

## 30W Constant Voltage Slim-US Series

US-30-XX LI1



■Approve



### ■Features

- Class II, SELV, independent
- Input Voltage 220-240VAC
- Protections: SCP/OLP/OVP/OTP
- Power Factor  $>0.95$
- Efficiency  $\geq 83\%$
- 5 years warranty

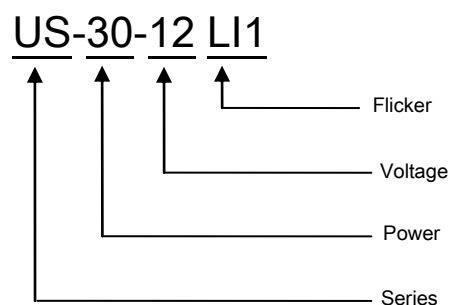
### ■Applications

- LED strips
- kitchen light
- bathroom light

### ■Description

US-30-XX LI1 is a 30W constant voltage LED driver that operates from 198-264Vac input with 12V or 24V output voltage. With it's slim dimensions from 261 x 30x 17mm it is easy to integrate in LED strips, kitchen light and bathroom light products. To ensure trouble-free operation, protection is provided against output short circuit, over Load and over temperature.

### ■Model code



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### ■ Specification

|              |                                  |                                              |           |
|--------------|----------------------------------|----------------------------------------------|-----------|
| Input        | Rated input voltage              | 220-240VAC                                   |           |
|              | Range of input voltage           | 198-264VAC                                   |           |
|              | Range of input voltage(VDC)      | 176-250VDC                                   |           |
|              | Frequency(Hz)                    | 0/50/60 Hz                                   |           |
|              | Power Factor                     | > 0.95@Full load, 230VAC                     |           |
|              | Input Current max                | 0.24A MAX. @Full Load,198VAC                 |           |
|              | Start-up time                    | < 0.5S                                       |           |
|              | Unload Power Consumption         | ≤0.5W                                        |           |
|              | Inrush Current                   | 20A Max. @ Full Load, 230VAC                 |           |
|              | THD                              | < 8% Typ. @Full load, 230VAC                 |           |
|              | Leakage Current                  | < 0.7mA(240VAC)                              |           |
| Output       | Constant Voltage                 | 12VDC                                        | 24VDC     |
|              | Current Range                    | 0-2.5A                                       | 0-1.25A   |
|              | Rated power                      | 30W Max.                                     |           |
|              | Voltage Accuracy                 | ±5%                                          |           |
|              | Voltage Regulation               | ±1% @Full Load                               |           |
|              | Load Regulation                  | ±2%                                          |           |
|              | Hold-up Time                     | 1s max.@Full Load                            |           |
|              | Ripple& Noise *Note.2            | ≤±2%@Full Load,230VAC                        |           |
|              | Output LF current ripple(<120Hz) | ≤±1%                                         |           |
|              | Efficiency(Typ.)                 | ≥83%                                         | ≥85%      |
| Protection   | Over Load Protection             | 105-150%                                     |           |
|              |                                  | Protection type: Auto Resume                 |           |
|              | Over Voltage Protection          | > 12.6VDC                                    | > 25.2VDC |
|              |                                  | Protection type: Auto Resume                 |           |
| Environment  | Short circuit Protection         | Protection type: Auto Resume                 |           |
|              | Over Temperature protection      | Protection type: Auto Resume                 |           |
|              | Operating Temperature            | -20°C...+45°C                                |           |
|              | tc                               | 90°C                                         | 85°C      |
|              | Storage Temperature              | -40°C...+60°C                                |           |
|              | Life time                        | > 50,000h@Full Load , 230V, ta=45°C          |           |
| Safety & EMC | Temperature coefficient          | ±0.03%/°C(0-45°C)                            |           |
|              | Humidity                         | 20%-90%RH                                    |           |
|              | Dimension                        | 261X30X17(LXWXH)mm                           |           |
|              | Safety standards                 | EN 61347-1; EN61347-2-13; EN62493; EN62384   |           |
|              | Withstand voltage                | Input-Output : 3750V/5mA/1min                |           |
| Note         | Isolation resistance             | Input-Output : ≥4MΩ@500VDC                   |           |
|              | EMI                              | EN55015; EN61000-3-2 Class C; EN61000-3-3    |           |
|              | EMS                              | EN 61547; EN 61000-4-2; EN 61000-4-5 —1000V; |           |

1.All parameters NOT specially mentioned are measured at 230VAC input , full load and 25°C of ambient temperature.  
 2.Ripple & Noise are measured at 20MHz of bandwidth by using a 300mm twisted pair-wire terminated with a 0.1uF & 47 uF parallel capacitor.

