

# CUSTOMIZED

Industry: Electrical industry

## Testing system for power distribution units with up to 24 outlets



### Task

The task was to examine the variety of different power distributors at a test station. Both the number of outlets (24 pieces), and the different types of outlets must be contacted and checked. The different types of outlets from the connector plug should be examined.

### Solution

Using a sophisticated switching matrix, the various outlets and their number can be safely tested. By means of sensors, it is checked whether all outlets have been contacted and checked against the DUT data stored on the network after the DUT was identified by the bar code. The various connection options can be tested using a variety of adapter cables. Protective earth conductor and high voltage tests are performed following the continuity test of the terminal / connector to the various outlets. Each connection line to each outlet is checked here. The safety of the testing personnel is ensured by a safety light curtain.

An arbitrary number of test programs can be stored in the testing system PC. This allows the customer to independently write new test programs when developing new products. However, for products with identical data, it is also possible to use the same test program, which is then allocated to the respective DUT over the product list. The test results are stored automatically in XML or Access format on an arbitrary place on the network.

A separate test dummy is used to check the functionality of the testing system fully automatically. During the daily start of the testing system, the testing personnel is asked to include this dummy and start the corresponding program. The testing system does not allow further testing without a passed dummy test.

### 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
- + Short cycle times through efficient workplace design with light curtain
- + All values and settings can be made using software
- + Automatic dummy test
- + Workplace safety according to EN 50191
- + Automatic wiring test of the entire DUT
- + Automatic short-circuit / high voltage test of all terminals of the DUT

### Specifications

- Continuity test of all connections via I/O signals
- Protective earth conductor test up to 30 A AC
- High voltage test up to 5,500 V AC / 6,000 / 2-3 mA