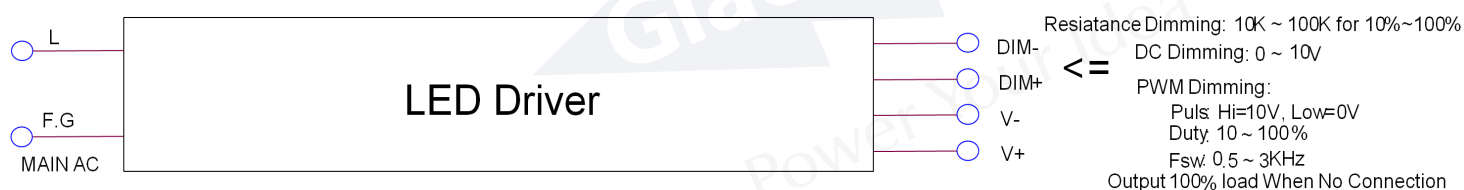
※ DIM+/- < 0.7V, Iout 0%

(3) 10V / PWM Dimmable (Typical):

DIM(10V/PWM Duty)	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Iout (%)	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

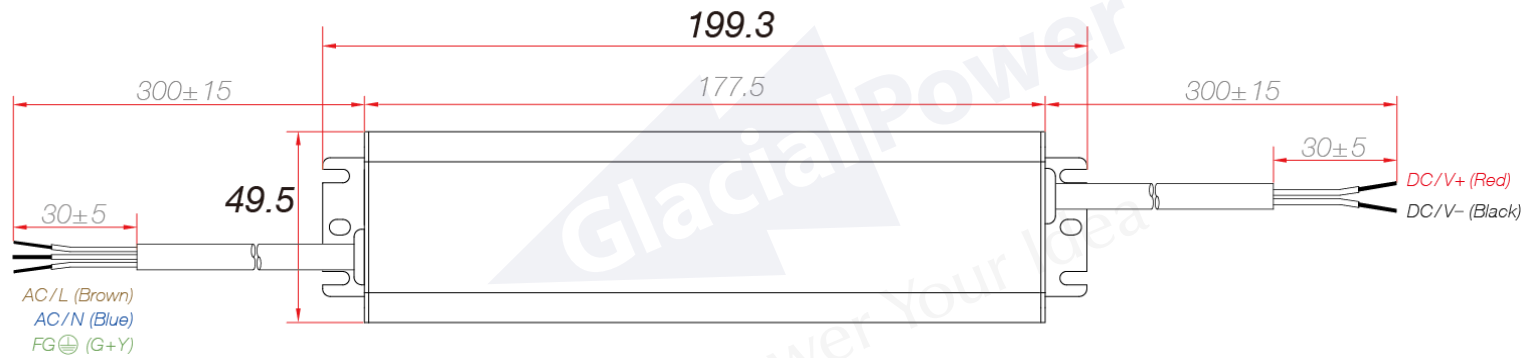
※ DIM+/- < 7%, Iout 0%

■ 3-in-1 Dimming Control

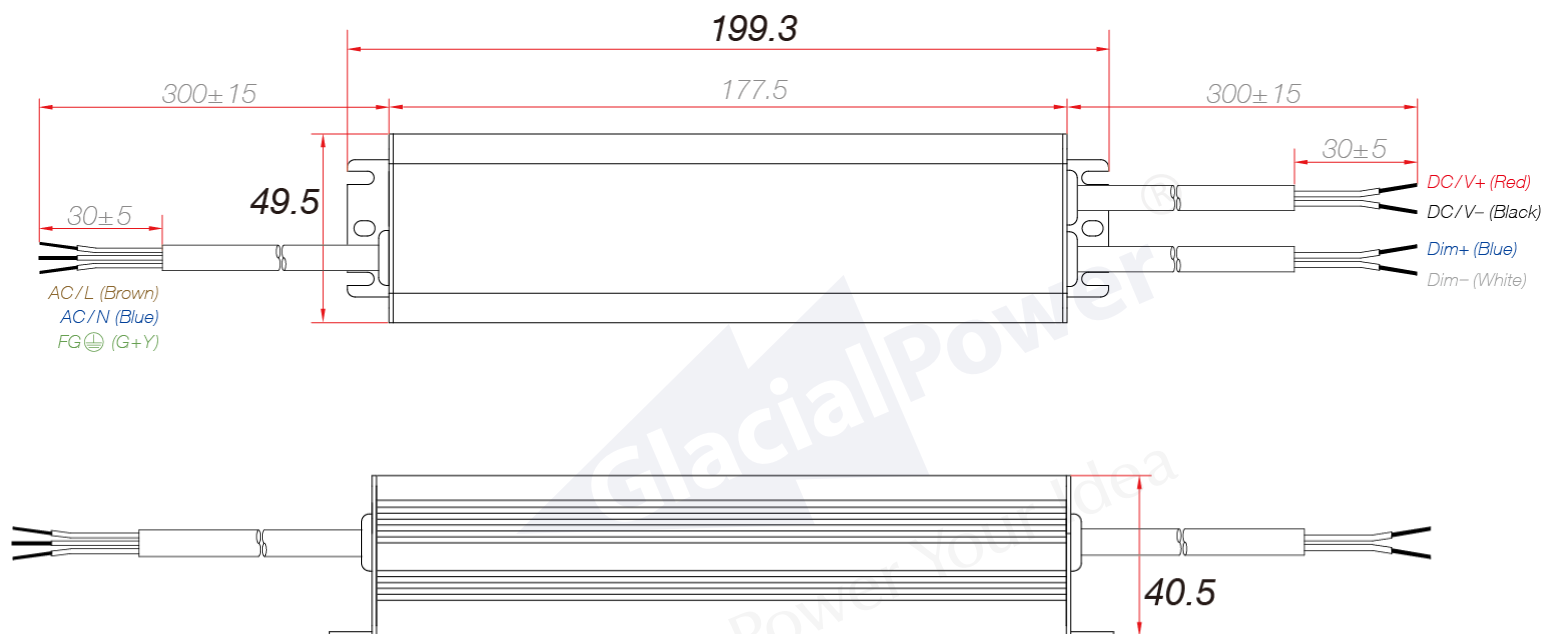


■ Mechanical Specification

GP-LS60P-xxC



GP-LS60P-xxCA (Dimming Type)



GP-LS60P-xxC



GP-LS60P-xxCA

