



# NRC

NewRealGreen



Validation and inspection of electric car charging stations



# Validation and inspection of electric car charging stations

**Recharging stations:  
a new way to use electric energy.**

**MACROEVTEST** and **COMBI521EV**, HT'S new instruments for **validation** and **inspection** of **electric car charging stations** (EVSE) in compliance with standards IEC/EN 61851-1 and IEC/EN60364-7-722, and for **safety tests** in **private** and **industrial** environments. Thanks to the brand new **HTAnalysis App**, free to download for iOS and Android systems, **MACROEVTEST** and **COMBI521EV** are capable of transferring measured and recorded data onto tablets and smartphones, thus giving the operator the possibility to customize and share through HTCloud the result of their tests.



ORDER CODE HA0EV100

## EV-TEST

EVSE ADAPTER FOR ELECTRIC  
VEHICLE CHARGER TESTING

- › Suitable for **charging stations with charging mode 2 and 3**
- › **Vehicle simulation with Control Pilot (CP State)**
- › **Cable capacity simulation with Proximity Pilot (PP State)**
- › **Ground fault simulation (Fault PE)**
- › **Error simulation on the Control pilot signal (Fault E)**
- › **Phase presence indication via three LEDs**
- › **Connection terminals for connecting external load**, in order to verify the correct operation of the energy meter of the charging station
- › **Measurement terminals L1-L2-L3-N-PE** to connect HT verification tools, perform **safety and functional tests** (such as RPE, RCD, ISO)
- › Verification of the **conformity of charging stations to the IEC 61851-1 and IEC 60364-7-722 standards**



SEE THE  
TECHNICAL  
DATA SHEET

HT charging s



**ORDER CODE HV0521EV**

## COMBI521EV

MULTIFUNCTION INSTRUMENT FOR ELECTRICAL INSTALLATION SAFETY TESTING, POWER QUALITY ANALYSIS AND EVSE SAFETY TESTING

### AUTOMATIC SEQUENCE OF TESTS FOR THE VERIFICATION OF EVSE STATIONS

- › Check of the output voltage value
- › Continuity check of the protective conductor
- › Insulation resistance measurement
- › Check of the status:
  - Standby (status A)
  - Vehicle detected (status B)
  - Mechanical interlock verification (status B)
  - Ready (charging) (status C) with ventilation (status D)
  - Fault simulation on the protective conductor (fault PE)
  - Fault on CP signal (fault E)
- › Global earth resistance measurement
- › Measurement of RCD tripping time (type A, type B and type DD 6ma)



**EVSE**  
TESTING

**AUTO**  
**TEST**

**OK**  
CALIBRATION  
REPORT



SEE THE  
TECHNICAL  
DATA SHEET

stations EVSE



ORDER CODE **HV5036EV**

## MACROEVTEST

MULTIFUNCTION INSTRUMENT FOR ELECTRICAL INSTALLATION SAFETY TESTING, POWER QUALITY ANALYSIS AND EVSE SAFETY TESTING

### AUTOMATIC SEQUENCE OF TESTS FOR THE VERIFICATION OF EVSE STATIONS

- › Check of the output voltage value
- › Continuity test of the recharging station's protection conductor
- › Insulation test of the recharging station
- › Verification of the statuses of the recharging station
  - Vehicle not present (status A)
  - Vehicle present but not being charged (status B)
  - Mechanical interlock verification (status B)
  - Mechanical interlock verification (status B)
  - Fault simulation on the protective conductor (fault PE)
  - Fault on CP signal (fault E)
- › Global earth resistance measurement
- › Measurement of RCD tripping time (type A, AC, F, B 6ma, DD)

TOUCHSCREEN SYSTEM



AUTO TEST

**OK**  
CALIBRATION REPORT



SEE THE TECHNICAL DATA SHEET

HT charging s



## ACCESSORIES PROVIDED

- › **C2033X**  
Three wire cable with Schuko plug
- › **UNIVERSALKITG3**  
Set of 4 cables + 4 alligator clips + 3 test leads (MACROEVTEST)
- › **UNIVERSALKITCOMBI**  
Set of 3 cables + 3 alligator clips + 3 test leads (COMBI521EV)
- › **KITTERNE**  
Set of 4 cables + 4 earth probes + carrying bag (MACROEVTEST)
- › **PT400**  
Touchscreen stylus (included inside meter) (MACROEVTEST)
- › **PR400**  
Remote START/STOP switch probe (optional for COMBI521EV)
- › **ZEROLOOP**  
Loop zero adapter (MACROEVTEST)
- › **EV-TEST100**  
EVSE test adapter
- › **RCDX10**  
Accessory to test earth leakage relay (MACROEVTEST)
- › **SP-5100**  
Carrying straps
- › **TOPVIEW2006**  
PC Windows software + optical/USB connection cable (order code: C2006)
- › **VA507**  
Hard carrying case (optional for COMBI521EV)
- › **YABAT0003000**  
Rechargeable battery NiMH, 1.2V, type AA 6 pcs (MACROEVTEST)
- › **YABAT0004001**  
External charger (MACROEVTEST)
- › **YAMUM0058HTO**  
Quick reference guide
- › **YAMUM0057HTO**  
User's manual on CD-ROM
- › ISO calibration report



