MODEL SELECTION TABLES

Picking the Right Model Within a Family

Side-by-side model comparisons for every Techmize product family with more than one model — pairs with the Distributor Selection Guide and the Category Catalogs.

Techmize Electronic GmbH · Ismaning, Germany

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How this document fits in

This is the third piece of the Techmize documentation set, and it answers a narrower question than the other two:

- **Selection Guide** — which product family fits the customer's need?
- **Model Selection Tables** (this document) — which specific model within that family?
- **Category Catalogs / datasheets** — full specifications for the chosen model

Single-model families (no variant to choose between) are not included here — there's nothing to select. Each table lists the main selection differences between the models in that family. Full specifications are in the matching datasheet and Category Catalog.

A Passive Component & Impedance Testing

TH2852 / TH2853 Series

Model	Frequency	Test modes
TH2852-050 / TH2853-050	1 MHz – 500 MHz	Point + List + Curve sweep
TH2852-100 / TH2853-100	1 MHz – 1 GHz	Point + List + Curve sweep
TH2852-200 / TH2853-200	1 MHz – 2 GHz	Point + List + Curve sweep
TH2852-350 / TH2853-350	1 MHz – 3.5 GHz	Point + List + Curve sweep
TH2852-500 / TH2853-500	1 MHz – 5 GHz	Point + List + Curve sweep

TH2852 = full analysis suite (Smith chart, cursors, equivalent circuit). TH2853 = streamlined point/list/sweep only. Same 5 frequency tiers on both.

TH2851 Series

Model	Frequency
TH2851-015	10 Hz – 15 MHz
TH2851-030	10 Hz – 30 MHz
TH2851-050	10 Hz – 50 MHz
TH2851-080	10 Hz – 80 MHz
TH2851-130	10 Hz – 130 MHz

All 5 models share the same 0.08% accuracy core, four-terminal-pair test configuration and touch UI — differ only in max. frequency.

TH2848 Series

Model	Frequency	AC level	DC bias	Piezoelectric test	Dielectric-constant test
TH2848-02L	4 Hz – 2 MHz	5 mV – 2 V	0 – ±10 V	—	—
TH2848-02	4 Hz – 2 MHz	5 mV – 20 V	0 – ±40 V	Yes	—
TH2848-05	4 Hz – 5 MHz	5 mV – 20 V	0 – ±40 V	Yes	Yes
TH2848-10	4 Hz – 10 MHz	5 mV – 20 V	0 – ±40 V	Yes	Yes

TH2848-02L is the entry-level 2 MHz variant with a lower-power signal source. TH2848-02 adds the full-power source and piezoelectric admittance-circle test; TH2848-05/-10 add dielectric-constant testing.

TH2840X Series

Model	Frequency	Test pins
TH2840AX	20 Hz – 500 kHz	20 PIN (via TH1901 fixture)
TH2840BX	20 Hz – 2 MHz	20 PIN (via TH1901 fixture)
TH2840NX	20 Hz – 500 kHz	48–288 PIN (internal scan board)

TH2840AX/BX share a 265 mm enclosure with external fixture; TH2840NX uses a deeper chassis with internal scan board — the two are not interchangeable.

TH2840 Series

Model	Frequency	DC bias	Notes
TH2840A	20 Hz – 500 kHz	±40 V / 100 mA	General-purpose bench
TH2840B	20 Hz – 2 MHz	±40 V / 100 mA	Extended frequency range
TH2840BL	100 Hz – 2 MHz	—	High-frequency, GPIB-equipped, no DC bias

TH2838 Series

Model	Frequency	AC voltage	DC bias
TH2838A	20 Hz – 1 MHz	5 mV – 2 Vrms	0 – ±10 V
TH2838	20 Hz – 2 MHz	5 mV – 2 Vrms	0 – ±10 V
TH2838H	20 Hz – 2 MHz	5 mV – 20 Vrms	0 – ±40 V

TH2838 is the standard full 2 MHz model. TH2838H adds a high test level and higher DC bias for power-component testing.

TH283X Series

Model	Frequency	DC bias	Power input
TH2830	50 Hz – 100 kHz	— (DCR only)	220 V AC
TH2832	20 Hz – 200 kHz	Built-in, 0 – ±5 V / ±50 mA	220 V AC
TH2832D	20 Hz – 300 kHz	Built-in, 0 – ±5 V / ±50 mA	24 V DC (for automation cabinets)

Entry-level compact LCR meters. All three share the same 0.1% DCR accuracy — DCR is not TH2832D-exclusive; its real differentiators are the 300 kHz ceiling and the 24 V DC power supply.

