


Aumictech

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

YOKOGAWA

Yokogawa WT5000 Precision Power Analyzer

The Yokogawa WT5000 is a modular precision power analyzer with seven user-swappable input-element slots, 10 MS/s 18-bit conversion, and 1 MHz power bandwidth using isoPRO fiber-optic isolation. Yokogawa states a basic power accuracy of plus/minus 0.03 percent, guaranteed from 1 percent to 130 percent of the selected voltage and current ranges at 50/60 Hz. AC power accuracy is 0.01 percent of reading + 0.02 percent of range; DC is 0.02 percent of reading + 0.05 percent of range. Up to four motors can be evaluated in one chassis. EV and hybrid powertrain efficiency; inverter and motor drive evaluation; renewable-energy converter and MPPT testing; IEC harmonic and flicker compliance with /G7; multi-phase industrial power analysis; in-house calibration reference for lower-accuracy WT-series meters. Event trigger plus up to 20 user-defined computations 10.1 inch WXGA touchscreen with numeric, waveform, vector, bar, and trend views Optional /D7 raw-waveform streaming up to 2 MS/s; /G7 harmonics and flicker Synchronize up to four WT5000 units (28 elements, 16 motor functions) with WTVIEWER



MODEL

**Yokogawa
WT5000**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

WT5000

LISTING

<https://aumictechlabs.com/products/WT5000-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Yokogawa WT5000 is a precision power analyzer engineered for high-accuracy electrical and mechanical power measurement across industrial and automotive applications. Its modular

architecture accommodates seven user-swappable input elements, enabling simultaneous analysis of up to seven phases with over 1000 power parameters delivered in real-time. The instrument achieves $\pm 0.03\%$ basic power accuracy across a wide dynamic range - 1% to 130% of selected voltage and current inputs - while maintaining exceptional performance at low power factors and large phase shifts. With 10 MS/s sampling rate, 18-bit resolution, and 1 MHz power bandwidth, the WT5000 delivers reliable measurements in electrically noisy environments. Its advanced isoPRO™ fiber optic isolation technology supports both AC power accuracy (0.01% of reading + 0.02% of range) and DC power accuracy (0.02% of reading + 0.05% of range). Low power factor influence is held to 0.02% of apparent power, critical for motor and renewable energy testing.

Technical Specifications

Basic Power Accuracy: $\pm 0.03\%$ of reading
AC Power Accuracy: 0.01% of reading + 0.02% of range
DC Power Accuracy: 0.02% of reading + 0.05% of range
Accuracy Range: 1% to 130% of selected voltage and current ranges
Sampling Rate: 10 MS/s
Resolution: 18 bit
Power Bandwidth: 1 MHz
Voltage Measurement Range: 1.5 V to 1500 V
Current Measurement Range: 5 mA to 30 A (with interchangeable elements)
Simultaneous Phase Analysis: Up to 7 phases
Harmonic Analysis: Up to 500th order
Motor Evaluation Channels: Up to 4 motors simultaneously
Data Update Interval: 10 ms standard; 50 ms with data streaming
Raw Waveform Data Streaming: Up to 22 items at 2 MS/s
Custom Computations: Up to 20 user-defined calculations

Key Features

- Motor evaluation with synchronized rotational speed, torque, electrical angle, mechanical power, and efficiency measurements
- Harmonic analysis independent of external sampling clock
- Configurable advanced filtering for wideband and harmonic power analysis in high-noise environments
- Simultaneous harmonic comparison across multiple input sources
- Interchangeable current input elements for flexible measurement ranges

Typical Applications

- Electric vehicle powertrain development
- Renewable energy systems and inverter testing
- Motor and drive efficiency validation
- Home appliance power consumption analysis
- Industrial equipment characterization

SPEC Power® testing

Compatibility & Integration Accepted for SPEC Power® testing. Compliant with IEC harmonic and flicker measurement standards. Supports analog and pulse outputs from torque and rotation sensors.

WT5000 Characteristics / Specifications

PARAMETER	VALUE
Model	WT5000
Manufacturer	Yokogawa
Instrument Type	Precision power analyzer
Alias	WT5000; Yokogawa WT5000
Input Element Slots	7
ADC Resolution	18 bit
Maximum Sample Rate	10 MS/s (100 ns conversion period)
Power Bandwidth	DC to 1 MHz (typical voltage bandwidth DC to 10 MHz, -3 dB)
Basic Power Accuracy	plus/minus 0.03 percent (50/60 Hz, 1 percent to 130 percent of range)
AC Power Accuracy 45 to 66 Hz	plus/minus (0.01 percent of reading + 0.02 percent of range)
DC Power Accuracy	plus/minus (0.02 percent of reading + 0.05 percent of range)
Low Power Factor Influence	0.02 percent of apparent power (0.5 A or more); 0.07 percent of S (200 mA or less)
Voltage Ranges CF	1.5 / 3 / 6 / 10 / 15 / 30 / 60 / 100 / 150 / 300 / 600 / 1000 V
Current Ranges 30 A Element CF	500 mA, 1, 2, 5, 10, 20, 30 A (760901)
Current Ranges 5 A Element CF	5, 10, 20, 50, 100, 200, 500 mA, 1, 2, 5 A (760902)
External Sensor Ranges CF	50 / 100 / 200 / 500 mV, 1 / 2 / 5 / 10 V
Voltage Input Resistance	10 MOhm plus/minus 1 percent (about 12 pF)
Current Shunt 30 A Element	6.5 mOhm plus/minus 10 percent + about 0.3 uH
Current Shunt 5 A Element	0.5 Ohm plus/minus 10 percent + about 0.3 uH
Earth Rating	1000 V CAT II on voltage, current, and sensor inputs
Continuous Max Voltage	peak 1.6 kV or RMS 1.5 kV, whichever is lower
Instantaneous Max Voltage	peak 2.5 kV or RMS 1.5 kV, whichever is lower (1 s or less)
Continuous Max Current 30 A Element	peak 90 A or RMS 33 A, whichever is lower
Continuous Max Current 5 A Element	peak 10 A or RMS 7 A, whichever is lower
Effective AC Input	1 percent to 130 percent of range (Urms/Irms)

