

## Model: GP-HS10P 3-in-1 Dimming (9~12 Watts single output)

### ■ Features

- Universal AC Input 90~264VAC.
- Constant Current Design.
- For High Brightness Light-Emitting Diode Products.
- Fully Isolated Plastic Case.
- Built-in 3-in-1 Dimming Design.
- Operation from -20°C ~60°C Full Load.
- Protections: OTP / SCP.
- Class II Power Design Without Earth Pin.
- IP67 Class.

### ■ Approvals

CE FC IP67 SELV



### ■ Size

110 x 35 x 25 mm (L x W x H)



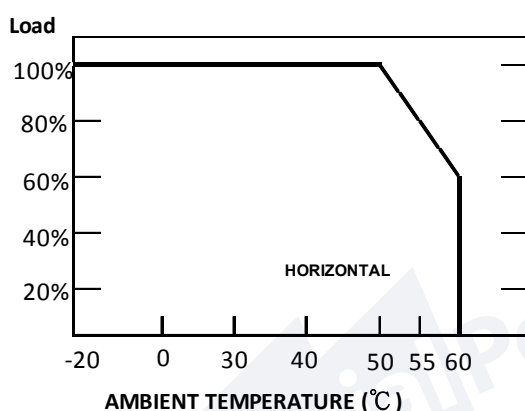
### ■ Specifications

GP-HS10P-xxCA ( xx: for Output Voltage; C: mean that Constant Current Mode; A: Dimming)

Model No.		GP-HS10P-12CA	GP-HS10P-24CA	GP-HS10P-24CA2	GP-HS10P-36CA2	GP-HS10P-48CA
Output	DC Voltage	12V	24V	24V	36V	48V
	Rated Current Range	1000mA	500mA	350mA	350mA	250mA
	Rated Max. Power	12W	12W	9.5W	12.6W	12W
	Efficiency	79%	82%	80%	81%	81%
	DC Voltage Range	8 ~ 12V	14 ~ 24V	14 ~ 27V	20 ~ 36V	26 ~ 48V
	Current Tolerance	±5%	±5%	±5%	±5%	±5%
	DC Dimming	DC 1-10V or Electronic Potentiometer 1-10V				
	PWM Dimming	Puls:Hi=10V Low=0V, Duty:0%~100%, Fsw 0.5-3KHZ				
	Resistance Dimming	10KΩ~100KΩ				
Set up Time (Max)	<2000ms at full load					
Input	Rated Voltage	100 ~ 240VAC 141 ~ 340VDC				
	Voltage Range	90VAC ~ 264VAC				
	Frequency Range	47 Hz ~ 63 Hz				
	Power Factor Correction	≥0.88 at 120VAC , ≥0.8 at 240VAC				
	AC Current	0.25A at 120VAC , 0.13A at 240VAC				
	Inrush Current	11A at 115VAC , 15A at 230VAC				
	Leakage Current	<0.25mA at 230VAC				
Protections	Over Temperature	Tc : 95°C ±10°C; Type : Hiccup Mode				
	Short Circuit	Type : Hiccup Mode				
Environment	Operation Temp.	-20°C ~50°C full load. (Refer to output load derating curve)				
	Operation Humidity	20% ~ 95% RH non-condensing.				
	Storage Temp.	-40 ~ +80°C				
	Storage Humidity	10% ~ 95% RH				
	Vibration	10 ~ 500 Hz, 2G 10 min. / 1 cycle, period for 60 min. each along X, Y, Z axes.				

Safety & EMC	Safety Standards	meet EN61347-1,EN61347-2-13
	Withstand Voltage	I/P - O/P: 3.75 KVAC
	Isolation Resistance	I/P-O/P : 100m ohms / 500VDC at 25°C.
	EMI Conduction & Radiation	meet EN55015
	EMS Immunity	meet EN61000-4-2, 3, 4, 5, 6, 8, 11
Others	MTBF	200K hours min.MIL-HDBK-217F(25°C)
	Dimension(L x W x H)	110 x 35 x 25mm; 132.2g/pcs
Note	1. All parameters NOT specially mentioned are measured at 240VAC input, rated load and 25°C ambient temperature. 2. Ripple & noise are measured at 20MHZ bandwidth oscilloscope and with 0.1uf & 47uf parallel capacitor. 3. The power supply is considered a component which will be installed a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.	

### ■ Derating Curve



### ■ 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
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%

■ **Mechanical Specification**

