PHOTOVOLTAIC SYSTEMS

HTPRO

Professionals are born. Or made.

The best HT instruments
for daily use
in the PV industry

HT® INSTRUMENTS

40
1983 | 2023

40 YEARS MARKING OUT SUCCESSFUL LINES

Research & Development

An office, **the throbbing heart of HT Italia**, a touchstone for every **business strategy**, the starting point of every new creation, tasked with supporting ideas and **converting them into innovative, high-performance instruments**. A perpetual fire that fuels a **continuously evolving company**, a present-day that is invariably also the future.

Head office

3.800
square metres

The warehouse

15.000
cubic metres

Italian sales network

15 AGENCIES

65 REGIONAL SALES AGENTS

5 AREA MANAGERS

Calibrations and repairs

For over 25 years, HT ITALIA has designed and built all circuit Testing and Analysis equipment in-house, allowing it to provide highly skilled technical support.
Today, with a view to providing an increasingly efficient service in line with Client expectations and thanks to an agreement with TRESCAL, HT ITALIA hosts its own separate, climate-controlled laboratory for the issue of Calibration Reports in accordance with ISO 9001, as well as Accredited Certificates (ACCREDIA) in accordance with ISO/IEC 17025.

Distributors

186

Foreign sales network

70 DISTRIBUTORS

3 REGIONAL MANAGERS

2 EUROPEAN BRANCHES

Manned points of sale

1160

Catalogued measuring instruments

more than
680

STORYTELLING

Concern and consideration for doing things right, a wealth of experience acquired over the years, an innate sense for innovation, a Future-oriented project cultivated day by day have all made **HT Italia one of the most important and exemplary companies in the Market for electrical measuring instruments** and a key **point of reference** for those, who, over time, have wanted or needed to approach this world from which they demand only the very best.

Latest-generation technology, state-of-the-art infrastructure, unique industry expertise, people, a team, the backbone that year after year, has **guaranteed our success** and allowed continuous **growth** on a global scale, from every point of view.

Putting forward our expertise, managing and transforming it into exclusive, high-performance instruments, catering to every specific need, is the challenge that has guided HT for more than 40 years and a means of addressing change, **investing in the skills** and trust of an increasingly demanding and evolved target market.

A modus operandi ensuring the **added value** of a continuously evolving organisation.

Certifications

Certified laboratory
LAT174
of TRESCAL MS
at the HT-Italia head office

SAFETY FIRST

Electrical measuring instruments, prior still to fulfilling their purpose, must consider operator safety as a basic requirement in terms of protection against temporary overvoltages that may arise due to the presence of complex electrical loads, short-circuit situations, lightening strikes, etc.

To this end, the international standard IEC 61010-1, harmonised in Europe as EN 61010-1, has set out specific requirements that must be satisfied by electrical equipment designed for LV measurements (<1000VAC), creating four "Overvoltage Categories" that define the level of protection against the voltage transients of each instrument, depending on its distance from the power source.

Instruments belonging to the highest category require greater internal protection insofar as they can operate close to the source.
A short description is provided below:

	TYPE OF MEASUREMENT	APPLICATION
CAT I	Measurements on circuits not directly connected to the distribution network	Protected electronic equipment, measurements not derived from mains
CAT II	Measurements on circuits directly connected to the low-voltage installation	Household appliances, hand-held tools and the like
CAT III	Measurements on installations inside buildings	Distribution panels, cable harnesses, switches, fixed installation sockets, electric motors, industrial equip.
CAT IV	Measurements on a source of a low-voltage installation	Electricity meters, measurements on primary overcurrent protection devices, ripple control units

TEST INSTRUMENTS

HTPRO - **PHOTOVOLTAIC** SYSTEMS

The thriving photovoltaic industry in recent years has led to the increasing need for testing and measurements to monitor module efficiency and detect any problems that might compromise the output and performance of the entire system. That's why HT ITALIA offers a broad range of products that cater to every one of these needs.

Identifying a damaged panel in PV systems with low insulation can be a slow and cumbersome procedure unless the right instruments are used.

The PVISOTEST effectively addresses this issue through its GFL function, which accurately pinpoints the single fault within a string without the need for optimisers, thus drastically reducing the amount of time it takes to solve the problem. Moreover, insulation testing can be performed on systems up to 1500V, as well as continuity tests up to 200 mA.

METEL **HVOPVISO**

PV-**ISOTEST**

MULTIFUNCTIONAL INSTRUMENT

FUNZIONE **GFL** | ISOLAMENTO **1500** VDC | Prove in MODALITÀ **DUAL**

CERTIFICATO DI CALIBRAZIONE

APPLICATIONS

Electrical safety testing and troubleshooting of operational PV systems.

FEATURES

Insulation measurement up to 1500VDC, **identification of faulty module via new GFL function**, DUAL and TIMER Insulation measurement mode to check its degradation, continuity of the protective conductors with 200mA, OK or NOT OK outcome for each measurement.

TEST INSTRUMENTS

HTPRO - **PHOTOVOLTAIC** SYSTEMS

The output of a PV plant is a parameter that continually worsens over time due to the deterioration of the modules, making it crucial to keep them constantly under control and know exactly what action to take.

HT ITALIA proposes IV400 and IV500, allowing the I-V curve to be plotted and saved up to 1000 V- 15 A or 1500 V-10 A respectively.

