ENERGY-METERS THREE-PHASE

active energy meter



WS 0301, WS 0302, WS 1302

Connection through CT

Application

The WSx10x energy meters are used for measuring energy using direct connection in three-phasesystems with current up to 65A. Optional also the measurement of apparent energy is possible. Housing is provided with terminals protection covers, which can be seal up against non-authorised access. They are built to be fastened to EN 60715 standard guides. The meters are microprocessor controlled. Display of quantities depends on meters type. They can be displayed on 7 digit electromechanical counter or on LCD display.

According to the customer's demands, meters can be equipped with a RS485 serial communication (option) with the MODBUS protocol, which enables data transmission and thus connection of the measuring places into the network for the control and management with energy. They can also be equipped with tariff input (option). A built-in pulse output (option) is designed for sending data to the devices for checking and monitoring consumed energy.



- Direct connection up to 65 A
- Industrial applications or meters with type approval according to European Directive 2004/22/EC MID (in progress)
- Active energy class B in compliance with EN 50470-3, class 1 in compliance with EN 62053-21
- Reactive energy class 2 in compliance with EN 62053-23
- Three-phase connection
- Energy measurement in both direction (import-export)
- Microprocessor control
- 7 digit energy counter (WS0101)
- Double 7 digit energy counter (WS0102)
- LCD 9 digit display (WS1102)
- Tariff inputs (option)
- Communication (option): RS485 (MODBUS protocol)
- Pulse outputs (option)
- Housing for DIN rail mounting
- Protective cover for terminals (possible seal up against non-authorized access)







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Connection

Meter terminals are positioned on the bottom and the top side of the meter and are covered with the protection cover. Current and voltage circuits are located on the bottom side as shown on the picture bellow. For the direct connection meters voltage inputs are equipped with protection bung, which allows you to physically break contact, before connecting or disconnecting voltage to the meter. On the top side are connection terminals for communication, Pulse outputs and tariff inputs (picture 1). A label with connectiondiagram is located on the bottom of the cover. Regarding to the meter version the meter connection can be three-phase with unbalanced load. Its measuring system can be performed either in 3 or 4-wire connection.



Picture 1: picture of connection terminals WSx30x



Picture 2 Three phase system (three wire unbalanced - 3u) WSx30x – for voltage circuits direct connection or connection with voltage transformer is used



Picture 3 Three phase system (four wire unbalanced - 4u) WSx30x – for voltage circuits direct connection or connection with voltage transformer is used

Overall dimensions