TH2822 Series

Model	Frequency	Accuracy	Test level	DCR
TH2822A	100 Hz – 10 kHz	0.25%	0.6 Vrms	—
TH2822C	100 Hz – 100 kHz	0.25%	0.6 Vrms	—
TH2822D	100 Hz – 10 kHz	0.1%	0.3 / 0.6 / 1 Vrms	Yes
TH2822E	100 Hz – 100 kHz	0.1%	0.3 / 0.6 / 1 Vrms	Yes

Handheld LCR meters; D/E variants add multi-level test and built-in DCR.

B Semiconductor Device Testing

TH521 Series (16 models, shown by tier)

Model pattern	Voltage / current	C-V (10 MHz) + Qg
TH521-02-20 / -20C COMING SOON	200 V / 20 A	— / included
TH521-02-200 / -200C COMING SOON	200 V / 200 A	— / included
TH521-02-600 / -600C COMING SOON	200 V / 600 A	— / included
TH521-02-1800 / -1800C COMING SOON	200 V / 1800 A	— / included
TH521-35-20 / -20C	3500 V / 20 A	— / included
TH521-35-200 / -200C	3500 V / 200 A	— / included
TH521-35-600 / -600C	3500 V / 600 A	— / included
TH521-35-1800 / -1800C	3500 V / 1800 A	— / included

16 models = 2 voltage tiers (200 V / 3500 V) × 4 current tiers (20 / 200 / 600 / 1800 A) × with/without C-V + Qg option (“C” suffix). The 200 V-tier models are coming soon — contact Techmize for availability.

TH530 Series

Model	Channels	Peak current	Avalanche voltage
TH530-25100A	Single-channel	100 A	2500 V
TH530-25100B	Dual-channel	100 A	2500 V
TH530-25200A	Single-channel	200 A	2500 V
TH530-25200B	Dual-channel	200 A	2500 V

TH510 Series

Model	VDS range	Channels
TH511	0 – ±200 V	2 (exp. to 6)
TH512	0 – ±1500 V	2 (exp. to 6)
TH513	0 – ±3000 V	1

TH513 trades multi-channel for the highest voltage tier and adds a safety interlock.

C Micro-Signal & Precision Measurement

TH199X Series

Model	Channels	Max. DC voltage	Max. DC current	Max. pulse current	Source resolution
TH1991C	1	±63 V	±1.515 A	—	5½ digit
TH1991B	1	±210 V	±3.03 A	—	5½ digit
TH1991A	1	±210 V	±3.03 A	±10.5 A	5½ digit
TH1991	1	±210 V	±3.03 A	±10.5 A	6½ digit
TH1992B	2	±210 V	±3.03 A	—	5½ digit
TH1992A	2	±210 V	±3.03 A	±10.5 A	5½ digit
TH1992	2	±210 V	±3.03 A	±10.5 A	6½ digit

All seven models measure at 6½ digits. Choose by voltage/current range, single vs. dual channel, pulse output and source resolution.

TH1953 / TH1963 / TH1963A Series

Model	Digits / counts	DC voltage accuracy (% rdg + % rng)	Rear input terminals
TH1963	6½ digit / 1,199,999	0.0035 + 0.0005	Yes
TH1963A	6½ digit / 1,199,999	0.0075 + 0.0005	—
TH1953	5½ digit / 119,999	0.010 + 0.004	—

TH2690 Series

Model	Function	Current resolution	Max. resistance
TH2690	R / V / I / Q	0.1 fA	100 PΩ
TH2690A	R / V / I	1 fA	1 PΩ
TH2690H	R / V / I / Q	0.01 fA	1000 PΩ
TH2691	I only	0.1 fA	—
TH2691A	I only	1 fA	—
TH2691H	I only	0.01 fA	—
TH2695	R / V / I / Q	0.01 fA	3000 PΩ
TH2695A	R / V / I / Q	0.01 fA	1500 PΩ

TH2691/A/H = compact ammeter-only variants. TH2695 offers the highest resistance range (3000 PΩ) and a ±3000 V source.

TH2683 Series

Model	Test voltage range	Resistance measurement range
TH2683A	1 – 1000 V	100 kΩ – 10 TΩ
TH2683B	1 – 500 V	100 kΩ – 5 TΩ

TH2516 Series

Model	Range	Basic accuracy	Max. test current	Low-voltage (LPR) mode	Temperature
TH2516	1 μΩ – 2 MΩ	0.05%	1 A	Yes	Yes
TH2516A	10 μΩ – 200 kΩ	0.05%	100 mA	Yes	—
TH2516B	1 μΩ – 20 kΩ	0.1%	1 A	—	—

TH2516B is the economy model: reduced range, no low-voltage mode and no temperature measurement.

