

### KVF-TDHS Series 100W

Whole Family: KVF-XX100-TDHS (XX=12V/24VDC) [ 30W 36W 60W 100W 150W ]



### Features

|                         |                                                                                |
|-------------------------|--------------------------------------------------------------------------------|
| Output:                 | Constant Voltage                                                               |
| Range:                  | 200-240VAC                                                                     |
| PFC design:             | Built-in active PFC function                                                   |
| Efficiency:             | Up to 88%                                                                      |
| Protections:            | Short circuit/ over load/ over temperature                                     |
| Heat dissipation:       | Cooling by free air convection                                                 |
| Waterproof performance: | IP20                                                                           |
| Dimming function:       | <u>Phase dimming</u> : work with leading edge and trailing edge, TRIAC dimmers |
| Dimming range:          | 0-100%                                                                         |
| Application:            | Suitable for the application of LED lighting                                   |
| Warranty:               | 5 years warranty                                                               |

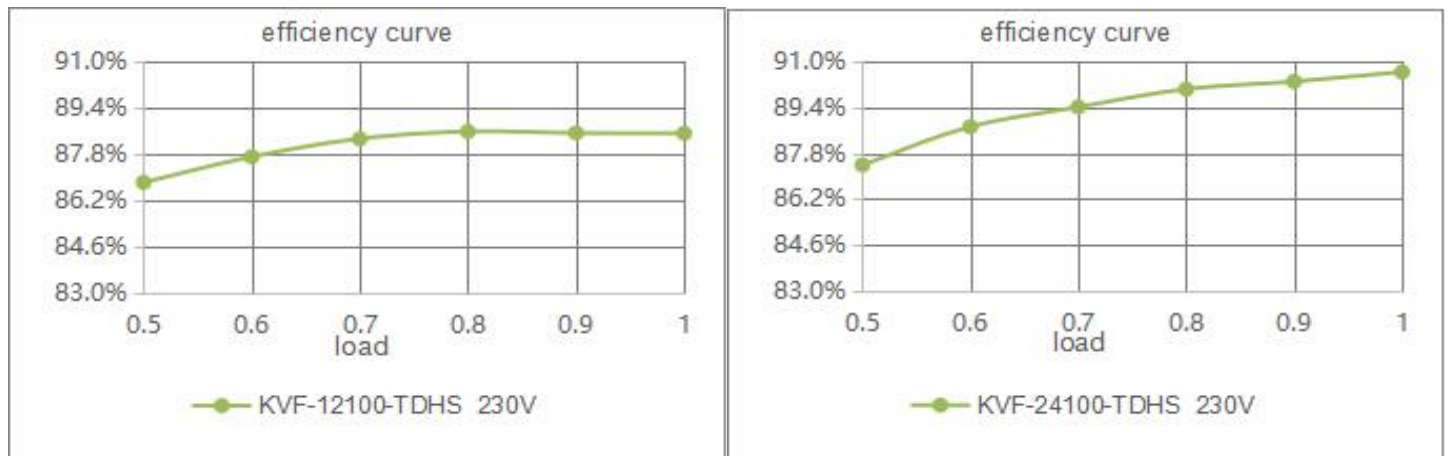
## Phase cut /Triac Dimmable LED Driver - PWM output - KVF-TDHS Series 100W

