

RESIDENTIAL WS310 TECHNICAL DATA



Multi-phasing



External CT/PT (Option)



LCD Display



UP to 4 Tariffs



Internal clock (RTC)



Maximum Demand (option)



Pulse output

AMI Ready poly phase meter

- Flexible and complex tariff structure
- Anti-tampering protection
- Max Demand (optional)
- Up to 4 tariffs managed by internal clock (RTC)
- Events log & alarm
- Ready for remote communication modules including PLC/RF/GPRS
- Anti-tampering protection

WS310, a multi-functional poly phase static electricity meter. It is developed under the ongoing technology evolution in the residential and light commercial sector and in order to meet the growing customer demand for static meters and AMI ready meters.

It gives advantages to all users in the process: an installer, a maintenance engineer, a service engineer, a readout operator and a final user. The meter is approved and manufactured in compliance with the IEC 62052-11, IEC 62053-21 (IEC 61036) standards, and was designed according to even higher internal PAX standards.

Reliability and stability

With proven electronic technology, long-life components and special care in the manufacturing process, WS310 guarantees precise accuracy and high reliability throughout its life span. Re-calibration is no longer necessary.

Fast and Easy Installation procedure

This design is easy to handle and extremely efficient for large-scale residential installations. Adapted to current connection standards the meter is compatible with existing installations and test benches.

Local metering data display (LCD):

- Automatic Scroll mode
- Manual scroll (by button)
- Test mode (for utilities)

Programmable data set and sequence

LCD back-light: optional

LCD display when power absent: optional

Flexible Tariff Management

Benefit from an internal RTC, full Time of Use (TOU) function is realized.

A tariff program is managed by the RTC which is suitable for the most complex metering applications.

The meter is able to generate "End of Period" information as defined by the user, usually based around billing dates.

The non-volatile memory is able to save energy information for up to 12 billing periods. This removes the need to visit the meter on a frequent basis.

WS310 supports 4 kinds of tariffs and 12 intervals in 24 hours for each day, which can be programmed flexibly. Interval 1 to 12 of each day can be combined with tariff 1 to 4 according to various requirements, this combination is called Tariff Set.

In addition, the meter supports holidays & weekends, which can be individually set with different kinds of combination of tariffs and intervals.

Maximum Demand (optional)

Maximum Demand information can also be measured for all tariff rates allowing optimum billing of high consumption customers in particular.

Communications

Equipped with an optical port in accordance with the protocol defined by IEC 62056-21, the meter can be programmed in the workshop or in the field under security control.

The port is also enabled for meter reading in accordance with the same standard. The port is secured under password and encryption control, to prevent unauthorized access.

Protected by different security level, the various configuration can be made, such as:

Adjustment of real time clock

Tariff programming

Resetting of Maximum Demand and historic registers.

Meter rate registers reset to zero

The programming tool can be configured on a User by User basis to allow or deny an operator access to any or all of the functions described above.

Besides, the meter can be configured to one way communication to download meter reading data without any security protection.

The operator ID, time and date stamp of last configuration will be recorded as event in meter memory.

Events log & Alarm

-Reverse energy flow

-Demand overload

-Open of terminal cover

Anti-Tamper Features

-Measures the absolute sum of total and export energy

-Optional abnormalities alarms & logs

-Independent sealing of the meter body and terminal cover

-Not programmable via keyboard

Freezing Function

The meter has optional function to freeze appointed variable parameters at the appointed time. Operators can read out these parameters to analyze.

Self-diagnostic

Meter parameters need to be set for the first time usage when out of factory. Instead, LCD will have an indication if the parameters are not integrated

Meter will check the hardware operating well every time when power on again, and will alarm for accidental faults.

■ TECHNICAL SPECIFICATION ■

■ VOLTAGE

Reference Voltage 57.7V/100V/110V/220V/230V/240V

Operation Voltage Range 0.9Un—1.1Un

Limit Voltage Range 0.7Un—1.2Un

■ FREQUENCY

Reference Frequency 50Hz/60Hz

■ CURRENT

Base Current Selectable 5A, 10A, 15A, 20A, 30A

Max Current Selectable 30A, 60A, 80A, 100A

■ MEASUREMENT ACCURACY

Active energy to IEC62053-21 Class 1

Starting Current 0.4%Ib to class 1 and 0.5%Ib to class 2

■ POWER CONSUMPTION

Voltage circuit $\leq 2W, 4VA$

Current circuit $\leq 1VA$

■ CLOCK

Accuracy $\pm 0.5s/d$ at ref temperature

■ ENVIRONMENT INFLUENCES

Operation -25°C to +55°C

Storage -40°C to +70°C

Impermeability according to IEC62059 IP51

■ INSULATION STRENGTH

Insulation Strength 4kV at 50Hz during 1 min

Impulse voltage 1.2/50us 6kV

Protection class II according to IEC62052-11

■ DISPLAY

Type LCD

Digit size in value field 10mm×5.5mm

Number of positions in value field 8 (6+2)

■ OUTPUTS

Test pulse output LED / Photocoupler series

■ DIMENSIONS AND WEIGHT

Width 168mm

Height 310mm

Depth 71.5mm

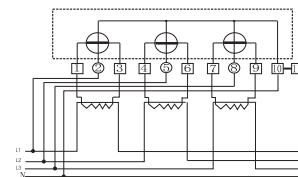
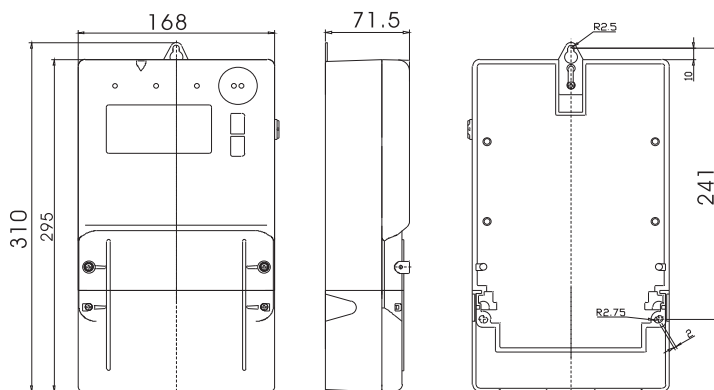
Weight 2kg

■ COMMUNICATION INTERFACE

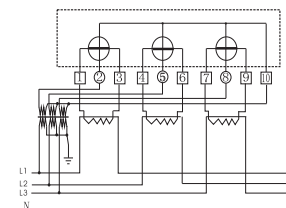
Optical port According to IEC62056-21

RS232/485 port Optional

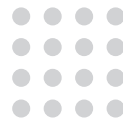
DIMENSION



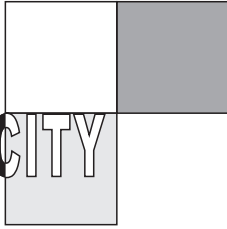
3-phase 4-wire active power connected through current transformer



3-phase 4-wire active power connected through current, voltage transformer



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To Know More

For questions or more information on PAX's AMI meters please contact:
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Owing to periodical improvements of our products

The supplied products can differ in some details from the data stated in the prospectus material

Manufactured under a quality system approved to ISO9001



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