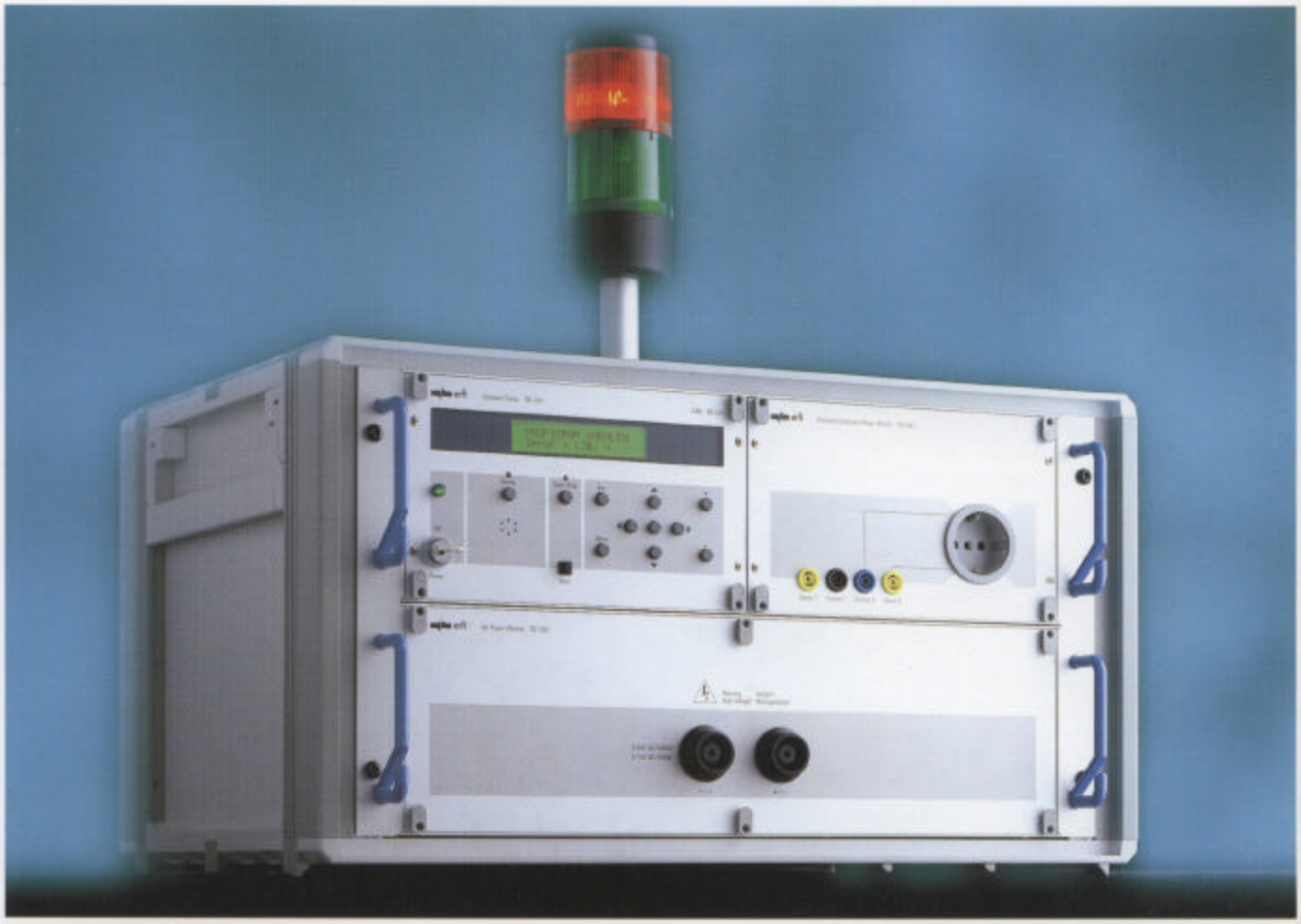
CAN*class*® Compact Tester

A class of its own.

For all electrical safety tests according to new European standards **(CE-Marking)**

EN 60204 or VDE 0113, VDE 0700, VDE 0701 etc.



erfi Test systems

The new test device series for fully automatic, semi-automatic and manual safety testing. Compact and still modular in 19" technology:

Protective conductor test

Leakage current test

Insulation test

Functional test

High-voltage test

State-of-the-art testing technology for manufacturers of machinery, control cabinets, plants and electrical appliances

Mobile Compact Tester combined with the new CAN*mobiles*

Combined with the modern CAN*mobile* device carriages, the new Compact Tester family „CAN*class*®" results in the optimum solution for mobile application in production environments.

