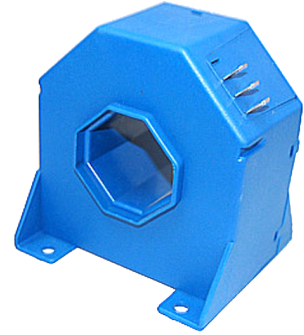


MCT-E-1000SH 型高精度霍尔电流传感器的初、次级之间是绝缘的，无位置误差，能真正测量分辨 1000: 1，用于精密测量直流、交流和脉冲电流。

The MCT-E-1000SH current sensor is a closed loop device based on the measuring principle of the hall effect and null balance method, with a galvanic isolation between primary and secondary circuit, the size of primary not affect test precision, no matter the location of primary in the hole of current sensor. It can really measure resolution 1000:1 and it uses for precision measurement of DC, AC and pulse current



电参数 Electrical data(Ta=25℃±5℃)

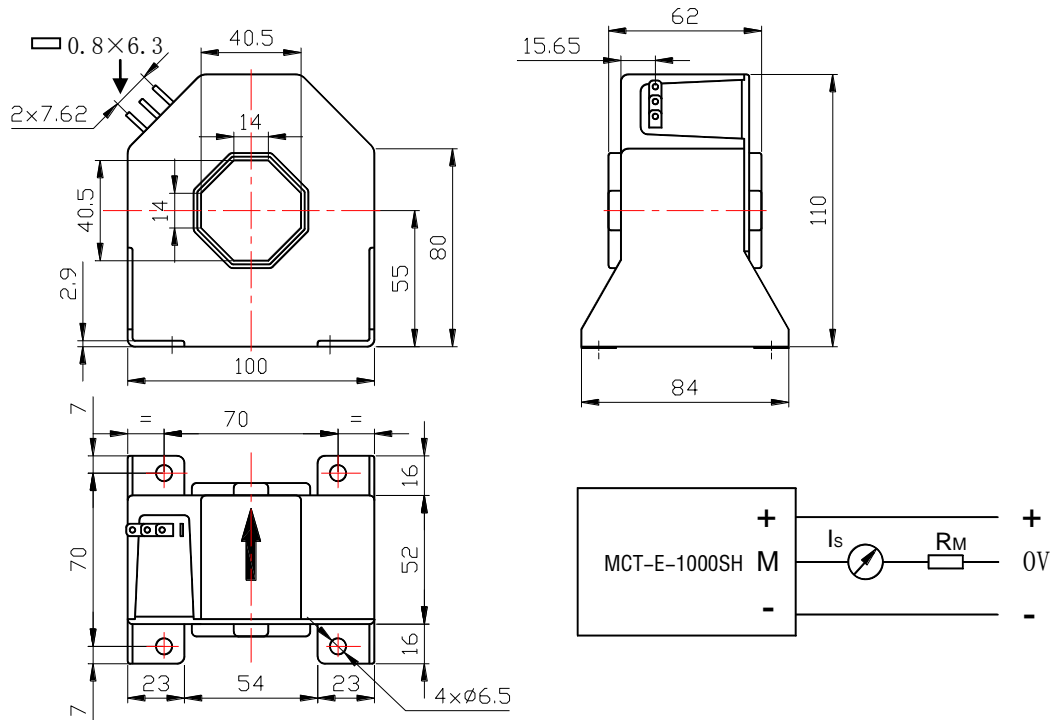
| 型号 Type 参数 Parameter | MCT-E-1000SH | | 单位 Unit |
|--|---|----------------|------------|
| 额定输入电流 (I _{pn}) Rated input (I _{pn}) | 10-1000 | | A |
| 测量电流范围 (I _p) Measure range (I _p) | 2500 | | A |
| 测量电阻 Measure resister | with ±15V @±1000Amax | 0(min) 30(max) | Ω |
| | with ±15V @±1500Amax | 0(min) 5(max) | Ω |
| | with ±24V @±1000Amax | 0(min) 68(max) | Ω |
| | with ±24V @±2500Amax | 0(min) 3(max) | Ω |
| 匝比 (N _p /N _s) Turns ratio(N _p /N _s) | 1:5000 | | |
| 次级线圈电阻 Coil resister | @ +85℃ | 43 | Ω |
| 额定输出电流 (I _s) Rated output (I _s) | 2.0±0.1%FS(10A), 200±0.1%FS(1000A) | | mA |
| 电源电压 Supply voltage | ±15~±24 | | V |
| 功耗电流 Power consumption | ≤20+I _p X(N _p /N _s) | | mA |
| 零点失调电流 Offset current | @I _p =0 | ≤±0.2 | mA |
| 失调电流温漂 Offset drift | @ -40℃~+85℃ | ≤±0.25 | mA |
| 响应时间 Response time | @100A/μs, 10%-90% | <1 | μs |
| 线性度 Linearity | @I _p =0-±I _{pn} | ≤0.1 | %FS |
| 绝缘电压 Galvanic isolation | @ 50Hz, AC, 1min | 6 | KV |
| di/dt 跟随精度 di/dt followed | >100 | | A/μs |
| 带宽 Bandwidth | @ -3db | DC~150 | KHz |

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 Uninterruptible Power Supplies (UPS)
- 电化学 Electrochemical
-

结构参数 Mechanical dimension(for reference only)

1. All dimensions are in mm.
2. General tolerance $\pm 1\text{mm}$.



使用说明 Directions for use

1. 产品箭头的方向为 I_p 方向。
Is will be in a forward direction when the I_p flows according to the direction of the arrowhead.
2. 初级导体温度不应超过 120°C 。
The primary conductor should be $\leq 120^{\circ}\text{C}$.
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。
The dynamic performance (di/dt and the response time) is the best when the primary hole is fully filled with the bus bar.
4. 为了达到最佳的磁耦合, 初级线匝应绕在传感器顶部。
The primary turns should be at the top of the sensor for the best magnetic coupling.
5. 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)
6. 可按用户需求定制不同额定输入电流和输出电流的传感器。
Custom design in the different rated input current and the output current 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 | 符号 Symbol |
|----------------------------|-------------|--------------------|-----------|
| 工作温度 Operating temperature | -40 to +85 | $^{\circ}\text{C}$ | TA |
| 储存温度 Storage temperature | -40 to +125 | $^{\circ}\text{C}$ | TS |
| 毛重(约) Mass(approx) | 600 | g | M |