

K210 系列开环型霍尔电流传感器
K210 Series Open Loop Mode
Hall Effect Current Sensor

正角电子™



K210系列开环型霍尔电流传感器的初、次级之间是绝缘的,用于控制、测量直流、交流和脉冲电流。

K210 series hall effect current sensor is an open loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary circuit. It provides accurate electronic measurement of DC, AC or pulsed currents.



电参数 Electrical data (Ta=25°C ± 5°C, RL=2KΩ, CL=10000PF)

| Type | K210-1000A | K210-5000A | K210-10000A | K210-20000A | 单位 Unit |
|-----------------------------------|------------------|------------|-------------|-------------|------------|
| 额定输入电流(Ipn) Rated current(Ipn) | ±1000 | ±5000 | ±10000 | ±20000 | A |
| 测量电流范围(Ip) Measure range(Ip) | 0—±1200 | 0—±6000 | 0—±12000 | 0—±22000 | A |
| 额定输出电压 Rated output | @Ip= ±Ipn ±4±1% | | | | V |
| 电源电压 Supply voltage | ±12, ±15 | | | | V |
| 功耗电流 Power Consumption | <50 | | | | mA |
| 失调电压 Offset voltage | @Ip=0 | ±25 | | | mV |
| 磁失调电压 Magnetic offset | @Ip= ±Ipn-0 | ±40 | | | mV |
| 失调电压温漂 Offset drift | @ -40~+85°C | ≤±1 | | | mV/°C |
| 输出电压温漂 Output drift | @ -40~+85°C | ≤±1 | | | mV/°C |
| 线性度 Linearity | @Ip=0-±Ipn | ≤1 | | | %FS |
| 响应时间 Response time | @50A/μS, 10%-90% | ≤10 | | | μs |
| 绝缘电压 Galvanic isolation | @ 50HZ,AC,1min | 6 | | | KV |

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应用 Applications

- 变频调速系统

Variable speed drives

- 电焊机

Welding machine

- 通讯电源

Battery supplied applications

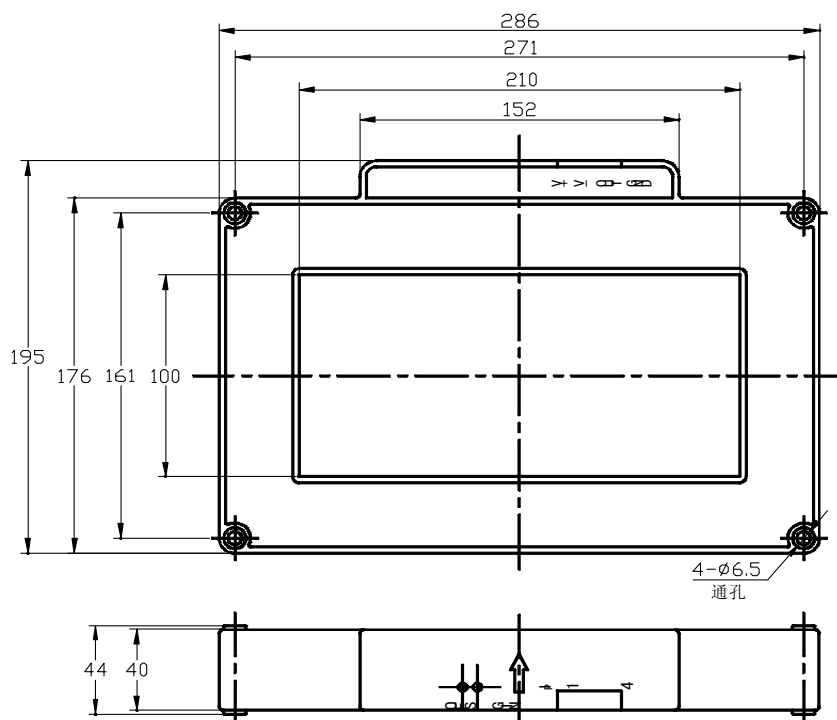
- 不间断电源 UPS

Uninterruptible Power Supplies (UPS)

- 电化学

Electrochemical

结构参数 Mechanical dimension(for reference only)



Remarks:

1. All dimensions are in mm.
2. General tolerance ± 1 mm.
3. Elucidation: 1:+15V 2:-15V 3:V_{out} 4:0V

使用说明 Directions for use

1. 当待测电流从传感器穿过，即可在输出端测得电压大小。(注意：错误的接线可能导致传感器损坏)

When the current will be measured goes through a sensor, the voltage will be measured at the output end.

(Note: The false wiring may result in the damage of the sensor)

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2. 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。

Custom design in the different rated input current and the output voltage are available.

执行标准 Standards

- UL94-V0.
- EN60947-1:2004
- IEC60950-1:2001
- EN50178:1998
- SJ 20790-2000

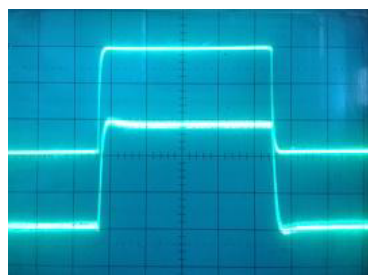
总体参数 General date

| | 数值 Value | 单位Unit |
|------------------------------------|-------------|--------|
| 工作温度 (TA) Operating temperature | -40 to +85 | ℃ |
| 储存温度 (TS) Storage temperature | -40 to +125 | ℃ |
| 毛重(约) (M) Mass(approx) | 6200 | g |

特性图 Characteristics chart

脉冲电流信号响应特性

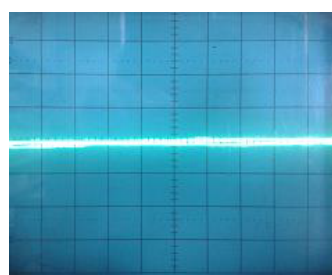
Pulse current signal response characteristic



输入信号
(Input signal)
输出信号
(Output signal)

抗脉冲电压干扰特性

Effects of impulse noise



输出电压
(Output voltage)