TH2886S

10-Channel Impulse Winding Tester

A non-destructive high-voltage impulse tester for wound components such as motor coils, transformer windings and wound inductors. TH2886S applies matched impulse pulses to the device under test and a stored reference winding, then compares the resulting transient decay waveforms to reveal turn-to-turn and layer-to-layer insulation faults, shorted turns and winding-count deviations that are otherwise invisible to conventional testing. With 10 test channels and up to 1.098 J of impulse energy, it is the highest-capacity, highest-energy model in the TH288X impulse-winding-tester family — built for multi-coil production testing, including windings with damaged or breached wire insulation.



Dimensions: 430(W) × 177(H) × 570(D) mm · Weight: approx. 27 kg

10	6000 V	1.098 J	200 Msps
TEST CHANNELS	MAX IMPULSE VOLTAGE	MAX IMPULSE ENERGY	WAVEFORM SAMPLE RATE

- **10 test channels** — the highest channel count in the TH288X series, for multi-coil production-line testing
- Impulse voltage **50–6000 V**, 2 V step, accuracy ±[5% of setting]±2 V
- Max impulse energy **1.098 J** — the highest in the TH288X family, for testing coils with damaged/breached wire insulation
- Waveform acquisition up to **200 Msps**, 12-bit resolution, 12k storage depth, 1–32-shot averaging
- Inductance test range **≥10 µH**; 1–32 test pulses, 0–9 excitation pulses per step
- **Nine waveform comparison methods:** Area, Zone (area difference), Flutter (burr total), Laplace (max burr), Peak ratio, Peak ratio difference, Angular frequency, Damping coefficient, Quality factor
- Patented angular-frequency / damping-coefficient comparison algorithm (CN117192443) for high-precision Q-factor discrimination
- 10.1" capacitive touchscreen, 1280×800, English UI
- PASS/FAIL judgement with LED indicators and buzzer alarm; built-in measurement statistics
- RS232C, USB Host, USB Device and Gigabit LAN standard; HANDLER standard; GPIB optional

TH288X impulse-winding-tester family

TH2886S is the top-of-range model in the TH288X family. TH2884 (single channel, ≥0.1–100 µH, up to 1000 V) targets very-low-inductance coils; TH2883 and TH2883S (single- and 8-channel, up to 5000 V, 0.25 J) cover general-purpose winding testing. TH2886S adds 10-channel capacity and raises impulse voltage to 6000 V and impulse energy to 1.098 J for higher-turn-count windings and demanding production environments.

Applications

Motor coils

Turn-to-turn insulation and interlayer short-circuit testing of motor windings.

Transformer coils

Turn-to-turn insulation and interlayer short-circuit testing of transformer windings.

Wound inductors

Turn-to-turn insulation and interlayer short-circuit testing of wound inductor coils.

Technical specifications

Parameter	TH2886S
Impulse voltage	50 – 6000 V, 2 V step
Voltage accuracy	±[5% of setting] ±2 V
Test channels	10
Inductance test range	≥10 µH
Applied pulses	Test pulse: 1–32 · Excitation pulse: 0–9
Impulse energy	1.098 J (max)
Measurement speed	120 ms per test
Waveform acquisition	Sample rate up to 200 Msps (8 steps adjustable) · Resolution 12 bits · Storage depth 12k · Averaging 1–32
Comparison methods	Area, Zone (area difference), Flutter (burr total, 1st derivative), Laplace (max burr, 2nd derivative), Peak ratio, Peak ratio difference, Angular frequency, Damping coefficient, Quality factor — 9 methods
Waveform measurement	Voltage, frequency, time
Trigger mode	Manual, external, bus
Judgement output	PASS/FAIL display, LED indicators, buzzer alarm
Measurement statistics	Built-in
Display	10.1" capacitive touchscreen, 1280 × 800, English UI
Data storage	Internal 32 GB; USB-expandable
Interfaces	RS232C, USB Device, USB Host, Gigabit LAN, HANDLER standard; GPIB optional
Power supply	100 – 240 V AC, 47.5 – 63 Hz, ≤200 VA
Warm-up time	≥15 minutes
Operating environment	Temperature 0°C to 40°C · Humidity ≤75% R.H.
Safety & EMC compliance	IEC61010-1:2001, IEC61326-2-1:2005
Dimensions (W×H×D)	430 × 177 × 570 mm
Weight	approx. 27 kg

Interfaces

RS232C	USB Host	USB Device	LAN	Handler	SCPI	GPIB
standard	standard	standard	standard, 1 Gbps	standard	standard	optional

A rear-panel Interlock safety terminal must be shorted for the instrument to operate; it is a safety interlock, not a data interface.

Standard accessories

Item	Description
—	EU power cable (Schuko, CEE 7/7)
TH90017A	High-voltage test cable (High / Low test leads)

Optional test fixtures and custom configurations are available on request — please contact Techmize or your authorized distributor.

Techmize Electronic GmbH

Office 125–126, Regus
Carl-Zeiss-Ring 15a, 85737 Ismaning, Germany
An international subsidiary of Changzhou Tonghui Electronic Co., Ltd. (China)

Contact

Mobile: +49 171 4981898
Email: dx.han@tonghui.com.cn
Web: en.tonghui.com.cn

Registration

Managing Director: Haohua Zhao
Register Court: Amtsgericht München
HRB 312530
VAT ID DE463170824

Website LinkedIn YouTube

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