

产品规格书

PRODUCT APPROVAL SHEET

客户名称:			
CUSTOMER:			
贵司制品名:	我司制品名:	直流电流传感器	
CUSTOMER PN:	PRODUCT PN:	DC Current Sensor	
贵司规格:	我司规格:	TFY-CSB-CDA-300	
PRODUCT CODE:	PRODUCT CODE:		
贵司料号:	我司规格书编号:	TFY-CSB-CDA-300	
CUSTOMER NO.	PRODUCT NO.		
<input type="checkbox"/> 新品承认	批准 APPROVAL: PLB 日期 Date: 2021/10	审查 CHECK: ZMY 日期 Date: 2021/10	设计 DESIGN: WYD 日期 Date: 2021/10
<input type="checkbox"/> NEW APPROVE			
<input type="checkbox"/> 规格变更再承认			
<input type="checkbox"/> CHANGE CODE APPROVE AGAIN			
<input type="checkbox"/> 材料变更再承认			
<input type="checkbox"/> CHANGE MATERIAL APPROVE AGAIN			
贵司承认栏 APPROVAL SIGNATURE			
贵司印章 Company seal			
确认人:		联系电话:	
请于 年 月 日前承认返回, 日期 DATE: PLEASE RETURN TO US AFTER CONFIRMED! THANK YOU!			

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1. Range of Application

This series of current sensor is a kind of high-precision measurement module designed on the basis of magnetic sensing technology and closed-loop operating principle. It can be applied to DC energy meters, charging piles and charging guns, and can accurately measure DC, AC, pulse and other forms of current waveform.

2. Operating Conditions

2.1 Atmospheric Pressure: 63kPa~106kPa, altitude below 4000m.

2.2 Climate: No gas, stream, chemical deposition, grime that seriously affect the insulation of sensors and other corrosive and explosive medium.

2.3 Ambient Temperature and Humidity (Table 1)

Table 1 Range of Ambient Temperature and Humidity

Conditions	Range	Conditions	Range
Ambient operating temperature	-40°C~85°C	Mean Annual Humidity	<75%
Ultimate operating temperature	-40°C~95°C	30 Days (These days are naturally distributed throughout the year)	95%
Ambient storage temperature	-40°C~85°C	Occasional on other days	85%

3. Reference Standard

JBT 7490-2007 *Hall Effect Current Sensor*

GB/T33708-2017 *Static Meter for DC Energy*

Q/GDW 1825-2013 *Technical Specification for DC Electricity Meters*

DL/T 1484-2014 *Technical Specification for DC Electricity Meters*

4. Structure and Dimensions

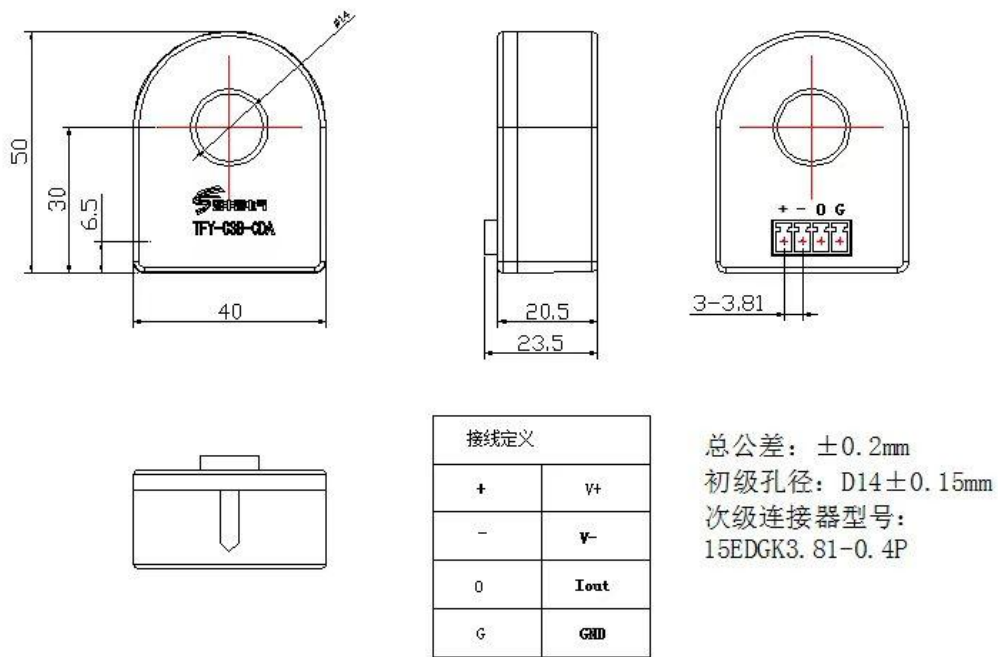
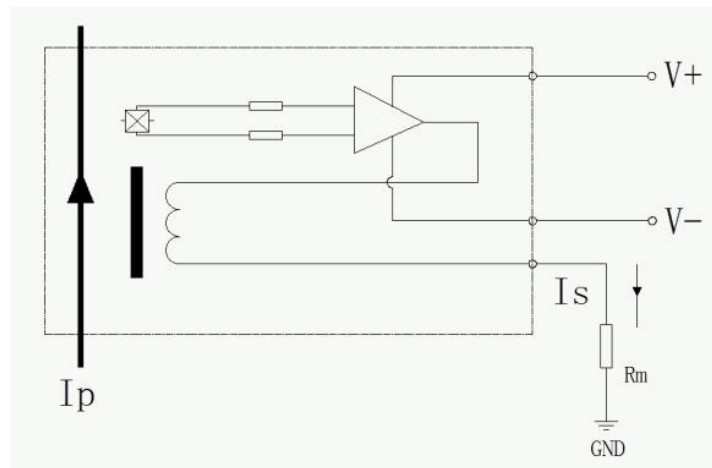


Figure 1 Dimension

5. Applied Circuit



6. Electrical Parameters: (Ta=25°C)

Definition	Symbols	Value	Unit
Rated current for one measurement	I_{pn}	± 300	A
Rated secondary output current	I_{sn}	± 80	mA
Measuring range of primary	I_p	± 360	A

current			
Secondary output current	I_s	$\pm 80 * (I_p / I_{pn})$	mA
Sampling Resistance ($\pm 12V$ @ $I_p=360A$)	R_m	0~20	Ω
Supply Voltage	V_c	$\pm 12 (\pm 5\%)$	V
Static Power Consumption ($\pm 12V$ @ $I_p=0A$)	I_c	≤ 10	mA
Max Power Consumption ($\pm 12V$ @ $I_p=360A$)	I_m	≤ 120	mA
Precision (@ $0.01I_{pn} \sim 0.05I_{pn}$ @ $25^\circ C$)	X_G	0.5	%
Precision (@ $0.05I_{pn} \sim I_{pn}$ @ $25^\circ C$)	X_G	0.2	%
Static Zero Output (@ $I_p=0A$, @ $25^\circ C$)	O_E	< 5	μA
Response Speed (@ $90\% I_{pn}$)	T_{ra}	< 5	μS
Bandwidth (@ I_{pn} , -3dB)	BW	100	kHz
Constant magnetic field influence quantity (@ $200mT$)	δ	≤ 2	%
Power frequency magnetic field influence quantity ($400A/m$)	δ	≤ 1	%