

## Electrical and functional test

### MP500 MP510

*Semiautomatic electrical safety tester*

### MP500 & MP510

Portable semiautomatic systems—consisting of one (MP500) or two (MP510) control boxes—designed to test single-phase powered appliances, rated with power up to 3 kVA (MP500) or up to 4,5 kVA (MP510).

The system is controlled by microprocessor and provided with LCD display allowing the configuration of different test programs for the different appliance to be tested. It can locally store up to 200 test programs and 100 test results. It is ready to be fitted to barcode reader. Serial interface for remote PC connection to manage, program and store data of performed tests.

#### Performed Tests

- Ground conductor efficiency
- Insulation resistance
- Dielectric strength (applied voltage)
- Residual current
- Electrical absorption, 50 or 60 Hz
- Leakage current (only with MP510)



MP500



MP510

### Optional features and devices

Ground test probe

Calibration box

Barcode reader

On-board printer

Software for collecting data in external PC

## ESC

### *Automatic electrical safety tester*

## ESC

ESC is an automatic test system housed in a metal cabinet (with or without castors) designed to test single-phase or three phase appliances having rated power up to 10kVA, with the possibility to supply the appliance with stabilized tension.

The system is provided with microprocessor controller and LCD display which allows the configuration of different testing programs for different appliance to be tested. The system can locally store up to 200 test programs and 100 test results. It is ready to be fitted to barcode reader. Serial interface for remote PC connection to manage, program and file data of performed tests.

### Performed Tests

- Ground conductor efficiency
- Insulation resistance
- Dielectric strength (applied voltage)
- Residual current
- Electrical absorption, 50 or 60 Hz
- Short-circuit



ESC Test System



ESC three-Phase with satellites

## Optional features and devices

Ground test probe

Calibration box

Barcode reader

On-board printer

Software for collecting data in external PC

Company Profile

Vacuum and Charging units

HC Refrigerants handling systems

Special Units

Vacuum and Charging Injectors

Refrigerant transfer pump

Pressure test units leak detectors

Preliminary evacuation

Electrical and functional test

Ultrasonic tube sealers

IPCS & IPKS PLUS

## Electrical and functional test

### CAR1000

**Low TAKT Time Productivity System for appliance performance tests**

#### CAR1000

CAR1000 system is designed to run performance functional performance tests on electrical equipment, in particular refrigerators and AC units of all kinds. It consists of a central control unit and a number of acquisition boxes placed near the products under test.

Each acquisition box monitors up to 3 temperatures as standard (or up to 5 as option) and the current of the unit under test (power load as an option).

The control unit reads the data collected by the acquisition boxes, stores the test data on a database, identifies the product model by identification code, and then compares the test data with the reference parameters for the model, in order to decide whether the unit has successfully passed the test or not.

The Pass/Reject result is displayed on the screen and stored in a database. The can be formatted in order to comply with the ISO 9000 standard framework.



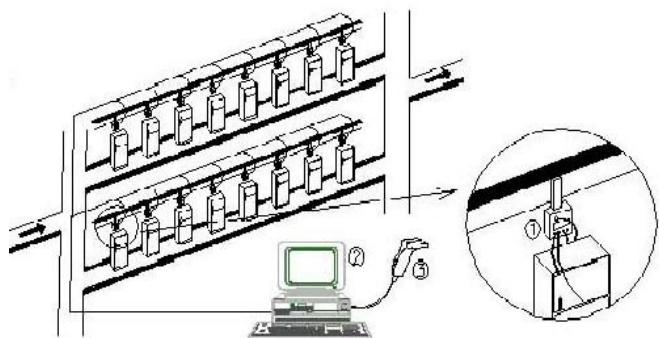
**CAR1000** is available on the following versions:

- Moving Carousel, suitable for mass production lines of domestic appliances
- Batch Test

