



# DATA SHEET

## Hall Effect Current Sensor

PN: CHK\_EKB15D4

IPN=200-2000A

### Feature

- Open- loop
- Capable measurement of currents: DC, AC,pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC  $\pm 12\sim 15V$
- Removable structure

### Advantages

- Excellent accuracy
- Easy installation
- No insertion losses
- Low power consumption
- Wide current measuring range
- High immunity to external interference
- Very good linearity
- 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=±15.0VDC,RL=10KΩ)

Ref	CHK100 EKB15D4	CHK200 EKB15D4	CHK400 EKB15D4	CHK800 EKB15D4	CHK1000 EKB15D4	CHK1200 EKB15D4	CHK2000 EKB15D4
Rated input I <sub>pn</sub> (A)	100	200	400	800	1000	1200	2000
Measuring range I <sub>p</sub> (A)	0~±300	0~±600	0~±1200	0~±2400	0~±3000	0~±3600	0~±4000
Output voltage V <sub>o</sub> (V)	±4.0*(IP/IPN)						
Load resistance R <sub>L</sub> (KΩ)	>10						
Supply voltage V <sub>C</sub> (V)	(±12~±15) ±5%						
Accuracy X <sub>G</sub> (%)	@IPN,T=25°C			< ±1.0			
Offset voltage V <sub>OE</sub> (mV)	@IP=0,T=25°C			< ±25			
Temperature variation of V <sub>OE</sub> V <sub>OT</sub> (mV/°C)	@IP=0,-40 ~ +85°C			< ±1.0			
Hysteresis offset voltage V <sub>OH</sub> (mV)	@IP=0,after 1*IPN			< ±25			
Linearity error ε <sub>r</sub> (%FS)	< 1.0						
Di/dt accurately followed (A/μs)	> 100						
Response time τ <sub>ra</sub> (μs)	@90% of IPN			< 5.0			
Power consumption I <sub>C</sub> (mA)	15						



# Cheemi Technology Co., Ltd

Bandwidth Bw(KHZ)	@-3dB, IPN	DC-20
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	3.0

## 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-EKB15D4M	CHK-EKB15D4S	Connection
		<p>General tolerance</p> <p>General tolerance: &lt;math&gt;\leq \pm 0.5\text{mm}&lt;/math&gt;            Primary through-hole : <math>D40.5 \pm 0.20</math>            Connection of Secondary :            CHK-EKB15D4M:            2510-04A (Instead of Molex 5045-04A)            CHK-EKB15D4S: 15EDGK3.81-04P</p>

## 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.**