U.S. Patents No. 9,942,959; 10,039,167; 9,661,710; 9,961,724

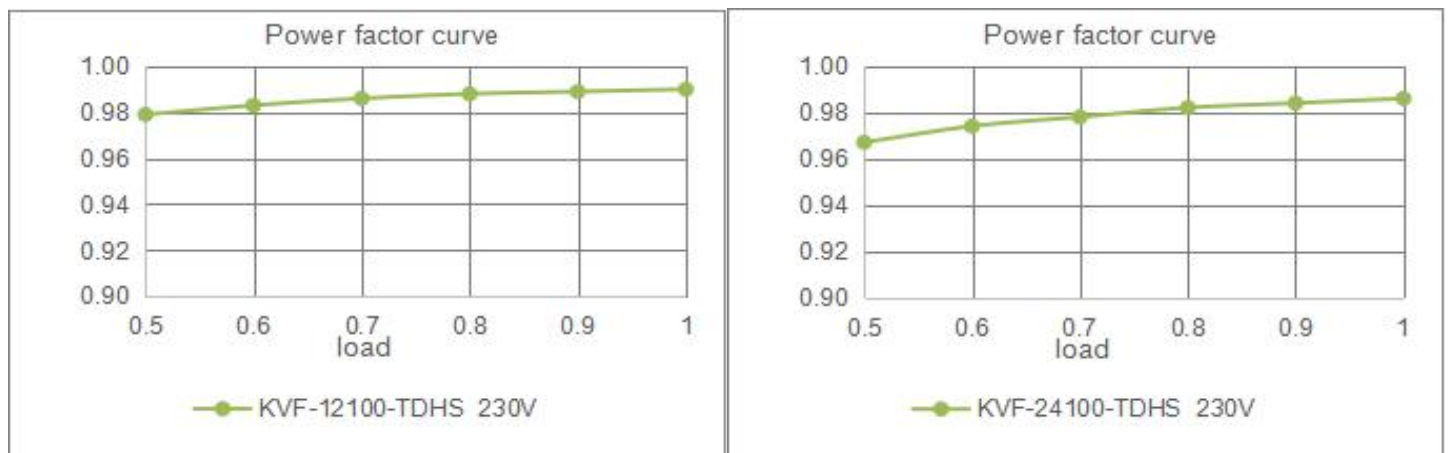
### Specification

| Model        |                                                                                                                                                                                          | KVF-12100-TDHS                                                                               | KVF-24100-TDHS |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------|
| Certificate  |                                                                                                                                                                                          | ENEC / CE / UKCA / SAA / SELV / RoHS / Reach                                                 |                |
| Output       | DC Voltage                                                                                                                                                                               | 12V                                                                                          | 24V            |
|              | Voltage Tolerance                                                                                                                                                                        | ±0.5V                                                                                        |                |
|              | Voltage Regulation                                                                                                                                                                       | ≤2%                                                                                          | ≤1%            |
|              | Rated current                                                                                                                                                                            | 8.33A                                                                                        | 4.17A          |
|              | Rated power                                                                                                                                                                              | 100W                                                                                         |                |
|              | Load Regulation                                                                                                                                                                          | ≤0.5%                                                                                        |                |
| Input        | Voltage Range                                                                                                                                                                            | 200-240VAC                                                                                   |                |
|              | Frequency Range                                                                                                                                                                          | 50 / 60Hz                                                                                    |                |
|              | Power Factor @ full load                                                                                                                                                                 | ≥0.96@230VAC                                                                                 |                |
|              | THD(Typ.) @ full load                                                                                                                                                                    | ≤10%                                                                                         |                |
|              | Efficiency @ full load                                                                                                                                                                   | 86%                                                                                          | 88%            |
|              | AC Current (Max.)                                                                                                                                                                        | 0.8A                                                                                         |                |
|              | Inrush Current (Typ.)                                                                                                                                                                    | 52A, 210us @50%Ipeak 230VAC                                                                  |                |
|              | Leakage current                                                                                                                                                                          | <0.5mA                                                                                       |                |
| Protection   | Short Circuit                                                                                                                                                                            | Shut down o/p voltage, recovers automatically after fault condition is removed               |                |
|              | Over Load                                                                                                                                                                                | 105%~120% constant current limiting, recovers automatically after fault condition is removed |                |
|              | Over temperature                                                                                                                                                                         | Shell surface temp.100°C±10°C shut down o/p voltage, automatically recover after cooling     |                |
| Environment  | Working TEMP.                                                                                                                                                                            | -40~+40°C (see below derating curve)                                                         |                |
|              | Working Humidity                                                                                                                                                                         | 20 - 90%RH    non-condensing                                                                 |                |
|              | Storage TEM.,Humidity                                                                                                                                                                    | -40 - +80°C,10 - 95% RH non-condensing                                                       |                |
|              | TEMP.coefficient                                                                                                                                                                         | ±0.03%/°C(0 - 50°C)                                                                          |                |
|              | Vibration                                                                                                                                                                                | 10~500Hz, 2G 10min./1 cycle, period for 60min. each along X,Y,Z axes                         |                |
| Safety & EMC | Safety standards                                                                                                                                                                         | EN61347-1    EN61347-2-13                                                                    |                |
|              | Withstand voltage                                                                                                                                                                        | I/P-O/P: 3.75KVAC                                                                            |                |
|              | Isolation resistance                                                                                                                                                                     | I/P-O/P:100MΩ / 500VDC / 25°C / 70%RH                                                        |                |
|              | EMC Immunity                                                                                                                                                                             | EN61547    EN61000-4-2,3,4,5,6,11                                                            |                |
|              | EMC Emission                                                                                                                                                                             | EN55015    EN61000-3-2    EN61000-3-3                                                        |                |
| Others       | Net Weight                                                                                                                                                                               | 0.29KG                                                                                       |                |
|              | Dimension                                                                                                                                                                                | 329.7*30*22mm(L*W*H)                                                                         |                |
|              | Packing                                                                                                                                                                                  | 350*330*145mm    50pcs/CTN    15.8KG/CTN                                                     |                |
| Notes        | 1.    All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°Cof ambient temperature.<br>2.    Tolerance: includes set up tolerance and load regulation. |                                                                                              |                |

