Rongtech Industry(ShangHai) Inc.,

RTO200G3 Series Three-phase Open Loop Mode Hall Effect Current Sensor

The RTO200G3 series current sensor is a open loop device based on the principle of the hall effect, with a galvanic isolation between primary and secondary circuit, It provides accurate electronic measurement of three phase DC, AC or pulsed currents.

Electrical data (Ta=25℃±5℃, RL=2.0KΩ,CL=10000PF)

Parameter \ Type	RTO50G3	RTO100G3	RTO150G3	RTO200G3	Unit
Rated input (Ipn)	±50	±100	±150	±200	A
Measure range(Ip)	±150	±300	±450	±600	A
Rated output	@Ip=±Ipn	±4±1.5%			V
Supply voltage	±15 ±5%				V
Consumption current	≤60				mA
Offset voltage	@Ip=0	≤30			mV
Magnetic offset	@Ip=±Ipn-0	≤±30			mV
Offset drift	@ -40～+85℃	≤±2.0			mV/℃
Amplitude drift	@ -40～+85℃	0.08			%/℃
Linearity	@Ip=0-±Ipn	≤1			%FS
Response time	@50A/μS, 10%-90%	≤5			μS
Galvanic isolation	@ 50HZ/60Hz,AC,1min	2.5			KV
Isolation resistance	@ DC 500V	500			MΩ

Applications

1. Variable speed drives
2. Welding machine
3. Battery supplied applications
4. Uninterruptible Power Supplies (UPS)
5. Electrochemical

Standards

- UL94-V0. EN60947-1:2004 IEC60950-1:2001
- EN50178:1998 SJ 20790-2000

General date

	Value	Unit	Symbol
Operating temperature	-40～+85	°C	TA
Storage temperature	-40～+125	°C	TS
Mass(approx)	99	g	M

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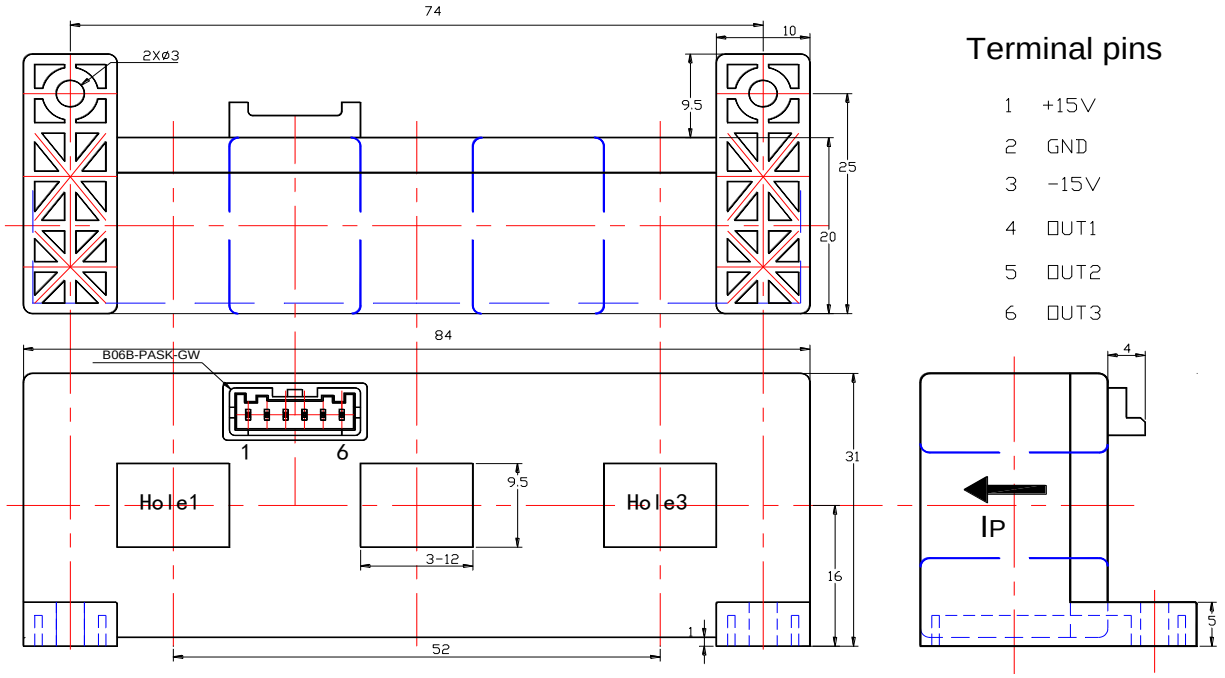
Mechanical dimension(for reference only)



Terminal pins

1	+15V
2	GND
3	-15V
4	OUT1
5	OUT2
6	OUT3

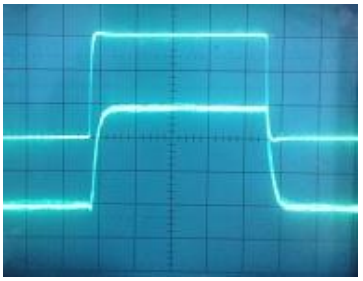
Remarks: 1. All dimensions are in mm. 2. General tolerance ±1mm

Directions for use

1. It will be in a forward direction when the Ip flows according to the direction of the arrowhead.
2. The primary conductor should be≤120℃.
3. The dynamic performance (di/dt and the response time) is the best when the primary hole is fully filled with the bus bar.
4. When the current will be measured goes through a sensor, the voltage will be measured at the output end.
   (Note: The false wiring may result in the damage of the sensor)
5. Customs can adjust Output amplitude of the sensor by needs.
6. Custom design in the different rated input current and the output voltage are available.

Characteristics chart

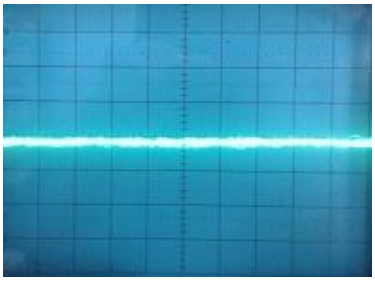
Pulse current signal response characteristic



(Input signal)

(Output signal)

Effects of impulse noise



(Output voltage)

Input current-Output Voltage characteristic