

LED 5-in-1 Dimmable Driver (CV)

5 in 1 dimming
0-10V
1-10V
10V PWM
TRIAC DIM
Resistance DIM

- TRIAC/ 0-10V/1-10V/10V PWM/RESISTANCE DIM
- Dimming range: 0~100%, LED start at 0.1% possible.
- 0-100% flicker-free, High frequency exemption level.
- High Efficient driver: efficiency 93%.
- Over load / Over temp. / Short circuit / Over voltage protection, recover automatically.
- Up to 50000-hour life time.



Flicker-free
IEEE 1789
High frequency exemption level

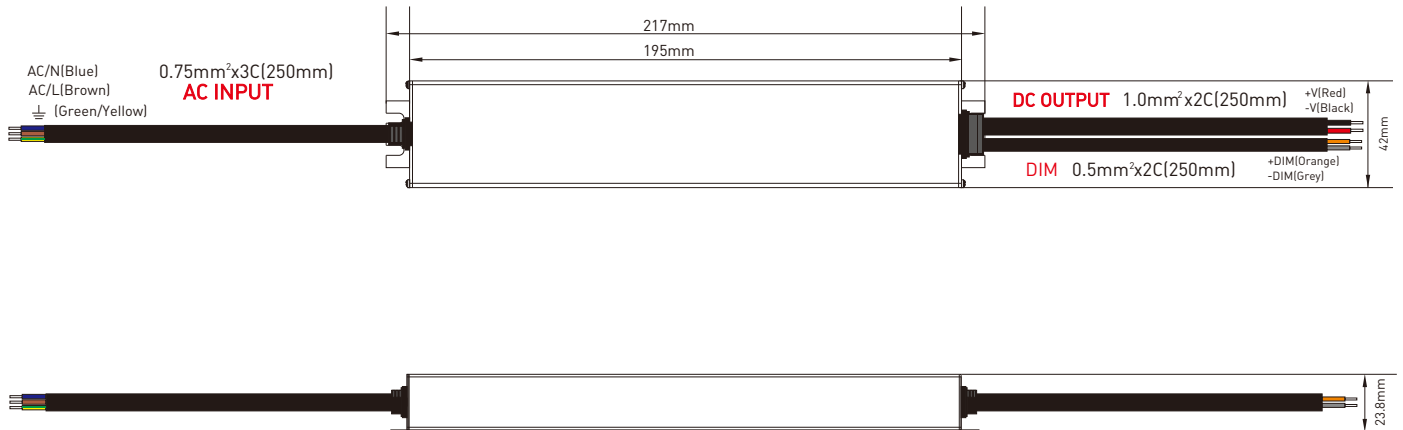


Specification

| Model | YSD-150WHCF-12 | YSD-150WHCF-24 | YSD-150WHCF-36 | YSD-150WHCF-48 | |
|-------------------------|----------------------------------|---|--|--|--|
| OUTPUT | Output voltage | 12VDC | 24VDC | 36VDC | 48VDC |
| | Output voltage range | 12VDC±3% | 24VDC±2% | 36VDC±2% | 48VDC±2% |
| | Output current | Max 12.5A | Max 6.25A | Max 4.17A | Max 3.125A |
| | Output power | Max 150W | | | |
| | Output power range | 0~150W | | | |
| | With or without strobe | No strobe | | | |
| | Dimming range | 0~100%, dimming depth: Max. 0.1% | | | |
| | Ripple & Noise | ±2% | | | |
| | PWM frequency | 700hz-16Khz | | | |
| INPUT | Dimming interface | Traic/0-10V/1-10V/10V PWM/RESISTANCE DIM(0-100K) | | | |
| | Input voltage | 176-264Vac | | | |
| | Frequency | 50Hz | | | |
| | Input current | 1.7A Max. | | | |
| | Power factor | PF>0.55/230Vac, at full load | | | |
| | Efficiency (typ.) | 92% | 93% | 93% | 93% |
| | Inrush current (typ.) | Cold start 80A at 230Vac | | | |
| | Control surge capability | L-N:1.5KV | | | |
| | Leakage current | Max. 0.5mA | | | |
| ENVIRONMENT | Working temperature | ta: -40°C ~ 45°C tc: 90°C | | | |
| | Working humidity | 20 ~ 95%RH, non-condensing | | | |
| | Storage temp., humidity | -40°C ~ 80°C, 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 ≥13.5-18V, re-power on to recover after fault condition is removed. | Shut down the output when non-load voltage ≥27-35V, re-power on to recover after fault condition is removed. | Shut down the output when non-load voltage ≥40-50V, re-power on to recover after fault condition is removed. | Shut down the output when non-load voltage ≥52-63V, re-power on to recover after fault condition is removed. |
| | Over load protection | Shut down the output when current load ≥ 120%, auto recovers | | | |
| SAFETY & EMC | 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 | | | |
| | Withstand voltage | I/P-O/P: 3750Vac | | | |
| | Isolation resistance | I/P-O/P: 100MΩ/500VDC/25°C/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 | | | | |

