

## LED Intelligent Driver (CV)

- TRIAC/ 0-10V/1-10V/10V PWM/RESISTANCE DIM
- With soft-on and fade in function, visual more comfortable.
- Dimming range: 0~100%, LED start at 1% possible.
- 0-100% flicker-free, High frequency exemption level.
- High Efficient driver: efficiency 90%, PF>0.95, THD<10%
- Over load / Over temp. / Short circuit / Over voltage protection, recover automatically.
- Suitable for internal lights application for I / II / III.
- Up to 50000-hour life time.



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

100-277V Dimming

PF>0.95

THD<10%

Flicker-free  
IEEE 1789  
High frequency exemption level



CE SELV IP67



0-10V  
1-10V  
DIM

Triac/  
Resistance  
DIM

PWM  
Digital  
Dimming

Over-heat  
Protection

Short Circuit  
Protection

Over Load  
Protection

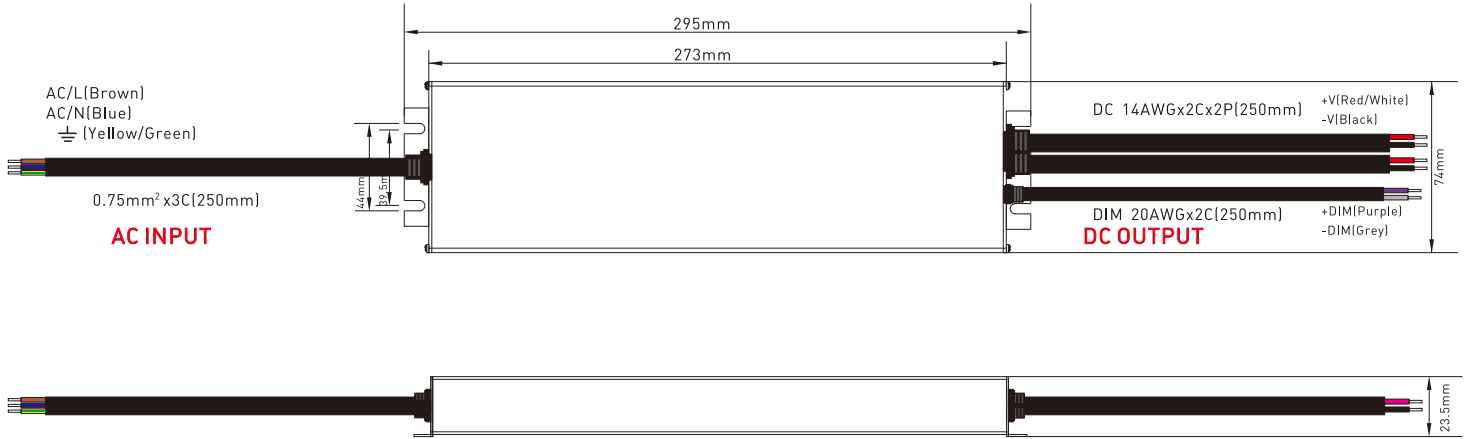
Over voltage  
protection

### Specification

| Model        |                          | YSD-300WUGF-12TL                                                                                                                                                                                                                                              | YSD-300WUGF-24TL                                                                                          |
|--------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| OUTPUT       | Output voltage           | 12VDC                                                                                                                                                                                                                                                         | 24VDC                                                                                                     |
|              | Output voltage range     | 12VDC±0.5VDC                                                                                                                                                                                                                                                  | 24VDC±0.5VDC                                                                                              |
|              | Output current           | Max 25A                                                                                                                                                                                                                                                       | Max 12.5A                                                                                                 |
|              | Output power             | Max 300W                                                                                                                                                                                                                                                      |                                                                                                           |
|              | Output power range       | 0~300W                                                                                                                                                                                                                                                        |                                                                                                           |
|              | With or without strobe   | No strobe                                                                                                                                                                                                                                                     |                                                                                                           |
|              | Dimming range            | 0~100%, dimming depth: Max. 1%                                                                                                                                                                                                                                |                                                                                                           |
|              | Ripple & Noise           | ≤200mV                                                                                                                                                                                                                                                        | ≤400mV                                                                                                    |
|              | PWM frequency            | 3500Hz                                                                                                                                                                                                                                                        |                                                                                                           |
| INPUT        | Dimming interface        | TRIAC/ 0-10V/1-10V/10V PWM/RESISTANCE DIM                                                                                                                                                                                                                     |                                                                                                           |
|              | Input voltage            | 100-277Vac                                                                                                                                                                                                                                                    |                                                                                                           |
|              | Frequency                | 50/60Hz                                                                                                                                                                                                                                                       |                                                                                                           |
|              | Input current            | 3.54~1.28A                                                                                                                                                                                                                                                    |                                                                                                           |
|              | Power factor             | PF>0.95/230Vac, at full load                                                                                                                                                                                                                                  |                                                                                                           |
|              | THD                      | ≤10% at 230Vac, at full load                                                                                                                                                                                                                                  |                                                                                                           |
|              | Efficiency (typ.)        | 90%                                                                                                                                                                                                                                                           | 91%                                                                                                       |
|              | Inrush current(typ.)     | Cold start 60A                                                                                                                                                                                                                                                |                                                                                                           |
|              | Control surge capability | L-N:2KV                                                                                                                                                                                                                                                       |                                                                                                           |
|              | Leakage current          | Max. 0.5mA                                                                                                                                                                                                                                                    |                                                                                                           |
|              |                          |                                                                                                                                                                                                                                                               |                                                                                                           |
| ENVIRONMENT  | Working temperature      | ta: -30°C ~ 50°C tc: 80°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 ≥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°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                                                                                                                                                                                                                                                     |                                                                                                           |