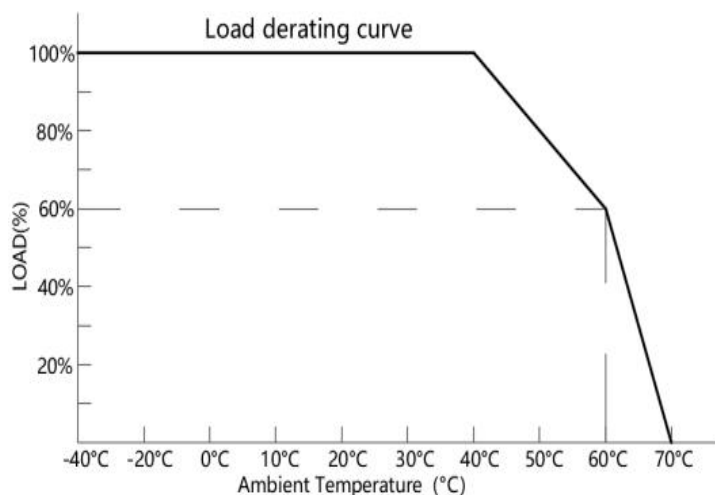
## Efficiency Curve (efficiency vs output load)



## Power Factor Curve (power factor vs output load)



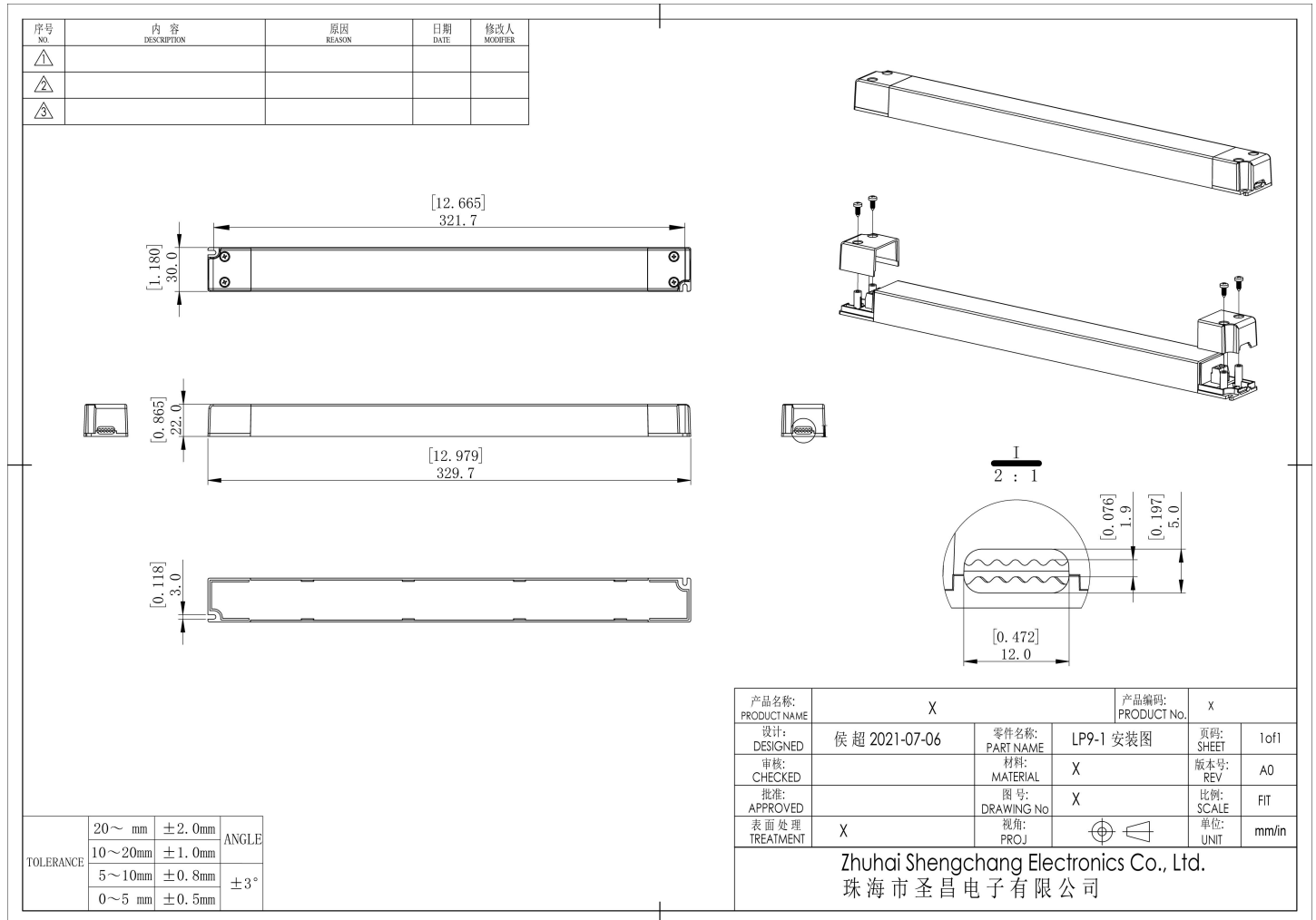
## Derating Curve (output load vs TEMP.)