CAN*mobile* „Multiuse"

This CAN*mobile* has been developed for multiple use of the Compact Tester.
When a quick-action lock on the underside is released, the Compact Tester can be removed with its portable housing and is ready for use at a different location (e.g. customer service).
The CAN*mobile* „Multiuse" is prepared to house a PC. A drawer for accessories and a height-adjustable, tiltable monitor base are included.
Optionally, a keyboard drawer can be supplied.
Handles on the sides of the aluminium support improve the handling, and retaining adapters for high-voltage test pistols, a protective conductor probe, and an ergonomic manual start button are furnished as standard.

CAN*mobile* „Multiuse"
Dimensions: 730 x 750 x 1500 mm
Width x depth x height

Order No.: TS 7.005 light blue with keyboard drawer
(see photograph)
Order No.: TS 7.015 light blue without keyboard drawer

CAN*mobile* „Profiline"

The CAN*mobile* „Profiline" is the ideal component for direct application in production environments.
The Compact Tester is permanently installed in the device carriage. Additionally, „Profiline" is equipped with a drawer for accessories.
To safe space, further device components can be integrated.
The photograph shows a Compact Tester combined with an AC supply unit and a functional test unit.
Handles on the sides of the aluminium support improve the handling, and retaining adapters for high-voltage test pistols, a protective conductor probe, and an ergonomic manual start button are furnished as standard.

CAN*mobile* „Profiline"
Dimensions: 672 x 750 x 1500 mm
Width x depth x height

Order No.: TS 7.011 plain anodized
(see photograph)

If desired, customized CAN*mobiles* are available.
CAN*mobiles* can be supplied in diverse colour variations. See enclosed colour card.
The last digit of the order number indicates the colour code given on the colour card.

The intelligent control center of the CAN*class*® Compact Tester

The modern control center is used to program all inspection plans and it controls the test procedures.
All information required appears on the communication display.
The following tests can be performed:

Protective conductor test
Insulation test

High-voltage test
Leakage current test

Functional test
Relay matrix

The performance features

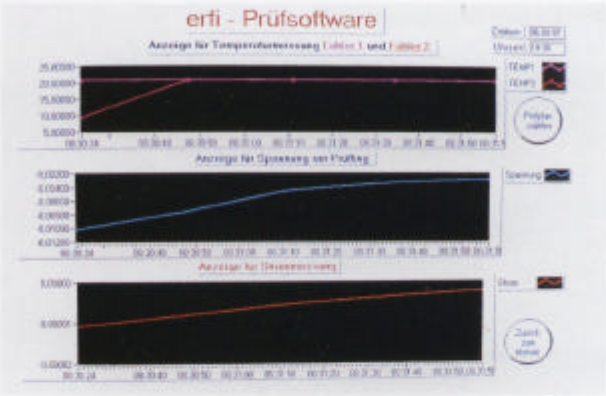
- **Free programming** of all parameters for protective conductor, insulation, high-voltage, leakage current and functional testing.
  (see technical data)
- **Protocolling** via integrated **serial interface RS 232** and **CAN bus**.
  IEEE bus interface optionally available.
- **Ramp operation:**
  rising and **falling** ramp can be freely programmed independently and separately.
  (no spikes destroying the test devices)
- Integrated **contact monitoring** by minimum current monitoring.
- **Electronically generated high-voltage**
  Finest resolution stepping allows very soft ramp operation.
  Very fast high-voltage fluctuations up to 7000 V/s can likewise be generated.
- **Protective conductor test up to 30 A**
  The high performance allows long connecting cables to be used for protective conductor testing and thereby permits to test large devices or test objects located at a distance without performance loss.
- **High-voltage test AC and DC**
  AC 0 to 5 kV, DC 0 to 7 kV.
- **Insulation test up to 1000 V and 1 GΩ**
- **Alphanumeric test schedule management**

The combination with the state-of-the-art erfi test software CANDY

- **Ideal for PC users with medium to high data volume.**
- **Integration** into proprietory programme directories or into **LABView** possible.
- **Measurement data prepared for ACCESS database** and other popular database formats such as **DBASE** etc.
- **Realistic visualization** of the control center permits identical operation and eliminates learning effort **(see photograph)**
- Programming of **test scheduling and processing, statistics, serial numbers, user codes** etc. is identical with the original control device.
- **Graphic measured value display (see photograph)**

VIRTUAL PROGRAMMING
with the new erfi test software
CANDY

For test scheduling, the modern control center of the Compact Tester is realistically simulated onscreen. The entire test schedule can be programmed by users with exactly the same procedures used to program the original control center.
This new kind of programming substantially increases the efficiency, since it eliminates long learning times.



