KLY-HB-BY07 Series Closed Loop Hall Current Sensor

KLY-HB-BY07系列闭环霍尔电流传感器

KLY-HB-BY07 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-BY07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
Very good linearity
Optimized response time
No insertion losses
High immunity to external interference
Low temperature drift
Wide frequency bandwidth

产品特点

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

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。

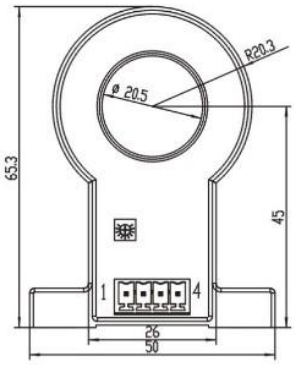
4.User can adjust the output extent of sensor if necessary.
4.传感器输出幅度可根据用户需求进行适当的调节。

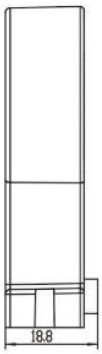
5.Rated input current and output voltage of sensor can be customized.
5.可按用户需求定制不同额定输入电流和输出电压的传感器。

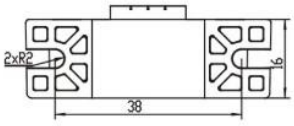
Electrical Data(Ta=25℃±5℃)电气参数

Parameters参数 \ Type型号		KLY-HB-BY07-0H1C			
Rated input额定测量电流 I_{PN}		±50 A	±100A	±200A	±300A
Measure range测量范围 I_P		0~±75 A	0~±150A	0~±300A	0~±500A
Rated output current额定输出电流 Is/电压VS		±50mA/±4V	±50mA/±4V	±100mA/±4V	±150mA/±4V
Measure resister range 测量电阻范围 With ± 12V	@ I_{PN}	≤130Ω	≤130Ω	≤15Ω	≤15Ω
	@ I_P	≤60Ω	≤60Ω	≤5Ω	≤8Ω
Measure resister range 测量电阻范围 With ± 15V	@ I_{PN}	≤190Ω	≤190Ω	≤30Ω	≤55Ω
	@ I_P	≤100Ω	≤100Ω	≤10Ω	≤20Ω
Turns ratio匝比 (N_P /N_S)		1:1000	1:2000	1:2000	1:2000
Overall accuraty 总体精度 x		±0.5%	±0.5%	±0.5%	±0.5%
Supply voltage 电源电压 Vcc		±12V~±18V(±5%)			
Current consumption 功耗电流 Ic		28mA(@±12V)+Is			
Off set current 零点失调电流/电压 I_0		±0.2mA/±10mV			
Off set current drift 零点失调电流/电压温漂I_{OT}		@-40℃ ~85℃	±0.5mA/℃;±0.5mV/℃		
Linearity 线性度 ε_L		<0.1%FS			
Response time 响应时间 T_R		@100A/μS,10%-90%	<1μS		
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℃			
Storage temperature储存环境温度 T_S		-40~+100℃			
Mass(approx) 毛重（约）m		75g			
Standards执行标准		JB/T7490-2007			

Mechanical Dimension(for Reference Only)结构参数





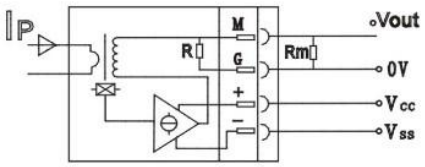


电流输出
管脚定义 Pin Definition
1. +(Vcc)
2. -(Vss)
3. M(Iout)
4. NC

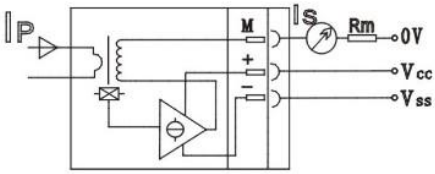
电压输出
管脚定义 Pin Definition
1. +(Vcc)
2. -(Vss)
3. M(Vout)
4. G(GND)

Circuit Connection Diagram电路连接示意图

电压输出



电流输出



Casing material 外壳材料: 符合UL94-V0