

Dimmer + Driver • Full Control Color Switch • 24V

Dynamic Dimmable Power Supply and Switch in One

AV-DPS-24V-RGBCW-100W



PRODUCT SPECIFICATION

KEY FEATURES

RATED POWER

100W

OUTPUT

24V

DIM TO DARK

100%–0.3%

WARRANTY

3 Years

- Four modes of switching: CCT, RGB, RGBW, and RGBCW
- Constant-voltage output • 100–277 VAC universal input
- Dim to Dark - 100%–0.3%
- Certifications UL / cUL / FCC / Class P / SELV / RoHS / Reach
- Works with tunable white LED strip
- Dimming and color adjustment function
- Built-in active PFC • PF > 0.99
- Short-circuit / overload / over-temp protection
- 16kHz PWM output with dimming curve is a gamma 2.2 curve Flicker-free

Technical Specifications

01 OUTPUT · 24V

DC voltage	24V
Voltage tolerance	± 0.5V
Voltage regulation	± 0.5%
Rated current	4.17A
Rated power	100W
Load regulation	± 1%

03 PROTECTION

Short circuit	Hiccup mode · auto-recover after fault removed
Over load	110 % Constant Current Mode· Recovers automatically
Over temperature	Shell 100 °C ±10 °C shutdown · auto-recover after cooling

04 SAFETY & EMC

Safety standards	UL8750 · CAN/CSA-C22.2 No.250.13
Withstand voltage	I/P-O/P 1.88 kVAC · I/P-FG 1.88 kVAC · O/P-FG 0.5 kVAC
Isolation	I/P-O/P 100MΩ / 500 VDC / 25 °C / 70 % RH
EMC emission	FCCPart15SubpartB ANSIC63.4:2014

06 MECHANICAL

Net weight	0.26 kg
Dimension	105 × 54 × 52 mm (L×W×H)

02 INPUT · UNIVERSAL AC

Voltage range	100 – 277 VAC
Frequency range	60Hz
Power factor @ full	>0.99
THD (typ.) @ full	< 10%
Efficiency (typ.)	91.0%
AC Current (max.)	0.93A
Inrush Current (typ.)	50A,150us @50% Ipeak
Leakage Current	<0.5m

05 ENVIRONMENT

Working temp.	-40 ... +60 °C (see derating)
Working humidity	20 – 95 % RH non-condensing
Storage	-40 ... +80 °C · 10-95 % RH
Temp. coefficient	± 0.03 % / °C (0-50 °C)
Vibration	10-500 Hz · 2G · X/Y/Z