VISUALIZATION
of measured values by
CANDY

A new test device generation naturally entails an optimized presentation of measured values and control data.
The new **CANDY** software displays all data required fo high-voltage, insulation, protective conductor, leakage current and functional testing. All ranges are automatically scaled and shown in colour.

CANDY software: Order No.: TS 0.020

Further performance features

- **Terminal operation for mere data logging**
  A simple connection to a PC running a terminal programme allows to make even large data volumes available to database systems without any additional software.
- **Remote control option allows integration into plant systems**
  CAN*class*® Compact Testers operate with a proprietory command set permitting individual programming.
- **Automatic test processing as standard**
  All connections are internally wired and available at sockets on the rear. This allows automatic high-voltage, insulation, protective conductor and leakage current testing.
  Optionally, an extension of the connection by an adapter box is available
  Adapter box. Order No.: TS 8.021
- **Menus in different languages**
  Optionally, special languages can be implemented.
- **Integrated 10-digit serial number**
  The serial number can be freely defined. When the sample has been tested, the serial number is automatically incremented.
- **User identification**
  for enhanced test quality according to **ISO 9000 Element 8 traceability.**
  The user identification can be freely defined using alphanumeric characters.
- **Dynamic test schedule management**
  Each test schedule is easily copied and reusable, therefore.
- **Integrated statistics**
  ACCEPT / REJECT statistics etc.

The interfaces of the CAN*class*® Compact Testers

Protocolling and **remote control** allow application in virtually any field.

Compact Tester in Compact housing

Protocol printer

Protocol printing

Compact Testers allow comprehensive documentation of measuring results **without additonal software**. Users can select all results or only reject results for printing.

Test schedules and **statistical data** (ACCEPT / REJECT etc.) can also be printed.

Compact Tester with CAN*mobile* „Multiuse"

PC operating as data logging terminal

Terminal operation

All measured values can be directly saved on a PC without intermediate software.
All users have to do, is to switch on a simple terminal programme receiving the data.
The Compact Tester sends all measured values to the PC in ASCII format.
The measured values are separated by tabulator stops permitting direct import into a database.

PC programmed for remote control

Remote control mode

The Compact Tester can be remote controlled with block commands via the **serial interface** or via the **CAN bus** (optionally **IEEE bus**).
This allows ideal integration of CAN*class*® into test systems.

CAN*class*® Insulation Tester in 3HE/42TE Comfort housing

Standard interfaces:
serial interface RS232
CAN - BUS
Optional:
IEEE - BUS inerface
Order No.: TS 7.021

CAN*class*® Insulation tester Order No.: TS 2.051

Individual test device with all performance features of the control unit.

Up to **1000 V test voltage** and **1 GΩ**.
RS232 interface and **CAN bus**.

Housing for CAN*class*® insulation tester

3HE/42TE Compact housing Order No.: TS 8.400
3HE/42TE Comfort housing Order No.: TS 8.410

The new dimensions of CAN*class*® Compact Testers

All parameters are freely programmable. This allows to save all specific features of a test in a test schedule, accommodating the individual needs of most diverse test objects.

Protective conductor test: (VDE 0113 etc.)

- **Input of names** with up to **8 alphanumeric characters** for protective conductor test schedules
- **Test current 1–30 A** adjustable in steps of 1A
  The protective conductor test device has sufficient safety reserves to perform tests on objects at a distance of several metres.
  That makes it the ideal solution for commissioning of large machines or test systems (19" cabinets etc.).
- Test time 1–99 s
- Impedance limit value monitoring 0.01–2.5 Ω.
  Rmin and Rmax freely programmable
- **Switch-selectable** functions: **conductor cross section, voltage measurement** and **impedance limit value monitoring**
- No-load voltage adjustable to 6 V or 12 V

High-voltage test with 500 VA power output section (VDE 0113 etc.)

