

300W-12V/24V LED Intelligent Dimmable Waterproof 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

V
Over voltage
protection

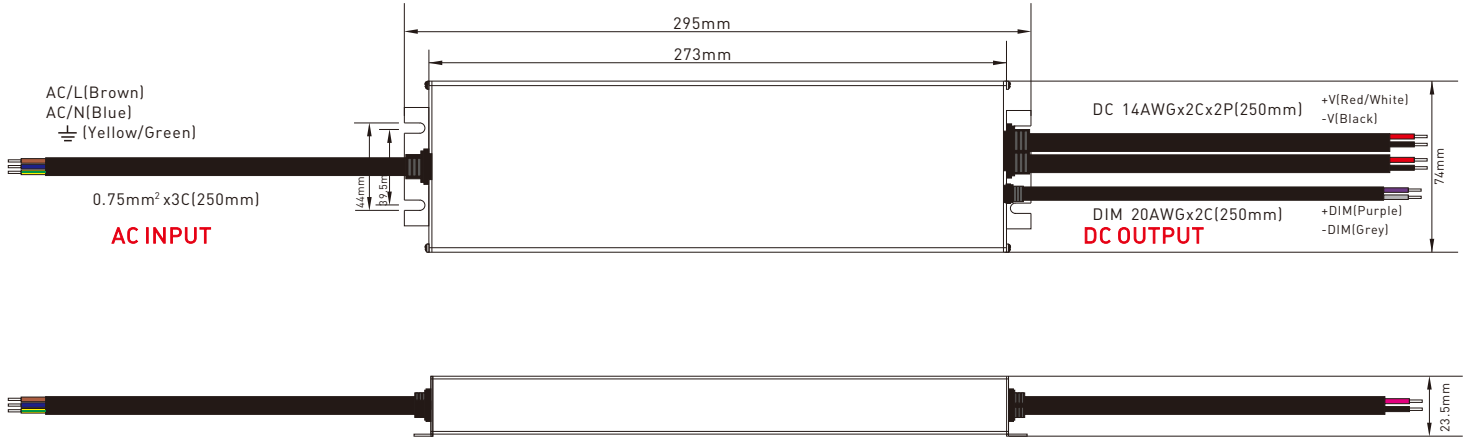
Specification

| 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: 100MQ/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 | |

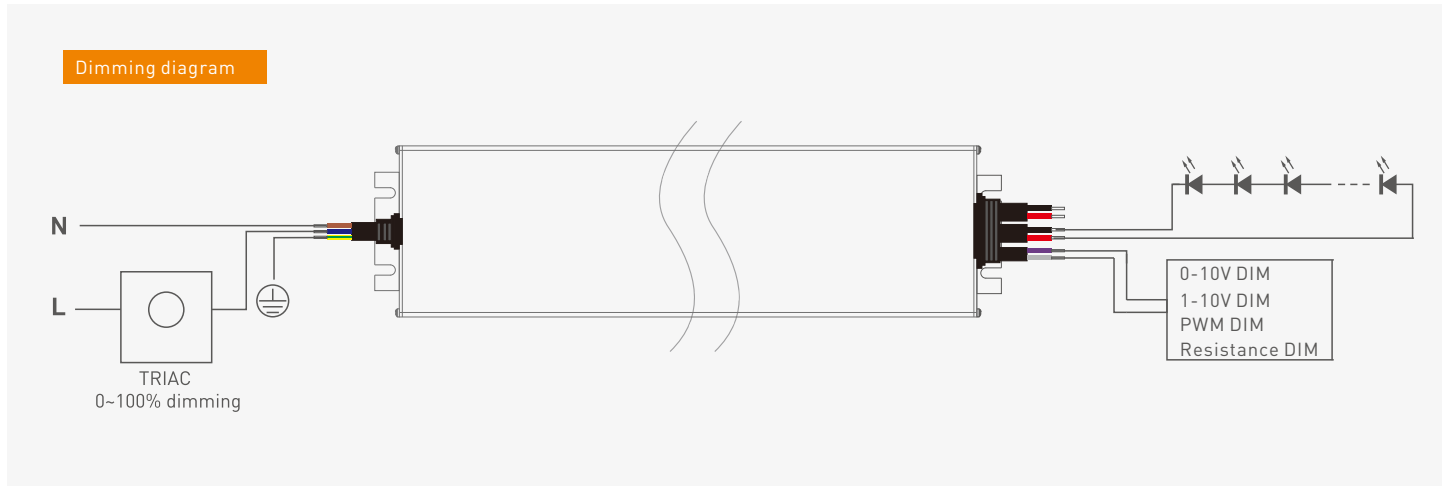
YSD 研硕达 300W-12V/24V LED Intelligent Dimmable Waterproof Driver (CV)

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0-10V
1-10V
10V PWM
TRIAC DIM
Resistance DIM

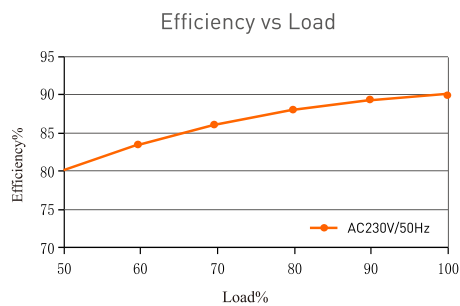
Dimensions
Unit:mm



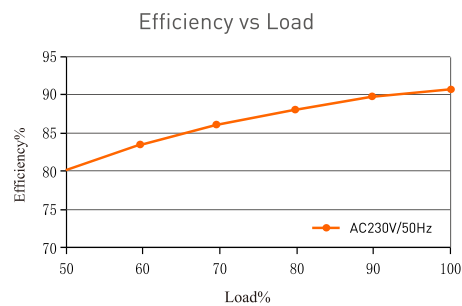
Wiring diagram



Relationship diagrams



YSD-300WUGF-12TL

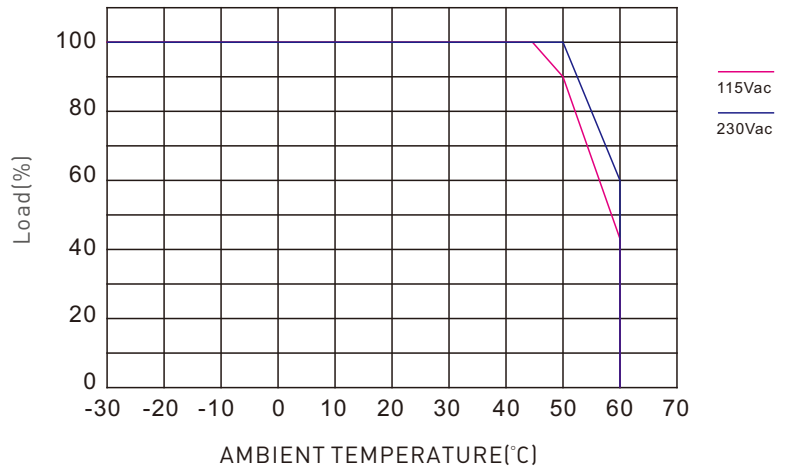


YSD-300WUGF-24TL

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% (brown diamond)
- 5% (red triangle)
- 10% (pink diamond)
- 20% (grey circle)
- 30% (pink triangle)
- 40% (teal circle)
- 50% (green star)
- 60% (yellow star)
- 70% (yellow square)
- 80% (blue pentagon)
- 90% (orange star)
- 100% (black diamond)

Exemption assessment
(High frequency exemption)

IEEE 1789

