

## KIG-DH Series 20W

Whole Family: KIG-XXX-DH - [ 10W 20W 40W 60W ]



SELV



RoHS



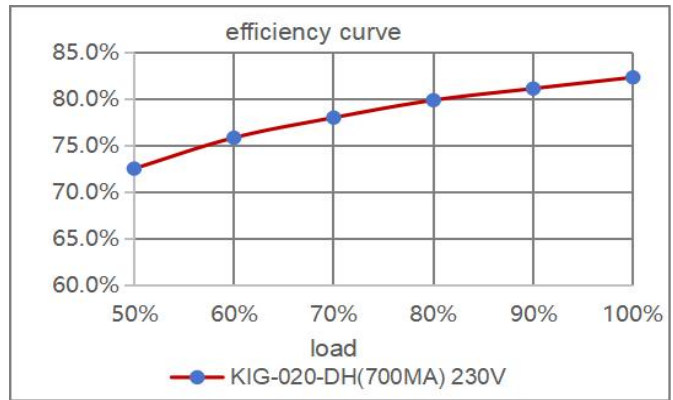
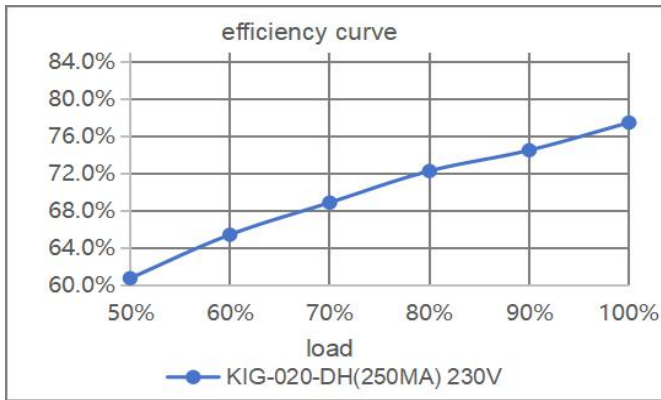
### Features

|                         |                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output:                 | Constant Current                                                                                                                                            |
| Range:                  | 200-240VAC                                                                                                                                                  |
| PFC design:             | Built-in active PFC function                                                                                                                                |
| Efficiency:             | Up to 80%                                                                                                                                                   |
| Protections:            | Short circuit/ over temperature                                                                                                                             |
| Heat dissipation:       | Cooling by free air convection                                                                                                                              |
| Waterproof performance: | IP20(EU)                                                                                                                                                    |
| Dimming function:       | <u>Phase dimming</u> : work with leading edge, MLV and trailing edge, ELV, TRIAC dimmers<br><u>0-10V dimming</u> : 0-10V/1-10V/Potentiometer/10V PWM 4 in 1 |
| Dimming range:          | 1-100%                                                                                                                                                      |
| Application:            | Suitable for the application of indoor LED lighting                                                                                                         |
| Warranty:               | 5 years warranty                                                                                                                                            |

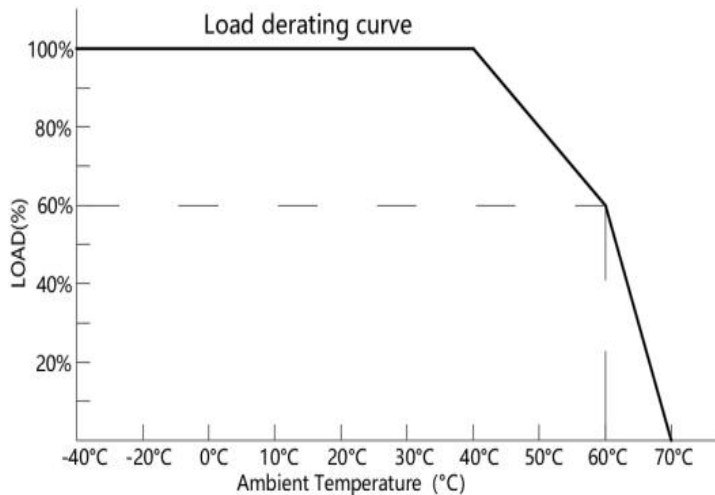
**Triac/0-10V/1-10V/Potentiometer/10V PWM 5 in 1 Dimmable LED driver 20W**
**Specification**
**T** ON **L** OFF

