


Aumictech

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

YOKOGAWA

Yokogawa WT310EH Digital Power Meter

The Yokogawa WT310EH is the single-element high-current compact digital power meter in the WT300E family. It accepts 1 A to 40 A directly (no clamp required) with a bandwidth of DC and 0.1 Hz to 20 kHz, targeting motors, heaters, and battery charge/discharge where 20 A direct input is not enough. Direct 40 A motor and heater power measurement; battery charge/discharge (plus/minus Wh, Ah) without current sensors; production high-current single-phase tests; optional harmonic evaluation; automated test with USB, GPIB or RS-232, and Ethernet/Modbus/TCP. Input Elements: 1 element (single-phase two-wire, high current) Basic Power Accuracy: $\pm(0.1\% \text{ of reading} + 0.05\% \text{ of range})$ at 50/60 Hz DC Measurement Accuracy: 0.5% total (WT310EH DC class) Power Factor Influence: $\pm(0.1\% \text{ of S})$ at $\cos \phi = 0$, 45 to 66 Hz



MODEL

**Yokogawa
WT310EH**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

WT310EH

LISTING

<https://aumictechlabs.com/products/wt310eh-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Yokogawa WT310EH is a single-phase digital power meter engineered for high-accuracy AC and DC power measurements in compact form. It delivers $\pm 0.15\%$ basic power accuracy at 50/60 Hz across all ranges and supports simultaneous measurement of voltage, current, power, frequency, power factor, harmonics, and THD without mode changes. The instrument handles currents from 5 mA to 40 A RMS directly, with voltage measurement capability from 15 V to 600 V,

making it suitable for applications ranging from low standby power measurements to high-current device testing.

Technical Specifications

Current input range: 5 mA to 40 A RMS
Voltage measurement range: 15 V to 600 V
Frequency bandwidth: DC, 0.1 Hz to 20 kHz
Basic power accuracy (50/60 Hz): $\pm(0.1\%$ of reading + 0.05% of RMS range)
Basic DC accuracy: $\pm(0.1\%$ of reading + 0.2% of RMS range)
Data update rate: 100 ms maximum; auto-adjustable down to 0.1 Hz for fluctuating frequencies
Crest factor: Up to 300 (or 6 A, depending on mode)
Integration measurement: Energy (Wh) and charge (Ah) over extended periods up to approximately 10,000 hours
Harmonics analysis: Up to 50th order (with optional -G5 configuration)

Key Features

High-speed auto-ranging in integration mode ensures continuous accuracy when input levels exceed selected ranges, eliminating test repetitions
Auto-ranging function across selected measurement ranges
Simultaneous AC and DC parameter measurement including harmonic and THD analysis
Fast display update enables quick test procedures
Automatic data rate adjustment for tracking motor frequencies and other variable input conditions
Standby power measurement compliance with IEC62301, Energy Star, and SPECpower standards
High measurement resolution: 100 μ W on 5 mA range

Typical Applications

Low standby power characterization
Induction cooker and high-current device testing
Motor and variable-frequency equipment analysis
Energy consumption profiling over extended durations
Harmonic distortion assessment

Compatibility & Integration

USB (standard)
GP-IB (optional; standard on -C1)
RS-232 (selectable; standard on -C2)
Ethernet via Modbus/TCP (optional -C7)
External sensor input support

Features & description

From manufacturer datasheet

Features

- One input element; single-phase two-wire; 40 Arms direct input
- High-current shunt (approx. 5 mOhm) for 1 A to 40 A CF3 ranges
- Auto-ranging integration for long-term energy and ampere-hour tests
- Optional /G5 harmonics to the 50th order
- Optional /EX1 or /EX2 isolated BNC sensor inputs if clamps are still required
- Optional 4-channel D/A (/DA4); USB standard plus selectable serial/GP-IB and /C7 Ethernet

