



DATA SHEET

Hall Effect Current Sensor

PN: CHK_BSDA24S0/4

IPN=50-600A

Feature

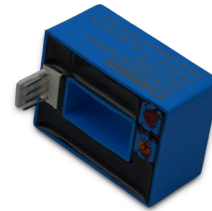
- Open- loop current transducer using the hall effect
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Output signal can be directly acquisition-ed by the PLC or DSP terminal control system.
- Supply voltage: DC +12.0~+24.0V

Advantages

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

Applications

- The application of variable frequency electrical appliances
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Inverter applications



RoHS

Electrical data: (Ta=25°C, Vc=+24.0VDC)

Parmeter \ Ref	CHK50 BSDA24S4	CHK100 BSDA24S 4	CHK200 BSDA24S 4	CHK300 BSDA24S4	CHK400 BSDA24S 4	CHK600 BSDA24S4
Rated input Ipn(A)	50	100	200	300	400	600
Measuring range Ip(A)	0 ~ +100	0 ~ +200	0 ~ +400	0 ~ +600	0 ~ +800	0 ~ +1200
Output current Io(mA)	@CHK-BSDA24S4		4.0+16.0*(IP/IPN),DC			
Output current Io(mA)	@IP=0,CHK-BSDA24S4		4.0±0.15,DC			
Output current Io(mA)	@CHK-BSDA24S0		+20.0*(IP/IPN),DC			
Offset current IOE(mA)	@IP=0,CHK-BSDA24S0		< +0.2			
Supply voltage VC(V)	(+12.0~+24.0) ±5%					
Accuracy XG(%)	@IPN,T=25°C		< ±1.0			
Temperature variation of IOE IOT(mA/°C)	@IP=0,-40 ~ +85°C		< ±0.005			
Linearity error er(%FS)	< 1.0					
Power consumption IC(mA)	15+IO					



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Bandwidth Bw(KHZ)	@-3dB, IPN	DC-2.0
Insulation voltage Vd(KV)	@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)	50
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 : 2510-04A (Instead of Molex 5045-04A)

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.

