

## LED Dimming Driver (CV)

- TRIAC/ 0-10V/1-10V/10V PWM/RESISTANCE DIM
- Dimming range: 0~100%, LED start at 1% possible.
- 0-100% flicker-free, High frequency exemption level.
- Over load / Over temp. / Short circuit / Over voltage protection, recover automatically.
- Cooling by free air convection
- 100% full load burn-in test
- Suitable for internal lights application for I / II / III.
- Up to 50000-hour life time.



**Flicker-free**  
IEEE 1789  
High frequency exemption level



SELV

IP67

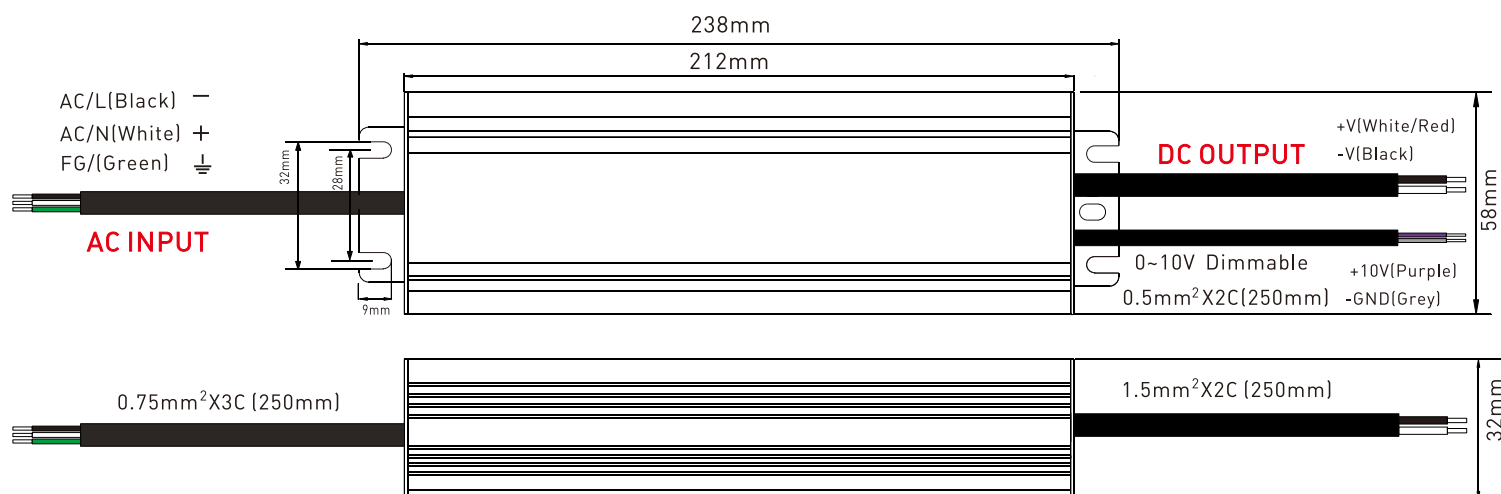


### Specification

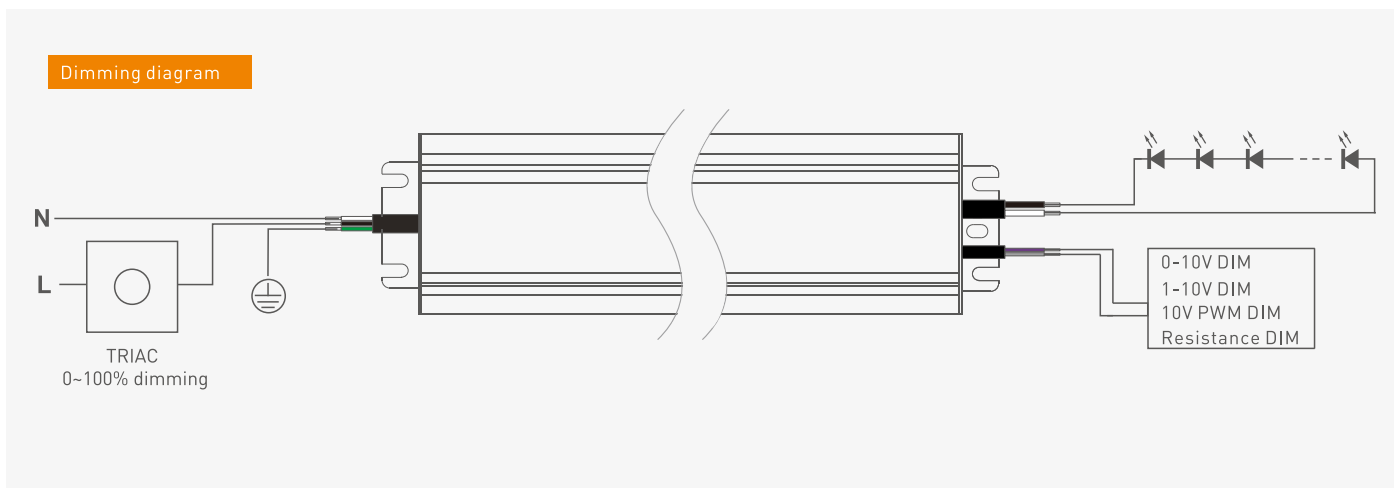
| Model        |                                                                                                                                                                                                                                                                                                                                                 | YSD-150WHBF-12TL                                                                                                                                                                                                                                              | YSD-150WHBF-24TL                                                                                         |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| OUTPUT       | Output voltage                                                                                                                                                                                                                                                                                                                                  | 12VDC                                                                                                                                                                                                                                                         | 24VDC                                                                                                    |
|              | Output voltage range                                                                                                                                                                                                                                                                                                                            | 12VDC±0.5VDC                                                                                                                                                                                                                                                  | 24VDC±0.5VDC                                                                                             |
|              | Output current                                                                                                                                                                                                                                                                                                                                  | Max 12.5A                                                                                                                                                                                                                                                     | Max 6.25A                                                                                                |
|              | Output power                                                                                                                                                                                                                                                                                                                                    | Max 150W                                                                                                                                                                                                                                                      |                                                                                                          |
|              | Output power range                                                                                                                                                                                                                                                                                                                              | 0~150W                                                                                                                                                                                                                                                        |                                                                                                          |
|              | With or without strobe                                                                                                                                                                                                                                                                                                                          | No strobe                                                                                                                                                                                                                                                     |                                                                                                          |
|              | Dimming range                                                                                                                                                                                                                                                                                                                                   | 0~100%, dimming depth: Max. 1%                                                                                                                                                                                                                                |                                                                                                          |
|              | Ripple & Noise                                                                                                                                                                                                                                                                                                                                  | ≤200mV                                                                                                                                                                                                                                                        | ≤400mV                                                                                                   |
| INPUT        | Dimming interface                                                                                                                                                                                                                                                                                                                               | TRIAC/ 0-10V/1-10V/10V PWM/RESISTANCE DIM                                                                                                                                                                                                                     |                                                                                                          |
