

Electrical and functional test

FT King System Test

High TAKT Time Productivity System for appliance performance tests

FT King System Test

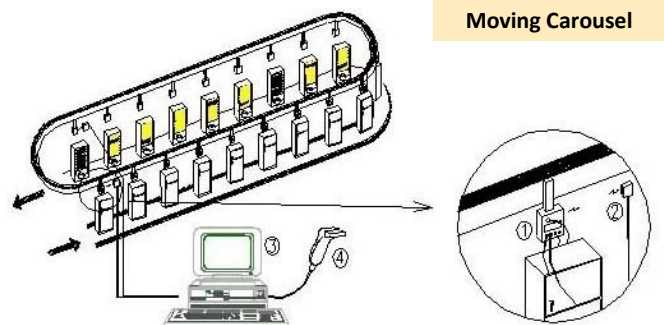
FT King System Test is designed for high speed production lines where many refrigeration units have to be tested at same time in a carousel room. FT King System Test consists of a central control unit (Server PC) and a number of acquisition boxes placed near the products to be tested.

Each acquisition box controls up to 5 temperature probes and the current absorbed by the unit under test (power load as an option). Finally, the management software creates and summarizes a final report of the temperature trend (visible in real time) and a power absorption diagram with the operating ratio based on the parameters stored for each model under test.

FT King System Test Data acquisition communication works by utilizing a radio communication on Industrial protocols RS-485 WiFi installed on the acquisition box and in the central Personal Computer that works as server receiver.

General Overview:

FT King System Test is a refrigerator temperature performance data acquisition and processing system, which is mainly used to detect the temperature inside the refrigerator and the pipeline temperature during the refrigeration process. The system can collect temperature and power data according to the device under test's setup cycle. At the outlet, the temperature and power data collected over a period of time is transmitted via radio to the computer. The computer displays the values and related curves so that the inspector can visually interpret the data. After the inspection is completed, the system can automatically determine whether the product is suitable according to the established standards. The generated reports can be exported in DB file so to be acquired by a quality elaboration system.



Technical Characteristics FT King System Test Features

Server PC with pre-installed Software and relevant drivers

Barcode reader for data input

Realtime Temperature and Power consumption charts displayed on Monitor

Up to 200 acquisition boxes that can be managed at same time for a 180 minutes test time

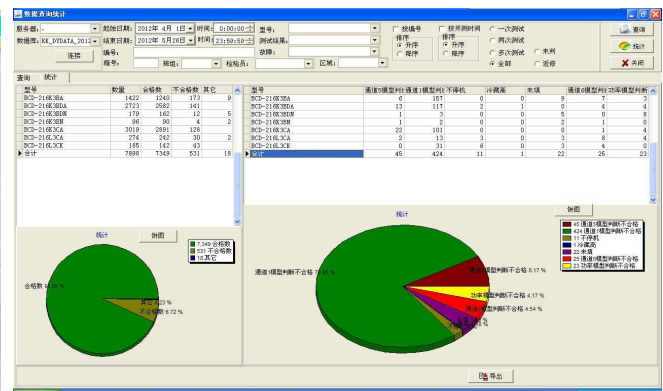
Wireless Board for radio data broadcasting to acquisition box

Wireless Data acquisition by continuous loop Boxes query

Reports stored in Microsoft standard Databases with SQL standardized language with all relevant function of searching and order the results

Pass/fail criteria related to particular type of fridge for model such as power consumption and temperature

Test duration up to 180 minutes



Technical Characteristics of the Acquisition Box

Acquisition Box Dimension: L = 400mm, W= 300mm, H = 350mm

up to 5 NTC digital temperature probes (range -50 ÷ +100 °C, +/-1 °C)