| Model        |                                                                                                                                                                                                    | KIG-020-DH                                                                                                                                                                                               |              |              |              |              |              |              |              |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Output       | Rated current                                                                                                                                                                                      | 250mA<br>⏏⏏⏏                                                                                                                                                                                             | 350mA<br>⏏⏏⏏ | 400mA<br>⏏⏏⏏ | 450mA<br>⏏⏏⏏ | 500mA<br>⏏⏏⏏ | 550mA<br>⏏⏏⏏ | 600mA<br>⏏⏏⏏ | 700mA<br>⏏⏏⏏ |
|              | Current Tolerance                                                                                                                                                                                  | ±5%                                                                                                                                                                                                      |              |              |              |              |              |              |              |
|              | No load Voltage                                                                                                                                                                                    | 52VMax                                                                                                                                                                                                   |              |              |              |              |              |              |              |
|              | DC Voltage (V)                                                                                                                                                                                     | 3-42V                                                                                                                                                                                                    | 3-42V        | 3-42V        | 3-42V        | 3-40V        | 3-36V        | 3-33V        | 3-29V        |
|              | Rated power                                                                                                                                                                                        | 10.5W                                                                                                                                                                                                    | 14.7W        | 16.8W        | 18.9W        | 20W          | 19.8W        | 19.8W        | 20.3W        |
| Input        | Rated Voltage                                                                                                                                                                                      | 200-240VAC                                                                                                                                                                                               |              |              |              |              |              |              |              |
|              | Rated Frequency                                                                                                                                                                                    | 47-63HZ                                                                                                                                                                                                  |              |              |              |              |              |              |              |
|              | Power Factor @ full load                                                                                                                                                                           | 0.9@230VAC 50Hz                                                                                                                                                                                          |              |              |              |              |              |              |              |
|              | Efficiency @ full load                                                                                                                                                                             | 78%@230VAC 50Hz                                                                                                                                                                                          |              |              |              |              |              |              |              |
|              | No load power                                                                                                                                                                                      | 3.02W@230VAC 50Hz                                                                                                                                                                                        |              |              |              |              |              |              |              |
|              | THD(Typ.)@full load                                                                                                                                                                                | 14.29% ( @230VAC 50Hz )                                                                                                                                                                                  |              |              |              |              |              |              |              |
|              | AC Current (Max.)                                                                                                                                                                                  | 0.15A                                                                                                                                                                                                    |              |              |              |              |              |              |              |
|              | Inrush Current                                                                                                                                                                                     | 2.96A,7.6us@50%Ipeak 230VAC                                                                                                                                                                              |              |              |              |              |              |              |              |
|              | Leakage current                                                                                                                                                                                    | <0.5mA                                                                                                                                                                                                   |              |              |              |              |              |              |              |
| Protection   | Short Circuit                                                                                                                                                                                      | Constant current mode, recovers automatically after fault condition is removed                                                                                                                           |              |              |              |              |              |              |              |
|              | Over temperature                                                                                                                                                                                   | Ambient temp. over 50℃±5℃, output current will be reduced to 50%;<br>Ambient temp. over 60℃±5℃, output will be reduced to 0%;<br>Ambient temp. down to 45℃±5℃, recovers automatically after temp. drops. |              |              |              |              |              |              |              |
| Environment  | Working TEMP.                                                                                                                                                                                      | -40-+60℃                                                                                                                                                                                                 |              |              |              |              |              |              |              |
|              | Working Humidity                                                                                                                                                                                   | 20-90%RH, non-condensing                                                                                                                                                                                 |              |              |              |              |              |              |              |
|              | Storage TEMP.Humidity                                                                                                                                                                              | -40-+80℃,10-95%RH                                                                                                                                                                                        |              |              |              |              |              |              |              |
|              | TEMP. coefficient                                                                                                                                                                                  | ±0.03%/℃ (0-50℃)                                                                                                                                                                                         |              |              |              |              |              |              |              |
|              | 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 (EU)                                                                                                                                                                           |              |              |              |              |              |              |              |
|              | Withstand voltage                                                                                                                                                                                  | I/P-O/P:3.75KVAC (EU)                                                                                                                                                                                    |              |              |              |              |              |              |              |
|              | Isolation resistance                                                                                                                                                                               | I/P-O/P:100MΩ / 500VDC / 25℃ / 70%RH                                                                                                                                                                     |              |              |              |              |              |              |              |
|              | EMC Immunity                                                                                                                                                                                       | EN61000-4-2,3,4,5,11    EN61547 (EU)                                                                                                                                                                     |              |              |              |              |              |              |              |
|              | EMC Emission                                                                                                                                                                                       | EN55015    EN61000-3-2    EN61000-3-3 (EU)                                                                                                                                                               |              |              |              |              |              |              |              |
| Others       | Weight                                                                                                                                                                                             | 0.115Kg                                                                                                                                                                                                  |              |              |              |              |              |              |              |
|              | Size                                                                                                                                                                                               | 159.5*43*20mm(L*W*H)                                                                                                                                                                                     |              |              |              |              |              |              |              |
|              | Packing                                                                                                                                                                                            | 340*250*135    50PCS/CTN    6.52KG/CTN                                                                                                                                                                   |              |              |              |              |              |              |              |
| Notes        | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃of ambient temperature.<br>2. Tolerance: includes set us tolerance, line regulation and load regulation. |                                                                                                                                                                                                          |              |              |              |              |              |              |              |

