



DATA SHEET

Hall Effect Current Sensor

PN: CHK_EKA420

IPN=20-500A

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.
- Supply voltage: DC +12.0~+24.0V

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±5°C, RL=250Ω,CL=10000PF)

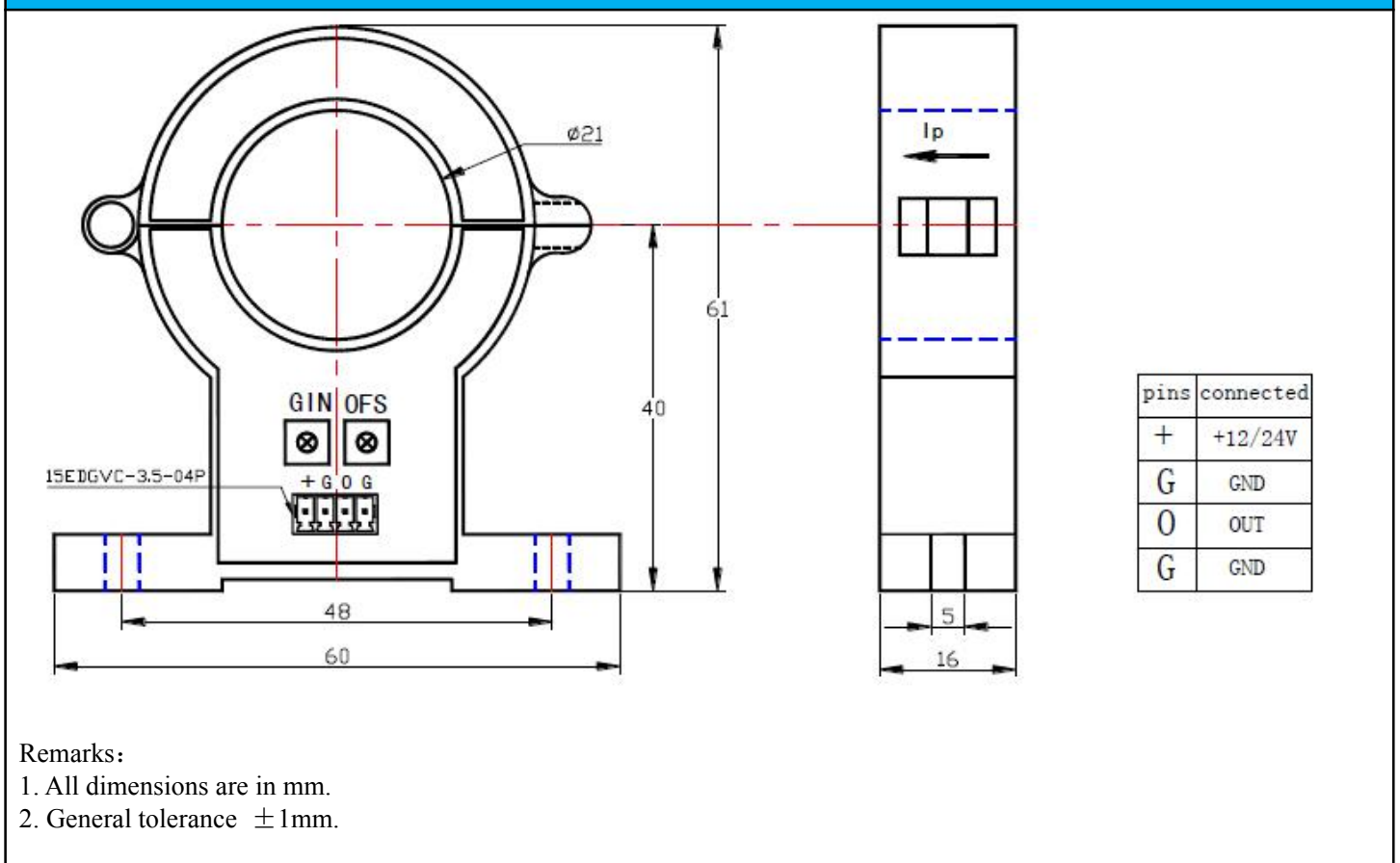
Parmeter \ Ref	CHK20EK A420	CHK50EK A420	CHK100E KA420	CHK200E KA420	CHK4000E KA420	CHK500E KA420
Rated input Ipn(A)	20	50	100	200	400	500
Measuring range Ip(A)	-5 ~ +30	-12.5 ~ +75	-25 ~ +150	-50 ~ +300	-100 ~ +600	-125 ~ +750
Rated output Io(mA)	@Ip=0-+Ipn 4-20±1%					
Supply voltage VC(V)	+12/24 ± 5%					
Consumption (mA)	+35±Io					
Zero current (mA)	@Ip=0 4±0.1					
Magnetic offset (mA)	@Ip=+Ipn-0 0.1					
Offset drift (mA/°C)	-40 to +85°C ≤±0.05					
Output drift (mA/°C)	-40 to +85°C ≤±0.05					
Linearity error er(%FS)	@Ip=0- ± Ipn ≤1.0					
Response time tra(μ S)	@50A/μ S, 10%-90% ≤5					
Bandwidth Bw(KHZ)	@-3db 0~10					
Galvanic isolation (KV)	@50/60Hz, 1min,AC 2.5					



General data:

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

Dimensions(mm):



Remarks:

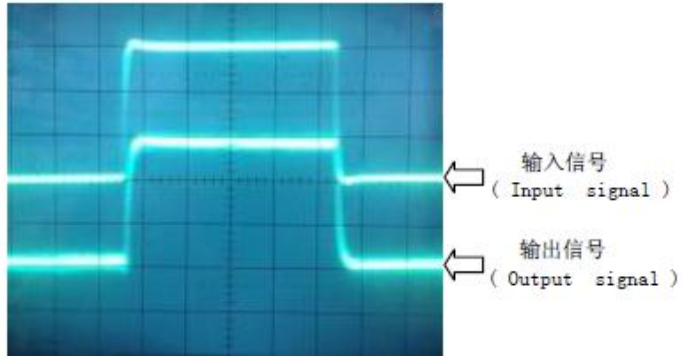
- When the current goes through the primary pin of a sensor, the voltage will be measured at the output end.
- Custom design is available for the different rated input current and the output voltage.
- The dynamic performance is the best when the primary hole is fully filled with.
- The primary conductor should be $<100^{\circ}\text{C}$.

WARNING : Incorrect wiring may cause damage to the sensor.



Characteristics chart

Pulse current signal response characteristic



Effects of impulse noise

