



DATA SHEET

Hall Effect Current Sensor

PN: CHK_BR5S2

IPN=50-600A

Feature

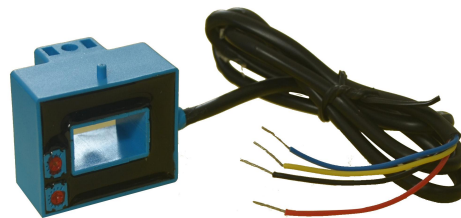
- Open- loop
- Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC +5.0V

Advantages

- Easy installation
- No insertion losses
- Low power consumption
- Wide current measuring range
- High immunity to external interference
- Can be customized

Applications

- Inverter applications
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Frequency drive control home appliances



RoHS

Electrical data: (Ta=25°C, Vc=+5.0VDC, RL=2KΩ)

Parameter \ Ref	CHK50 BR5S2	CHK100 BR5S2	CHK200 BR5S2	CHK300 BR5S2	CHK400 BR5S2	CHK600 BR5S2
Rated input Ipn(A)	50	100	200	300	400	600
Measuring range Ip(A)	0~±50	0~±100	0~±200	0~±300	0~±400	0~±600
Output voltage Vo(V)	2.500±2.0*(IP/IPN)					
Output voltage Vo(V)	@IP=0,T=25°C			2.500		
Load resistance RI(KΩ)	>2					
Supply voltage Vc(V)	+5.0 ±5%					
Accuracy Xg(%)	@IPN,T=25°C			< ±1.0		
Offset voltage Voe(mV)	@IP=0,T=25°C			< ±25		
Temperature variation of VOE Vot(mV/°C)	@IP=0,-40 ~ +85°C			< ±1.0		
Hysteresis offset voltage Voh(mV)	@IP=0,after 1*IPN			< ±20		
Linearity error εr(%FS)	< 1.0					
Di/dt accurately followed (A/μs)	> 100					
Response time tra(μs)	@90% of IPN			< 3.0		
Power consumption Ic(mA)	15					



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Bandwidth Bw(KHZ)	@-3dB,IPN	DC-20
Insulation voltage Vd(Vd)	@50/60Hz, 1min,AC	2.5

General data:

Parameter	Value
Operating temperature Ta(°C)	-40 ~ +85
Storage temperature Ts(°C)	-55~ +125
Mass M(g)	70
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

Connection

General tolerance

General tolerance: $\pm 0.5\text{mm}$
 Primary through-hole : $10.5 \times 20.5 \pm 0.3$
 Connection of secondary :
 4 core cable length $L=650\text{mm}$;

Remarks:

- When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- Custom design is available for the different rated input current and the output voltage.
- The dynamic performance is the best when the primary hole is fully filled with.
- The primary conductor should be $<100^\circ\text{C}</math>.$

WARNING : Incorrect wiring may cause damage to the sensor.