|              | Input voltage                                                                                                                                                                                                                                                                                                                                   | 175-264Vac or 100~130Vac                                                                                                                                                                                                                                      |                                                                                                          |
|              | Frequency                                                                                                                                                                                                                                                                                                                                       | 50/60Hz                                                                                                                                                                                                                                                       |                                                                                                          |
|              | Input current                                                                                                                                                                                                                                                                                                                                   | 1.3A/230Vac or 2.2A/115Vac                                                                                                                                                                                                                                    |                                                                                                          |
|              | Power factor                                                                                                                                                                                                                                                                                                                                    | PF>0.55/230Vac, at full load                                                                                                                                                                                                                                  |                                                                                                          |
|              | Efficiency (typ.)                                                                                                                                                                                                                                                                                                                               | 90%                                                                                                                                                                                                                                                           | 89%                                                                                                      |
|              | Inrush current(typ.)                                                                                                                                                                                                                                                                                                                            | Cold start 55A at 230Vac                                                                                                                                                                                                                                      |                                                                                                          |
|              | Control surge capability                                                                                                                                                                                                                                                                                                                        | L-N:2KV                                                                                                                                                                                                                                                       |                                                                                                          |
|              | Leakage current                                                                                                                                                                                                                                                                                                                                 | Max. 0.5mA                                                                                                                                                                                                                                                    |                                                                                                          |
| ENVIRONMENT  | Working temperature                                                                                                                                                                                                                                                                                                                             | ta: -30℃ ~ 50℃ tc: 80℃                                                                                                                                                                                                                                        |                                                                                                          |
|              | Working humidity                                                                                                                                                                                                                                                                                                                                | 20 ~ 95%RH, non-condensing                                                                                                                                                                                                                                    |                                                                                                          |
|              | Storage temp., humidity                                                                                                                                                                                                                                                                                                                         | -40℃ ~ 80℃, 10~95%RH                                                                                                                                                                                                                                          |                                                                                                          |
|              | Vibration                                                                                                                                                                                                                                                                                                                                       | 10~500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes.                                                                                                                                                                                        |                                                                                                          |