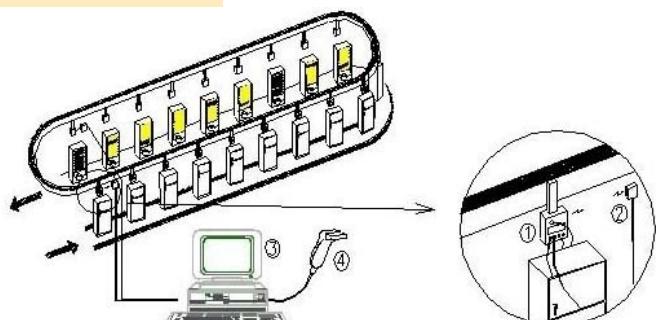
In the Batch Test version the products are tested in batches. The acquisition boxes are mounted in a fixed position, usually on a wall, and the items to test are placed next to them.

Once the test cycle is completed the products are removed and a new batch is connected to the test system. The acquisition boxes send the data to the control station via RS422 serial link. This version is more suitable for small and medium production lines.

#### Batch test



#### Moving Carousel



<b>Technical Characteristics of the CAR 1000</b>		 Company Profile Vacuum and Charging units HC Refrigerants handling systems Special Units Vacuum and Charging Injectors Refrigerant transfer pump Pressure test units leak detectors Preliminary evacuation Electrical and functional test Ultrasonic tube sealers IP-CS & IP-CS PLUS	
Personal computer and test management software			
Keyboard or barcode reader for data input			
Printer for reports			
PC/box interface with relevant acquisition board			
PT100 probe for temperature detecting			
C-loop Data acquisition			
Dimensions: L = 550 mm, W = 600 mm, H = 1800 mm on cabinet			
<b>Technical Characteristics of the Acquisition Box</b>			
Acquisition Box Dimension: L = 400mm, W= 300mm, H = 350mm			
N. 2 NTC temperature probes (range -50 ÷ +100 °C, +/- 1 °C), (up tp 5 as option)			
N. 1 amperemeter (or wattmeter as option) to measure the current or power absorption (0-10A +/- 1 f.s.)			
N. 1 Schuko electric plugs 230 V, 50 Hz (other on demand)			
N. 1 magnetics and thermic switch device			
N. 1 safety connector			
N. 1 RS485 port + C-Loop connector			
<b>Optional features and devices</b>			
Nr. 1 Digital Input for Stop acquisition			
N. 6 DIP switch to identify the acquisition box ( up to 128 )			
Barcode reader			
Portable barcode reader for reading box code-D.U.T.code and transmission to the control unit through suitable interface (batch test)			

## 电气和功能测试

*MP500 MP510*

### MP500和MP510

便携式半自动系统，由一个(MP500)或两个(MP510)控制箱组成，用于测试单相供电设备，额定功率高达3 kVA (MP500)或高达4,5 kVA (MP510)。

该系统由微处理器控制，并配有液晶显示屏，允许为不同的待测试设备配置不同的测试程序。它可以本地存储多达200个测试程序和100个测试结果。它已准备好安装到条形码读取器上。用于远程PC连接的串行接口，用于管理、设置和存储所执行测试的数据。

#### 已执行的测试

- 接地导体效率
- 绝缘电阻
- 介电强度（施加电压）
- 剩余电流
- 电功率50或60 Hz
- 泄露电流（仅适用于MP510）

MP500



MP510



### 可选功能和设备

接地测试探头

校准盒

条形码读取器

机载打印机

用于在外部计算机中收集数据的软件

## ESC

### ESC

ESC是一种安装在金属柜（带或不带脚轮）中的自动测试系统，用于测试额定功率高达10kVA的单相或三相电器，并可为电器提供稳定的电压。

该系统配有微处理器控制器和LCD显示屏，允许为不同的设备配置不同的测试程序。它可以本地存储多达200个测试程序和100个测试结果。它已准备好安装到条形码读取器上。用于远程PC连接的串行接口，用于管理、设置和存储所执行测试的数据。

