

Model: GP-HS60P-24 Series

Features

- Universal AC input 90 ~ 305VAC.
- Constant Current Operation.
- Suitable for High Brightness LED products.
- Built-in PFC Function.
- Protections: OVP / OCP / SCP / OTP.
- Built-in 3 in 1 Dimming Function. (24CA1 Only)
- Class II/2 Power.
- IP67 Class.

Approvals



Size

163 * 44.2 * 32.5 mm (L*W*H)



Specifications

A: mean that with dimming function.

Model No.		GP-HS60P-24C1	GP-HS60P-24CA1
Output	DC Voltage	24V	24V
	Constant Current Region	16-24V	
	Rated Current	2.2A	
	Current Tolerance	± 5%	
	Rated Power	52.8W	
	Ripple & Noise (Max.)	400mV	
	Efficiency at 240VAC(Typ.)	86%	
	Voltage Tolerance	-1% ~ +5%	
	DC Dimming (Optional)	DC 1 - 10V or Electronic Potentiometer 1 - 10V	
	PWM Dimming (Optional)	Puls: Hi = 10V Low = 0V, Duty:10% - 100%, Fsw 0.5 - 3KHz	
	Resistance Dimming (Optional)	10K - 100KΩ	
	Set up time (Max.)	< 2000ms at full load.	
Input	Voltage Range	90 ~ 305VAC	
	Rated Voltage	100 ~ 240VAC / 277VAC (for North America Only)	
	Frequency Range	47 Hz ~ 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	
Protections	Over Current	95 ~ 105% rated current. Type: Auto-recovery after fault condition disappeared.	
	Short Circuit	Type: Hiccup and recovers after fault condition disappeared.	
	Over Voltage	26.4~31.2V 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.	-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	EN61347-1, EN61347-2-13 , Independent; IP67 Approved.
	Withstand Voltage	I/P - O/P: 3.75KVAC
	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 EN61547,EN61000-4-2,3,4,5,6,11
Others	MTBF	200K hours min. MIL-HDBK-217F(25°C)
	Dimension(L x W x H)	163 x 44.2 x 32.5mm; 371g/pcs
Note	<ol style="list-style-type: none"> 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 & 10uf parallel capacitor. 3. Voltage Tolerance: includes line regulation, load regulation and set-up tolerance. 4. Constant current operation region is the suitable operation region for LED related applications, but please reconfirms special electrical requirements for some specific system design. 5. Please refer to derating curve. 	

GP-HS60P-24CA1

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

3 in 1 Dimmable Function Description

(1) 10-100KΩ Resistance Dimmable (Typical):

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

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

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

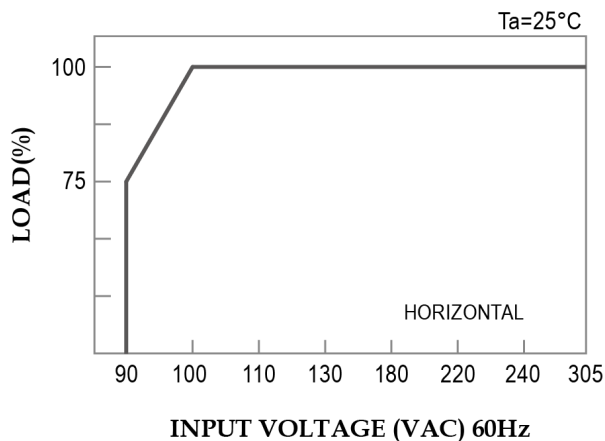
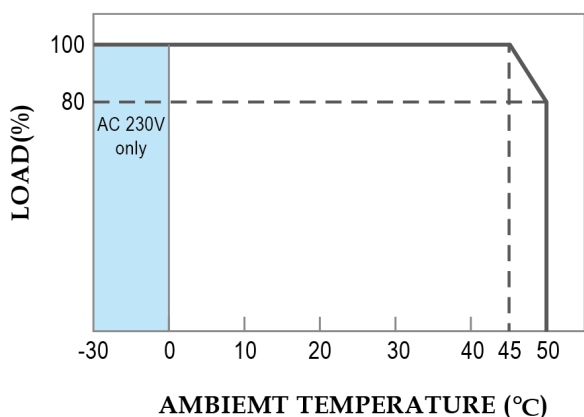
(2)DC: 1-10V Dimmable (Typical):

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

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

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

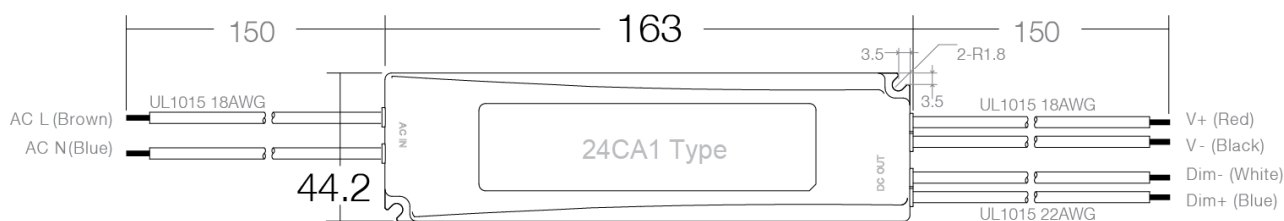
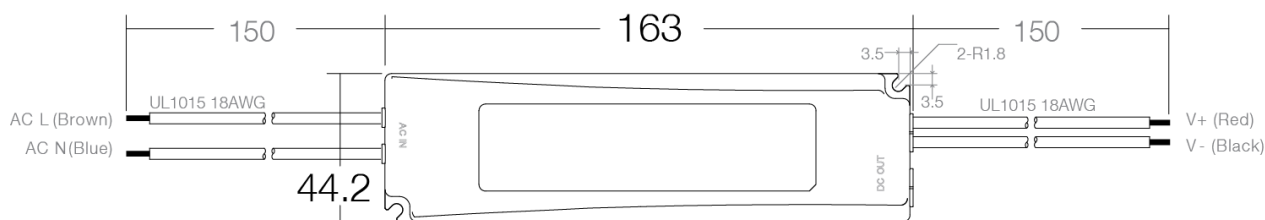
Derating Curve



3 in 1 Dimming Control (24CA1 only)



Mechanical Specification



UNIT: mm