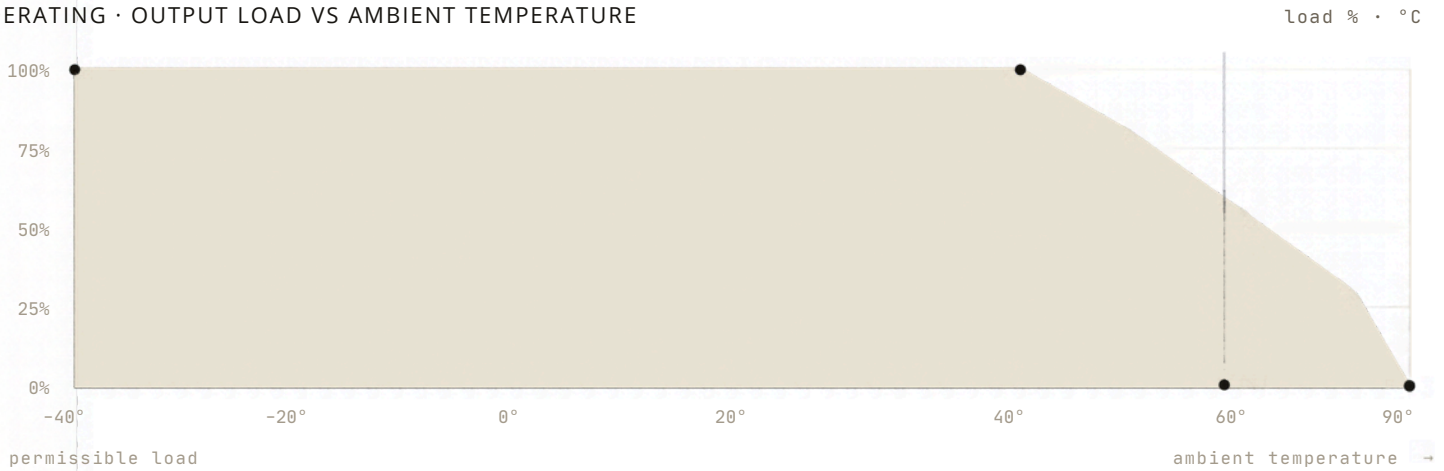
L × W × H · 105 × 54 × 52 mm

Cooling	Free-air convection
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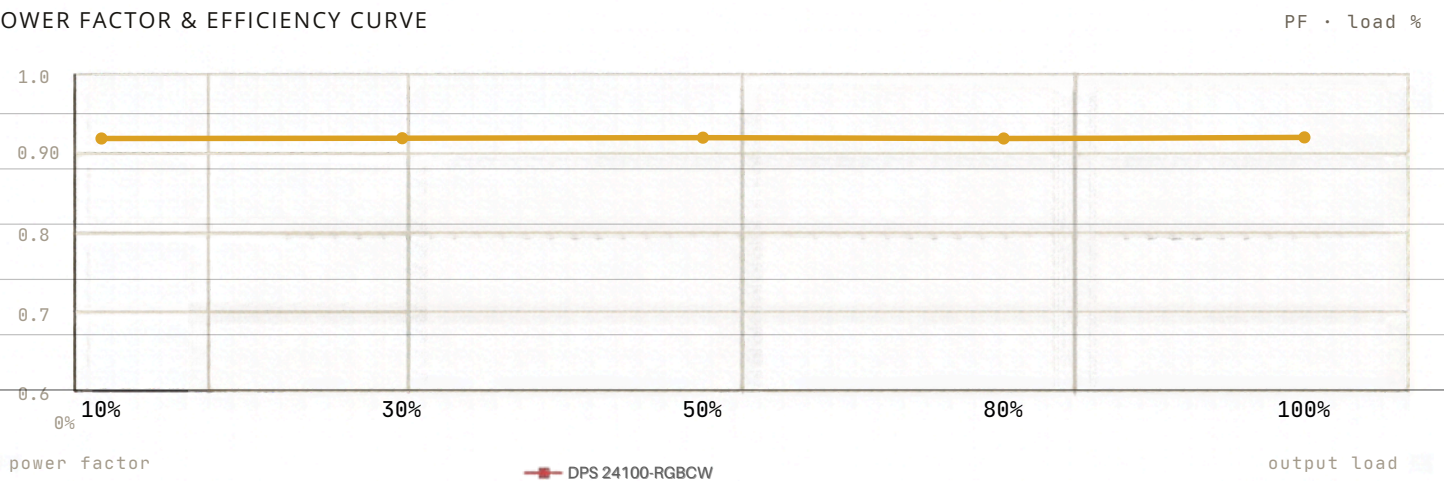
NOTE All parameters not specially mentioned are measured at 120 VAC input, rated load and 25 °C ambient. Tolerance includes setup tolerance and load regulation.