#### 已执行的测试

- 接地导体效率
- 绝缘电阻
- 介电强度（施加电压）
- 剩余电流
- 电功率50或60 Hz
- 短路



ESC测试系统



带卫星的ESC三相

### 可选功能和设备

接地测试探头

校准盒

条形码读取器

机载打印机

用于在外部计算机中收集数据的软件

# 电气和功能测试

## CAR1000

### CAR1000

CAR1000系统旨在对电气设备，特别是各种冰箱和空调设备进行性能功能测试。它由一个中央控制单元和放置在被测产品附近的多个采集盒组成。

每个采集盒可监控最多3个标准温度（或最多5个）以及被测设备的电流（可选功率负载）。

控制单元读取采集盒采集的数据，将测试数据存入数据库，通过识别码识别产品型号，然后将测试数据与该型号的参考参数进行比较，以判断该装置是否成功通过测试。

通过/不通过结果会显示在屏幕上并存储在数据库中。可以对其进行格式化，以符合 ISO 9000 标准框架。

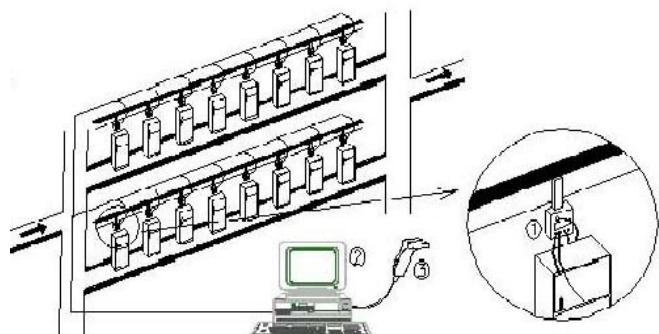
CAR1000可用于以下版本：

- 移动转架，适用于家电批量生产线
- 批量测试

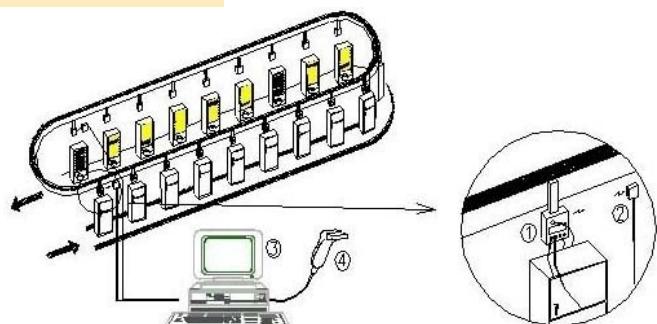
在批量测试版本中，将对产品进行批量测试。采集盒安装在固定位置（通常在墙上），待测试的物品放在它们旁边。

在测试循环完成后，产品将被移除，新批次被连接到测试系统。采集盒通过RS422串行链路将数据发送到控制站。该版本更适合中小型生产线。

### 批量测试



### 移动转架



CAR 1000的技术特性
个人计算机和测试管理软件
用于数据输入的键盘或条形码读取器
报告打印机
PC/盒子接口与相关采集板
PT100温度探头
C-Loop数据采集
尺寸：机柜上长 = 550 mm, 宽 = 600 mm, 高 = 1800 mm

采集盒的技术特性
采集盒尺寸：长 = 400mm, 宽= 300mm, 高 = 350mm
2个NTC 温度探头（范围 -50 至 +100 ° C, +/-1 ° C），（可选最多5个）
1个电流表（或功率表），用于测量电流或功率（0-10A +/-1 f. s.）
1个230 V, 50 Hz Schuko电源插头（其他按需提供）
1个磁性和热敏开关装置
1个安全连接器
1个RS485端口+C-Loop连接器

可选功能和设备
1个用于停止采集的数字输入
6个拨码开关识别采集盒（最多128个）
条形码读取器
便携式条形码读取器，用于读取盒子代码-D. U. T. 代码并通过合适的接口传输到控制单元（批量测试）

公司简介

真空和冷却液注装

HC制冷剂处理系统

特殊装置

真空和光注油机

制冷剂输送泵

压力测试单元检测仪

电气和功能测试

超声波管封口机

IPCS和IPCS PLUS