| PROTECTION   | Overtemperature                                                                                                                                                                                                                                                                                                                                 | Protection type:Shut down o/p voltage,re--power on to recover                                                                                                                                                                                                 |                                                                                                          |
|              | Over voltage protection                                                                                                                                                                                                                                                                                                                         | Shut down the output when non-load voltage≥13V, re-power on to recover after fault condition is removed.                                                                                                                                                      | Shut down the output when non-load voltage≥26V, re-power on to recover after fault condition is removed. |
|              | Over load protection                                                                                                                                                                                                                                                                                                                            | Shut down the output when current load ≥110%, auto recovers.                                                                                                                                                                                                  |                                                                                                          |
|              | Short circuit protection                                                                                                                                                                                                                                                                                                                        | Protection type: 1. When the first-level short-circuit protection is triggered, the fault can be automatically recovered; 2. When the second-level short-circuit protection is triggered, the power needs to be turned on again after the fault is eliminated |                                                                                                          |
| SAFETY & EMC | Withstand voltage                                                                                                                                                                                                                                                                                                                               | I/P-O/P: 3750Vac                                                                                                                                                                                                                                              |                                                                                                          |
|              | Isolation resistance                                                                                                                                                                                                                                                                                                                            | I/P-O/P: 100MΩ/500VDC/25℃/70%RH                                                                                                                                                                                                                               |                                                                                                          |
|              | Safety standards                                                                                                                                                                                                                                                                                                                                | IEC/EN61347-1, IEC/EN61347-2-13                                                                                                                                                                                                                               |                                                                                                          |
|              | EMC emission                                                                                                                                                                                                                                                                                                                                    | EN55015, EN61000-3-2 Class C, IEC61000-3-3                                                                                                                                                                                                                    |                                                                                                          |
|              | EMC immunity                                                                                                                                                                                                                                                                                                                                    | EN61000-4-2,3,4,5,6,8,11 EN61547                                                                                                                                                                                                                              |                                                                                                          |
|              | Strobe test standard                                                                                                                                                                                                                                                                                                                            | IEEE 1789                                                                                                                                                                                                                                                     |                                                                                                          |
| NOTE         | 1. All parameters not specifically mentioned are measured at 230VAC input, rated load and 25℃ ambient temperature.<br>2. Ripple and noise test method: connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure under 20MHZ bandwidth.<br>3. Ensure that the power supply is used under the rated parameters and environment. |                                                                                                                                                                                                                                                               |                                                                                                          |