N. 1 amperemeter to measure the current or power absorption (0-10A +/-1 f.r.)

N. 1 Schuko electric plugs 230 V, 50 Hz (110 V 50/60 Hz on demand)

N. 1 magnetic and thermic switch device

N. 3 Service Lamps for working phases

N. 1 Wireless Radio module for communication to Server PC

On request: Onboard display for an immediate monitoring of running test

Company Profile

Vacuum and Charging units

HC Refrigerants handling systems

Special Units

Vacuum and Charging Inletors

Refrigerant transfer pump

Pressure test units leak detectors

Preliminary evacuation

Electrical and functional test

Ultrasonic tube sealers

IPCS & IPCS PLUS

电气和功能测试

FT King System Test

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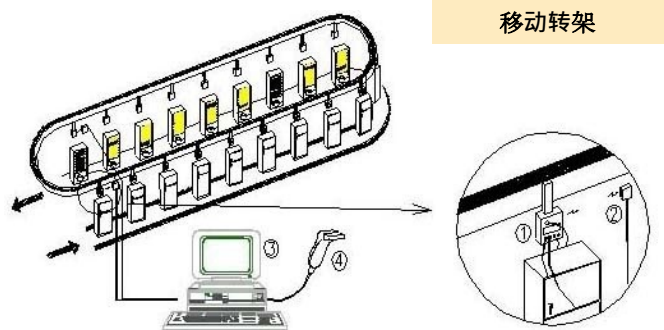
FT King System Test专为高速生产线而设计，必须在转塔室中同时测试许多制冷装置。FT King System Test由一个中央控制单元（服务器的计算机）和放置在待测产品附近的多个采集盒组成。

每个采集盒可监控最多5个温度探头以及测试设备的电流（可选功率负载）。最后，根据每个测试模型存储的参数，管理软件创建并总结温度趋势的最终报告（实时可见）和功率吸收图以及运行比。

FT King System Test数据采集通信在运行时，采用了安装在采集盒和作为服务器接收器的中央个人计算机上安装的工业协议RS-485 WiFi相关的无线电通信。

总体概述：

FT King System Test是一款冰箱温度性能数据采集处理系统，主要用于检测冰箱内部温度以及制冷过程中的管道温度。系统可以根据被测设备的设置循环来收集温度和功率数据。一段时间内在输出端收集到的温度和功率数据通过无线电传输到计算机。计算机显示数值和相关曲线，以便检查员可以直观地解释数据。检验完成后，系统可以根据既定的标准自动判断产品是否合格。生成的报告可以导出为数据库文件，以便由质量处理系统获取。



技术特性 FT King System Test特点

预装软件及相关驱动程序的服务器计算机

用于数据输入的条形码读取器

显示器上显示的实时温度和功耗图表

可同时管理多达200个采集盒，测试时间为180分钟

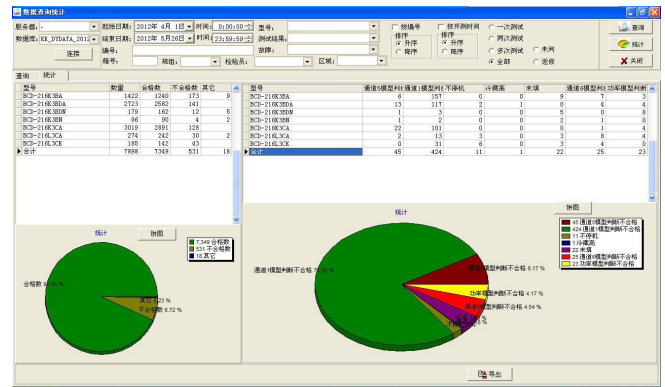
用于将无线电数据广播到采集盒的无线板

无线循环的无线数据采集盒查询

报告存储在Microsoft标准数据库中，采用SQL标准化语言，具有搜索和排序结果的所有相关功能

与特定型号冰箱相关的通过/不通过标准，例如功耗和温度

测试持续时间长达180分钟



采集盒的技术特性

采集盒尺寸：长 = 400mm，宽 = 300mm，高 = 350mm

最多5个NTC 数字温度探头（范围 -50至+100℃，+/-1℃）

1个电流表，用于测量电流或功率（0-10A +/-1 f. r.）

1个230 V，50 Hz Schuko电源插头（可按需提供110 V 50/60 Hz）

1个磁性和热敏开关装置

3个工作阶段服务灯

1个无线模块，用于与服务器计算机通信

按需提供：机载显示屏，用于实时监控运行测试

公司简介

真空和冷媒充注装置

IC制冷剂处理系统

特殊装置

真空和冷媒充注设备

制冷剂加注泵

压力测试单元检漏仪

初步排空

电气和功能测试

超声波密封口机

IPDS和IPDS PLUS