

Model: GP-HS60P-42CA1

Features

- Universal AC Input 90 ~ 305VAC.
- Constant Current Operation.
- Suitable for High Brightness LED products.
- Built-in Active PFC Function.
- Protections: OVP / OCP / SCP / OTP.
- Built-in 3 in 1 Dimming Function.
- Class II/2 Power.
- IP67 Class.
- THD < 20% at 230VAC.
- Meet Application for ErP EU_1194_2012,Stage 3.
- No Load Consumption < 0.5W.
- Set up Time < 0.5 Sec at 230VAC.

Approvals



Size

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



Specifications

| Model No. | | GP-HS60P-42CA1 |
|-------------|---------------------------------|--|
| Output | DC Voltage | 42V |
| | Constant Current Region (Note4) | 28 ~ 42V |
| | Rated Current | 1.4A |
| | Current Tolerance | ± 5% |
| | Rated Power | 58.8W |
| | Ripple & Noise (Max.) | 250mV |
| | Efficiency at 240VAC(Typ.) | 87% |
| | Voltage Tolerance | -1% ~ +5% |
| | DC Dimming | DC 0-10V or Electronic Potentiometer 0-10V |
| | PWM Dimming | Puls:Hi=10V Low=0V, Duty: 0%~100%, Fsw 0.5-3KHz |
| | Resistance Dimming | 0KΩ~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 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 | 46.2~54.6V 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: 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 x W x H) | 163 x 44.2 x 32.5mm; 371g/pcs |
| Note | <p>1. All specifications not specially mentioned are measured at 240VAC and 25°C ambient temperature.</p> <p>2. Ripple & Noise are measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with 0.1uf & 10uf parallel capacitor.</p> <p>3. Voltage Tolerance: includes line regulation, load regulation and set-up tolerance.</p> <p>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.</p> <p>5. Please refer to derating curve.</p> | |

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 ≤ 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% |

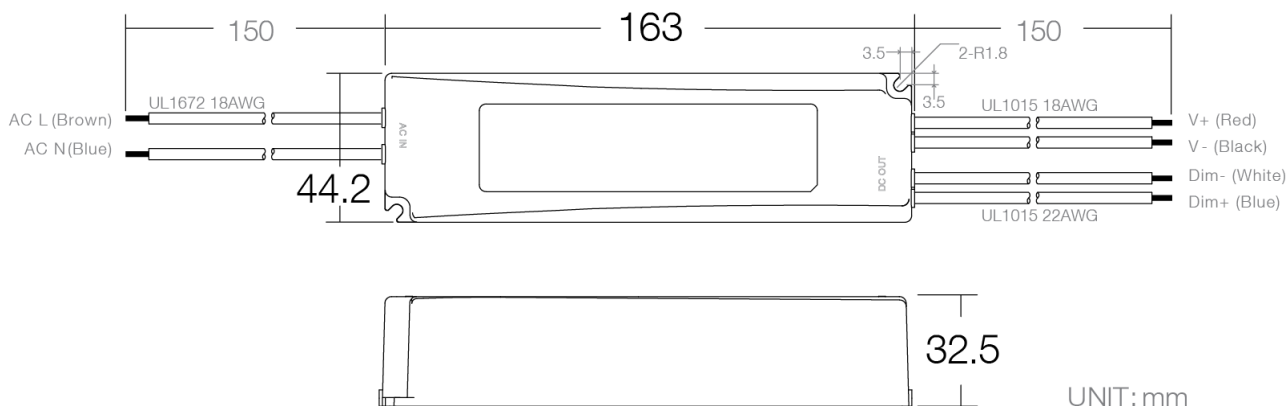
※ DIM+/- <0.7V Iout 0%

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

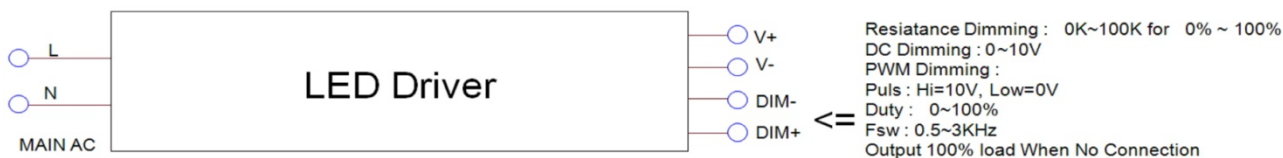
| DIM(10V/PWM Duty) | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |
|-------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Iout (%) | 0% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% |

※ DIM+/- <7% Iout 0%

Mechanical Specification



3 in 1 Dimming Control



Derating Curve

