

The major changes compared to the 2020 version of standards are as follows:

- Separate standards EN-IEC 62053-41 for DC electricity meter up to 1500 V DC.
- Operation with **Low Power Instrument Transformers (LPIT)** added.
- Test methods and requirement for multibranch meter are added for guidance (informative annex).
- Operation with integrated or detached indicating display or without and indicating display (static meters only) allowed.
- Standard also applicable to auxiliary input and output circuits, operation indicators, and test outputs of equipment for electrical energy measurement.
- Energy registration, indicating display and operation of the supply control and load control switches are primary functions and shall be observed during testing.
- Class 0,1S added.
- The product safety standard IEC 62052-31 is integral part of the 2020 versions (including (supply control) switch requirements, single fault condition, connection tests, documentation requirements).
- Durability – Testing of the stability of metrological characteristics by applying elevated temperatures according to IEC 62059-32-1 is integral part of the 2020 versions (1000 h (42 days), 110% voltage, maximum current, maximum operating temperature).
- Clock and timing accuracy tests included according to IEC 62054-21.
- Test details for some tests are changed (electrical fast transient immunity test, surge immunity test, voltage dips and interruptions immunity tests, RF immunity test up to 6 GHz, odd harmonics, anti-tampering test with external static magnetic field).
- New test for load current variations (different t_{ON} and t_{OFF} times with test duration of 4 hours).
- New EMC test for 2 kHz to 150 kHz disturbances on mains ports (EN-IEC 61000-4-19).
- New EMC test for ring waves (EN-IEC 61000-4-12).
- Requirements for repeatability added.
- Meter marking and documentation requirements added.