



DATA SHEET

Hall Effect Current Sensor

PN: CHK_F15D4

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

Parameter	Ref	CHK200 F15D4	CHK400 F15D4	CHK800 F15D4	CHK1000 F15D4	CHK1200 F15D4	CHK2000 F15D4
Rated input $I_{pn}(A)$		200	400	800	1000	1200	2000
Measuring range $I_p(A)$		0 \sim ± 400	0 \sim ± 800	0 \sim ± 1600	0 \sim ± 2000	0 \sim ± 2400	0 \sim ± 3000
Output voltage $V_o(V)$		$\pm 4.0*(IP/IPN)$					
Load resistance $R_L(K\Omega)$		>10					
Supply voltage $V_C(V)$		$(\pm 12\sim \pm 15) \pm 5\%$					
Accuracy $XG(\%)$		@IPN, $T=25^\circ C$			$< \pm 1.0$		
Offset voltage $VOE(mV)$		@IP=0, $T=25^\circ C$			$< \pm 25$		
Temperature variation of VOE $VOT(mV/^\circ C)$		@IP=0, $-40 \sim +85^\circ C$			$< \pm 1.0$		
Hysteresis offset voltage $VOH(mV)$		@IP=0, after $1*IPN$			$< \pm 25$		
Linearity error $\epsilon_r(\%FS)$		< 1.0					
Di/dt accurately followed ($A/\mu s$)		> 100					
Response time $t_{ra}(\mu s)$		@90% of IPN			< 5.0		
Power consumption $I_C(mA)$		15					



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Bandwidth Bw(KHZ)	@-3dB, IPN	DC-20
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	5.0

General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55~ +125
Mass M(g)	235
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

	Connection
	General tolerance
General tolerance: $\pm 0.5\text{mm}$ Primary through-hole : 12.5*41±0.20 Connection of Secondary : 2510-04A (Instead of Molex 5045-04A)	

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.