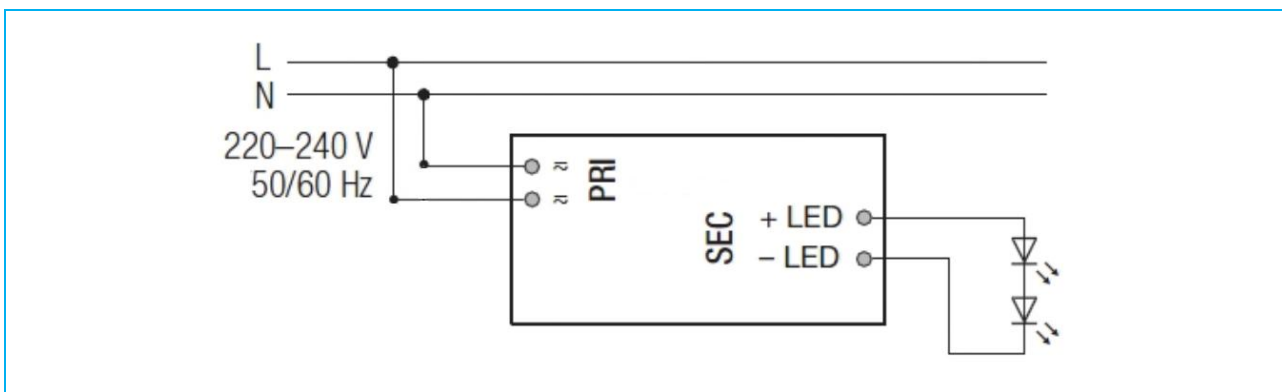
## 30W Constant Voltage Slim-US Series

US-30-XX LI1

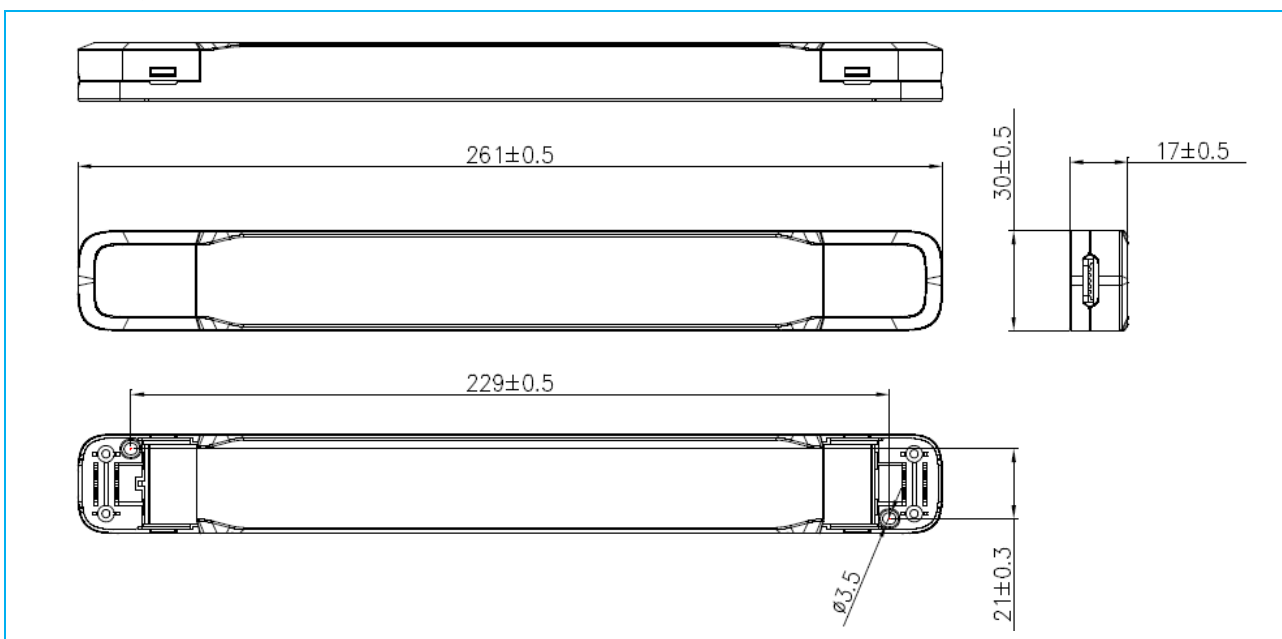
### ■Model list

| No. | Model number | Input         |             |                | Output                 |                            |                        |
|-----|--------------|---------------|-------------|----------------|------------------------|----------------------------|------------------------|
|     |              | Voltage (VAC) | Current (A) | Frequency (Hz) | Constant voltage (VDC) | Normal working current (A) | P <sub>rated</sub> (W) |
| 1   | US-30-12 LI1 | 220-240       | 0.24        | 50/60          | 12                     | 0-2.5                      | 30                     |
| 2   | US-30-24 LI1 | 220-240       | 0.24        | 50/60          | 24                     | 0-1.25                     | 30                     |

