



## Smart-Dim-PWM 240W LED Dimming Module

The SLD Smart-DIM DC dimming module is design to provide flicker-free (PWM) pulse width modulated dimming in PWM dimming applications. With over 95% efficiency, this smart, power saving module offers extreme flexibility, ease of use and is compatible with commercial PWM dimmer controls. This accessory is ideal when combined with an AC-DC driver to enable dimming of LED fixtures. The SLD-DIM-PWM can be incorporated into an SLD/XLD series enclosure, eliminating the need for external junction boxes, for quick and easy installation.

### Features

- Wide range DC input 8V - 48V
- 0-100% Dimming
- High efficiency up to 95%
- Suitable for LED lighting and signage applications
- Fully isolated plastic housing
- Comply with EN55015 and FCC Part 15 without additional input filter and capacitors
- Compact size, high reliability
- 3 year warranty

### Applications

- Architectural Lighting
- Effect & Contour Lighting
- Office General Illuminations
- Warehouses
- Street Lighting
- Signage
- Strip Lighting
- Swimming Pools/Fountain lighting

# SLD-DIM-PWM

## LED Dimming Module



| Model                                | Input Voltage Range (Vdc) | Output Voltage Range * | Max. Output Current (A) ** | Max Output Power (W) | Power Efficiency (Typ) |
|--------------------------------------|---------------------------|------------------------|----------------------------|----------------------|------------------------|
| SLD-DIM-PWM-5A/<br>SLD-DIM-PWM-5A(I) | 8 - 48V                   | Vin-0.2~0.5V           | 5                          | 240                  | 95%                    |

\*- SLD-DIM-PWM dimming module requires an external CV LED driver, connected to the DC input, and should not exceed the above input voltage range.

## Input Specification

|               |        |                     |            |                         |        |
|---------------|--------|---------------------|------------|-------------------------|--------|
| Voltage Range | 8V-48V | PWM Input Frequency | 150Hz-1KHz | PWM Input Voltage Range | 5V-48V |
|---------------|--------|---------------------|------------|-------------------------|--------|

## Output Specification

|                       |                                   |                         |  |
|-----------------------|-----------------------------------|-------------------------|--|
| Output Frequency      | 150Hz-1kHz                        | Output Current          | SLD-DIM-PWM-5A: 0.1A-5A  |
| Power Efficiency      | 95% Typ                           | Dimming Ratio           | Upon PWM Dimming Control Source                                    |
| Max Output Power      | 240W                              | Over Current Protection | Hiccup-Mode, Auto-Recovery upon removal of short circuit condition |
| PWM Output Delay      | <1uS                              | Over Voltage Protection | Auto-Recovery upon input voltage over Vin(Max)                     |
| Over Temp. Protection | Auto-Recovery upon Tc<95°C(+/-5%) | PWM Output              | PWM Input(Pass Through)  |

## Environmental Specification

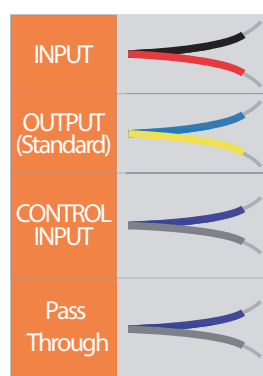
| MTBF                             | Ambient Temperature       | Case Temp    | Storage Temp | Relative Humidity |
|----------------------------------|---------------------------|--------------|--------------|-------------------|
| >50,000 hrs@60°C<br>Ta Full Load | -20°C - 60°C (Full Load ) | -20°C - 95°C | -40°C - 85°C | 5% - 95 %         |

