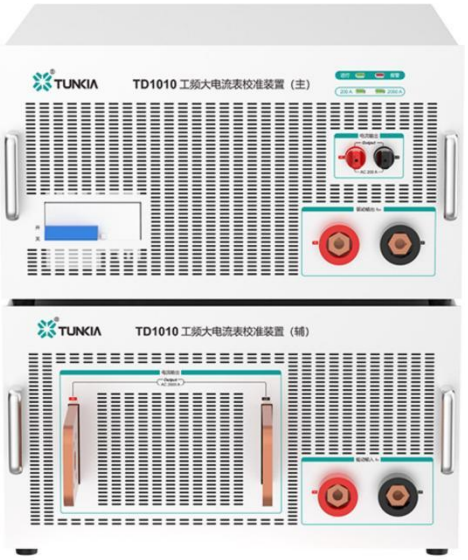
TA1300 AC Current Standard Source

1 kA Current Source



2 kA Current Source

1. Summary

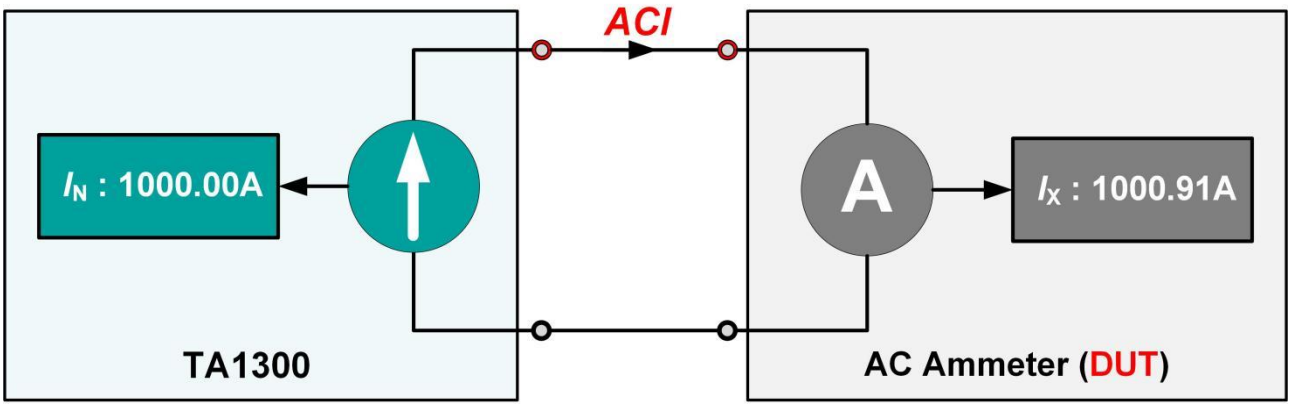
TA1300 is a series of AC current standard source devices, which can output high stability and high accuracy AC high current, suitable for calibrating AC ammeters, current transformers, current sensors and other equipment.

2. Features

- Supports combined outputs from multiple module sources up to 6 kA.
- Maximum fundamental frequency: 65 Hz / 400 Hz / 1kHz optional.
- Accuracy: Class 0.02 or Class 0.05
- Harmonic output function (optional)
- Support external control console to adjust the current output.

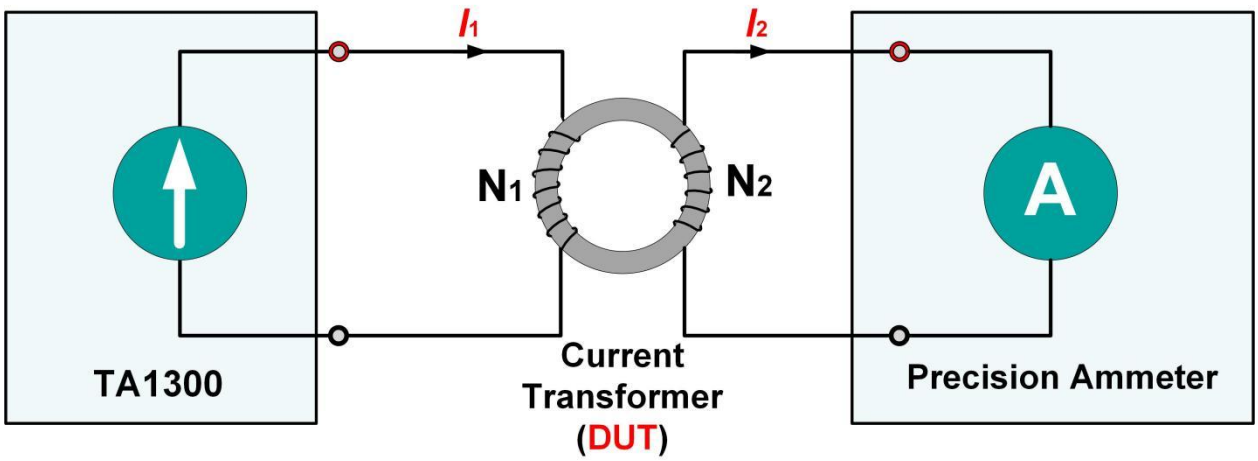
3. Applications

☆ Calibrate the AC ammeter



- **Class 0.02 specification:** Suitable for calibrating high power frequency ammeter of class 0.1 and below.
- **Class 0.05 specification:** Suitable for calibrating high power frequency ammeter of class 0.2 and below