### ■Wiring diagram



### ■2D diagram

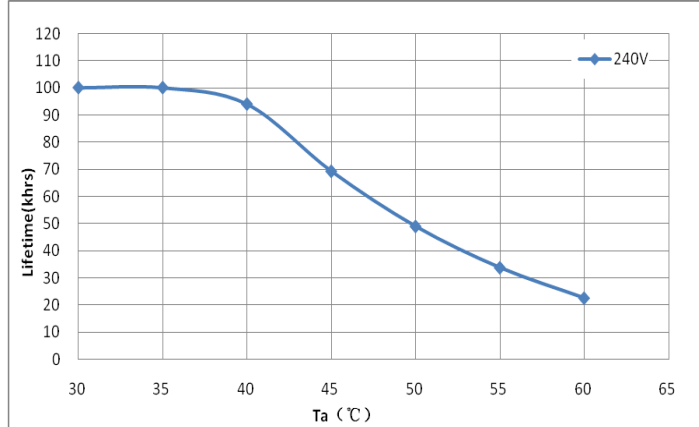


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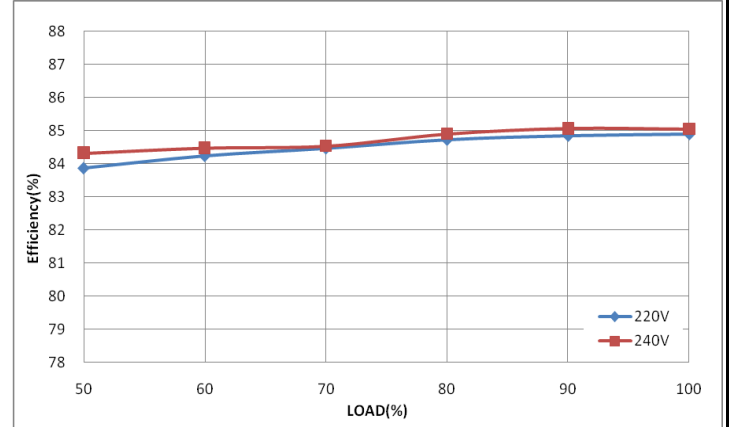
US-30-XX LI1

### ■Curve@US-30-24 LI1

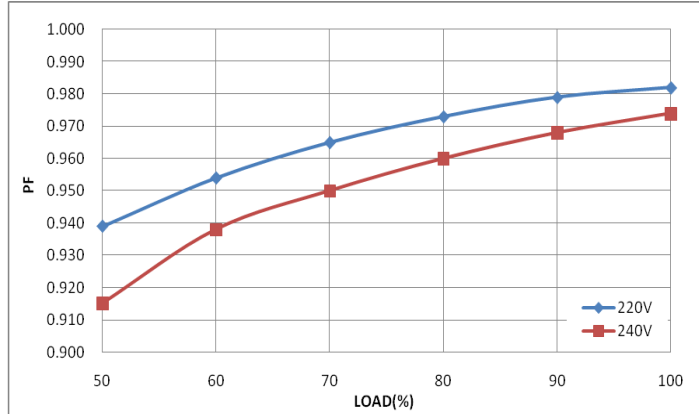
#### Lifetime vs. Ambient Temperature Curve



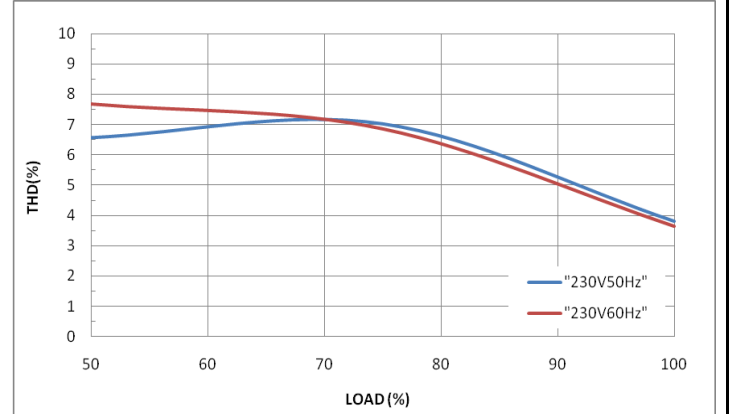
#### Efficiency vs. Load



#### Power Factor Characteristics



#### THD vs. Load



### ■Operating window

