

## Specification for iEM205x Energy Meters

1. The Energy Meter shall be self powered and shall provide direct measurement of the Real Energy (kWh) on a single-phase network 230V up to  $I_{max} = 45A$ . The nominal frequency will be 50Hz +/-10%.
2. The Energy Meter shall measure voltage, current, frequency, and power factor in addition to energy measurements.
3. The Energy Meter shall be available with a 5+2 digital, backlit display for measurement up to 99999.99 in kWh.
4. The Energy Meter shall be a four-quadrant meter.
5. The Energy Meter shall support pulse output and communication of measured parameters over Modbus Rs-485 protocol.
6. The Energy Meter shall be equipped with a flashing red indicator used to check the accuracy of the meter: 10000 flashes / kWh.
7. The number of pulses per kWh shall be configurable by the user between 0.01 and 10000.
8. The Energy Meter shall be of DIN Rail type, max width of 17.5mm, and max depth of 63 mm when installed on the DIN Rail.
9. The Energy Meter active energy accuracy shall be Class 1 conforming to IEC 62053-21 and Class B conforming to EN50470-3.
10. The Energy Meter shall be rated for an operating temperature range of -25°C to +55°C.
11. The Energy Meter shall be equipped with anti-tamper security feature to ensure the integrity of the measurements.
12. The Energy Meter shall be MID certified.
13. The Energy Meter provided by the selected vendor shall be fully integrated and supported in the same vendor's software packages and energy server devices.