

## **3W Ultra-compact Power Module HLK-PM01 230V AC to 5V/3W DC**

220V AC to 5V DC, 600mA PCB Mounted Step-Down Power Supply Module

### **Features**

- Meet UL, CE requirements,
- Ultra-thin, ultra-small
- All voltage input (AC: 90 ~ 264V)
- Low ripple and low noise
- Output overload and short circuit protection
- High efficiency, high power density
- The product is designed to meet the requirements of EMC and Safety Test
- Low power consumption, environmental protection, no-load loss <0.1W

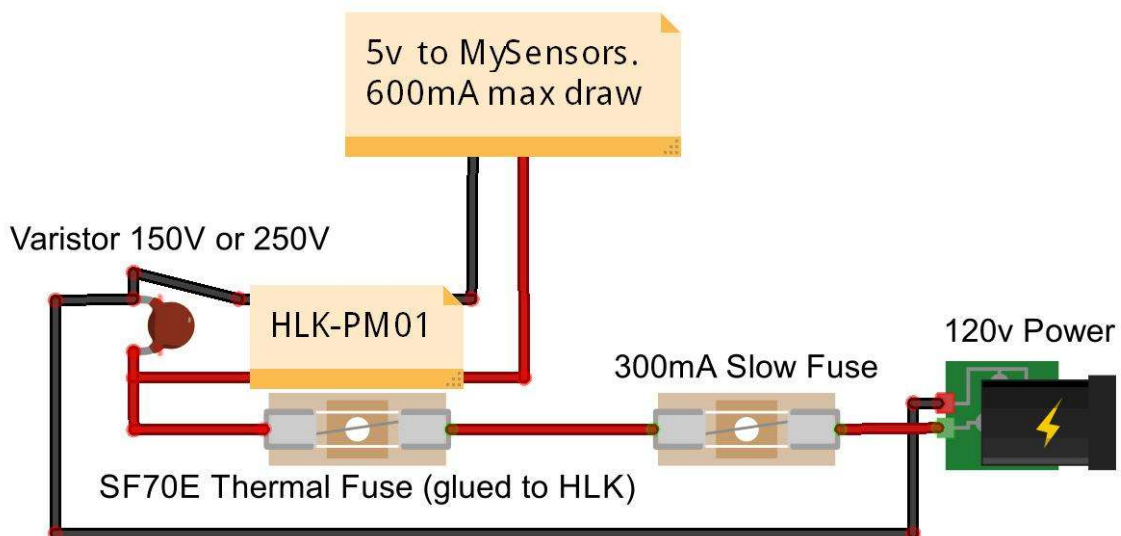
### **Electrical Characteristics**

- Rated input voltage: 100-240 VAC
- Input voltage range: 90-264 VAC
- Maximum input voltage:  $\leq 270$  VAC
- Maximum input current:  $\leq 0.2$  A
- Input current surge:  $\leq 10$  A
- Enter slow start:  $\leq 50$  ms
- Input Low Voltage Efficiency:  $V_{in}=110VAC$ , Output full-load  $\geq 69\%$
- Input High Voltage Efficiency:  $V_{in}=220VAC$ , output full-load  $\geq 70\%$
- Long-term reliability: MTBF  $\geq 100,000$  h
- Load rated output voltage: +5 VDC  $\pm 0.1$
- Full rated output voltage: +5 VDC  $\pm 0.2$
- Short-term maximum output current:  $\geq 1000$  mA
- The maximum output current for a long time:  $\geq 600$  mA
- Voltage Regulation:  $\pm 0.2\%$
- Load Regulation:  $\pm 0.5\%$
- Output ripple and noise (mVp-p):  $\leq 50$  mV
  - Rated input voltage, full load. Using 20MHz of bandwidth,
  - The load side **10uF and 0.1uF** capacitor to be tested.

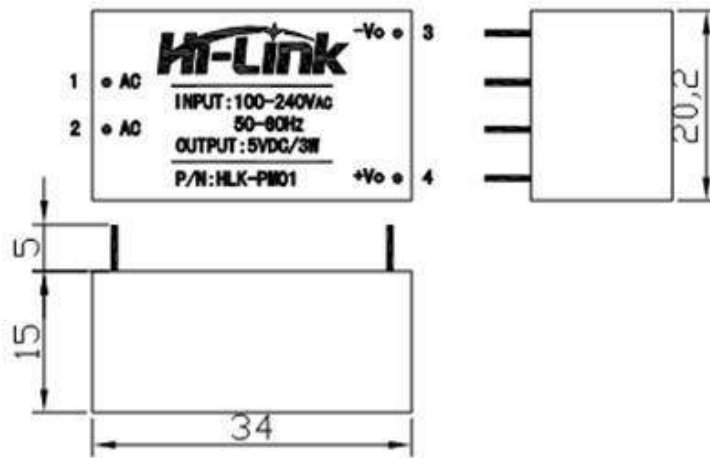
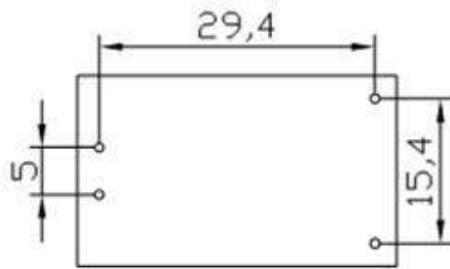
- Switch overshoot amplitude:  $\leq 5\%$  VO (Rated input voltage and output load plus 10%)
- Output over-current protection: 150-200% of the output maximum load (A)
- Output short circuit protection: Direct short circuit at the normal output, automatically resume normal operation after a short circuit removal

### Safety Characteristics:

- Designed with the input of 0.5A UL certified insurance;
- PCB board using double-sided copper clad plate production, material for the 94-V0 fire rating level;
- Safety standards: Compliance with UL1012, EN60950, UL60950
- Insulation voltage: I / P-O / P: 2500VAC
- Insulation resistance :I / PO / P> 100M Ohms / 500VDC 25 °C 70% RH
- Conduction and radiation :comply with EN55011, EN55022 (CISPR22)
- Electrostatic discharge :IEC / EN 61000-4-2 level 4 8kV / 15kV
- RF radiation Immunity: IEC / EN 61000-4-3



**Dimensions:**



Weight: $\leq 20g$	
Pin Function	
1	AC
2	AC
3	-V0
4	+V0