## Compliance / Safety

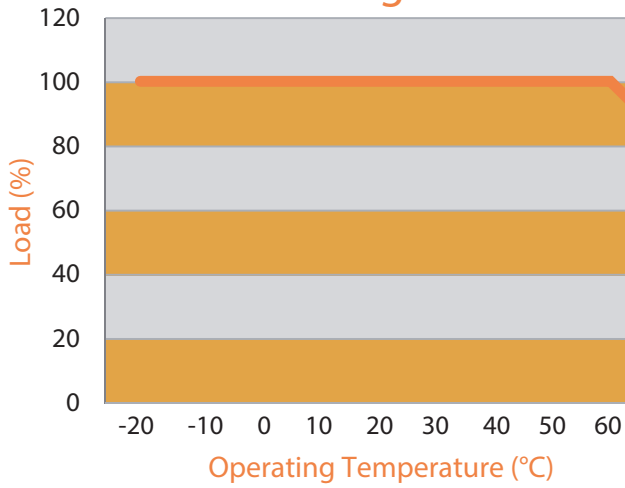
|                   |  |
|-------------------|--|
| Safety Standards: | CE,FCC Title 47 FCR 15 Class B Compliant |
| Weatherability:   | IP 65                                    |

## Mechanical Specification

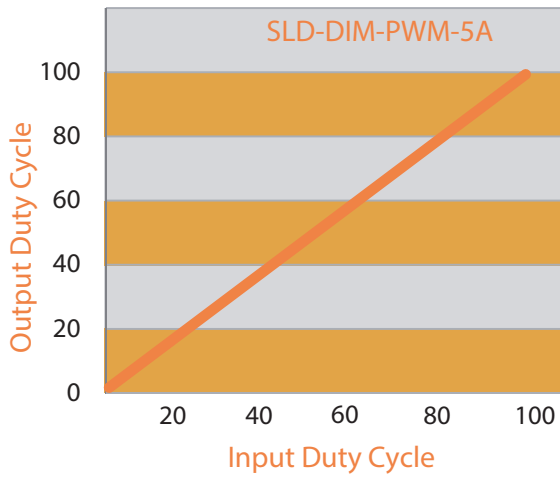
|                      |   |
|----------------------|---|
| Power Unit Dimension | 56mm (L) x 37mm (W) x 14.5mm (H)  |
| Case Design/Material | Polycarbonate White   |
| I/O Wire Length      | 125mm(+/-5mm)   |
| Wire Size            | a. 18AWG standard, 300V, 105deg C(DC input and Dim Out put wires)<br>b. 22AWG standard, 300V, 105deg C(1-10V control wires) |