- **Integrated high performance insulation tester as standard** (data see insulation test)
- **Input of names** with up to **8 alphanumeric characters** for high-voltage test schedules
- **Electronically generated high-voltage**
  Allows fastest voltage leaps at short time intervals. The HV power output section is absolutely free of wear.
- **AC and DC voltage test (AC/DC operation)**
  High-voltage between 0 and 5 kV AC or 0 and 7 kV DC
- **Ramp function** for **rise** and **fall** separately programmable.
  Electronic generation of high-voltage allows softest and fastest ramp functions.
  0–5 kV/s AC or 0–7 kV/s DC are possible
- **Freely programmable dwell time (test time) 0–99 seconds**
- **Burn-out function programmable**
  When the burn-out function is activated the high-voltage remains on at the output in case of disruptive breakdown.
  This allows to detect weak spots of a test object.
- **Integrated peak detector (shut-off current up to 200 mA)**
  The programmable shut-off current of up to 200 mA allows to trace very fast and therefore dangerous peaks.
- **Current limit value monitoring**
  Imin between 1mA and 200mA
  Imax between 1mA and 200mA
- **Active or apparent current measurement including phase angle display**
- Integrated contact monitoring

High-voltage test with <3 mA power output section (VDE 0113 etc)

All performance data as indicated for 500 VA power output section, however:

- secondary current max. **3 mA AC**
- secondary current max. **12 mA DC**

Insulation test (VDE 0113 etc.)

- **Integrated into the high-voltage test module as standard**
- Optionally available as **individual test device** 3HE/42TE. **Order No. TS2.051.**
- **Input of names** with up to **8 alphanumeric characters** for insulation test schedules
- **Test voltage** between 100 and 1000 V programmable.
- Test time 1–99 s
- Impedance limit value monitoring
  Rmin = 10 kΩ to Rmax = 1 GΩ
- **Integrated contact monitoring**

Leakage current test (VDE 0700 etc.)

- **1- and 3-phase**
- Current limit Imin and Imax programmable
- **Operating modes A1-A2-B**
- **Selectable R-C-simulation** of the measuring circuit

Functional test (optional) Order No.: TS 5.061

CAN*class*® offers a wide range of functional tests.

- Voltage 0 to 260 V AC
- Current 0 to 20 A AC
- Power consumption 0 to 4000 W
- 1- and 3-phase functional test
- Inquire for further functional tests

The automatic test procedure (standard)

Test objects can be directly connected to the newly designed rear wall.
Tests are performed fully automatically. Time consuming new contact closure after each test stage is obsolete.
1-phase and 3-phase test objects can be connected to the rear wall.
CAN*class*® automatically switches over from high-voltage to insulation and protective conducter testing.

Compact and yet modular due to 19" technology and portables

Compact Tester in 3 HE Compact housing

3 HE Compact housing **Order No.: TS 8.100**
3 HE Comfort housing **Order No.: TS 8.110**

Compact Tester for

High-voltage test < 3 mA
0 to 5 kV AC / 0 to 7 kV DC

Insulation test
Test voltage up to 1000 V
Impedance up to 1 GΩ

HV 500 VA only in 6 HE housing!

Order No.: TS 1.100 HV with 500 VA
Order No.: TS 1.101 HV with < 3 mA

Set of accessories required

HV test pistols

Set of warning lights

Order No.: TS 8.150

Compact Tester in 6 HE Compact housing

6 HE Compact housing **Order No.: TS 8.100**
6 HE Comfort housing **Order No.: TS 8.110**

Compact Tester for

High voltage test 500 VA
0 to 5 kV AC / 0 to 7 kV DC

Insulation test
Test voltage up to 1000V
Impedance up to 1 GΩ

Protective conductor test
Test current up to 30 A
Conductor cross section, voltage drop and impedance limit value monitoring

Order No.: TS 1.200 HV with 500 VA
Order No.: TS 1.201 HV with< 3 mA

Set of accessories required

HV test pistols

Set of warning lights

Protective conductor probe

Start button

Order No.: TS 8.250

Compact Tester in 9 HE Compact housing

9 HE Compact housing **Order No.: TS 8.100**
9 HE Comfort housing **Order No.: TS 8.110**

Compact Tester for

High-voltage test 500 VA
0 to 5 kV AC / 0 to 7 kV DC

Insultation test
Test voltage up to 1000 V
Impedance up to 1 GΩ

Protective conductor test
Test current up to 30 A
Conductor cross section, voltage drop and impedance limit value monitoring

Leakage current test 1- and 3-phase
Current limt Imin and Imax
Operating modes A1,A2,B

Order No.: TS 1.300 HV with 500 VA
Order No.: TS 1.301 HV with < 3 mA

Set of accessories required

HV test pistols

Set of warning lights

Protective conductor probe

Start button

Order No.: TS 8.350

All technical data is listed on this inside page.

