



# DATA SHEET

## Hall Effect Current Sensor

**PN: CHK\_BSD15D5**

**IPN=AC20-600A**

### 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  $\pm 12.0\sim 15.0V$

### 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=±15.0VDC)

Parameter \ Ref	CHK20 BSD15D5	CHK100 BSD15D5	CHK200 BSD15D5	CHK300 BSD15D5	CHK400 BSD15D5	CHK600 BSD15D5
Rated input RMS Ip(A)	AC20	AC100	AC200	AC300	AC400	AC600
Measuring range Ip(A)	0 ~ ±40	0 ~ ±200	0 ~ ±400	0 ~ ±600	0 ~ ±800	0 ~ ±1200
Output voltage Vo(V)	@Ip=IPN $\pm 5.0*(IP/IPN)$ , DC					
Offset voltage VOE(mV)	@IP=0, < ±40					
Supply voltage VC(V)	$(\pm 12.0\sim \pm 15.0) \pm 5\%$					
Accuracy XG(%)	@IPN,T=25°C < ±1.0					
Temperature variation of VOE VOT(mV/°C)	@IP=0,-40 ~ +85°C < ±0.5					
Temperature variation of VO VOS(mV/°C)	@IP=0,-40 ~ +85°C < ±1.5					
Linearity error $\epsilon_r$ (%FS)	< 1.0					
Power consumption IC(mA)	15					
Bandwidth Bw(KHZ)	@-3dB, IPN DC-2.0					



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Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	2.5
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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):	
	<p><b>Connection</b></p>
	<p><b>General tolerance</b></p> <p>General tolerance: &lt;math&gt;\leq \pm 0.5\text{mm}&lt;/math&gt;            Primary through-hole : <math>10.5 \times 20.5 \pm 0.3</math>            Connection of Secondary : 2510-04A (Instead of Molex 5045-04A)</p>

Remarks:
<ul style="list-style-type: none"> <li>➤ When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.</li> <li>➤ Custom design is available for the different rated input current and the output voltage.</li> <li>➤ The dynamic performance is the best when the primary hole is fully filled with.</li> <li>➤ The primary conductor should be &lt;math&gt;&lt; 100^\circ\text{C}&lt;/math&gt;.</li> </ul>
<p><b>WARNING : Incorrect wiring may cause damage to the sensor.</b></p>

