



# DATA SHEET

## Hall Effect Current Sensor

**PN: CHK\_EKBDA12S12**

**IPN=200-2000A**

### 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 +12.0V

### 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



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

Ref Parmeter	CHK200EKB DA12S12	CHK600EKB DA12S12	CHK800EKB DA12S12	CHK1000EK BDA12S12	CHK1500EK BDA12S12	CHK2000EK DA12S12
Rated input Ipn(A)	200	600	800	1000	1500	2000
Measuring range Ip(A)	0 ~ ±400	0 ~ ±600	0 ~ ±1600	0 ~ ±2000	0 ~ ±3000	0 ~ ±4000
Output current Io(mA)	@CHK-EKBDA12S12 12.0±8.0*(IP/IPN), DC					
Output current Io(mA)	@IP=0,CHK-EKBDA12S12 12.0±0.2, DC					
Supply voltage Vc(V)	+12.0 ±5%					
Accuracy XG(%)	@IPN,T=25°C < ±1.5					
Temperature variation of IOE IOI(mA/°C)	@IP=0,-40 ~ +85°C < ±0.005					
Linearity error εr(%FS)	< 0.5					
Response time tra(ms)	@90% of IPN <20					
Power consumption Ic(mA)	15+Io					
Bandwidth Bw(KHZ)	@-3dB,IPN DC-2.0					



Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	3.0
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General data:	
Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	120
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):		
CHK-EKBDA12S12M	CHK-EKBDA12S12S	Connection
		<p>General tolerance</p> <p>General tolerance: &lt;math&gt;\pm 0.5\text{mm}&lt;/math&gt;</p> <p>Primary through-hole: <math>D40.5 \pm 0.3</math></p> <p>Connection of Secondary :</p> <p>CHK-EKBDA12S12M: 2510-04A (Instead of Molex 5045-04A)</p> <p>CHK-EKBDA12S12S: 15EDGK3.81-04P</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 if 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>

