



# DATA SHEET

## Hall Effect Current Sensor

PN: CHK\_KC15D4

IPN=500-2500A

### Feature

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

### Advantages

- High 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: ( $T_a=25^{\circ}C$ , $V_c=\pm 15VDC$ , $R_L=10K\Omega$ )

Parameter	Ref	CHK500 KC15D4	CHK800 KC15D4	CHK1000 KC15D4	CHK1500 KC15D4	CHK2000 KC15D4	CHK2500 KC15D4
Rated input $I_{pn}(A)$		500	800	1000	1500	2000	2500
Measuring range $I_p(A)$		0 $\sim\pm 1000$	0 $\sim\pm 1600$	0 $\sim\pm 2000$	0 $\sim\pm 3000$	0 $\sim\pm 3000$	0 $\sim\pm 3000$
Output voltage $V_o(V)$		$\pm 4.0*(I_P/I_{PN})$					
Load resistance $R_L(K\Omega)$		$>10$					
Supply voltage $V_C(V)$		$(\pm 12\sim\pm 15) \pm 5\%$					
Accuracy $X_G(\%)$		@IPN, $T=25^{\circ}C$		$< \pm 1.0$			
Offset voltage $V_{OE}(mV)$		@IP=0, $T=25^{\circ}C$		$< \pm 25$			
Temperature variation of $V_{OE}$ $V_{OT}(mV/^{\circ}C)$		@IP=0, $-40 \sim +85^{\circ}C$		$< \pm 1.0$			
Hysteresis offset voltage $V_{OH}(mV)$		@IP=0, after $1*I_{PN}$		$< \pm 25$			
Linearity error $\epsilon_r(\%FS)$		$< 1.0$					
Di/dt accurately followed ( $A/\mu s$ )		$> 100$					
Response time $\tau_{ra}(\mu s)$		@90% of IPN		$< 7.0$			
Power consumption $I_C(mA)$		20					



# Cheemi Technology Co., Ltd

Bandwidth Bw(KHZ)	-3dB, IPN	DC-20
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	6.0

## General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55 ~ +125
Mass M(g)	560
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

## Dimensions(mm):

	<p style="text-align: center;">Connection</p>
	<p style="text-align: center;">General tolerance</p> <p>General tolerance: &lt;math&gt;\pm 0.5\text{mm}&lt;/math&gt;            Primary through-hole : <math>85*27\pm 0.5</math>            Connection of Secondary : 2510-04P</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 <math>< 100^{\circ}\text{C}</math>.

**WARNING : Incorrect wiring may cause damage to the sensor.**