## Efficiency Curve (efficiency vs output load)

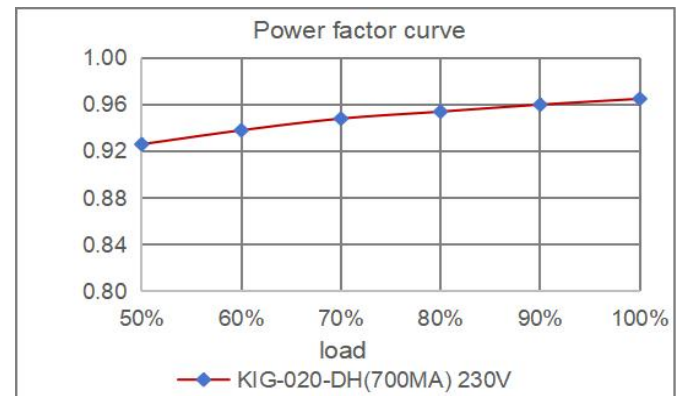
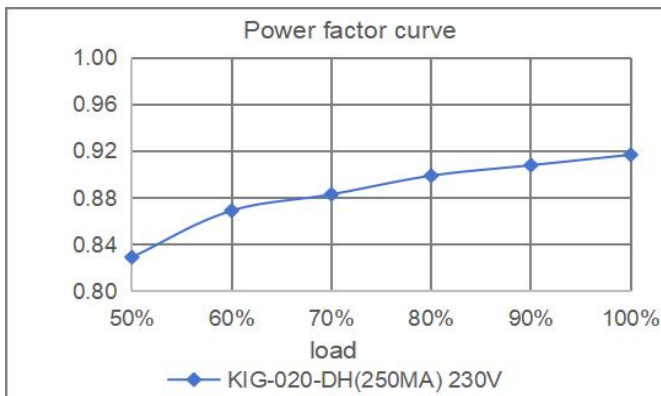