## Dimensions

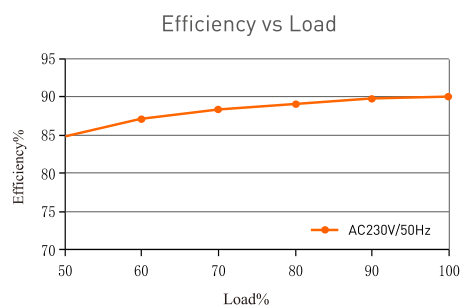
Unit:mm



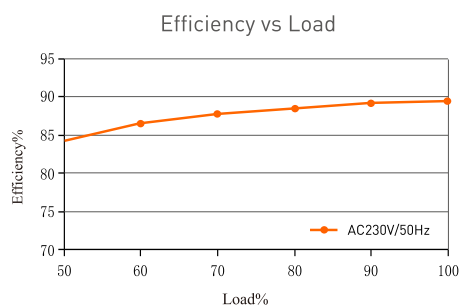
## Wiring diagram



## Relationship diagrams



YSD-150WHBF-12TL

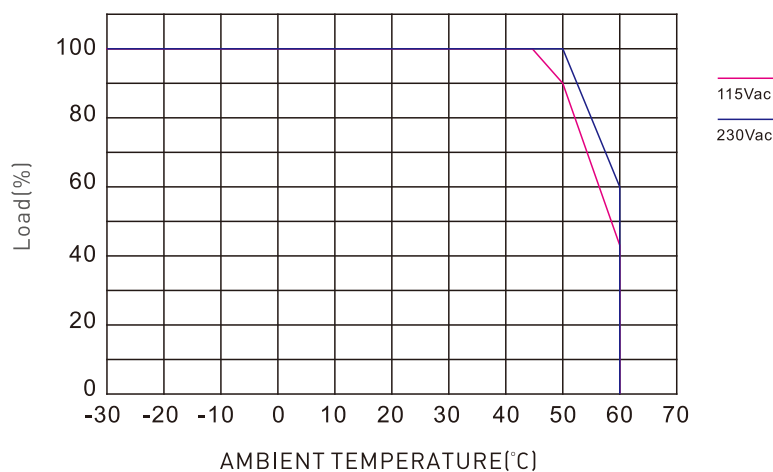


YSD-150WHBF-24TL

## Packaging Information

|                 |                      |
|-----------------|----------------------|
| DIMENSION       | 238x58x32mm(LxWxH)   |
| PACKING         | 260x78x45mm(LxWxH)   |
| CARTON QUANTITY | 15PCS/Carton         |
| CARTON SIZE     | 398x268x158mm(LxWxH) |
| WEIGHT          | 840g±10g/PCS         |

## Temperature load curve



## Flicker Test Form

### IEEE 1789

| Limit of Modulation in low risk area  |                                                 |
|---------------------------------------|-------------------------------------------------|
| Waveform frequency of Optical output  | limit (%)                                       |
| $f \leq 8\text{Hz}$                   | 0.2                                             |
| $8\text{Hz} < f \leq 90\text{Hz}$     | $0.025 \times f$                                |
| $90\text{Hz} < f \leq 1250\text{Hz}$  | $0.08 \times f$                                 |
| $f > 1250\text{Hz}$                   | Exemption assessment                            |
| Limit of Modulation in no effect area |                                                 |
| Waveform frequency of Optical output  | limit (%)                                       |
| $f \leq 10\text{Hz}$                  | 0.1                                             |
| $10\text{Hz} < f \leq 90\text{Hz}$    | $0.01 \times f$                                 |
| $90\text{Hz} < f \leq 3125\text{Hz}$  | $(0.08/2.5) \times f$                           |
| $f > 3125\text{Hz}$                   | Exemption assessment (High frequency exemption) |

Brightness

- ◆ 1%
- ▲ 5%
- ◆ 10%
- 20%
- ▲ 30%
- 40%
- ★ 50%
- 60%
- 70%
- 80%
- ★ 90%
- ◆ 100%

Exemption assessment  
(High frequency exemption)

IEEE 1789