Dimensions

Unit: mm



Wiring diagram

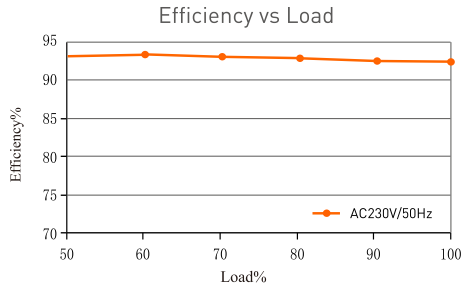
1-10V/10V PWM Dimming diagram



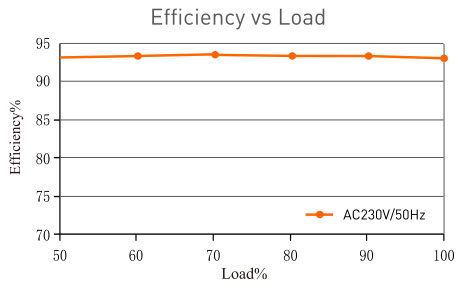
TRIAC Dimming diagram



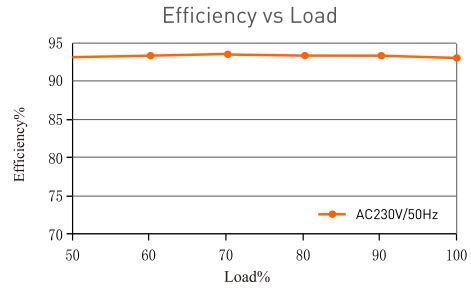
Relationship diagrams



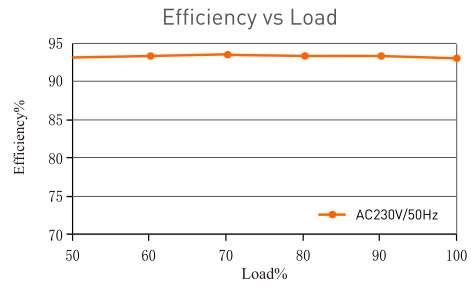
YSD-150WHCF-12



YSD-150WHCF-36



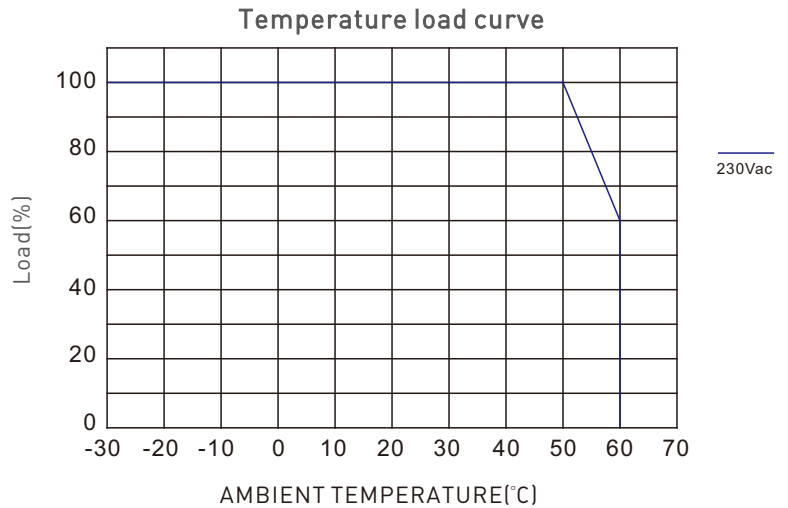
YSD-150WHCF-24



YSD-150WHCF-48

Packaging Information

| | |
|-----------------|----------------------|
| DIMENSION | 217x42x23.8mm(LxWxH) |
| PACKING | mm(LxWxH) |
| CARTON QUANTITY | PCS |
| CARTON SIZE | mm(LxWxH) |
| WEIGHT | 420±10gPCS |



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%