1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. Please note that the rise in temperature of LED fixtures over a long period of time will cause their power to rise.

Therefore, we

### Mechanical Specification



### 12V&24V Version

- Input with DG126 terminals 3P: Live Wire AC (L), Neutral Wire AC (N).
- Output LED SEC with DG126 terminals 2P: output Positive (LED+), output negative (LED-). Connected to LED Lamps.
- Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.

### Warm tips:

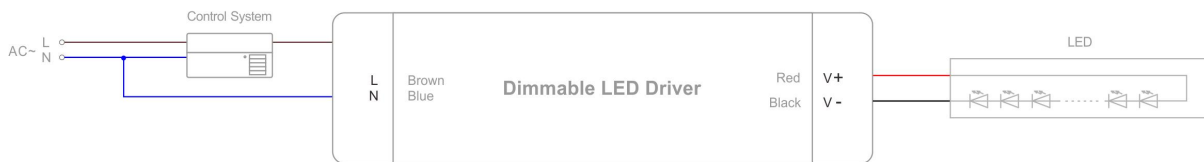
- Suggested wire diameter: Input 0.75-2.0mm<sup>2</sup>; Output 0.5-2.0mm<sup>2</sup>.

### Dimming Operation and Connecting Diagram

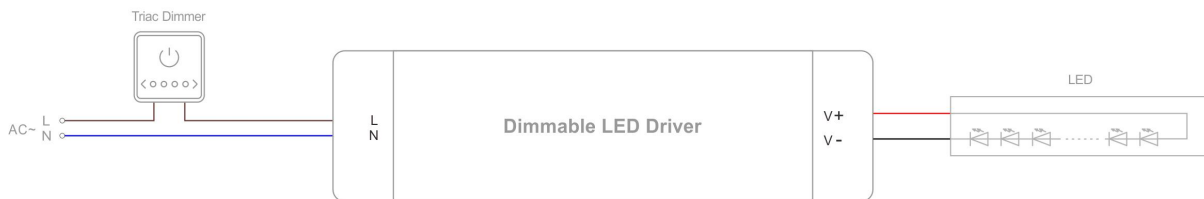
#### TRIAC/Phase cut dimming

1. The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer or lighting system.
2. Working with leading edge and trailing edge, TRIAC dimmers.
3. Min. loading is about 10%.
4. Please try to use dimmers with power at least 1.5 times as the output power of the driver.

#### Triac



#### Triac



### Instructions

1. This driver should be installed by qualified and professional person.
2. Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.
3. Ensure that wiring is correct before test in order to avoid light and power supply damage.