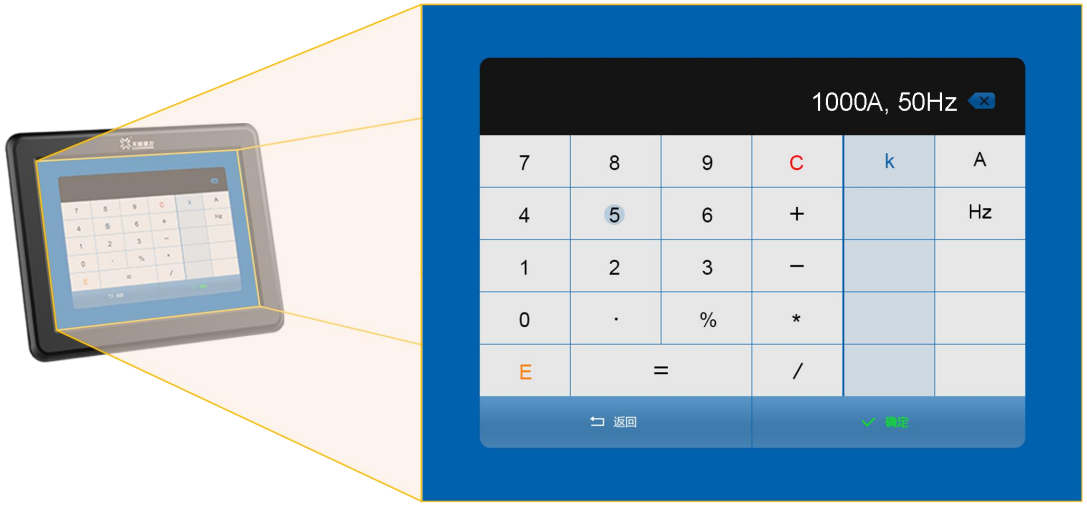
☆ Calibrate current sensor / transformer



- **TA1300** can be used as a primary current input to the sensor or transformer under test.
- In combination with a precision ammeter or voltmeter, the sensor or transformer is calibrated using the direct measurement method.

4. Characteristics

☆ Measurement output and adjustment mode



- With the "**fixed-point** output" method, you can directly set the required output value by clicking the touch screen.
- The unit switches fully automatically to the optimal range output.

☆ Harmonic output (optional).

- Optional harmonic output function, the current can be superimposed 2~11th harmonic @ 50 Hz.

- The amplitude and phase of each harmonic can be set independently, and the output waveform and spectrogram can be displayed.

5. Specifications

5.1 AC current output

Range	Short-term stability (%/min)		Measurement uncertainty (k=2) (ppm*RD+ppm*RG) [2]		Compliance voltage (rms)	Degree of distortion (%)
	Class 0.02	Class 0.05	Class 0.02	Class 0.05		
100 A	0.005	0.01	120 + 180	300 + 200	0.7 V	< 0.5
300 A	0.005	0.01	120 + 180	300 + 200	0.7 V	< 0.5
1 kA	0.005	0.01	120 + 180	300 + 200	0.7 V	< 0.5
…	…	…	…	…	…	…
N*300 A	0.005	0.01	120 + 180	300 + 200	0.7 V	< 0.5
Note [1]: RD is the reading value, R G is the range value, the same below.						

- Output range: 0~110%*RG, maximum expandable output to 6 kA
- Fineness: 0.002%*RG, 6-digit decimal display
- Protection function: open circuit protection, overload protection, overheating protection

5.2 Frequency and Harmonics

Sine wave frequency	Frequency range	45 Hz ~ 65 Hz(400 Hz、1 k Hz optional)
	Minimum fineness	0.0001 Hz
	Measurement uncertainty (k=2).	0.005%
Harmonic output (Optional)	Number of harmonics	2nd ~ 11th
	Harmonic amplitude	0.0% ~ 10.0% adjustable (relative to fundamental).
	Measurement uncertainty (k=2).	0.5%

6. General Specifications

Power supply	AC (220±22) V，(50±2) Hz
Maximum power consumption	1 kA:2 kVA 2 kA：4 kVA
Warm-up time	30 minutes
Temperature performance	Working temperature: 0°C~40°C Calibration temperature: 18°C~28°C Storage temperature: -20 °C ~ 70 °C
Humidity performance	Operating humidity: <80% @ 30°C, <70% @ 40°C Storage humidity: (20%~80%) R· H, no condensation
altitude	< 3000 m
Communication interface	RS232 interface

7. Ordering Information

TA1300 – ☐☐☐☐

Accuracy Class	
Code	Note
200	*Class 0.02*
500	*Class 0.05*

Maximum Current Range	
Code	Note
300A	*300 A*
600A	*600 A*
1kA	*1 kA*
*N*300A*	*N*300 A*

Maximum Frequency	
Code	Note
65Hz	*65 Hz*
400Hz	*400 Hz*
1kHz	*1 kHz*

Harmonic Output Function	
Code	Note
Empty	no function
H	Have function

E.g: TA1300-500-1kA-400Hz means the Accuracy is Class 0.05, the Maximum Current Range is 1 kA, the Maximum Frequency is 400 Hz, and Harmonic Output is not supported.