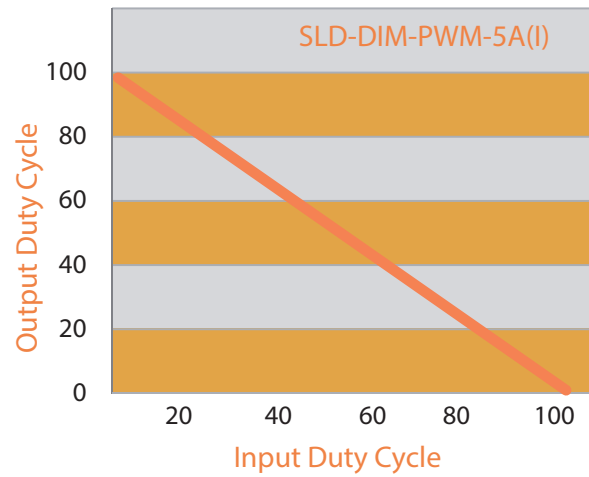
**Derating Curve**



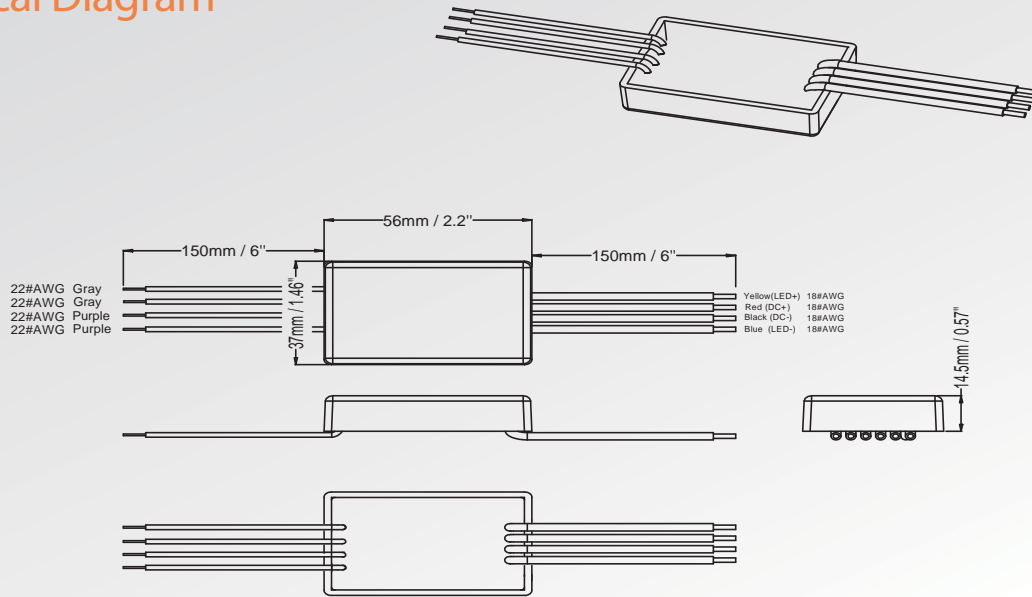
**Dimming Curve**



**Dimming Curve**



## Mechanical Diagram

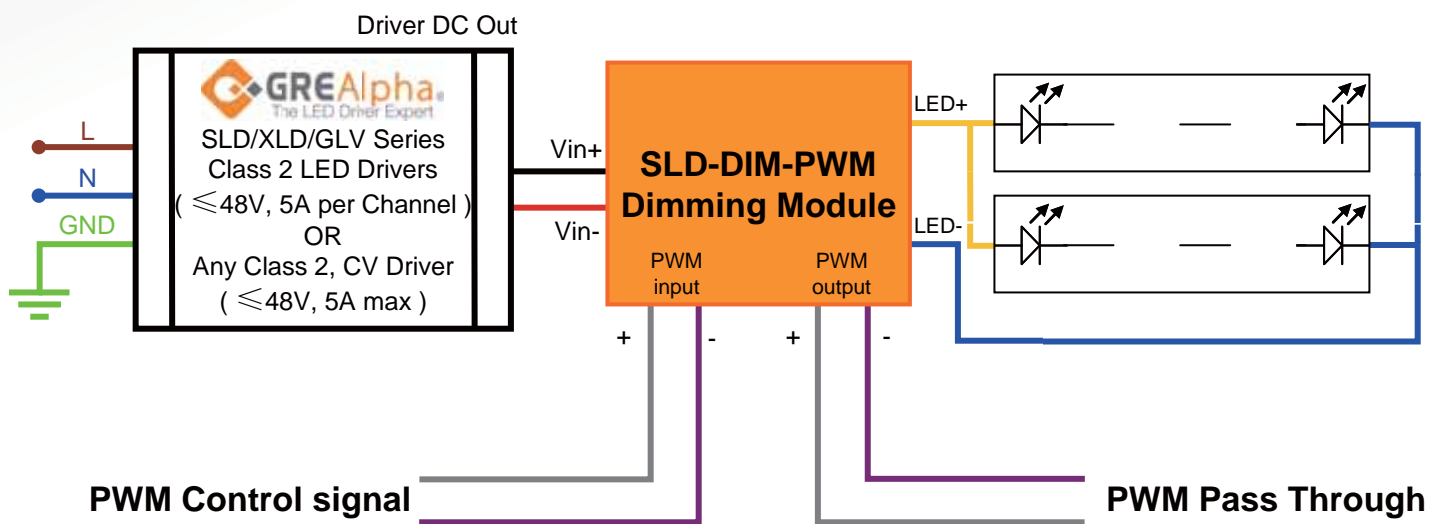


| Input Wire |              | Output Wire |                             |
|------------|--------------|-------------|-----------------------------|
| Red        | DC + Input   | Yellow      | LED Output +                |
| Black      | DC Input GND | Blue        | LED Output -                |
| Gray       | PWM Input+   | Gray        | PWM Output+ (Pass Through)  |
| Purple     | PWM Input-   | Purple      | PWM Output - (Pass Through) |

### Packing Information

Weight: 55 g/pcs,  
60pcs/ carton - 4.66 kg /carton; L245xW230xH185 (mm)

## Wiring Diagrams



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