TH2518 Series

Model	Measures	Channels
TH2518	Resistance + temperature	Up to 90
TH2518A	Resistance only	Up to 90

TH2523 / A Series

Model	Voltage range
TH2523	100 μV – 65 V
TH2523A	100 μV – 350 V

TH2554 Series (modular — mainframe + module choice)

Module	Channels	Scan speed	Max. voltage / current
TH2554-DMM (mandatory)	6½-digit DMM	—	—
TH2554-01	20×2W / 10×4W + 2 current	90 CH/s	300 V / 1 A
TH2554-02	40×2W / 20×4W + 2 current	90 CH/s	300 V / 1 A
TH2554-03	20×2W / 10×4W, solid-state	300 CH/s	60 V (voltage only)

TH2554 mainframe (5 slots) + mandatory DMM module + optional scanning modules, freely combined — up to 160 channels.

D Power Electronics

TH66000 Series Family

Voltage class	Power tiers available	Model pattern
80 V	5 / 10 / 15 kW	TH6680(P/L)-xxx-05/10/15
200 V	5 / 10 / 15 kW	TH66200(P/L)-xxx-05/10/15
360 V	5 / 10 / 15 kW	TH66360(P/L)-xxx-05/10/15
500 V	5 / 10 / 15 kW	TH66500(P/L)-xxx-05/10/15
750 V	5 / 10 / 15 kW	TH66750(P/L)-xxx-05/10/15
1000 V	15 kW only	TH661000(P/L)-40-15
1500 V	15 kW only	TH661500(P/L)-30-15

51 model numbers = 17 voltage/power classes × 3 series (TH66000 bidirectional / TH66000L load / TH66000P source). Full matrix is in the Category D catalog.

TH6900 Series (21 models, shown by power tier)

Power tier	Voltage range covered	Example models
750 W	40 – 1000 V, 7 models	TH6940-60 … TH691000-2.5
1.5 kW	35 – 1000 V, 7 models	TH6935-100 … TH691000-5
3 kW	35 – 1000 V, 7 models	TH6935-200 … TH691000-10

Each tier has 7 voltage points — 750 W: 40/80/200/360/500/750/1000 V; 1.5 kW and 3 kW: 35/80/200/360/500/750/1000 V. Higher power tier = higher current at each voltage point. Maximum voltage, maximum current and rated power are independent limits — the actual operating point is always limited by the rated power (e.g. TH6940-60: up to 40 V or up to 60 A, within 750 W).

TH6430 Series

Model	Channels
TH6431	1
TH6432	2
TH6433	3 (incl. USB power channel)
TH6434	4

CH1 (TH6431) and CH1/CH2 (TH6432/TH6433/TH6434) also operate as a DC electronic load (CC/CV/CR/CP).

TH6400 Series

Model	Notes
TH6402A	Economy 3-channel
TH6402B	4-channel
TH6402	3-channel, standard
TH6412	High-current variant
TH6413	High-voltage variant

TH7100 Series

Model	Rated power
TH7105	500 W
TH7110	1000 W
TH7120	2000 W

TH7200 Series

Model	AC power	DC / AC+DC power
TH7205	500 VA	350 W
TH7210	1000 VA	700 W

TH8300 Series (modular — mainframe + module choice)

Item	Slots / channels	Notes
TH8300 mainframe	5 slots (up to 10 ch)	Up to 2500 W total (5 × 500 W modules)
TH8310 mainframe	2 slots (up to 4 ch)	Compact chassis
TH8301 / TH8301A-80-20	2 ch / module	100 W × 2 / 200 W × 2, 0 – 80 V
TH8302-80-40 / 600-10	1 ch / module	200 W, 80 V or 600 V tier
TH8303-80-60 / 600-15	1 ch / module	300 W, 80 V or 600 V tier
TH8304-80-80	1 ch / module	400 W, 0 – 80 V
TH8305-80-80 / 600-30	1 ch / module	500 W, 80 V or 600 V tier

Choose a mainframe (TH8300 or TH8310), then populate with load modules to match total power/channel needs.

TH8400 Series

Model	Voltage	Max. current	Power
TH8401	0 – 15 V / 0 – 150 V	30 A	175 W
TH8402A	0 – 15 V / 0 – 150 V	30 A	350 W
TH8402	0 – 15 V / 0 – 150 V	60 A	350 W
TH8403	0 – 15 V / 0 – 150 V	120 A	1000 W
TH8404	0 – 15 V / 0 – 150 V	180 A	1500 W
TH8405	0 – 15 V / 0 – 150 V	240 A	2000 W
TH8411	0 – 50 V / 0 – 500 V	15 A	175 W
TH8412	0 – 50 V / 0 – 500 V	30 A	350 W

TH343X / TH344X Series

Model	Channels	Current range	Micro-current
TH3431	1	0.01 mA – 2 A	Yes
TH3433	3	0.01 mA – 2 A	Yes
TH3434	4	0.01 mA – 2 A	Yes
TH3441	1	0.1 mA – 20 A	No
TH3443	3	0.1 mA – 20 A	No
TH3444	4	0.1 mA – 20 A	No

TH343X = 2 A tier with micro-current; TH344X = 20 A tier without.

