



DATA SHEET

Hall Effect Current Sensor

PN: CHK_QHE5S2L

I_{PN}=100-900A

Feature

- Open- loop
- Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.
- Supply voltage: DC +5.0V
- Automotive grade hall chip.

Advantages

- Easy installation
- Small volume , space saving
- Optimized response time, no insertion losses
- High immunity to external interference

Applications

- AC variable frequency governor
- DC motor driven static converter
- Communication power supply
- Uninterruptible power supply
- Switching power supply
- Application of welding machine power supply
- Electric vehicles



RoHS



Electrical data: (Ta=25°C, Vc=+5.0VDC)

Parameter	CHK100Q HE5S2L	CHK200Q HE5S2L	CHK300Q HE5S2L	CHK400Q HE5S2L	CHK500Q HE5S2L	CHK600Q HE5S2L	CHK700Q HE5S2L	CHK800Q HE5S2L	CHK900Q HE5S2L
Rated input I _{pn} (A)	100	200	300	400	500	600	700	800	900
Measuring range I _p (A)	0~±100	0~±200	0~±300	0~±400	0~±500	0~±600	0~±700	0~±800	0~±900
Rated measurement output V _{OUT} (V)	$V_{cc} * (1/2 + 2.0/5 * I_p/I_{PN})$ V								
Output offset voltage V _{OE} (V)	$V_{cc}/2 \pm 0.02V$								
Load resistance R _L (kΩ)	≥ 4.7								
Power supply voltage (V)	+5V (± 5%)								
Current consumption I _c (mA)	≤ 12								
Accuracy X _G (%)	$< 1\% (-40^\circ C \sim +125^\circ C)$								
Linearity error ε _r (%FS)	$< 1\%$								
Zero offset voltage coefficient TC _{V_{OE}} (mV/°C)	$\leq \pm 0.125 (-40^\circ C \sim +125^\circ C)$								
Output voltage temperature coefficient TC _{V_{out}} (%/°C)	$\leq \pm 0.035$								
Follow accuracy Di/dt (A/μs)	> 50								
Response time t _{ra} (μs)	≤ 6								



Bandwidth (-3db) Bw (KHZ)	DC-50	
Withstand voltage between primary circuit and secondary circuit	KV/50Hz/1min	3.0

General data:

Parameter	Value	
Operating temperature TA(°C)	-40 ~ +125	
Storage temperature TS(°C)	-55 ~ +125	
Mass M(g)	25g	
Standards	High and low temperatures meet the testing requirements of EN50178 standard 9.4.2.1.	
	Damp heat meets the testing requirements of EN50178 standard 9.4.2.2.	
	Vibration meets the testing requirements of EN50178 standard 9.4.3.2.	
	Electromagnetic compatibility meets the testing requirements of EN50178 standard 9.4.6.1 and 9.4.6.2.	

Dimensions(mm):

	Connection
	<p>1. +5.0V 2. GND 3. OUT</p>
	General tolerance
General tolerance: $\pm 0.5\text{mm}$ Primary through-hole: $D19 \pm .25\text{mm}$	

Remarks:

- When the current to be measured flows through the input pin of the sensor, it can be measured at the output end measure the magnitude of the current.
- Dynamic performance (di/dt and noise) when the busbar is fully filled with primary perforation
- Different rated input current and output voltage can be customized according to user requirements The sensor.

WARNING : Incorrect wiring may cause damage to the sensor.

