TH2883S8-5 / TH2883S4-5

Multichannel Impulse Winding Testers

8-channel and 4-channel impulse winding testers for non-destructive turn-to-turn and layer-to-layer insulation testing of coils, transformers and motor windings. Each channel is independently set to HIGH (HV high terminal), LOW (low terminal) or CLOSE (channel switched off for the step), so multi-pole or multiphase windings can be swept and compared in one test sequence. Channels are tested sequentially, one step at a time; scanning is built in, so no external scanner is required.



Dimensions: 400(W) × 132(H) × 420(D) mm · Weight: 15 kg

- Impulse voltage **100 V – 5000 V**, 10 V steps
- **8-channel (TH2883S8-5)** or **4-channel (TH2883S4-5)**; each channel set to HIGH, LOW or CLOSE
- Up to **20 test steps** per setup, for multi-winding sequences in one run
- 200 Msps waveform sampling, 6k-byte memory depth, 8-bit resolution
- High-bandwidth acquisition path with high-fidelity corona-discharge extraction
- Four comparison methods: area, differential area, corona discharge, differential phase
- Multi-sample averaging of up to 32 standard waveforms; demagnetizing impulse before test
- Destructive test mode to help determine a suitable test voltage
- 65k-colour 7" TFT display with clear English UI; measures voltage, time and frequency on the captured waveform
- RS232C, USB Device, USB Host, HANDLER and LAN standard; SCPI supported

Two channel counts, one platform

TH2883S8-5

8 channels — multiphase / multi-winding coils

Impulse voltage	100–5000 V
Channels	8
Inductance range	≥ 10 µH
Test speed	167 ms/step[1]

TH2883S4-5

4 channels — smaller multi-winding coils

Impulse voltage	100–5000 V
Channels	4
Inductance range	≥ 10 µH
Test speed	167 ms/step[1]

[1] Per channel, single test step (≈ 6 measurements/second). TH2883S8-5 and TH2883S4-5 share identical impulse-voltage range, accuracy and comparison methods — the only functional difference is the number of independently switchable channels. Both are part of the wider TH2883 impulse-winding-tester family, which also includes the single-channel TH2883-1 (30–1200 V, for very low-inductance windings), TH2883-5 (100–5000 V) and TH2883-10 (500–10 000 V).

Applications

Motors & generators

Turn-to-turn and layer-to-layer insulation testing of stator/rotor windings, including multi-pole or multiphase motors tested channel-by-channel.

Transformers & inductors

Winding insulation and inter-winding short detection on transformers and wound inductors, including multi-tap or multi-winding parts.

Coil production lines

Non-destructive go/no-go sorting of wound coils in production, using pass/fail comparator output and measurement statistics.

Technical specifications

Parameter	TH2883S8-5	TH2883S4-5
Impulse voltage	100 V – 5000 V, 10 V steps	
Voltage accuracy	± (5% of set value + 15 V)	
Readback accuracy	± (5% of actual value + 15 V)	
Channels	8	4
Inductance test range	≥ 10 µH	
Impulse energy	Max. 0.25 J	
Test speed	167 ms (single channel, single step) — ≈ 6 measurements/second	
Pulses applied per test	Max. 32	
Input impedance	5 MΩ	
Display	800 × 480 dot, 65k-colour 7" TFT; waveform area 600 × 256	
Waveform sampling	Sample rate max. 200 Msps, 8 levels adjustable; 8-bit resolution; 6k-byte memory depth; sample averaging 1–32	
Comparison methods	Area comparison, differential area comparison, corona discharge comparison, differential phase comparison	
Waveform measurement	Voltage, time, frequency (on the displayed waveform)	
Trigger mode	Manual (incl. foot switch), external, internal, bus	
Pulses applied	Test pulses 1–32; demagnetizing pulses 0–16	
Detection output	PASS/FAIL display, LED indicators, buzzer alarm	
Measurement statistics	Pass/fail count and rate per comparison method	
Internal memory	20 internal standard-waveform/setup files; USB flash drive for external storage	
Standard interfaces	RS232C, USB Device, USB Host, HANDLER, LAN	
Remote-control protocols	SCPI command set (MODBUS not supported)	
Power supply	110 V / 220 V AC ± 10%, 50 Hz / 60 Hz ± 5%	
Power consumption	≤ 200 VA	
Operating temperature	0 °C – 40 °C	
Operating humidity	≤ 75% R.H.	
Safety & EMC	IEC 61010-1:2001, IEC 61326-2-1:2005	
Dimensions	400(W) × 132(H) × 420(D) mm	
Weight	15 kg	

Interfaces

RS232C	USB Host	USB Device	HANDLER	LAN	SCPI
standard	standard	standard	standard	standard	standard

All five physical interfaces plus SCPI are standard on both TH2883S8-5 and TH2883S4-5 — none is model-specific.

Standard accessories

Item	Description
—	EU power cable (Schuko, CEE 7/7)
TH2881-001	Foot switch
TH2883-01	High-voltage test cable
TH90003R	High-voltage test cable × 8 (TH2883S8-5 only) / × 4 (TH2883S4-5 only)

Notes for European customers

Test fixtures are application-specific and selected together with your Techmize contact or authorized distributor based on the winding geometry and access points required.

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