

Model: GP-CVM200P Series

Features

- Universal AC Input Range 90 ~ 305Vac.
- Constant Voltage mode.
- Active PFC design.
- Protections: OVP / OCP / SCP / OTP.
- High Efficiency 92%~94%
- Fully Insulated Case with IP67 rated.
- Cooling by Free Air Convection (Metal Housing)
- No-load power consumption < 0.5W at 230Vac (for non-dimming models).
- Standby power consumption < 0.5W at 230Vac (for dimming models).
- Suitable for LED Strips and Moving Sign applications.
- 3-in-1 dimming (dim-to-off) and DALI functions available.
- The output and dimming lines are compliant with the new regulations with isolation.

Approvals



Size

230 x 80.3 x 33.5mm (L x W x H)



CVM200P-xxV

CVM200P-xxVA / CVM200P-xxVD

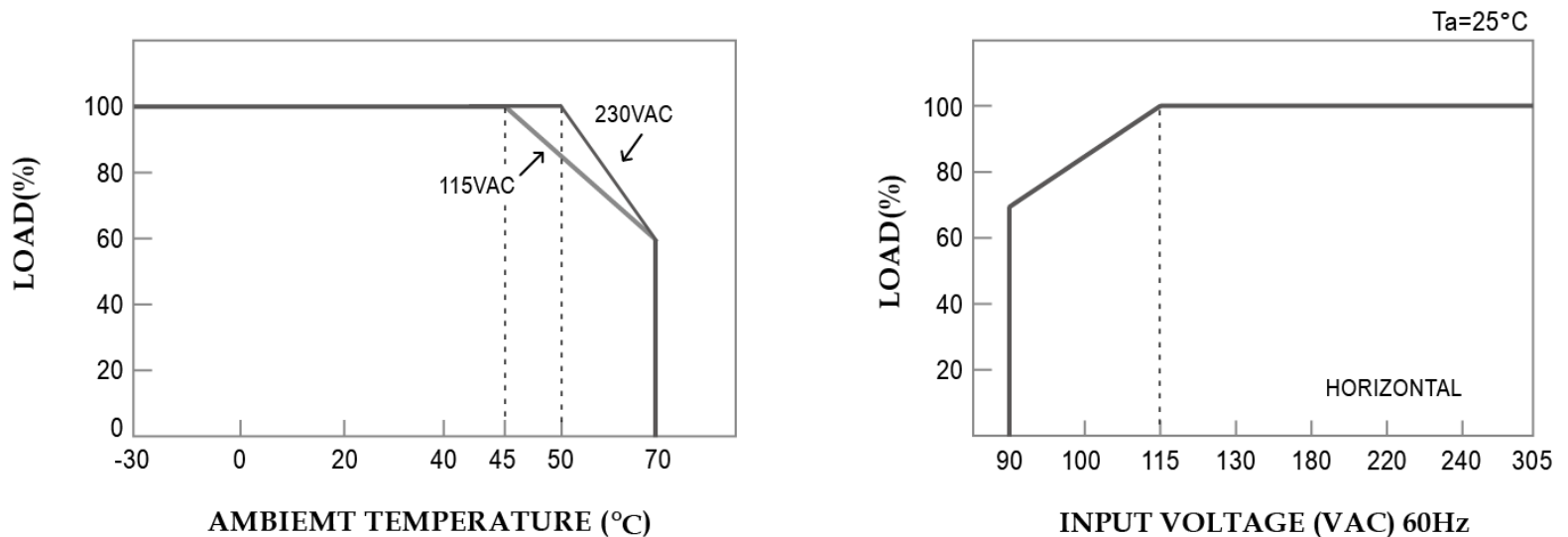
Specifications

Note: GP-CVM100P-xxV(X): xx=12,24,36,48V (X)=Blank → Non DIM., (X)=A → 3-in-1 DIM., (X)=D → DALI DIM.