WT310EH Characteristics / Specifications

PARAMETER	VALUE
Model	WT310EH
Manufacturer	Yokogawa
Instrument Type	Digital Power Meter
Series	WT300E
Input Elements	1 element (single-phase two-wire, high current)
Basic Power Accuracy	+/- (0.1% of reading + 0.05% of range) at 50/60 Hz
DC Measurement Accuracy	0.5% total (WT310EH DC class)
Power Factor Influence	+/- (0.1% of S) at cos phi = 0, 45 to 66 Hz
Frequency Range	DC, 0.1 Hz to 20 kHz (direct current input)
Voltage Ranges CF	15 V, 30 V, 60 V, 150 V, 300 V, 600 V
Current Ranges CF	0.5 A, 1 A, 2.5 A, 5 A, 10 A, 20 A
Crest Factor	3 (6 or 6A on reduced ranges)
Effective Input 40 A Range	1% to 100% of range (display to 110%)
Effective Input CF6A	2% to 260% of range (20 A range to 200%)
Sampling Rate	approximately 100 kS/s
Data Update Rate	100 ms, 250 ms, 500 ms, 1 s, 2 s, 5 s, 10 s, 20 s, Auto
Harmonic Measurement	optional /G5, 1st to 50th order; harmonic frequency to 1 kHz
External Sensor EX	50 mV, 100 mV, 200 mV, 500 mV, 1 V, 2 V (CF3)
Voltage Input Impedance	approx. 2 MOhm, 13 pF in parallel
Current Shunt Resistance	approx. 5 mOhm, 0.1 uH
Continuous Max Current	40 Arms direct (no clamp required)
Display	numeric LED class, 4 simultaneous items
Interfaces	USB standard; GP-IB or RS-232; Ethernet /C7 with Modbus/TCP
Power Supply	100 to 240 VAC (90 to 264 VAC allowed), 50/60 Hz, max 50 VA
Dimensions	approx. 213 W x 88 H x 379 D mm

PARAMETER	VALUE
Mass	approx. 3 kg
Warm Up Time	approx. 30 minutes
Operating Temperature	5 to 40 degCStorage Temperature: -25 to 60 degCMeasurement Category: CAT II
Alias	WT310EH Notes Specs from Yokogawa WT300E datasheet (WT310EH). WT310EH is the E-series 1-element 40 A meter; bandwidth is 20 kHz on direct current (not 100 kHz). Do not confuse with WT310E (20 A) or original WT310HC. Confirm installed options on the unit.
Bandwidth	of DC and 0.1 Hz to 20 kHz, targeting motors, heaters, and battery charge/discharge where 20 A direct input is not enough.
Storage temperature	25 to 60 degCMeasurement Category: CAT II

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	25 to 60 degCMeasurement Category: CAT II
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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	
Technical Specifications	
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DC Measurement Accuracy	0.5% total (WT310EH DC class)
Power Factor Influence	+/- (0.1% of S) at cos phi = 0, 45 to 66 Hz
Frequency Range	DC, 0.1 Hz to 20 kHz (direct current input)
Voltage Ranges CF3	15 V, 30 V, 60 V, 150 V, 300 V, 600 V
Voltage Ranges CF6	7.5 V, 15 V, 30 V, 75 V, 150 V, 300 V
Current Ranges CF3	1 A, 2 A, 5 A, 10 A, 20 A, 40 A
Current Ranges CF6	0.5 A, 1 A, 2.5 A, 5 A, 10 A, 20 A
Crest Factor	3 (6 or 6A on reduced ranges)
Effective Input 40 A Range	1% to 100% of range (display to 110%)
Effective Input CF6A	2% to 260% of range (20 A range to 200%)
Sampling Rate	approximately 100 kS/s
Data Update Rate	100 ms, 250 ms, 500 ms, 1 s, 2 s, 5 s, 10 s, 20 s, Auto
Harmonic Measurement	optional /G5, 1st to 50th order; harmonic frequency to 1 kHz
External Sensor EX1	2.5 V, 5 V, 10 V (CF3)
External Sensor EX2	50 mV, 100 mV, 200 mV, 500 mV, 1 V, 2 V (CF3)
Voltage Input Impedance	approx. 2 MOhm, 13 pF in parallel
Current Shunt Resistance	approx. 5 mOhm, 0.1 uH
Continuous Max Current	40 Arms direct (no clamp required)
Display	numeric LED class, 4 simultaneous items
Interfaces	USB standard; GP-IB or RS-232; Ethernet /C7 with Modbus/TCP

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Notes

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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

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