Note: Comfort housing see front page

The following special accessories are available:

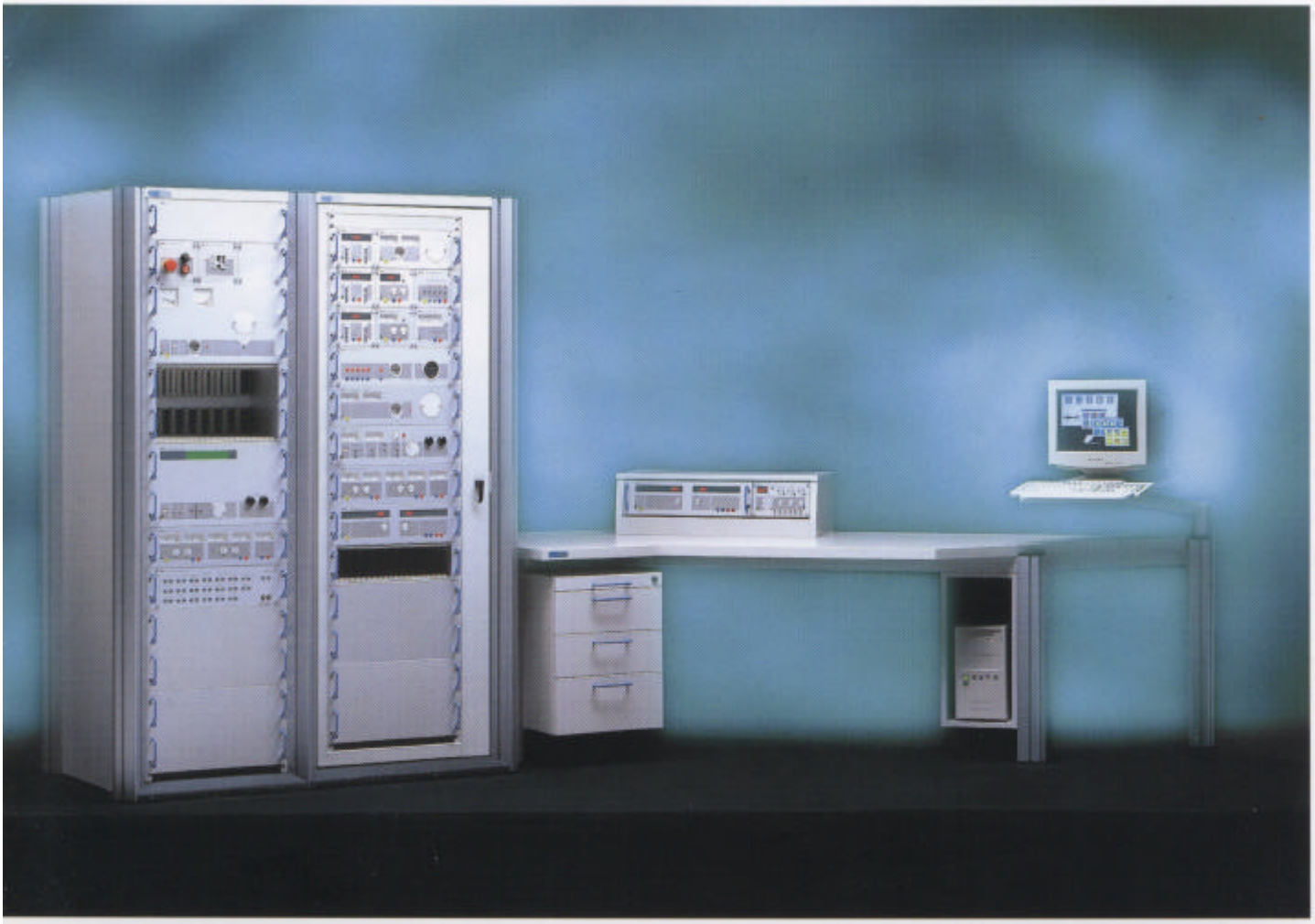
- Warning lights column — Order No.: TS 8.420 s. photograph
- Two-hand control — Order No.: TS 8.430
- Starter with integrated status display — Order No.: TS 8.440

Please request our CAN*class*® information set or personal advice. Tel.: (0 74 41) 91 44-0 Fax: (0 74 41) 8 45 06

CAN*class*® Compact Tester

A class of its own.

Compact yet modular



erfi test devices used in professional test field installations with 19" cabinet system

erfi

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