Derating & Power Factor

DERATING · OUTPUT LOAD VS AMBIENT TEMPERATURE



POWER FACTOR & EFFICIENCY CURVE



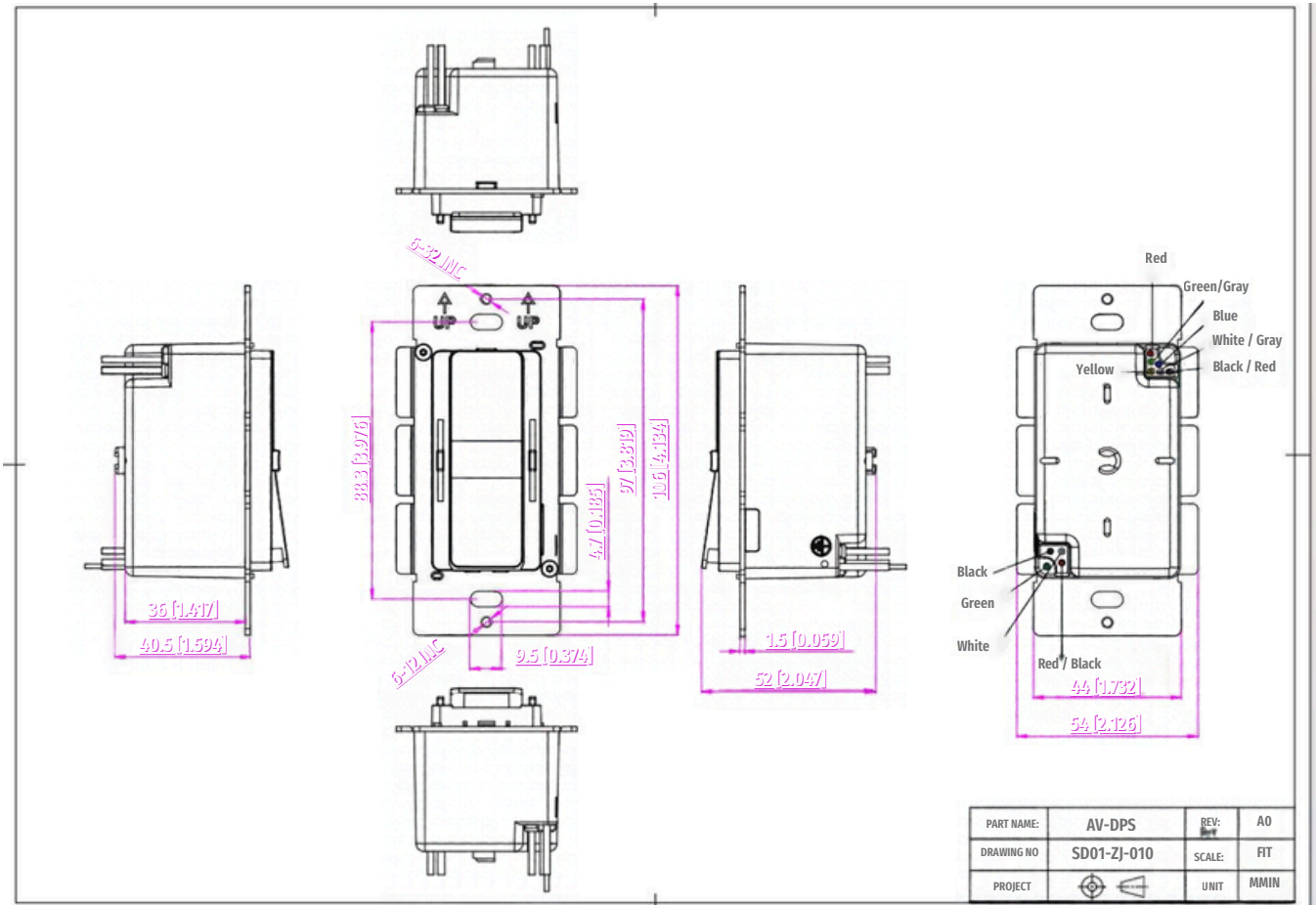
01 To extend service life, refer to the derating curve and derate output according to ambient temperature.

02 LED-fixture temperature rises over time, raising fixture power. Reserve a load margin to avoid overloading the driver.

Mechanical Specifications

07 OUTLINE & DIMENSIONS

mm · L x W x H



Net weight 0.26 kg · 10 pcs/CASE· Cooling by free-air convection.