TH342X Series

Model	Current range	Micro-current
TH3421	10 mA – 20 A	No
TH3422	1 mA – 2 A	Yes

E Safety & Cable Testing

TH9120 Series

Model	AC output	DC output
TH9120	10 kV / 20 mA / 200 VA	12 kV / 10 mA / 120 VA
TH9120A	10 kV / 20 mA / 200 VA	— (AC only)
TH9120D	— (DC only)	12 kV / 10 mA / 120 VA

TH9130 / TH9130S Series

Model	AC / DC power	Electrical perf. + leakage test	Channels
TH9130	500 VA / 150 VA	Included	1
TH9131	200 VA / 120 VA	Included	1
TH9130A	500 VA / 150 VA	Not available	1
TH9131A	200 VA / 120 VA	Not available	1
TH9130S	500 VA / 120 VA	—	4 or 8 (scanning)
TH9131S	200 VA / 120 VA	—	4 or 8 (scanning)

“A” suffix = simpler, no electrical-performance/leakage test. “S” suffix = multi-channel scanning variant.

TH9320-S Series

Model	Scan channels
TH9320-S4	4
TH9320-S8	8

TH9110 Series

Model	Power	Floating output	Notes
TH9110	5 kV / 100 mA / 500 VA	Yes	Standard
TH9110A	5 kV / 100 mA / 500 VA	No	No floating output
TH9111	5 kV / 40 mA / 200 VA	Yes	Lower current
TH9111A	5 kV / 40 mA / 200 VA	No	Lower current, no floating
TH9112A	5 kV / 100 mA / 500 VA	—	High-current + CK pin/contact detection

TH9310 / TH9320 Series

Model	AC	DC	Insulation resistance
TH9310	5 kV, 10 mA	6 kV, 5 mA	Included
TH9310B	5 kV, 10 mA	— (AC only)	—
TH9320	5 kV, 20 mA	6 kV, 10 mA	Included

TH9410A / TH9411A Series

Model	Current range	Output voltage (compliance)	Power consumption
TH9410A	1.00 – 45.00 A	8 V max (≤5 A) / 6 V max (>5 A)	≤ 900 VA
TH9411A	1.00 – 32.00 A	8 V max	≤ 800 VA

Both models share the 0 – 600 mΩ resistance test range (max. resistance limited to 6 V / set current).

TH600 Series

Model	Wiring	Channels	Withstand voltage (AC / DC)
TH615-1280-2W	Two-wire	1,280	5 – 1000 V / 5 – 1500 V
TH615-2560-2W	Two-wire	2,560	5 – 1000 V / 5 – 1500 V
TH615-640	Four-wire	640	5 – 1000 V / 5 – 1500 V
TH615-1280	Four-wire	1,280	5 – 1000 V / 5 – 1500 V
TH630-160	Four-wire	160	5 – 2000 V / 5 – 3000 V
TH630-320	Four-wire	320	5 – 2000 V / 5 – 3000 V
TH630-640	Four-wire	640	5 – 2000 V / 5 – 3000 V

TH615 = cost-optimised, in two-wire (no contact check) and four-wire versions. TH630 = four-wire (Kelvin) at the higher AC 2000 V / DC 3000 V voltage class.

TH86XX Family

Model	Test pins	Slots	Distinguishing capability
TH8610	128	—	DC current source to 1 A; 3 HV test modes; thermistor test
TH8610A	64	—	Compact 64-pin version of TH8610
TH8601	128	4 (A–D)	Entry platform; 4 HV test modes incl. ground test
TH8601A	64	4 (A–D)	Compact 64-pin version of TH8601
TH8602-1	64	8 (A–H)	Base model, 4-terminal test
TH8602-2	128	8 (A–H)	Higher channel count
TH8602-3	192	8 (A–H)	Higher channel count
TH8602-4	256	8 (A–H)	Top channel count in TH8602 family
TH8602B	64	8 (A–H)	+ EMARK chip read/write check (Type-C)
TH8602C	64	8 (A–H)	+ EMARK check, 5 A constant-current source, 5 A / 20 V drop test
TH8603-4	512	4 (A–D)	Family flagship; 10 A CC source; 40-output HANDLER

TH2883 Series

Model	Impulse voltage	Impulse energy
TH2883-1	30 V – 1.2 kV	≤ 0.02 J
TH2883-5	100 V – 5 kV	≤ 0.25 J
TH2883-10	500 V – 10 kV	≤ 0.5 J

TH2883S8-5 / TH2883S4-5

Model	Channels	Impulse voltage
TH2883S4-5	4	100 V – 5 kV
TH2883S8-5	8	100 V – 5 kV