| Model No. | GP-CVM200P-12V(X) | GP-CVM200P-24V(X) | GP-CVM200P-36V(X) | GP-CVM200P-48V(X) | |
|-----------------------|--|--|-------------------|-------------------|---------|
| Output | DC Voltage | 12V | 24V | 36V | 48V |
| | Rated Current | 0~16.7A | 0~8.3A | 0~5.5A | 0~4.15A |
| | Rated Power | 200.4W | 199.2W | 198W | 199.2W |
| | Ripple & Noise (Max.) Note.2 | 300mV | 350mV | 400mV | 500mV |
| | Efficiency at 230VAC (Typ.) | 92% | 93% | 93.5% | 94% |
| | Voltage Tolerance Note.3 | ± 5% | ± 5% | ± 5% | ± 5% |
| | PWM Dimming (optional) | > 1600 Hz (for dimmable version) | | | |
| | Set up time (Max.) | 0.5s / 230VAC, 1s / 115VAC, at full load. | | | |
| Input | Rated Voltage | 100 ~ 277VAC | | | |
| | Voltage Range | 90 ~ 305VAC | | | |
| | Frequency Range | 47 Hz ~ 63 Hz | | | |
| | AC Current (Max.) | 2.5A at 115VAC / 1.2A at 230VAC | | | |
| | Power Factor | >0.98 at 115VAC / >0.94 at 230VAC at full load. PF ≥ 0.9 at 70% load | | | |
| | Total Harmonic Distortion | THD < 15% at 230VAC, full load. Note 4 | | | |
| | Inrush Current (Typ.) | Cold Start 90A (Td=640us measured at 50% Ipeak) at 230VAC | | | |
| | Max. Number of PSUs on Circuit Breaker | B type : 1 unit (10A) / 2 units (16A) / 3 units (25A), C type : 2 units (10A) / 3 units (16A) / 5 units (25A), D type : 7 units (16A) / 11 units (25A) at 230VAC | | | |
| Leakage Current | <1mA / 240VAC | | | | |
| DIM. Control (3 in 1) | DC dimming | DC 0-10V | | | |
| | PWM dimming | Puls:Hi=10V Low=0V, Duty:0%~100%, Fsw 0.5 - 3KHz | | | |
| | Resistance dimming | 0KΩ~100KΩ or Electronic Potentiometer 0-10V | | | |

| | | | | | |
|---------------------|--|---|--------|---------|---------|
| DIM. Control (DALI) | DALI Standards | Compatibility with IEC 62386-101, 102 and 207 | | | |
| | DALI bus current consumption | < 2mA | | | |
| Protections | Over Current | 105~180% rated current. Type: Auto recover after fault condition disappeared. | | | |
| | Short Circuit | Type: Hiccup mode & recovers after fault condition disappeared. | | | |
| | Over Voltage | 13~19V | 26~38V | 38V~50V | 50V~65V |
| | | Type: Hiccup mode (re-power on to recover). | | | |
| Over Temperature | Tcase: 95°C ± 10°C | | | | |
| | Type: Shutdown mode (re-power on to recover). | | | | |
| Environment | Operation Temp. | -30°C ~50°C (Refer to output load derating curve). | | | |
| | Operation Humidity | 20% ~ 90% RH non-condensing. | | | |
| | Storage Temp. | -40 ~ +80°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 I/P-FG:1.88KVAC O/P-FG:0.5KVAC | | | |
| | Isolation Resistance | I/P-O/P,I/P-FG,O/P-FG:100M ohms / 500VDC at 25°C | | | |
| | EMI Conduction & Radiation | Compliance to EN55015,FCC part 15 | | | |
| | Harmonic Current | Compliance to EN61000-3-2 Class C(≥ 75% load),EN61000-3-3 | | | |
| | EMS Immunity | Compliance to EN61000-4-2,3,4,5,6,8,11;EN61547, (surge immunity Line-Earth 4KV, Line-Line 2KV,criteria A) | | | |
| Others | MTBF | 120K hours min. MIL-HDBK-217F(25°C) | | | |
| | Dimension(L x W x H) | 230 x 80.3 x 33.5 mm; 840g/pcs | | | |
| Note | 1. All specifications not specially mentioned are measured at 230VAC full load 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. Voltage Tolerance: includes line regulation, load regulation and set-up tolerance. 4. THD < 25% at 277VAC, full load. | | | | |

