

Sold & Serviced in USA by:



8526 Virginia Meadows Dr.
Manassas, VA 20109
(703) 365-2330
www.hvtechnologies.com
hvsales@hvtechnologies.com

IDAS 2823 & 2823-REF

High Precision $\tan \delta$ / power
factor measuring instrument

Leaflet

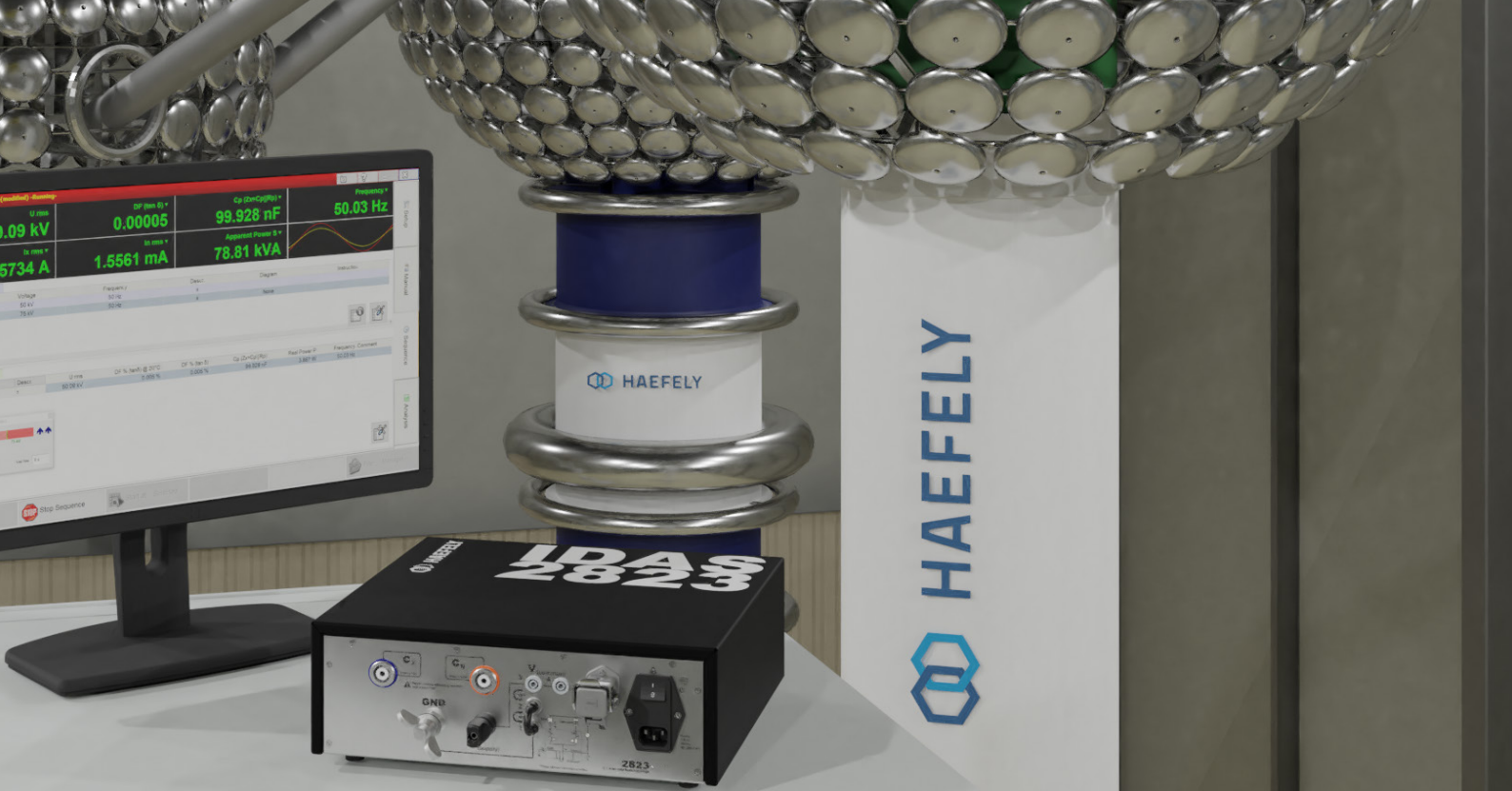


HAEFELY

Current and voltage – our passion

Designed by

Tettex
INSTRUMENTS

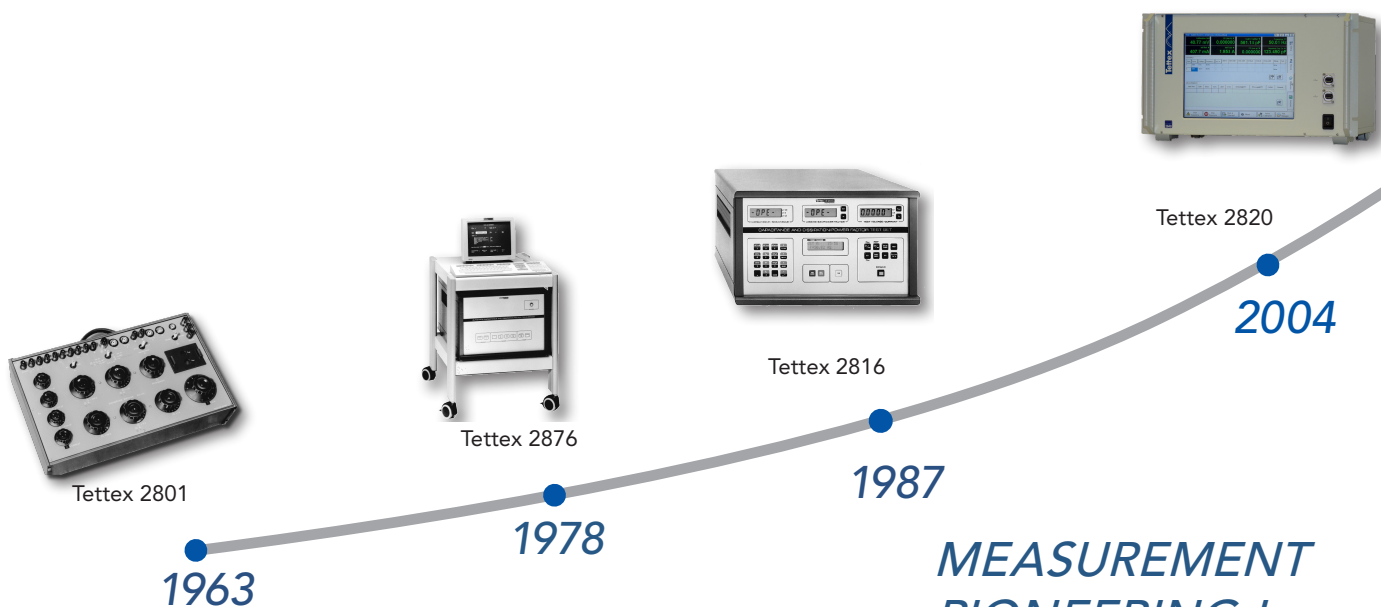


HIGH PRECISION MEASUREMENT INSTRUMENT

The High Precision $\tan \delta$ / dissipation factor measuring instrument is designed for measurement of very low dielectric losses of high-voltage apparatus. HAEFELY the pioneer in high voltage testing since 1904, has been continuously developing and improving this product line since the first manual measuring bridge Tettex type-2801 was introduced in 1963.

Tettex brand, a part of Haefely, is recognized world-wide for the accuracy and reliability of our measuring instruments. The 2823 belongs to our new generation of measuring instruments, which is a perfect combination of more than 50 years experience in this field together with state of the art technologies.

The use of optically decoupled connection allows complete galvanic isolation between control room and test field, and guarantees operating personnel the highest safety level.