## Derating Curve (output load vs TEMP.)



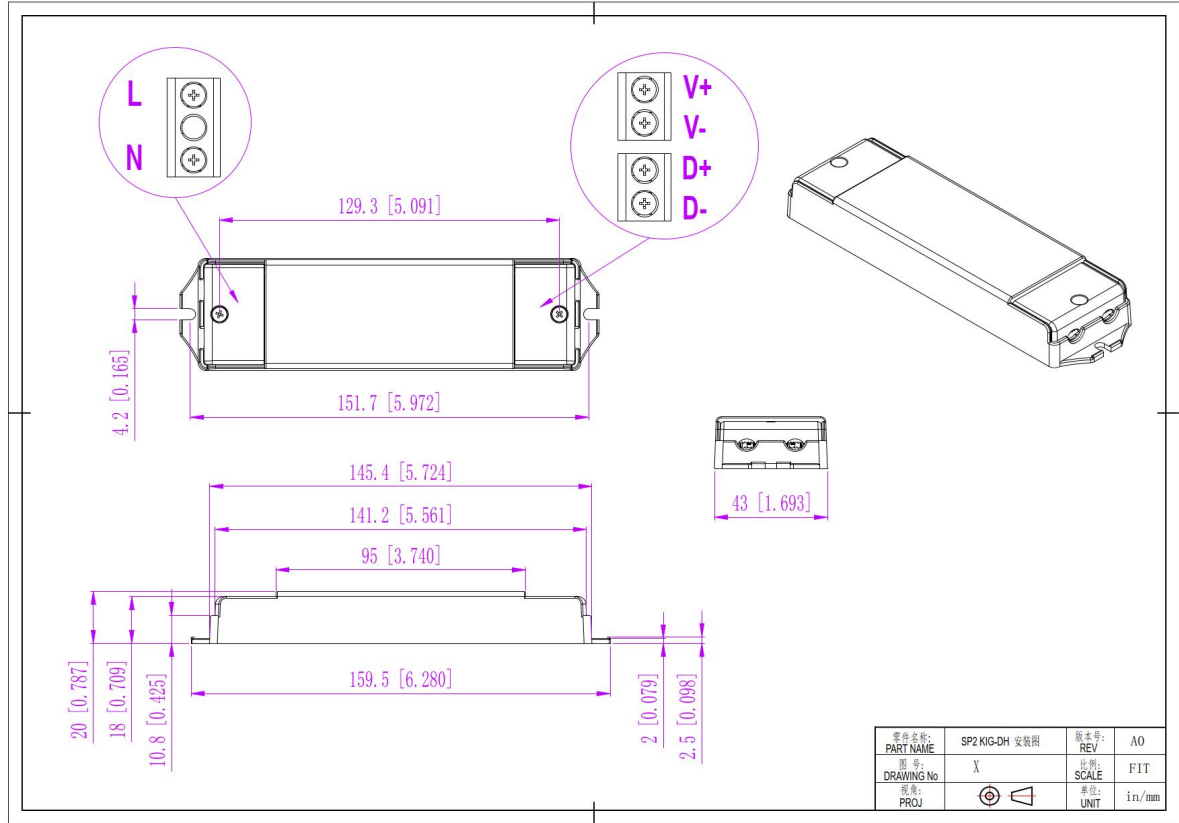
1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. Please note that the rise in temperature of LED fixtures over a long period of time will cause their power to rise. Therefore, we recommend the power supply to reserve a certain amount of load to avoid overloading .

## Power Factor Curve



## Triac/0-10V/1-10V/Potentiometer/10V PWM 5 in 1 Dimmable LED driver 20W

## Mechanical Specification



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

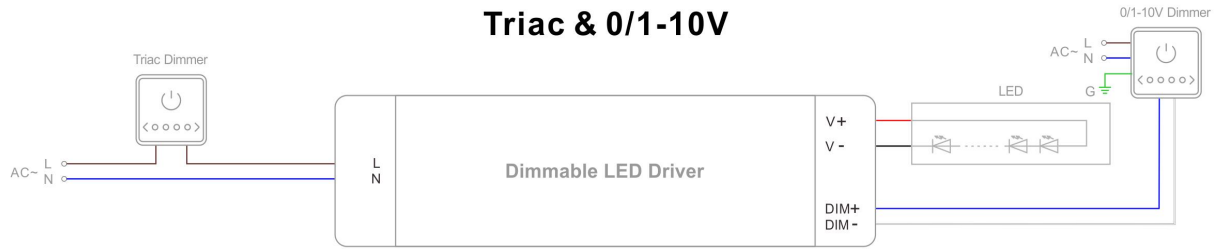
### Warm tips:

1. Suggested wire diameter: Input 0.75-2mm<sup>2</sup>; Output:0.5-2mm<sup>2</sup>.
2. Any other requests for cable, we can customized.

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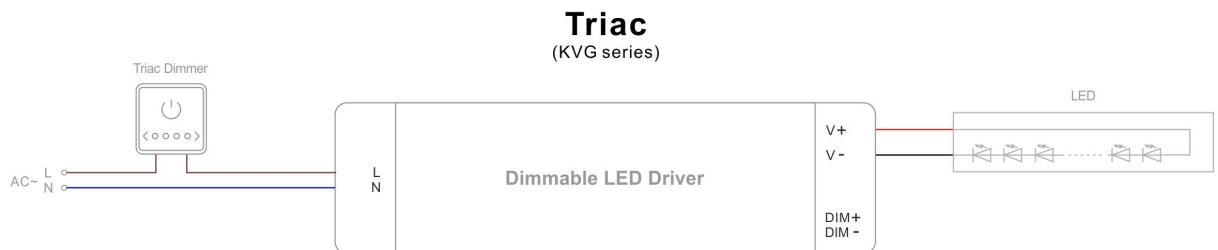
## Dimming Operation and Connecting Diagram

