

## Model: GP-RS45P Series

### Features

- Universal AC Input 90 ~ 305VAC.
- Constant Current Operation.
- Double Insulation Cable Wire
- Suitable For High Brightness LED Products.
- Built-in PFC Function.
- Protections: OVP / OCP / SCP / OTP .
- Built-in 3-in-1 Dimming for CA Type.
- Class II/2 Power .
- IP67 Class.

### Approvals

CEFC cULus IP67

SELV   

### Size

171.1 \* 45.3 \* 32.5 mm (L\*W\*H)



### Specifications

A : for-3 in-1 Dimming

Model No.	GP-RS45P-24C(A)	GP-RS45P-36C(A)	GP-RS45P-42C(A)	GP-RS45P-48C(A)	GP-RS45P-57C(A)	
Output	DC Voltage	24V	36V	42V	48V	57V
	Constant Current Region Note.3	16 ~ 24V	24 ~ 36V	33 ~ 42V	33 ~ 48V	40 ~ 57V
	Rated Current	1.85A	1.25A	1.05A	1A	0.7A
	Current Tolerance	± 5%				
	Rated Power	44.4W	45W	44.1W	48W	40W
	Ripple & Noise (Max.) Note.2	200mV	250mV	250mV	250mV	250mV
	Efficiency at 240VAC(Typ.)	85%	86%	86%	87%	87%
	Voltage Tolerance Note.4	-1%~5%				
	DC Dimming (Optional)	DC 1 - 10V or Electronic Potentiometer 1 - 10V				
	PWM Dimming (Optional)	Pluse: Hi = 10V Low = 0V, Duty:10% - 100%, Fsw 0.5 - 3KHz				
	Resistance Dimming (Optional)	10K - 100KΩ				
Set up time (Max.)	0.5 Sec / 230VAC / full load					
Input	Voltage Range	90 ~ 305VAC				
	Rated Voltage	100 ~ 240VAC / 277VAC (for North American Only)				
	Frequency Range	47 ~ 63 Hz				
	AC Current (Max.)	0.6A at 100 ~ 240VAC / 0.25A at 277VAC for North American Only				
	Power Factor	≥ 0.98 at 120VAC / ≥ 0.93 at 240VAC / ≥ 0.9 at 277VAC, at full load				
	Inrush Current (Max.)	COLD START 70A at 240VAC				
	Leakage Current	< 0.5mA / 240VAC				

Protections	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	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 / 500V DC 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 x W x H)	171.1 x 45.3 x 32.5mm; 425.7g/pcs				
Note	<ol style="list-style-type: none"> <li>All specifications not specially mentioned are measured at 240VAC and 25°C ambient temperature.</li> <li>Ripple &amp; Noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with 0.1uf &amp; 47uf parallel capacitor.</li> <li>Constant current operation region is suitable for LED related applications, but please reconfirm special electrical requirements for some specific system design.</li> <li>Voltage Tolerance: includes line regulation, load regulation and set-up tolerance.</li> <li>Please refer to derating curve.</li> </ol>					

