

# CS20000KUB

## Hall-effect Current Sensor Series

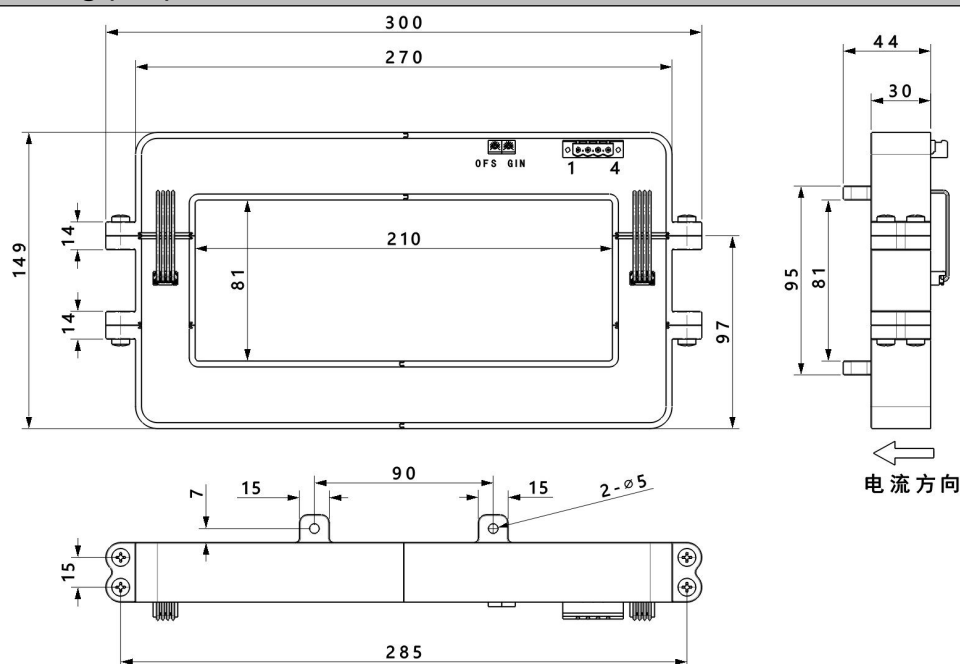
Open loop current sensor based on the principle of Hall-effect. It can be used for measuring AC,DC,pulsed and mixed current.



### Electrical characteristics

|              | Type                               | CS2000KUB                                        | CS5000KUB         | CS10000KUB         | CS15000KUB         | CS20000KUB         |                |
|--------------|------------------------------------|--------------------------------------------------|-------------------|--------------------|--------------------|--------------------|----------------|
| $I_{PN}$     | Primary nominal input current      | 2000                                             | 5000              | 10000              | 15000              | 20000              | A              |
| $I_P$        | Measuring range of primary current | $0 \sim \pm 3000$                                | $0 \sim \pm 6000$ | $0 \sim \pm 12000$ | $0 \sim \pm 18000$ | $0 \sim \pm 22000$ | A              |
| $V_{OUT}$    | Nominal output voltage             | $5 \pm 1\%$                                      |                   |                    |                    |                    | V              |
| $V_C$        | Supply voltage                     | $\pm 12 \sim \pm 15 (\pm 5\%)$                   |                   |                    |                    |                    | V              |
| $I_C$        | Current consumption                | $V_C = \pm 15V$ $< 50$                           |                   |                    |                    |                    | mA             |
| $V_D$        | Insulation voltage                 | AC/50Hz/1min 6                                   |                   |                    |                    |                    | kV             |
| $\epsilon_L$ | Linearity                          | $< 1$                                            |                   |                    |                    |                    | %FS            |
| $V_O$        | Offset voltage                     | $T_A = 25^\circ C$ $< \pm 25$                    |                   |                    |                    |                    | mV             |
| $V_{OM}$     | Residual voltage                   | $I_{PN} \rightarrow 0$ $< \pm 20$                |                   |                    |                    |                    | mV             |
| $V_{OT}$     | Thermal drift of $V_O$             | $I_P = 0$ $T_A = -25 \sim +85^\circ C$ $< \pm 1$ |                   |                    |                    |                    | mV/ $^\circ C$ |
| $T_R$        | Response time                      | $\leq 10$                                        |                   |                    |                    |                    | $\mu s$        |
| f            | Frequency bandwidth(-3dB)          | DC~6                                             |                   |                    |                    |                    | kHz            |
| $T_A$        | Ambient operating temperature      | $-25 \sim +85$                                   |                   |                    |                    |                    | $^\circ C$     |
| $T_S$        | Ambient storage temperature        | $-25 \sim +100$                                  |                   |                    |                    |                    | $^\circ C$     |
| $R_L$        | Load resistance                    | $\geq 10$                                        |                   |                    |                    |                    | K $\Omega$     |
| m            | Mass                               | 2480                                             |                   |                    |                    |                    | g              |
|              | Standard                           | Q/320115QHKJ-2016                                |                   |                    |                    |                    |                |

### Dimensions of drawing (mm)



Elucidation: 1: +15V 2: -15V 3:  $V_{OUT}$  4: 0V(GND) OFS: Zero adjustment GIN: Gain adjustment

### Remarks

- Incorrect connection may lead to the damage of the sensor.
- $V_{OUT}$  is positive when the  $I_P$  flows in the direction of the arrow.