



DATA SHEET

High Accuracy Current Sensor

P/N: CFB300TE15D200

I_{PN}=300A

Feature

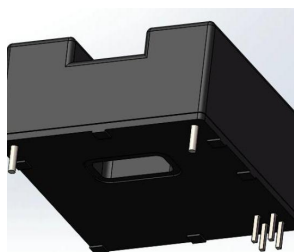
- It is a current sensor, based on the principle of fluxgate principle.
- Electrostatic shield between primary and secondary circuit
- It provides accurate electronic measurement of DC, AC or pulsed voltage.
- Supply voltage: $\pm 14 \sim \pm 16$ V

Advantages

- High accuracy
- Wide frequency bandwidth
- Low temperature drift
- Very good linearity
- Optimized response time

Applications

- Metrological verification and calibration
- Laboratory current measurement
- Instrumentation (e.g. power analyzer)
- Medical equipment (e.g. MRI)
- Battery pack detection
- Power control



RoHS



Electrical data: ($T_A = 25^\circ\text{C} \pm 5^\circ\text{C}$)

Type	CFB300TE15D200		
Parameters			
Rated Input $I_{PN}(A)$	± 300		
Measuring Range $I_{PM}(A)$ 1Min/Hour	± 360		
Current consumption I_C (mA) I_{PM} Range	Minimum	Standard	Maximum
	± 20	± 220	± 260
Power Supply V_C	± 14	± 15	± 16
Current change Input:Output K_N	1500: 1		
Rated Output Current(I_{SN})mA	--	± 200	--



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Measuring Resistance(Ω) R_M	0	10	15
Accuracy Xe (A) @0%~12% I_{PN}	--	--	0.018
Accuracy Xe (V) RD% @12% I_{PN} ~ I_{PM}	--	--	0.05
Ratio error X_{Ge} (A) @0%~12% I_{PN}	--	--	0.018
Ratio error X_{Ge} RD% @12% I_{PN} ~ I_{PM}	--	--	0.05
Angle error X_{Pe} crad	--	--	0.01
Linearity ε_L (ppm)	--	--	100
Temperature drift coefficient TCI ppm/K	--	--	5
Time drift coefficient TT ppm/month	--	--	5
Power supply anti interference TV ppm/V	--	--	10
Zero offset current I_O (mA) $25 \pm 10^\circ C$	--	--	± 0.012
Zero offset current I_{OT} (mA) Within the full operating temperature range	--	--	± 0.02
Ripple current I_n DC-10Hz (ppm)	--	--	10
Dynamic response time $t_r(us)$ $di/dt=100A/us$ rise to 90% I_{PN}	--	--	1
Bandwidth(-3dB) F (kHz)	0	--	100

Insulation Coordination:

Item	Symbol	Test condition	Value	Unit
RMS voltage for AC insulation test	V_d	50Hz/1Min between primary and secondary	2.5	KV
Impulse withstand voltage	V_w	50us between primary and secondary	5	KV

General data:

Parameter	Value
Operating temperature $T_A(^{\circ}C)$	-40 ~ +85
Storage temperature $T_S(^{\circ}C)$	-45~ +85
Mass $M(g)$	40g \pm 5g



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Technical drawing of a rectangular electronic enclosure, showing multiple views and dimensions in mm.

Top View: Overall dimensions are 32.0 (width) by 34.0 (depth). The front panel has a central rectangular cutout with a width of 11.0 and a depth of 5.0. The cutout has rounded corners with a radius of R1.0. The front panel is 3.8 thick. The enclosure has a top flange with a thickness of 2.1 and a bottom flange with a thickness of 2.1. The side panels have a thickness of 1.0. The corners are rounded with a radius of R0.8. There are four mounting holes, each with a diameter of $\phi 1.0$, located at the corners of the front panel. The mounting holes are positioned 2.1 from the bottom edge and 2.1 from the side edges. The distance between the mounting holes is 10.5 (width) and 9.0 (depth). The front panel has a width of 11.0 and a depth of 10.5. The front panel has a width of 11.0 and a depth of 10.5. The front panel has a width of 11.0 and a depth of 10.5.

Front View: The front panel has a width of 11.0 and a depth of 10.5. The front panel has a width of 11.0 and a depth of 10.5. The front panel has a width of 11.0 and a depth of 10.5.

Side View: The side panel has a thickness of 1.0. The side panel has a thickness of 1.0. The side panel has a thickness of 1.0.

Bottom View: The bottom panel has a width of 32.0 and a depth of 34.0. The bottom panel has a width of 32.0 and a depth of 34.0. The bottom panel has a width of 32.0 and a depth of 34.0.

Isometric View: The isometric view shows the 3D structure of the enclosure, including the front panel, side panels, and bottom panel. The isometric view shows the 3D structure of the enclosure, including the front panel, side panels, and bottom panel.

Dimensions:

- Overall width: 32.0
- Overall depth: 34.0
- Front panel width: 11.0
- Front panel depth: 10.5
- Front panel thickness: 3.8
- Side panel thickness: 1.0
- Bottom panel thickness: 1.0
- Top flange thickness: 2.1
- Bottom flange thickness: 2.1
- Mounting hole diameter: $\phi 1.0$
- Mounting hole position: 2.1 from bottom edge, 2.1 from side edges
- Distance between mounting holes: 10.5 (width), 9.0 (depth)
- Cutout width: 11.0
- Cutout depth: 5.0
- Cutout corner radius: R1.0
- Corners: R0.8
- Bottom panel width: 32.0
- Bottom panel depth: 34.0
- Bottom panel thickness: 1.0
- Bottom panel mounting holes: 2.1 from bottom edge, 2.1 from side edges
- Bottom panel distance between mounting holes: 10.5 (width), 9.0 (depth)
- Bottom panel cutout width: 11.0
- Bottom panel cutout depth: 5.0
- Bottom panel cutout corner radius: R1.0
- Bottom panel corners: R0.8

Remarks:

1. All dimensions are in mm.
2. General tolerance $\pm 0.7\text{mm}$.

Connector: 2.54-spaced double-row needles.



Remarks:

- Before using the product, please make sure to carefully read the user manual. When moving the product, please make sure to turn off the power first and unplug all the connecting cables that are connected to it. If any damage is found to the casing, firmware, power cord, connecting cable, or connected equipment, please immediately disconnect the device from the power supply. and If there are any concerns about the safe operation of the equipment, please immediately shut down the equipment and its related accessories, and contact our company's technical support department as soon as possible to communicate and resolve the issue.
- When the direction of the input current IP is consistent with the direction indicated by the arrow in the outline drawing, the output current IS is in the forward direction.
- Please try to locate the primary conductor at the center of the probe aperture as much as possible.
- The through-hole is made of metal material, so the through-hole wire cannot be an exposed cable. The through-hole wire must be insulated.
- This module is a standard sensor, please contact us for special applications.
- We reserve the right to modify this sensor manual without prior notice.

WARNING : Incorrect wiring may cause damage to the sensor.



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