**MEASUREMENT
PIONEERING !**

FEATURES

Compact, reliable and EMC hardened design, IP50.

Optically decoupled from computer.

Up to 15A input current with auto-range.

Extremely low input impedance

Industrial measuring and fiber optic connectors

Mains Powered

ADVANTAGES

- The galvanic isolation ensures fully safety of the personnel. With the 2823, there is no electrical connection between the control room and the high voltage test room.
- Simple connection to test objects without external shunts or hardware reconnection due to the high input current range
- Increased linearity and extended frequency measuring range up to 1 kHz.
- Backward compatible with older instruments and cabling, same connectors used for over 40 years.
- Turn key solution from one supplier possible (including power supplies, standard capacitors, current comparators, test cells, certified calibration...).
- Connect and forget, No battery pack or recharge needed..



IDAS 2823

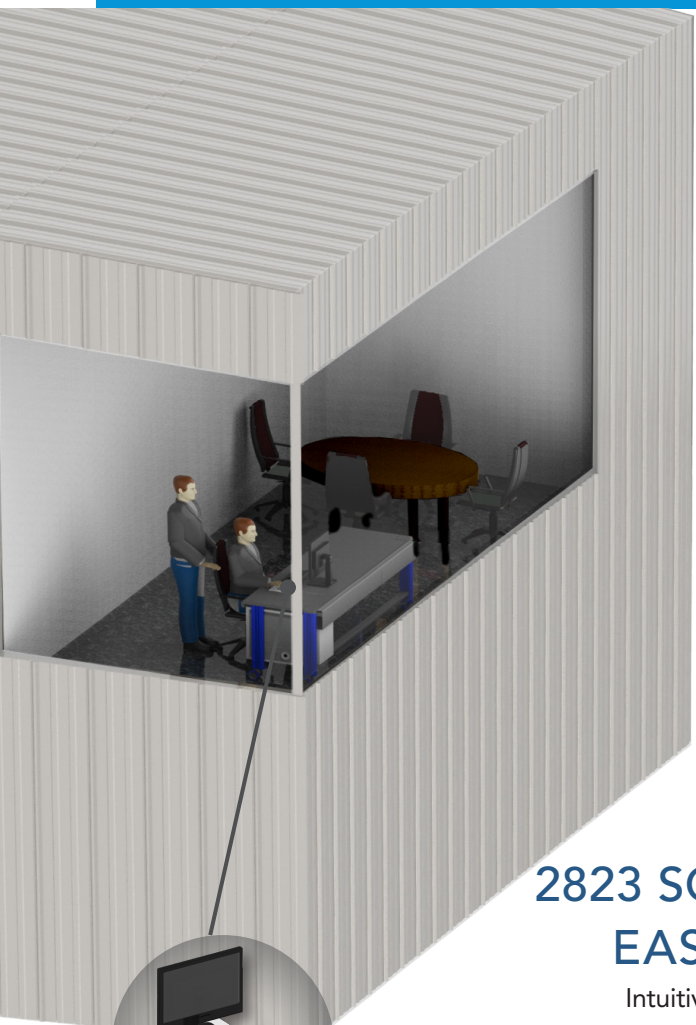
Tettex 2840

2009

APPLICATIONS

Routine and type test of:

- Power Cables & Accessories
- Shunt Reactors losses
- Capacitors
- Instrument Transformers
- Bushings & Isolators
- Metrology Institutes
- Research & Development



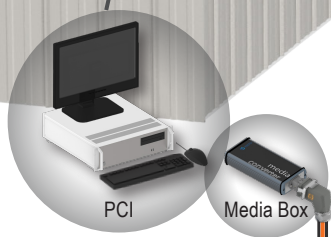
**YOUR TEST
OBJECT**

2823 SOFTWARE EASY TO USE & PROVED

Intuitive graphical user interface allows for simple operation and minimal training of test personnel.