08 WIRING · LEAD IDENTIFICATION

INPUT Black cable (L), Red black cable (Push) , White cable (N) and Green cable (FG) (4*18AWG)

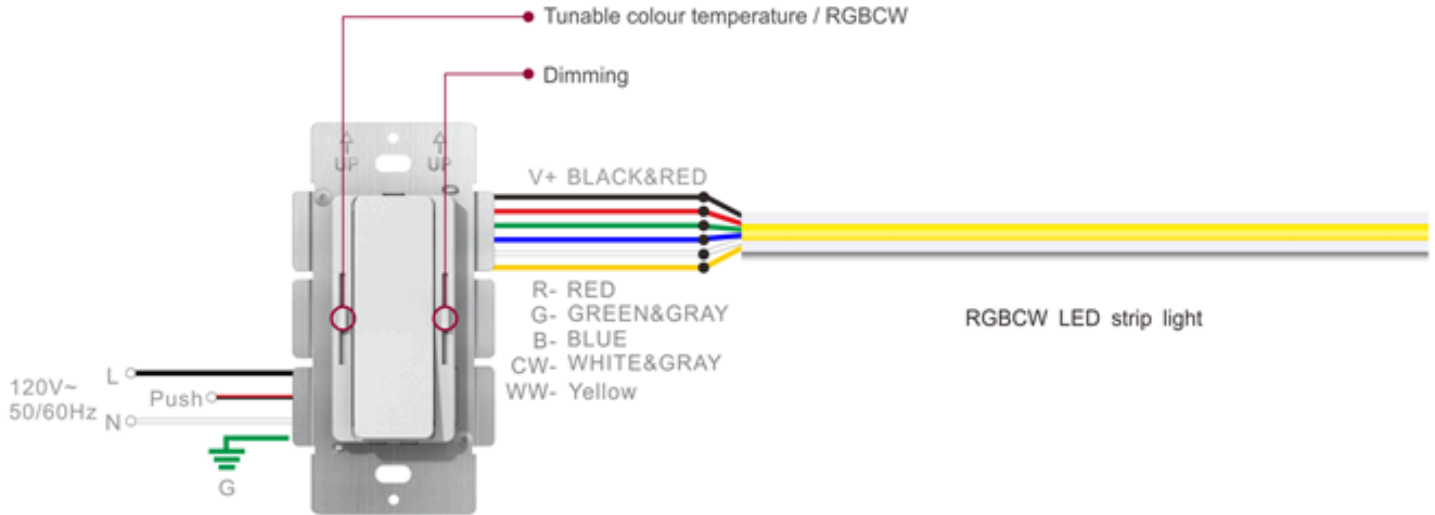
OUTPUT Black red cable (V+),Red cable(R-),Green gray cable(G-),Blue cable(B-), White gray cable(CW-), Yellow cable(WW-) (6*18AWG)

A·W·G Recommended max. carrying current (A) = wire diameter (mm²) × 10 A/mm². e.g. 1 mm² output cable → 10 A. Custom cabling available on request.

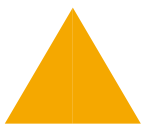
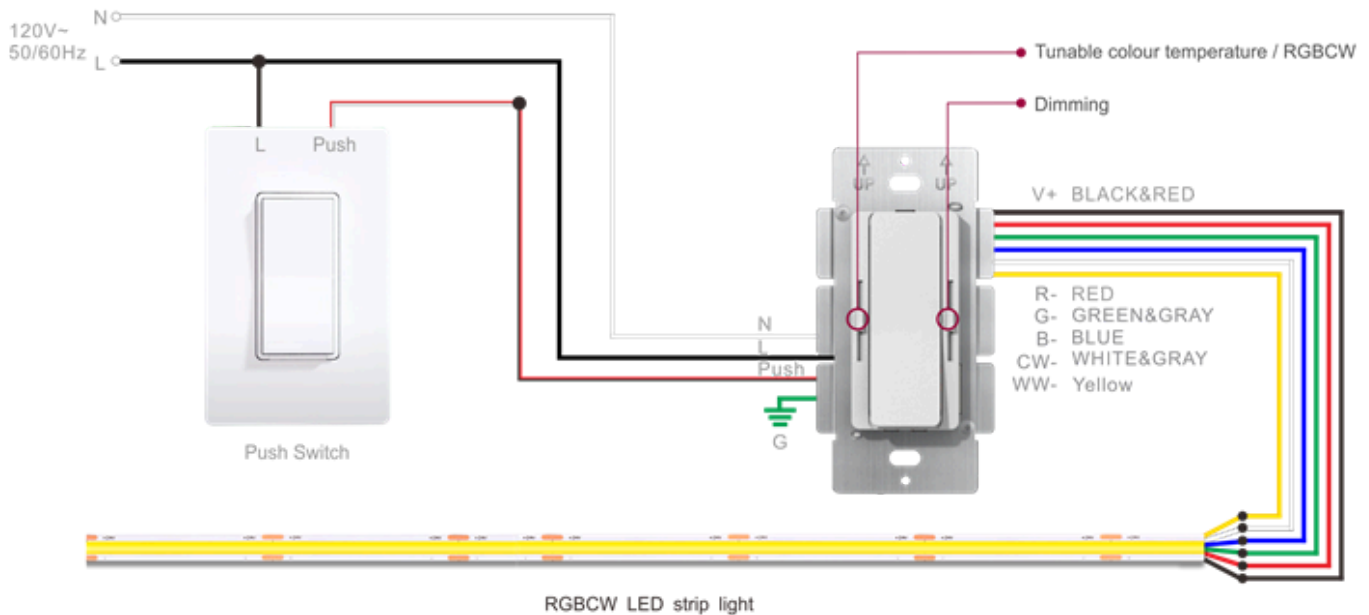
TIP Also available in standard 60W and 100W variant in the AV-DPS Series.

