



KLY-HB-BY09 Series Closed Loop Hall Effect Current Sensor

KLY-HB-BY09系列闭环型霍尔电流传感器



KLY-HB-BY09 series of high-precision current sensors, using the hall closed loop(magnetic balance) principle. The former side of the sensor is insulated and has no position error. It is used for precise measurement of DC, AC and pulse currents.

KLY-HB-BY09系列高精度电流传感器利用霍尔闭环(磁平衡)原理, 传感器原副边是绝缘的, 无位置误差, 用于精密测量直流、交流和脉冲电流。

Products Features

Excellent accuracy High immunity to external interference
 Very good linearity Low temperature drift
 Optimized response time Wide frequency bandwidth
 No insertion losses

产品特点

精度高 抗干扰能力强
 良好的线性度 低温度漂移
 最佳的响应时间 频带宽
 无插入损耗

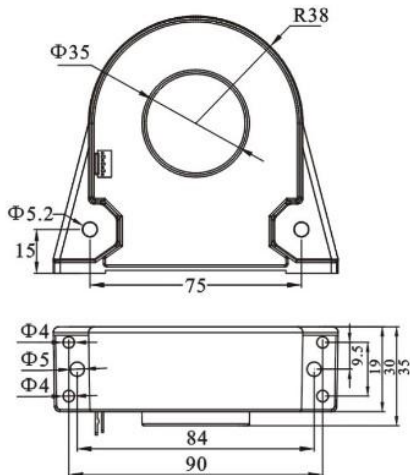
Instructions 使用说明

1. Incorrect wiring may cause the damage of sensor.
1. 保证接线正确, 错误的接线可能会导致传感器损坏。
2. When the measured current through the center hole of the sensor, the current will be measured at the output end.
2. 当待测电流通过传感器的穿心孔, 可在输出端测得电流大小。
3. The dynamic performance (di/dt and the response time) is the best when the primary hole is fully filled with the bus bar.
3. 母排完全充满初级穿孔时动态表现(Di/dt和响应时间)为最佳。
4. User can adjust the output extent of sensor if necessary.
4. 传感器输出幅度可根据用户需求进行适当的调节。
5. Rated input current and output voltage of sensor can be customized.
5. 可按用户需求定制不同额定输入电流和输出电压的传感器。

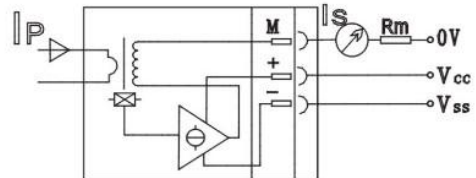
Electrical Data(Ta=25°C±5°C)电气参数

| Type型号 | KLY-HB-BY09-0K1A | | | |
|---|-------------------------|------------|---------|---------|
| Parameters参数 | | | | |
| Rated input 额定测量电流 I_{FN} | ±100 A | ±200A | ±300A | ±500A |
| Measure range 测量范围 I_F | 0~±150 A | 0~±300A | 0~±500A | 0~±800A |
| Rated output current 额定输出电流 I_S | ±50mA | ±100mA | ±150mA | ±100mA |
| Measure resistor range 测量电阻范围 With ±15V R_m | @ I_{FN} | ≤270 Ω | ≤120 Ω | ≤50 Ω |
| | @ I_F | ≤170 Ω | ≤50 Ω | ≤25 Ω |
| Measure resistor range 测量电阻范围 With ±18V R_m | @ I_{FN} | ≤330 Ω | ≤150 Ω | ≤80 Ω |
| | @ I_F | ≤210 Ω | ≤80 Ω | ≤35 Ω |
| Turns ratio 匝比(N_p/N_s) | 1:2000 | 1:2000 | 1:2000 | 1:5000 |
| Overall accuracy 总体精度 α | ±0.4% | ±0.4% | ±0.4% | ±0.4% |
| Supply voltage 电源电压 V_{CC} | ±15V~±24V(±5%) | | | |
| Current consumption 功耗电流 I_C | 28mA(@±15V)+ I_S | | | |
| Offset current 零点失调电流 I_0 | ±0.2mA | | | |
| Offset current drift 零点失调电流温漂 I_{OT} | @ -40°C~85°C | ≤±0.5mA | | |
| Linearity 线性度 ϵ_L | <0.1%FS | | | |
| Response time 响应时间 T_R | @100A/ μ S, 10%-90% | <1 μ S | | |
| Galvanic isolation 绝缘电压 V_D | @ 50HZ, AC, 1min | 3kV | | |
| Frequency bandwidth 频带宽度 | @ -3db | DC~150K Hz | | |
| Operating temperature 工作环境温度 T_A | -40~+85°C | | | |
| Storage temperature 储存环境温度 T_S | -40~+100°C | | | |
| Mass(approx) 毛重(约) m | 300g | | | |
| Standards 执行标准 | JB/T7490-2007 | | | |

Mechanical Dimension(for Reference Only)结构参数



Circuit Connection Diagram 电路连接示意图



管脚定义 Pin Definition

1. +(V_{CC})
2. -(V_{SS})
3. M(I_{out})
4. NC

Casing material 外壳材料: 符合UL94-V0