- Test planning, preparation, execution and first assessment can be handled with just a mouse click.
- The test time for setup can be reduced significantly with definable pop-up graphics.

RUGGED fiber optic link cable



PCI

Media Box



2823 Galvanic isolation

RUGGED fiber optic link cable

Traditional measuring instrument

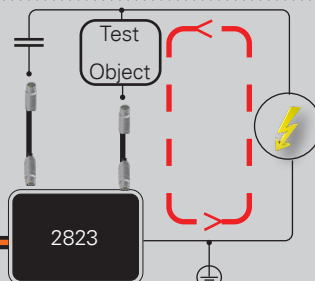
Trad. Bridge



GALVANIC ISOLATION

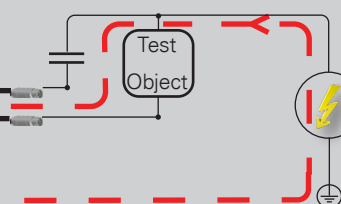
Fiber optic link between the 2823 and the control PC provides a complete galvanic isolation, with the following benefits:

- The length of the fibre optic cable does not impact the measurement ratio or the calibration.
- Fully ensures safety of personnel. With the 2823, there is no electrical connection between the control room and the high voltage test room.



Front-end digitizing

With the 2823 front-end digitizer, the measuring current stays in the HV laboratory eliminating any potential danger in the control room.



Conventional back-end

With a back-end digitizer, current circulates to control room and back to ground.

ent

Safety

Report

Filter

Automatic

IEEE

IEC

2823

Ease of
use

Diagnosis

Approved

2823 BASIC SPECIFICATIONS

	2823	2823-REF
Dissipation factor (tan δ)	$\pm 0.1\% \text{ RD} \pm 5 \times 10^{-5}$	$\pm 0.1\% \text{ RD} \pm 1 \times 10^{-5}$
Capacitance	$\pm 0.1\% \text{ RD} \pm 0.05 \text{ pF}^{(1)}$	$\pm 0.02\% \text{ RD} \pm 0.01 \text{ pF}^{(1)}$
Current	$0.1\% \text{ rdg} \pm 0.1 \text{ nA}^{(1)}$	$0.05\% \text{ rdg} \pm 0.05 \text{ nA}^{(1)}$
Current Range	$10 \mu\text{A} \dots 15 \text{ A}^{(2)}$	$10 \mu\text{A} \dots 15 \text{ A}^{(2)}$

⁽¹⁾ Temperature range : $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ⁽²⁾ Current can be extended up to $10'000\text{A}$ with current extenders 4762, 4761 and 4764Complete technical specifications in the 2823 Datasheet available at www.haefely.com

STANDARD PACKAGE

2823

3490101	Measuring Bridge	2823
3490102	Measuring Bridge	2823-REF

Including

Software Basic Package in USB stick
Fiber Optic - Ethernet adaptor (Media Box)
Industrial Fiber Optic Cable, 20 m
Test Report and ground cable
Instruction Manual (Electronic, PDF)

OPTIONS

Cable sets including:

1 x Lemo-Lemo Orange marked C_N
1 x Lemo-Lemo Blue marked - C_X
1 x Lemo-Alligator
1 x V-Cable

Available lengths:

4843321	10 m length	28XX/CAB10
4843322	20 m length	28XX/CAB20
4843323	40 m length	28XX/CAB40

Software

4843241	Office Software Package	28XX/SW
---------	-------------------------	---------

Extended Warranty

2 years	2823/WE2
3 years	2823/WE3



Laptop



15

OR



PCI

16

Software

X Standard scope of supply

X Option

X Accessory

Media Box

3

Rugged Fiber Optic

4

ACCESORIES

Measurement Cables

10	Shielded Measuring cable (Orange marked - C _N),	
4841872	Lemo:	Lemo-Lemo/Orange/2
4840206	- 2 m	Lemo-Lemo/Orange/10
4840041	- 10 m	Lemo-Lemo/Orange/20
4842541	- 20 m	Lemo-Lemo/Orange/40
	- 40 m	



