

BMS 电流传感器 BMS Current Sensor

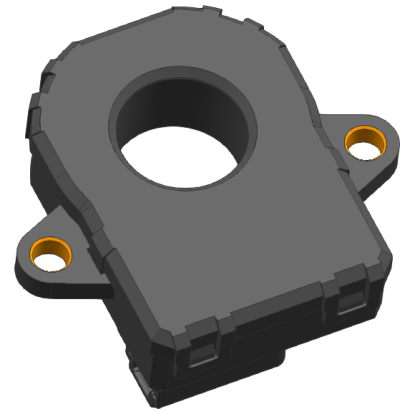
产品介绍 Product Description

BMS电流传感器基于先进可靠的补偿技术，采用单电源供电，CAN 总线输出，可用于纯电动车、插电混动车及储能设备中测量最高±500A 峰值的直流、脉动电流。

BMS current sensor is based on active technology, with CAN bus digital output. It can be used to measure up to ±500A rated current. Using a proprietary Digital Compensation technology. This product brings the best combination of performance and reliability to EV, PHEV and energy storage system.

产品特征及优势 Feature and benefits

- ◆ 高精度、低温漂，帮助客户精准计算电池 SOC。
High accuracy and low temperature drift, help BMS system SOC calculation.
- ◆ 优秀的抗磁干扰，超高过电流能力
Excellent anti magnetic interference, ultra-high over current capability
- ◆ 优异的抗干扰能力，适用于狭小空间，节约安装成本。
Excellent anti-interference performance.
- ◆ 宽广的工作电压范围，及强大的自恢复能力，确保 CAN 通讯稳定可靠。
CAN bus output, convenient for system integration.
安装及软件界面与市场上众多产品兼容，替换容易。
Multi-output selection, match with different application.



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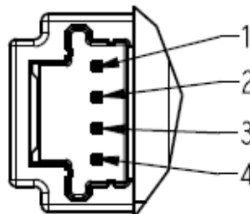
产品应用 Application

- ◆ 电池管理系统中的电流测量，适用于纯电动车、插电混合动力汽车及储能设备。
Battery management systems for electric vehicles and energy storage.

电气连接 Electrical connection

- ◆ 连接器: TE MPN 1473672-1

PIN OUT	
1	CAN-L
2	CAN-H
3	GND
4	U _c



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技术参数 Functional Characteristics

参数	符号	单位	规格			条件
			最小值	典型值	最大值	
电流测量范围(DC)	I _{pn}	A	-500		500	
电源电压	U _c	V	8	12	18	全精度
环境工作温度范围	T _a	°C	-40		105	
零点误差@I _p =0A	I _{os}	A	-0.05		+0.05	工作温度范围内保证精度 ±3sigma
总精度@I _p ≤20A	X _G	A	-0.1		0.1	工作温度范围内保证精度 ±3sigma
总精度 @20A < I _p ≤ 500A	X _G	%	-0.5		+0.5	工作温度范围内保证精度 ±3sigma
线性度	ε _L	%		0.1		+25°C
绝缘电阻	R _{is}	MΩ		500		500V 1min
绝缘测试电压		Kv		5		50Hz 1min

Parameter	Symbol	Unit	Specification			Conditions
			Min	Typ	Max	
Primary Current, Nominal Measuring Range (DC)	IPN	A	-500		500	
Supply voltage	U _c	V	8	12	18	Full accuracy
Ambient operating temperature	T _a	°C	-40		105	
Error @I _p =0A	I _{os}	A	-0.05		+0.05	Temperature range with accuracy guaranteed ± 3sigma
Error @I _p ≤20A	X _G	A	-0.1		0.1	Temperature range with accuracy guaranteed ± 3sigma
Total error @20A < I _p ≤ 500A	X _G	%	-0.5		+0.5	Temperature range with accuracy guaranteed ± 3sigma
Linearity	ε _L	%		0.1		+25°C
Insulation resistance	R _{is}	MΩ		500		500V 1min
Insulation withstand voltage		Kv		5		50Hz 1min

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机械参数 Mechanical characteristics

- ◆ 塑料壳体材料: PBT+GF30%
Enclosure material: PBT+GF30%
- ◆ 安装螺栓: M4 M6
Install bolts: M4 M6

I_p (原边电流方向 Primary Current Direction)

