

DATA SHEET

Hall Effect Current Sensor



PN: CHK_BR15D4

IPN=50-600A

Feature

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

Advantages

- Excellent accuracy
- 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



Electrical data: (Ta=25°C, Vc=±15.0VDC,RL=10KΩ)

Parameter	Ref	CHK50 BR15D4	CHK100 BR15D4	CHK200 BR15D4	CHK300 BR15D4	CHK400 BR15D4	CHK600 BR15D4
Rated input Ip(A)		50	100	200	300	400	600
Measuring range Ip(A)		0~±150	0~±300	0~±600	0~±900	0~±900	0~±900
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		< ±25			
Temperature variation of VOE VOT(mV/°C)		@IP=0,-40 ~ +85°C		< ±1.0			
Hysteresis offset voltage VOH(mV)		@IP=0,after 1*IPN		< ±25			
Linearity error er(%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			

Insulation voltage Vd(KV)	@50/60Hz, 1min,AC	2.5
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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;
Standards	IEC60950-1:2001
	EN50178:1998
	SJ20790-2000

Dimensions(mm):

	<p>Connection</p>
	<p>General tolerance</p> <p>General tolerance: <math>\pm 0.5\text{mm}</math> Primary through-hole: $10.5 \times 20.5 \pm 0.3$ Connection of secondary : 4 core cable length $L=650\text{mm}$;</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 $<100^\circ\text{C}$.

WARNING : Incorrect wiring may cause damage to the sensor.