11	Shielded Measuring cable (blue marked - C _X), Lemo.	
4841868	- 2 m	Lemo-Lemo/Blue/2
4840203	- 10 m	Lemo-Lemo/Blue/10
4841871	- 20 m	Lemo-Lemo/Blue/20
4844065	- 40 m	Lemo-Lemo/Blue/40



Measurement cable adaptors

12	4841895	- Lemo Banana		Lemo – Banana
13	4840186	- Lemo - small clamp		Lemo – Alligator
14	4840169	- Lemo - large clamp		Lemo – Clamp

Accredited Calibration

4841146	Accredited Calibration 2823	2823/AccCAL
4844207	Accredited Calibration 2823	2823-REF/AccCal

Computers

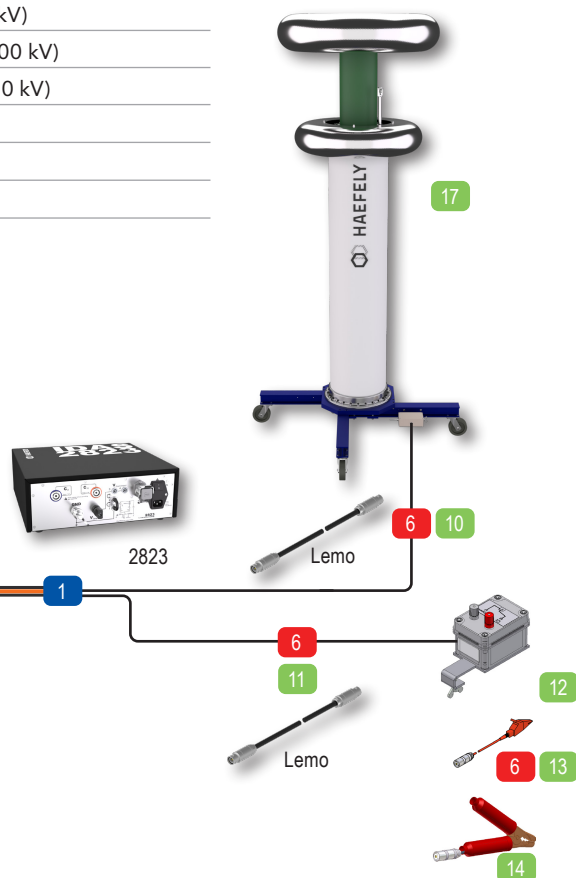
15	4840603	Laptop 15"
16		Industrial PC (EMC tested)
17		PCI 811b

Nominal Capacitor (refers to)

- Type 3320 Air isolated (up to 2 kV)
- Type 3370 SF6 isolated (up to 200 kV)
- Type NK SF6 isolated (above 200 kV)

Current Extenders (refers to)

- 3490016 Type 4762 (up to 400 A)
- 3490015 Type 4761 (up to 2'000 A)
- 3490017 Type 4764 (up to 10'000 A)



Sold & Serviced in USA by:



8526 Virginia Meadows Dr.
Manassas, VA 20109
(703) 365-2330
www.hvtechnologies.com
hvsales@hvtechnologies.com

EUROPE

HAEFELY AG
Birsstrasse 300
4052 Basel
Switzerland

+41 61 373 4111
sales@haefely.com
www.haefely.com

CHINA

Haefely Representative Beijing Office
8-1-602, Fortune Street
No.67, Chaoyang Road, Chaoyang District
Beijing, China 100025

+86 10 8578 8099
sales@haefely.com.cn
www.haefely.com

This document has been drawn up with the utmost care. We cannot, however, guarantee that it is entirely complete, correct or up-to-date.
Subject to change without notice.

V2020.03



HAEFELY

Current and voltage – our passion

HV

HIGH VOLTAGE

IN

INSTRUMENT

EM

EMC


precision.
swiss made.