

CUSTOMIZED

Industry: Household appliances

Test system for coffee machines



Task

For several years fully-automatic coffee machines are found not any more only in the professional sector. Not only restaurants and coffee houses use coffee machines but often these machines can be found in private households. As a result the number of units has risen significantly. Small and high-performance fully automatic coffee machines are produced in large quantities for the international market. Through the worldwide use the test technique must be able to meet all standards with the aid of the software. Also with regard to the different mains voltages, mains frequencies and national plug connectors the system must be flexible. The workstation must comply with the EN 50191, additionally all test data have to be gathered with a PC and stored permanently. A regular dummy test is to be ensured.

Solution

By using the standard compact tester KT 1885B, with a special extension for coffee machines and combined with a separate standard PC (or laptop), all required criteria are met. The freely programmable compact tester provides all possible safety and function tests – at a very reasonable price.

The PC with standard software is only connected via Ethernet (LAN) with the test systems and can be replaced at any time. A separate connection desk allows the connection of many international standard plug connectors and offers room for future extensions. Two-hand operation and ground bond conductor pin find room in the test rack. The dummy also placed in the test rack is available for daily dummy tests.

Advantages

- + Future-oriented solution through the use of separate standard PC with standard test technique
- + Programmable, electronic supply
- + Turnkey solution including workplace design with separate connection desk
- + Simple, intuitive operation for trained personnel
- + The DUT must only be connected once, then the entire test sequence is performed automatically
- + In the network mode all test data are automatically stored in the desired location / database
- + Long service life and service-friendly setup
- + All values and settings are possible via software
- + Workplace safety according to EN 50191
- + Short cycle times with safety-current limited test technique according to EN 50191
- + Automatic dummy test

Specifications

Safety test:

- Ground bond conductor test: 1 – 30 A AC / 0 – 10 Ω
- Insulation test: 100 – 6,000 V DC / 0.25 M Ω - 10 G Ω
- High voltage test device AC: 100 – 5,500 V AC / 0 – 3 mA
- High voltage test device DC: 100 – 6,000 V DC / 0 – 10 mA

Function test:

- Continuity test 24 V DC / 0-600 mA
- Resistance measurement 0 – 1,000 Ω
- Current measurement 0 – 16 A (AC and DC)
- Voltage measurement 0 – 300 V (AC and DC)
- Effective power measurement 0 – 4,000 W
- Reactive power measurement 0 – 4,000 VAR
- Apparent power measurement 0 – 4,000 VA
- Cos ϕ measurement -1 to +1
- Equivalent leakage current measurement 10 – 270 V / 0 – 10 mA