Derating 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 | 9K | 20K | 30K | 40K | 50K | 60K | 70K | 80K | 95K | 100K |
|---------------------|---------------|---------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| | Multi-driver | Short/N | 9K/N | 20K/N | 30K/N | 40K/N | 50K/N | 60K/N | 70K/N | 80K/N | 95K/N | 100K/N |
| Vout Duty Cycle (%) | | 0% | 2% | 14.5% | 25.9% | 37.3% | 48.7% | 60.1% | 71.5% | 82.9% | 100% | 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 Vout Duty cycle 0%

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

| DIM(Voltage) | 0V | 0.9V | 2V | 3V | 4V | 5V | 6V | 7V | 8V | 9.5V | 10V |
|---------------------|----|------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Vout Duty Cycle (%) | 0% | 2% | 14.5% | 25.9% | 37.3% | 48.7% | 60.1% | 71.5% | 82.9% | 100% | 100% |

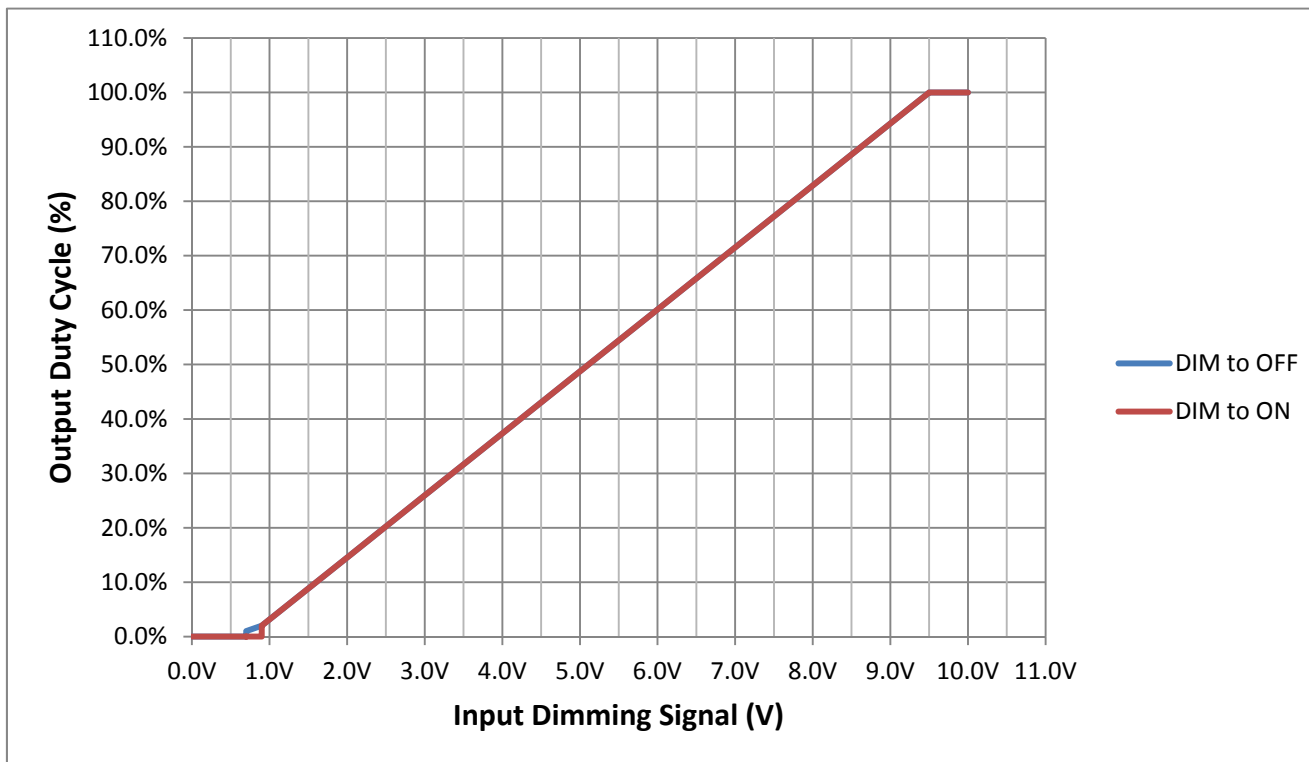
※ DIM+/- <0.7V Vout Duty Cycle 0%

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

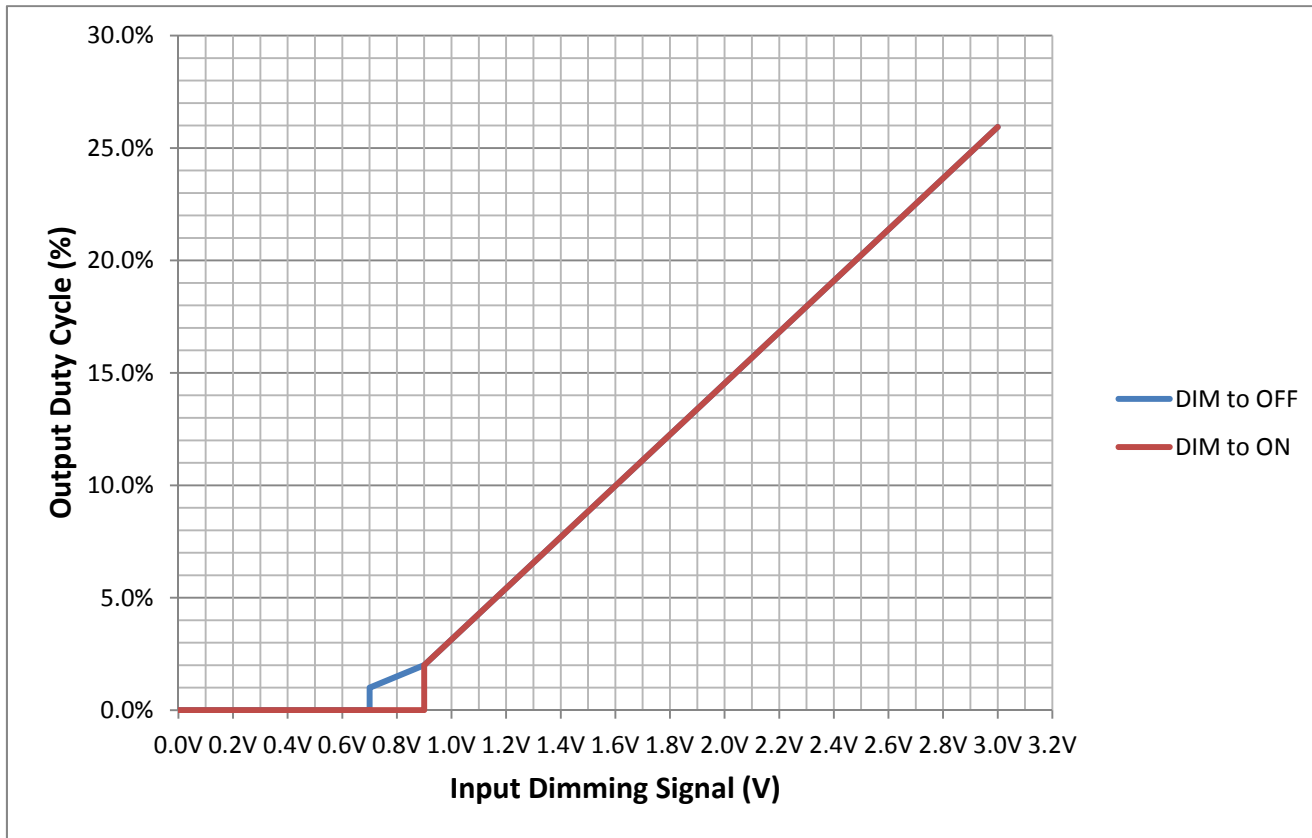
| DIM(10V/PWM Duty) | 0% | 9% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 95% | 100% |
|---------------------|----|----|-------|-------|-------|-------|-------|-------|-------|------|------|
| Vout Duty Cycle (%) | 0% | 2% | 14.5% | 25.9% | 37.3% | 48.7% | 60.1% | 71.5% | 82.9% | 100% | 100% |