These measurements make it possible to determine the actual system output and, in the case of SOLAR I-VE, to also measure efficiency for more comprehensive PV system analysis.

METEL **HV00PVCS**

PV-**CHECKs**

MULTIFUNCTIONAL INSTRUMENT

AUTO **TEST**

INSULATION **1000** VDC

CERTIFICATO DI CALIBRAZIONE

APPLICATIONS

Inspections and performance testing of operational PV systems

FEATURES

Insulation measurement up to 1000VDC, open-circuit voltage measurement up to 1000V DC, short-circuit current measurement up to 15A at 1000VDC, continuity of protective conductors with 200mA, PV system efficiency measurement, OK or NOT OK outcome for each measurement.

NEW

METEL **HV00PVPR**

PV-**CHECKs** PRO

MULTIFUNCTIONAL INSTRUMENT

GFL FUNCTION | **1500V 40A** | **DUAL** MODE Test

SINGLE AND DOUBLE-SIDED MODULES

APPLICATIONS

Inspections and performance testing of operational PV systems

CERTIFICATO DI CALIBRAZIONE

FEATURES

Insulation measurement up to 1500VDC, open-circuit voltage measurement up to 1500V DC, short-circuit current measurement up to 40A, continuity of protective conductors with 200mA, PV system efficiency measurement, OK or NOT OK outcome for each measurement.

NEW

METEL **HV0IV600**

I-**V600**

MULTIFUNCTIONAL INSTRUMENT

1500V 40A | **SINGLE AND DOUBLE-SIDED** MODULES

APPLICATIONS

For maintenance and troubleshooting of PV systems

CERTIFICATO DI CALIBRAZIONE

FEATURES

1500V / 40A I-V curve of single and double-sided modules (also high-efficiency), Colour touch-screen display with clinometer for screen rotation where required

METEL **HV000IVE**

SOLAR I-Ve

MULTIFUNCTIONAL INSTRUMENT

APPLICATIONS

For testing and maintenance of single-phase installations up to 1500V

FEATURES

Measurement of I-V characteristic of one or more modules or an entire string up to 1000V/15A, Voc/Isc open-circuit voltage and short-circuit current measurement up to 1500V/10A, database of 30,000 selectable PV modules, automatic measurement of multiple strings with AutoSequence™* mode, compatible with HTAnalysis™ 2 App via Wi-Fi.

METEL **HV00400W**

I-V400w

MULTIFUNCTIONAL INSTRUMENT

TOUCH SCREEN SYSTEM

Wi Fi

APPLICATIONS

For measuring the I-V Characteristic compatible with HTANALYSIS™

FEATURES

Measurement of I-V characteristic of one or more modules or an entire string up to 1000V/15A, Voc/Isc open-circuit voltage and short-circuit current measurement up to 1000V/15A, database of 30,000 selectable PV modules, automatic measurement of multiple strings with AutoSequence™* mode, compatible with HTAnalysis™ 2 App via Wi-Fi.

METEL **HV00500W**

I-V500w

MULTIFUNCTIONAL INSTRUMENT

WiFi

CURVA I-V MAX **15A**

MAX **1500 V**

APPLICATIONS

For maintenance and troubleshooting of PV systems.

CERTIFICATO DI CALIBRAZIONE

FEATURES

I-V curve up to 1500V and 10A or 1000V/15A, module or string power measurement, open-circuit voltage (Voc) up to 1500V, short-circuit current (Isc) up to 15A at 1000V or 10A/1500V, radiation measurement via HT304N probe, ambient and cell temperature via PT300N probe, wireless environmental measures with SOLAR-02 remote unit, no distance limit for wireless environmental measures with SOLAR-02 remote unit, OK or NOT OK outcome for each measurement.

THERMAL IMAGERS

HTPRO - **PHOTOVOLTAIC** SYSTEMS

Thermal imaging in the photovoltaic sector is an extremely useful and non-invasive method for identifying problems that would otherwise not be detectable, such as, for example,
broken cells, dirty modules and damaged diodes.

In this case, it is crucial to use a thermal imaging camera with a medium/high resolution and sufficiently wide field of view in order that it can also be used in large-scale plants.

METEL **HN000200**

THT**200**

HIGH-TECH, PROFESSIONAL
TOUCH-SCREEN THERMAL IMAGERS

160x120 PIXEL	TEMPERATURE RANGE -20°÷650°C	FIELD OF VIEW 20.7°x15.6°

CERTIFICATO DI CALIBRAZIONE

APPLICATIONS

Maintenance on mechanical and electrical components including switchgear, switches, busbars, kiosks, motors and electrical cables.

FEATURES

Picture in Picture function,
AutoFusion function,
thermal sensitivity:
<0.05°C @ 30°C / 50mK

METEL **HN000300**

THT**300**

HIGH-TECH, PROFESSIONAL
TOUCH-SCREEN THERMAL IMAGERS

384x288 PIXEL	TEMPERATURE RANGE -20°÷650°C	FIELD OF VIEW 41.5°x31.1°

CERTIFICATO DI CALIBRAZIONE

APPLICATIONS

Maintenance on mechanical and electrical components including switchgear, switches, busbars, kiosks, motors and electrical cables.

FEATURES

Picture in Picture function,
AutoFusion function,
thermal sensitivity:
<0.05°C @ 30°C / 50mK

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