

## 60W-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 88%,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

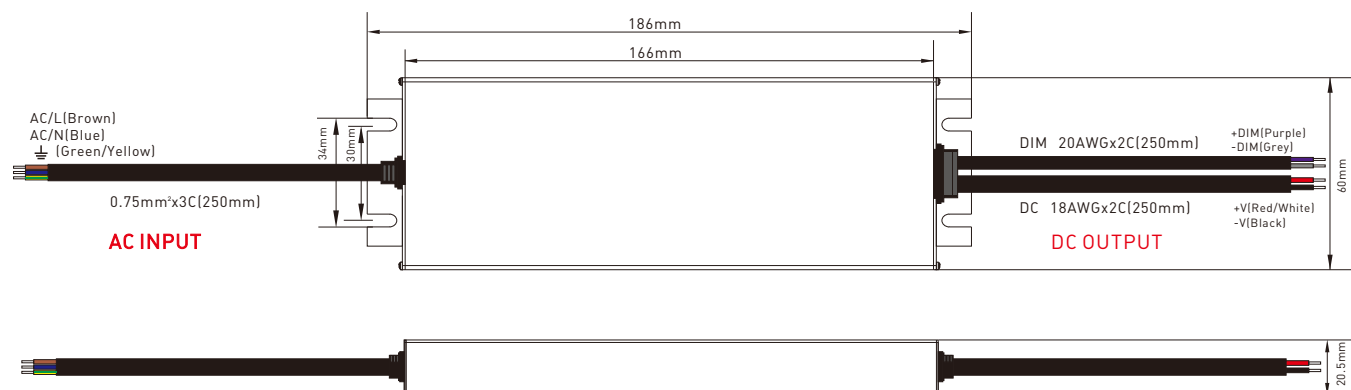
Over voltage  
protection

### Specification

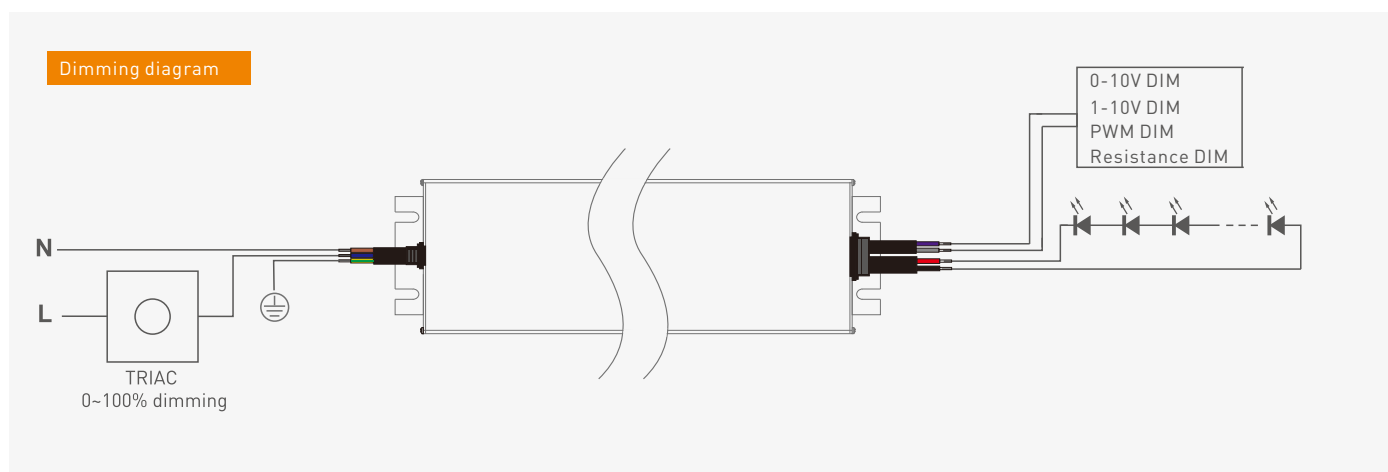
Model		YSD-60WUGF-12TL	YSD-60WUGF-24TL
OUTPUT	Output voltage	12VDC	24VDC
	Output voltage range	12VDC±0.3VDC	24VDC±0.6VDC
	Output current	Max 5A	Max 2.5A
	Output power	Max 60W	
	Output power range	0~60W	
	With or without strobe	No strobe	
	Dimming range	0~100%, dimming depth: Max. 1%	
	Ripple & Noise	≤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	0.72~0.26A	
	Power factor	PF>0.95/230Vac, at full load	
	THD	≤10% at 230Vac, at full load	
	Efficiency (typ.)	88%	89%
	Inrush current(typ.)	Cold start 30A at 230Vac	
	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

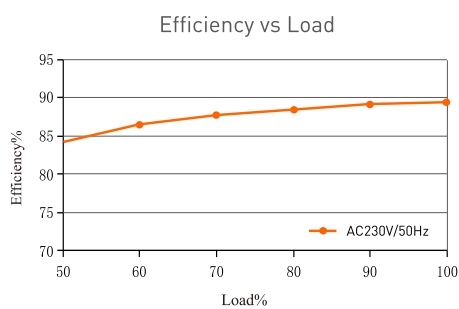
Unit: mm



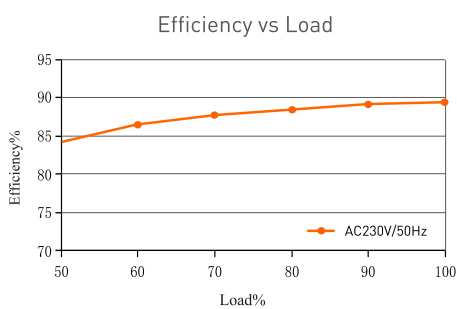
## Wiring diagram



## Relationship diagrams



YSD-60WUGF-12TL

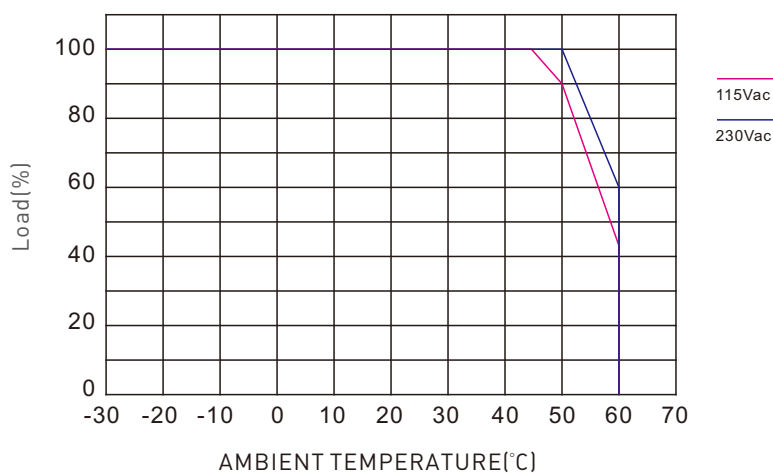


YSD-60WUGF-24TL

## Packaging Information

DIMENSION	186x60x20.5mm(LxWxH)
PACKING	219x77x25mm(LxWxH)
CARTON QUANTITY	
CARTON SIZE	
WEIGHT	400g±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