- Using two ways of dimming at the same time, you must be assured that LED lighting is up to the max. Brightness then you could operate with the other dimming;

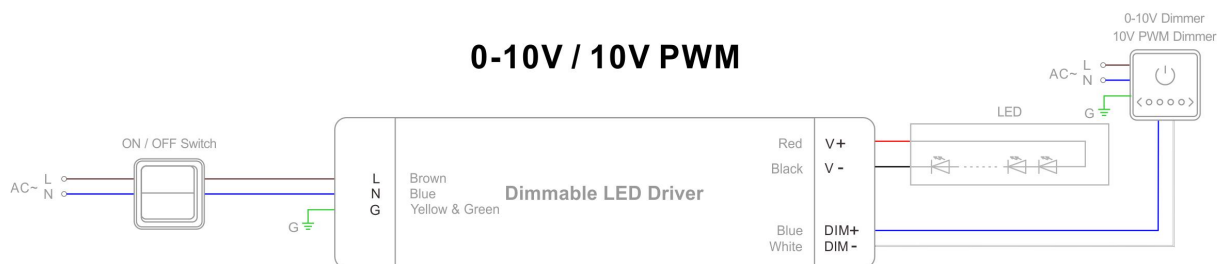


### Using one dimming ---TRIAC/Phase cut dimming

- 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.
- Working with leading edge, MLV and trailing edge, ELV, TRIAC dimmers or light system.
- Min. loading is about 10%
- Please try to use dimmers with power at least 1.5 times as the output power of the driver.

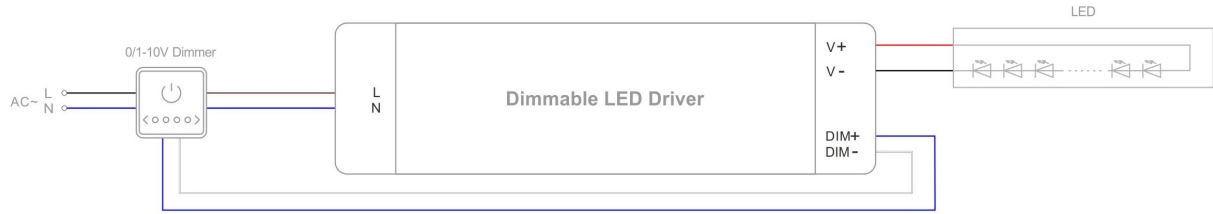


- Using one dimming ---0-10/ 1-10V/ 10V PWM/ Potentiometer dimming

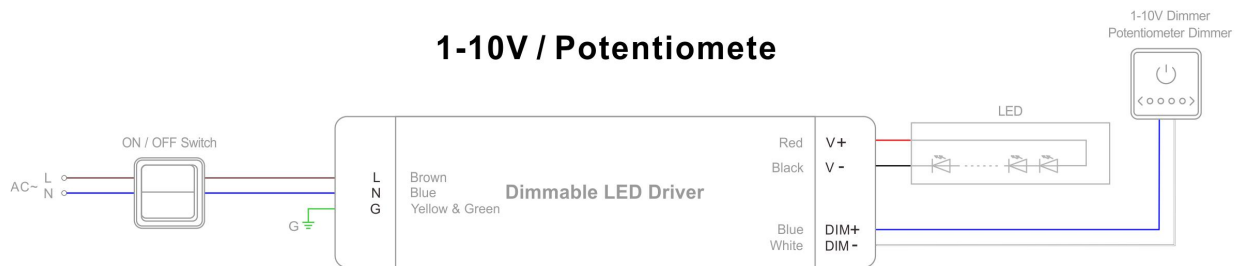


Triac/0-10V/1-10V/Potentiometer/10V PWM 5 in 1 Dimmable LED driver 20W

### 0/1-10V



### 1-10V / Potentiometer



## Instruction

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.
4. If driver Cannot work normally, don't maintain privately.

Have any questions, please contact Zhuhai Shengchang.

Please visit our website or contact us for more information! [www.scpower.net.cn/en](http://www.scpower.net.cn/en)