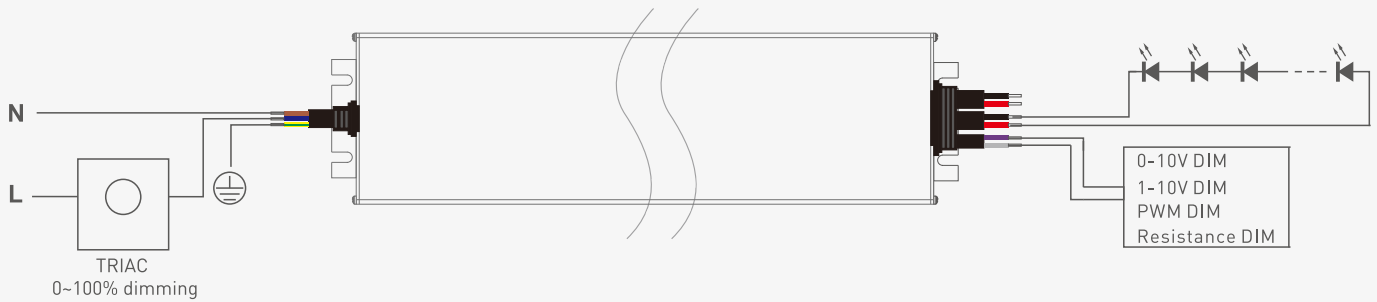
## Dimensions Unit:mm

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

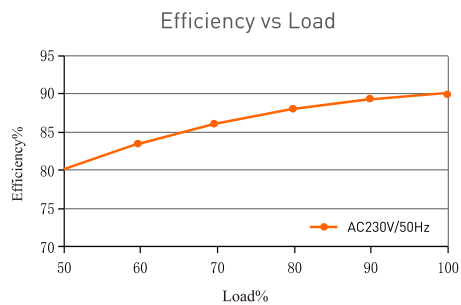


## Wiring diagram

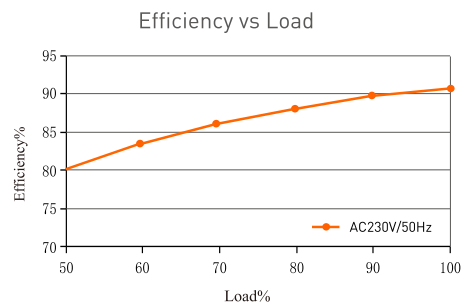
### Dimming diagram



## Relationship diagrams



YSD-300WUGF-12TL

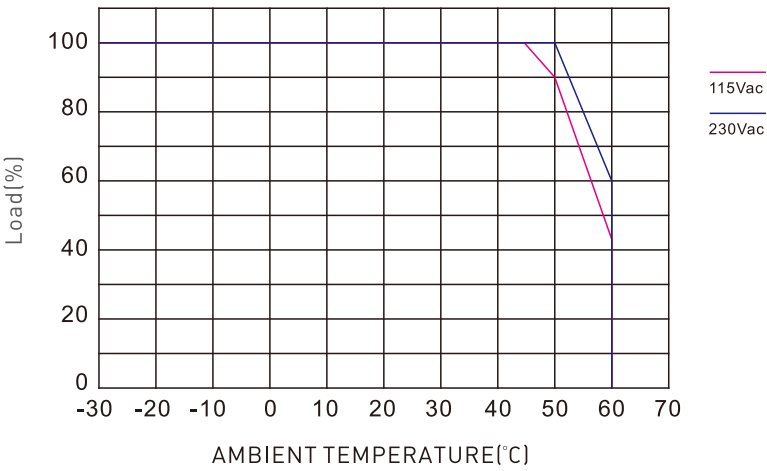


YSD-300WUGF-24TL

### Packaging Information

|                 |                      |
|-----------------|----------------------|
| DIMENSION       | 295x74x23.5mm(LxWxH) |
| PACKING         | 341x90x27mm(LxWxH)   |
| CARTON QUANTITY |                      |
| CARTON SIZE     |                      |
| WEIGHT          | 1010g±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)