### **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)

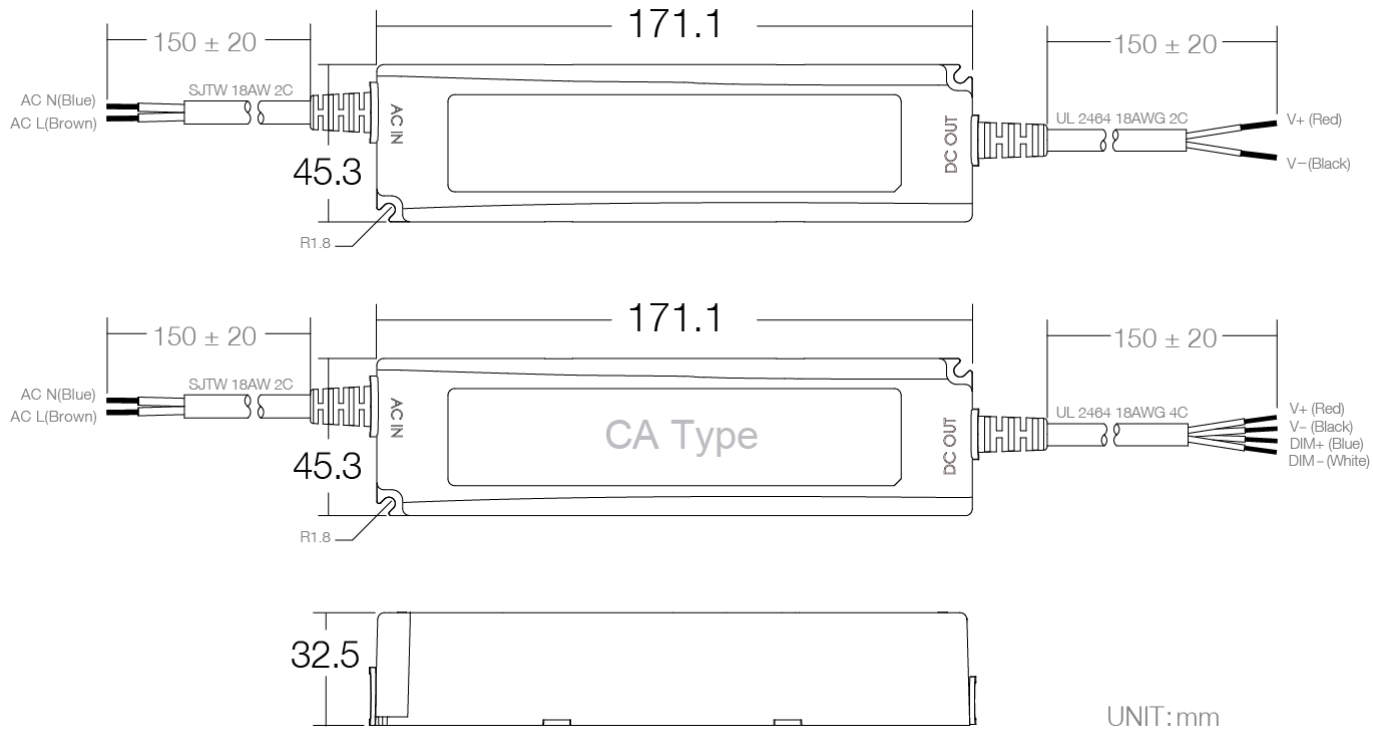
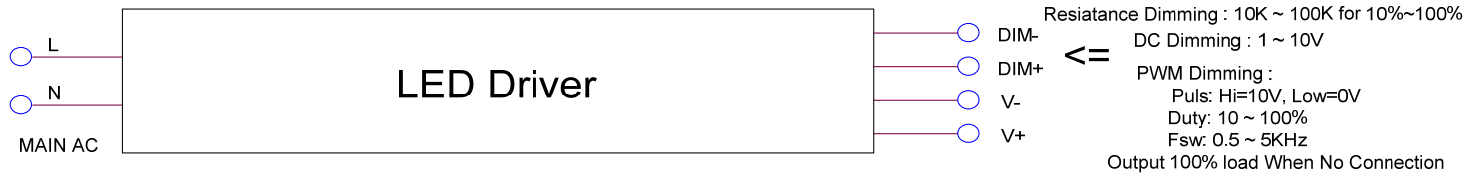
##### **(2)DC: 1-10V Dimmable (Typical):**

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

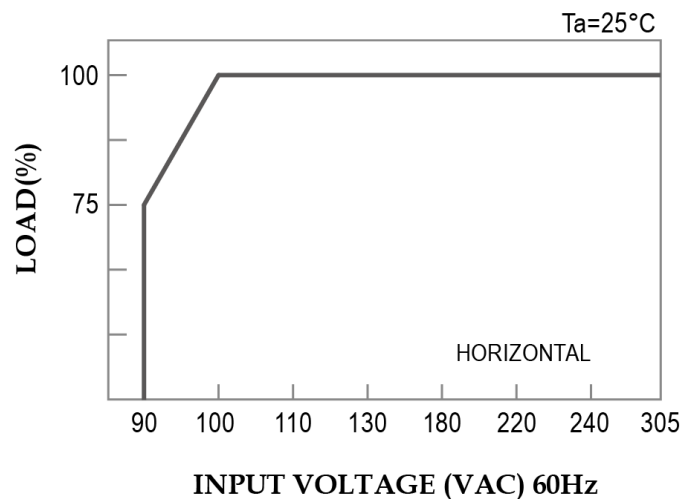
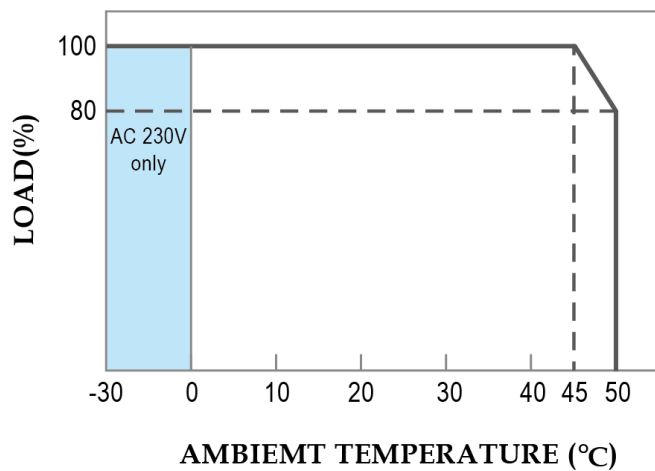
##### **(3)10V / PWM Dimmable (Typical):**

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%

**Mechanical Specification**



**Derating Curve**



**Constant Voltage / Constant Current Curve**

