

YOKOGAWA

WT310

The Yokogawa WT310 is a compact, high-performance single-phase digital power meter designed for accurate power consumption measurement in R&D, production line testing, and QA applications. Featuring high basic accuracy of 0.1%, a wide bandwidth from DC and 0.5 Hz to 100 kHz, and versatile integration capabilities, it delivers reliable measurement of power, voltage, current, power factor, and harmonics.

SPECIFICATIONS

General

Interfaces	USB standard; GPIB, RS-232C, Ethernet, Analog D/A output (option-dependent)
Display	7-segment LED display

Physical

Power Supply	100 V AC to 240 V AC, 50/60 Hz, max 50 VA
Operating Temperature	5 °C to 40 °C °C
Dimensions (W×H×D)	213 × 88 × 379 mm mm
Weight	3.0 kg kg

Measurement Inputs and Ranges

Number of Measurement Channels	1 input element (1-phase 2-wire)
Voltage Input Ranges	15 V, 30 V, 60 V, 150 V, 300 V, 600 V (Crest Factor 3)
Crest Factor Rating	3 or 6
Voltage Input Impedance	Approx. 2 MΩ in parallel with approx. 13 pF
Frequency Measurement Range	0.5 Hz to 100 kHz

Accuracy and Performance

Basic Active Power Accuracy	±(0.1% of reading + 0.1% of range) at 50/60 Hz
Basic Voltage Accuracy	±(0.1% of reading + 0.1% of range) at 50/60 Hz
Basic Current Accuracy	±(0.1% of reading + 0.1% of range) at 50/60 Hz
Frequency Bandwidth	DC, 0.5 Hz to 100 kHz
A/D Converter Resolution	16-bit
Data Update Interval	100 ms, 250 ms, 500 ms, 1 s, 2 s, 5 s
Line Filter Cutoff Frequency	500 Hz

Measurement Parameters and Functions

Active Power Measurement (P)	Supported
Apparent Power Measurement (S)	Supported
Reactive Power Measurement (Q)	Supported
Power Factor Measurement (PF)	Supported
Phase Angle Measurement	Supported
Peak Hold Function	Voltage and Current (+/- peak hold)
Integration Function	Ah (Ampere-hour) and Wh (Watt-hour) integration
Harmonic Measurement Option	Up to 50th order (with /G5 option installed)

Display and Control

Display Type	7-segment LED display
Simultaneous Display Parameters	4 display areas

Interfaces and Connectivity

USB Interface	USB Type-B (standard)
RS-232C Interface	Optional (Suffix -C2)
GPIB Interface	Optional (Suffix -C1)
Ethernet Interface	Optional (Suffix -C7)
Analog D/A Output	Optional, 4-channel output (Option /DA4)

Power Supply

Supply Voltage Range	100 V AC to 240 V AC
Supply Frequency	50 Hz / 60 Hz
Power Consumption	Max 50 VA

Environmental and Safety

Operating Temperature Range	5 °C to 40 °C
Operating Humidity Range	20% to 80% RH (non-condensing)
Storage Temperature Range	-25 °C to 60 °C
Maximum Operating Altitude	2000 m
Safety Standards	EN61010-1, EN61010-2-030
EMC Standards	EN61326-1 Class A, EN55011 Class A Group 1
Measurement Category	CAT II 600 V

Options and Accessories

Harmonic Measurement Option Code	/G5
Ethernet Option Code	-C7
GPIB Option Code	-C1
RS-232 Option Code	-C2
D/A Output Option Code	/DA4

Input & Measurement

Direct Current Input Ranges	5 mA, 10 mA, 20 mA, 50 mA, 100 mA, 200 mA, 0.5 A, 1 A, 2 A, 5 A, 10 A, 20 A
Current Input Impedance	Approx. 6 mΩ + 0.07 μH (0.5 A to 20 A range), approx. 500 mΩ (5 mA to 200 mA range)
External Sensor Input Impedance	Approx. 100 kΩ

Input Limits

Maximum Input Voltage	1000 Vrms, 1500 Vpeak
Maximum Input Current	30 Arms, 100 Apeak

General Specifications

Warm-up Time	Approx. 30 minutes
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Harmonic Measurement

Maximum Harmonic Order	50th order (with /G5 option)
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Functions & Features

Auto-Range Integration	Supported (automatically switches range during active power/ current integration)
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Integration

Integration Time Range	0000:00:00 to 10000:00:00 (hours:minutes:seconds)
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Software & Communication

Bundled PC Application	WTViewerFreePlus
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Maintenance

Recommended Calibration Interval	1 year
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TECHNOLOGY

Digital Power Analyzer

APPLICATIONS

Power consumption measurement, efficiency evaluation, standby power testing, and harmonic analysis

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.