

DATA SHEET Hall Effect Current Sensor

PN: CHK_EKA5S2

IPN=50-600A

Feature

• Open-loop

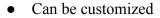
- Supply voltage: DC +5.0V
- Capable measurement of currents: DC, AC, pulse with galvanic isolation between primary circuit and secondary circuit.

Advantages

- Easy installation
- No insertion losses
- Low power consumption
- Wide current measuring range
- High immunity to external interference

Applications

- Inverter applications
- AC/DC variable-speed drive
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Frequency drive control home appliances









RoHS



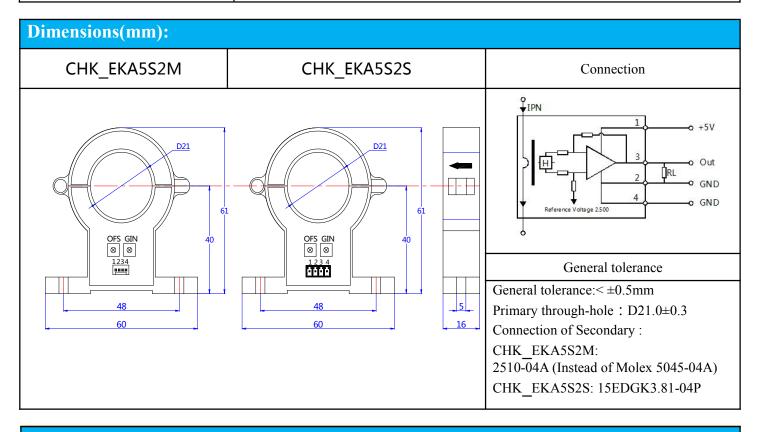
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Electrical data: (Ta=25°C, Vc=+5.0VDC,RL=2KΩ)						
Ref Parmeter	CHK50 EKA5S2	CHK100 EKA5S2	CHK200 EKA5S2	CHK300 EKA5S2	CHK400 EKA5S2	CHK600 EKA5S2
Rated input Ipn(A)	50	100	200	300	400	600
Measuring range Ip(A)	0∼±50	0∼±100	0~±200	0~±300	0∼±400	0∼±600
Output voltage Vo(V)	2.500±2.0*(IP/IPN)					
Output voltage Vo(V)	@IP=0,T=25°C 2.500					
Load resistance RL(KΩ)	>2.0					
Supply voltage VC(V)	+5.0 ±5%					
Accuracy XG(%)	@IPN,T=25°C <±1.0					
Offset voltage VOE(mV)	@IP=0,T=25°C <±25					
Temperature variation of VOE VOT(mV/°C)	@IP=0,-40 \sim +85°C $< \pm 1.0$					
Hysteresis offset voltage VOH(mV)	@IP=0,after 1*IPN <±20					
Linearity error $\varepsilon r(\%FS)$	< 1.0					
Di/dt accurately followed (A/μs)	> 100					
Response time tra(μs)	@90% of IPN < 3.0					
Power consumption IC(mA)	15					
Bandwidth Bw(KHZ)	@-3dB, IPN DC-20					



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General data:				
Parameter	Value			
Operating temperature TA(°C)	-40 ~ +85			
Storage temperature TS(°C)	- 55∼ +125			
Mass M(g)	70			
Plastic material	PBT G30/G15, UL94- V0;			
	IEC60950-1:2001			
Standards	EN50178:1998			
	SJ20790-2000			



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 if fully filled with.
- ➤ The primary conductor should be <100°C.

WARNING: Incorrect wiring may cause damage to the sensor.