※ DIM+/- <7% Vout Duty Cycle 0%

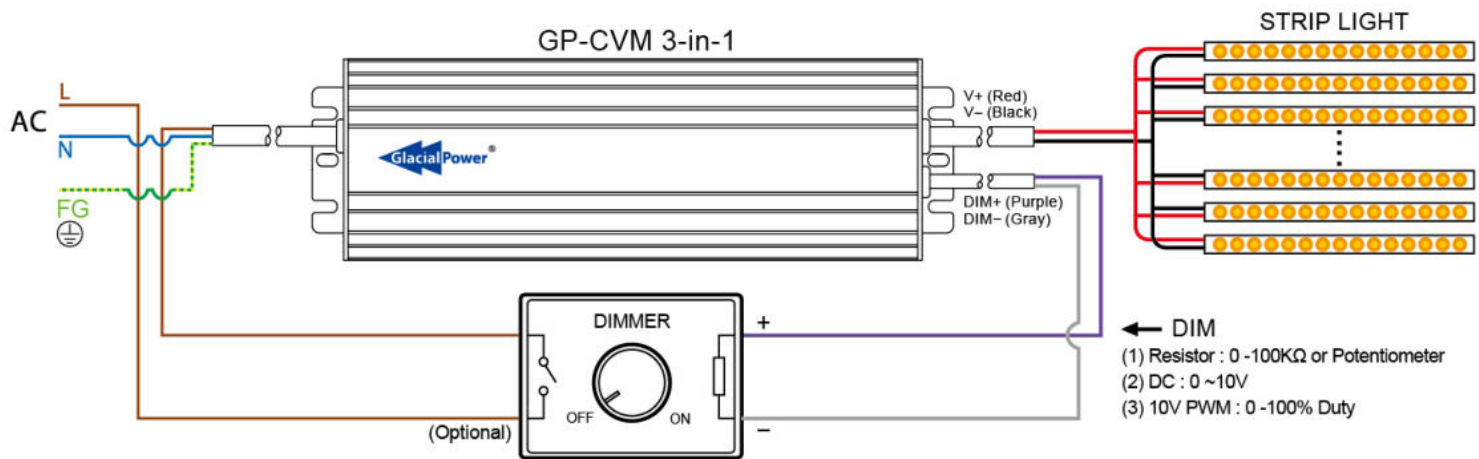
◆ Dimming Curve



◆ Dimming Curve



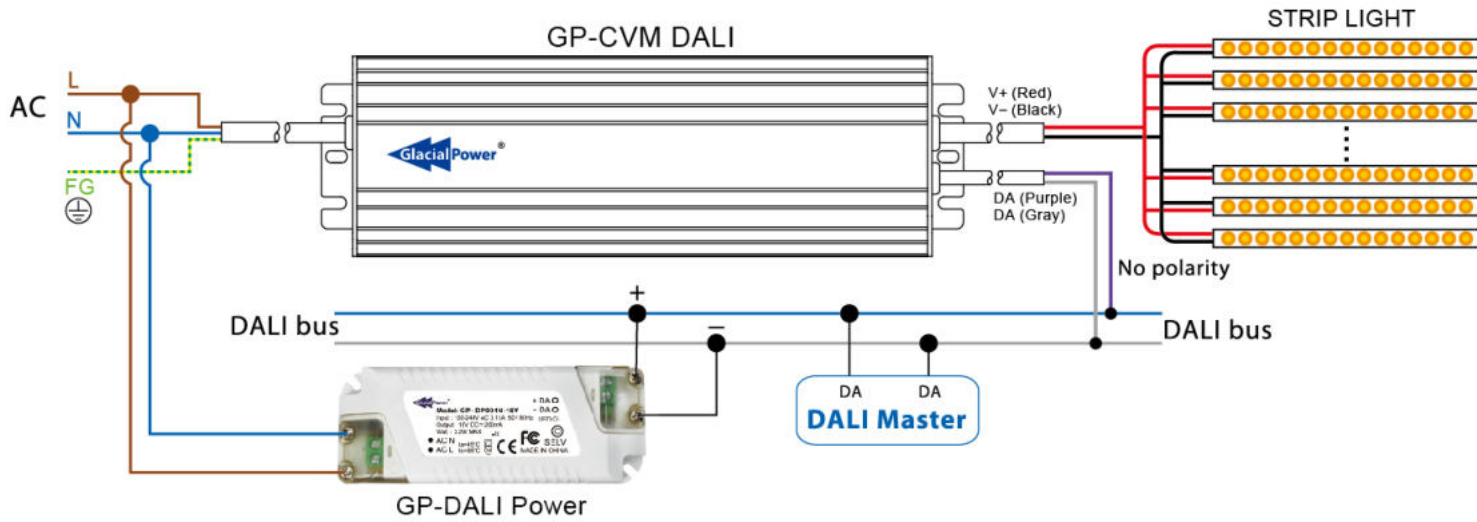
◆ Wiring Diagram



