



DATA SHEET

Hall Effect Current Sensor

PN: CHK_DSY15D4

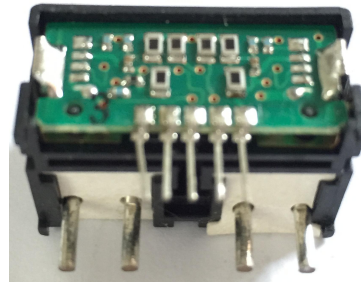
IPN=03-30A

Feature

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

Advantages

- Excellent accuracy
- Easy installation
- No insertion losses
- Small PCB mounting
- 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: (Ta=25°C, Vc=±15.0VDC,RL=10KΩ)

Parameter	Ref	CHK03 DSY15D4	CHK05 DSY15D4	CHK10 DSY15D4	CHK15 DSY15D4	CHK20 DSY15D4	CHY25 DSY15D4	CHK30 DSY15D4
Rated input Ip(A)		03	05	10	15	20	25	30
Measuring range Ip(A)		0 ~ ±09	0 ~ ±15	0 ~ ±30	0 ~ ±45	0 ~ ±60	0 ~ ±75	0 ~ ±90
Size of Input pin *d(MM)		Ø0.6	Ø0.8	Ø1.4	Ø1.4	Ø1.6	Ø1.6	Ø1.6
Output voltage Vo(V)		±4.0*(IP/IPN)						
Load resistance RL(KΩ)		>10						
Supply voltage VC(V)		(±12~±15) ±5%						
Accuracy XG(%)		@IPN,T=25°C		< ±1.0				
Offset voltage VOE(mV)		@IP=0,T=25°C		< ±50				
Temperature variation of VOE VOT(mV/°C)		@IP=0,-40 ~ +85°C		< ±2.0				
Output Temperature characteristic TCVO(%/°C)		@IPN,-40 ~ +85°C		< 0.1 (without offset)				
Hysteresis offset voltage VOH(mV)		@IP=0,after 1*IPN		< ±25				
Linearity error εr(%FS)		< 1.0						



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Di/dt accurately followed (A/μs)		> 50
Response time tra(μs)	@90% of IPN	< 5.0
Power consumption IC(mA)		30
Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	2.0

General data:

Parameter	Value
Operating temperature TA(°C)	-40 ~ +85
Storage temperature TS(°C)	-55 ~ +125
Mass M(g)	15
Plastic material	PBT G30/G15, UL94- V0;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

	<table border="1"> <thead> <tr> <th>IPN</th> <th>*d</th> </tr> </thead> <tbody> <tr> <td>03A</td> <td>0.6mm</td> </tr> <tr> <td>05A</td> <td>0.8mm</td> </tr> <tr> <td>10~15A</td> <td>1.4mm</td> </tr> <tr> <td>20~30A</td> <td>1.6mm</td> </tr> </tbody> </table>	IPN	*d	03A	0.6mm	05A	0.8mm	10~15A	1.4mm	20~30A	1.6mm	<p>Connection</p>
		IPN	*d									
03A	0.6mm											
05A	0.8mm											
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20~30A	1.6mm											
<p>General tolerance</p> <p>General tolerance: <math>\pm 0.5\text{mm}</math> Connection of secondary : 5pin 0.3*0.5</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.