PARAMETER	VALUE
Data Update Rates	10 ms, 50 ms, 100 ms, 200 ms, 500 ms, 1 s, 2 s, 5 s, 10 s, 20 s
Harmonic Analysis Order	up to 500th
Motor Evaluation Channels	up to 4 (optional)
Display	10.1 inch WXGA color touchscreen
Crest Factor Settings	CF3 standard; CF6 / CF6A supported
Temperature Coefficient	plus/minus 0.01 percent of reading perCat 5 to 18 C or 28 to 40 C (760901/760902)
Warm Up	30 minutes; accuracy at 23 plus/minus 5 C, 30 to 75 percent RH
One Year Accuracy	multiply six-month reading accuracy by 1.5
Communications	GP-IB, Ethernet, and USB
Isolation Technology	Yokogawa isoPRO fiber-optic isolation Notes Specs from Yokogawa WT5000 Precision Power Analyzers brochure/specification (BUWT5000 class). Confirm installed elements (760901 / 760902 / 760903), motor options, and /D7 /G7 firmware options on the unit.
Bandwidth	using isoPRO fiber-optic isolation. Yokogawa states a basic power accuracy of plus/minus 0.03 percent, guaranteed from 1 percent to 130 percent of the selected voltage and current ranges at 50/60 Hz. AC power accuracy is 0.01 percent of reading + 0.02

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
PARAMETER	VALUE
Model	WT5000
Manufacturer	Yokogawa
Instrument Type	Precision power analyzer
Alias	WT5000; Yokogawa WT5000
Input Element Slots	7
ADC Resolution	18 bit
Maximum Sample Rate	10 MS/s (100 ns conversion period)
Power Bandwidth	DC to 1 MHz (typical voltage bandwidth DC to 10 MHz, -3 dB)
Basic Power Accuracy	plus/minus 0.03 percent (50/60 Hz, 1 percent to 130 percent of range)
AC Power Accuracy 45 to 66 Hz	plus/minus (0.01 percent of reading + 0.02 percent of range)
DC Power Accuracy	plus/minus (0.02 percent of reading + 0.05 percent of range)
Low Power Factor Influence	0.02 percent of apparent power (0.5 A or more); 0.07 percent of S (200 mA or less)
Voltage Ranges CF3	1.5 / 3 / 6 / 10 / 15 / 30 / 60 / 100 / 150 / 300 / 600 / 1000 V
Voltage Ranges CF6	0.75 / 1.5 / 3 / 5 / 7.5 / 15 / 30 / 50 / 75 / 150 / 300 / 500 V
Current Ranges 30 A Element CF3	500 mA, 1, 2, 5, 10, 20, 30 A (760901)
Current Ranges 5 A Element CF3	5, 10, 20, 50, 100, 200, 500 mA, 1, 2, 5 A (760902)
External Sensor Ranges CF3	50 / 100 / 200 / 500 mV, 1 / 2 / 5 / 10 V
Voltage Input Resistance	10 MOhm plus/minus 1 percent (about 12 pF)
Current Shunt 30 A Element	6.5 mOhm plus/minus 10 percent + about 0.3 uH
Current Shunt 5 A Element	0.5 Ohm plus/minus 10 percent + about 0.3 uH
Earth Rating	1000 V CAT II on voltage, current, and sensor inputs
Continuous Max Voltage	peak 1.6 kV or RMS 1.5 kV, whichever is lower
Instantaneous Max Voltage	peak 2.5 kV or RMS 1.5 kV, whichever is lower (1 s or less)
Continuous Max Current 30 A Element	peak 90 A or RMS 33 A, whichever is lower
Continuous Max Current 5 A Element	peak 10 A or RMS 7 A, whichever is lower

PARAMETER	VALUE
Effective AC Input	1 percent to 130 percent of range (Urms/Irms)
Data Update Rates	10 ms, 50 ms, 100 ms, 200 ms, 500 ms, 1 s, 2 s, 5 s, 10 s, 20 s
Harmonic Analysis Order	up to 500th
Motor Evaluation Channels	up to 4 (optional)
Display	10.1 inch WXGA color touchscreen
Crest Factor Settings	CF3 standard; CF6 / CF6A supported
Temperature Coefficient	plus/minus 0.01 percent of reading perCat 5 to 18 C or 28 to 40 C (760901/760902)
Warm Up	30 minutes; accuracy at 23 plus/minus 5 C, 30 to 75 percent RH
One Year Accuracy	multiply six-month reading accuracy by 1.5
Communications	GP-IB, Ethernet, and USB
Isolation Technology	Yokogawa isoPRO fiber-optic isolation

Notes

Specs from Yokogawa WT5000 Precision Power Analyzers brochure/specification (BUWT5000 class). Confirm installed elements (760901 / 760902 / 760903), motor options, and /D7 /G7 firmware options on the unit.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.