Dimming Operation & Connecting Diagram

09 Wiring diagram model for standard dimming system

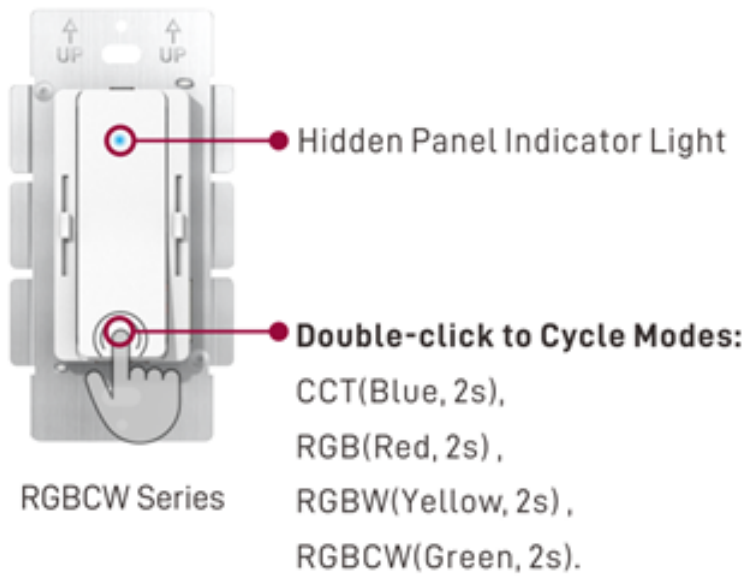


10 Wiring diagram of SDD-DIM model for 3-way dimming system



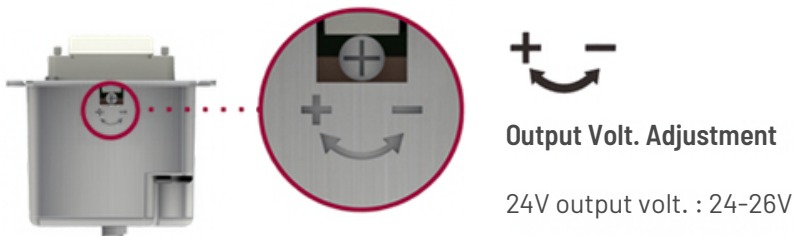
Note: Dimmer's panel is not replaceable.

11 SWITCH MODE



Knob to adjust the voltage

- Clockwise rotation of the high voltage



12 INSTALLATION INSTRUCTIONS

1. This driver + dimmer 2 in 1 should be installed by qualified and professional person.
2. Allow adequate ventilation around the driver + dimmer 2 in 1 for heat dissipation.
3. Verify all wiring before powering on to avoid damage to luminaire and power supply.
4. Do not service privately if the driver fails to operate normally.