SPS electronic
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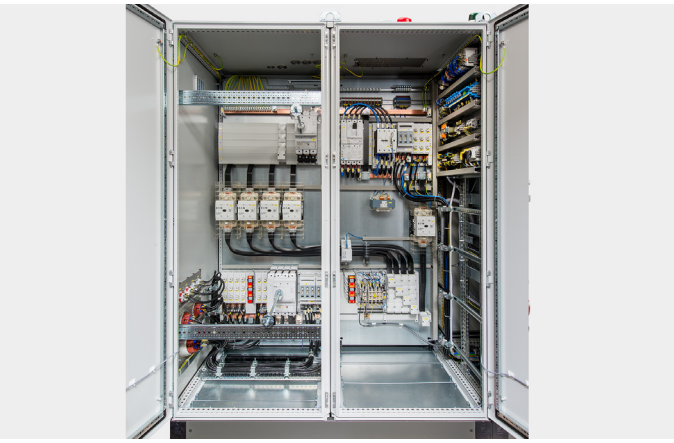
CUSTOMIZED

Industry: Electrical industry

Testing system for commercial kitchens up to 600A



Task

The existing test stations supposed to be modernised in the first place. Besides the improvement of processes, it also includes the complete documentation of the test data. Moreover, our customer preferred a single connection of the DUT. Following this, all tests should occur automatically. The large currents up to 600 A require the use of suitable switching elements, plug connectors and cables.

Solution

A PC-controlled testing system was developed for the safety test according to IEC / EN 60335. The function tests consist essentially of current and power measurements.
Attention had to be paid to the high leakage currents of up to several 100 A in both the safety tests and the function tests. These leakage currents cannot be avoided in heaters with a high output. The workplace is designed in accordance with EN 50191 and thus, protects the testing personnel. The whole test equipment, including the PC are housed in a cabinet with the dimensions 3 x 19“ / 42 HU in a space-saving manner. The transmitter and the switching elements for connection of the individual tests are also here.

Advantages

+ Turnkey solution including DUT support, adaptation and workplace design
+ Simple, intuitive operation for semiskilled personnel
+ The DUT needs to be connected only once, then the whole test process occurs automatically
+ In network operation, all test data is automatically saved at the specified location / database
+ Long service life and service-friendly design
+ All values and settings can be made using software
+ Automatic dummy test
+ Workplace safety according to EN 50191
+ Automatic test program selection
+ Full integration in the existing production line

Specifications

- Protective earth conductor test from 10 A to 30 A max. 0.4 Ω
- Insulation test 500 V DC / 50 MΩ
- High voltage test 1,500 V DC / 4 mA
- Function test from 0 to 600 V / max. 600 A in 4 ranges
- Leakage current test from 0 to 10 mA / 0 to 50 mA / 0 to 500 mA / 0 to 2,000 mA
- 12 connectable and assessable PT 100 sensors

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