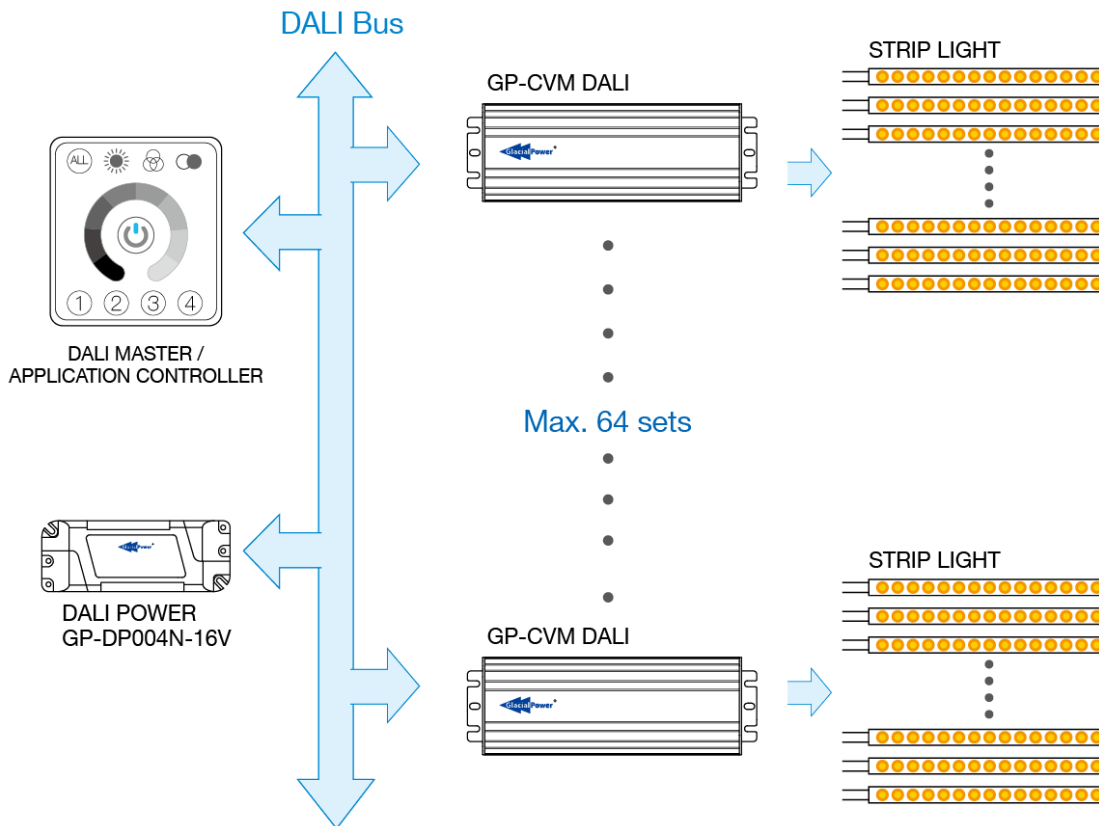
DALI Interface

◆ DALI Function Description

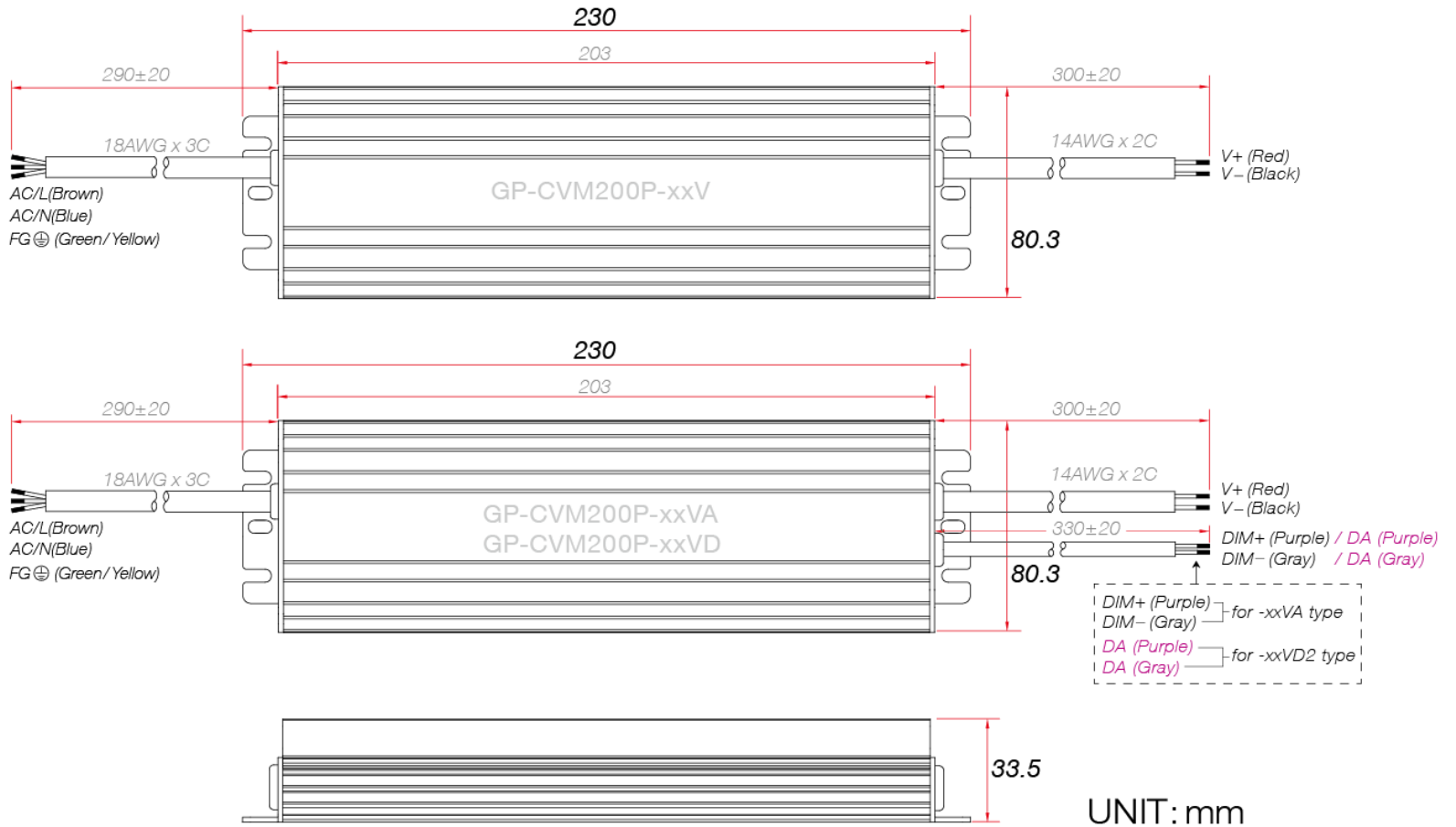
- (1) Apply DALI signal between DA wires
- (2) First step is fixed at 1% of output
- (3) Wiring diagram



(4) Application diagram



Mechanical Specification



GP-CVM200P-xxV Series



GP-CVM200P-xxVA Series



GP-CVM200P-xxVD Series

Applications