## OPTIONAL ACCESSORIES

- › **HT4005K**  
Standard clamp with 200A/1V AC full scale
- › **HT96U**  
Standard clamp with 1/100/1000A full scale
- › **IMP57**  
Accessory for Loop impedance measurement with high resolution
- › **T2100**  
Clamp for earth probe resistance measurement
- › **HT52/05**  
Temperature/Humidity probe
- › **HT53/05**  
Illuminance (lux) probe
- › **BORSA2051**  
Carrying bag (Standard for COMBI521EV)
- › **606-IECN**  
Connector with magnetic tip
- › **1066-IECN**  
Connector for extension of banana cables 4mm



## TECHNICAL SPECIFICATIONS

	COMBI521EV	MACROEVTEST
Compatibility with EV-TEST100, sequence of tests for the verification of electric columns	●	●
Integrated WIFI connection and compatibility with HTANALYSIS App	●	●
Internal memory for measured data saving with TOPVIEW software	●	●
Insulation with voltage 50, 100, 250, 500, 1000VDC	●	●
Continuity of protective conductors with 200mA	●	●
Continuity of protective conductors with 10A	● With optional accessory	●
Tripping time of RCDs type B, A, AC, F, Standard, Selective and Delayed	● A, AC, F standard, selective up to <b>1A</b> B/B+ up to <b>300mA</b>	● A, AC, F standard, selective up to <b>1A</b> B/B+ up to <b>300mA</b>
Tripping current of RCDs type B, A, AC, F, Standard, Selective and Delayed	● A, AC, F standard, selective up to <b>1A</b> B/B+ up to <b>300mA</b>	● A, AC, F standard, selective up to <b>1A</b> B/B+ up to <b>300mA</b>
Tripping time and current of RCDs type B, A, AC, F, Standard, Selective and Delayed with auto/ramp/manual mode	●	●
Tripping time and current of RCDs with separate clamp jaws type B, A, AC Standard, Selective and Delayed		●
Non-trip earth resistance	●	●
Earth resistance by voltammetric method		●
Resistance of the single earth rods with clamp		● **
Ground resistivity by 4-wire method		●
Loop/Line impedance, Phase-Phase, Phase-Neutral, Phase-PE	●	●
Loop/Line impedance Phase-Phase, Phase-Neutral, Phase-PE with high resolution (0.1mΩ)	● ***	● ***
Measurement of percentage voltage drop on the line	●	●
Contact voltage	●	●
Phase sequence	●	●
Leakage current with optional clamp meter	●	●
Measurement of Voltage, Current, Active, Reactive, Apparent Power	● (real time) (1)	● (real time) (1)
Measurement of Cosphi, Power Factor	● (real time) (1)	● (real time) (1)
Measurement of environmental parameters (°C,°F, %RH, Lux)	● (real time)	● (real time)
Voltage and current harmonics up to the 25th and THD%	● 25 <sup>a</sup>	● 25 <sup>a</sup>

(\*\*)With optional accessory T2100 (\*\*\*)With optional accessory IMP57



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# Diensten van EURO-INDEX

EURO-INDEX is fabrikant, importeur en distributeur van diverse A-merken op het gebied van test- en meetinstrumenten. Daarnaast leveren wij een groot aantal diensten om het gebruik van deze instrumenten in uw bedrijfsvoering te optimaliseren. Dit omvat uiteraard onderhoud, reparatie en kalibratie van de instrumenten, maar ook kennisdeling via EURO-INDEX Academy en verhuur van instrumenten.

## Geautoriseerd Service Centrum

EURO-INDEX b.v. is van alle vertegenwoordigde merken een Geautoriseerd Service Centrum. Dit betekent dat uw instrumenten worden behandeld door technici die zijn opgeleid door de fabrikant en beschikken over de juiste gereedschappen en software. Er worden uitsluitend originele onderdelen toegepast en de garantie van uw instrument, evenals de certificering (ATEX, EN50379, etc.) blijven intact.

## Kalibratielaboratorium

Het laboratorium in Nederland beschikt over een RvA accreditatie naar EN-ISO/IEC 17025. Deze accreditatie geldt voor grootheden, zoals gespecificeerd in de scope bij accreditatienummer K105. RvA kalibratiecertificaten zijn internationaal geaccepteerd en is gelijkwaardig aan BELAC.



## Mobiele Service

Naast de vaste kalibratielaboratoria in Zaventem en Capelle aan den IJssel beschikken wij ook over een laboratorium op wielen met de naam "Mobiele Service". Dit biedt vertrouwde service en kwaliteit, bij u voor de deur!

## KWS®

KWS® is een uniek servicesysteem voor uw meetinstrumenten met periodiek onderhoud en kalibratie tegen vaste, lage kosten. Via een gratis webportal ([mijnkws.be](http://mijnkws.be)) heeft u altijd en overal beschikking over uw kalibratiecertificaten.

## Verhuur van meetinstrumenten

- Uitgebreid assortiment
- Nauwkeurigheid aantoonbaar door actueel kalibratiecertificaat
- Deskundig advies
- Complete levering inclusief accessoires

## EURO-INDEX Academy

- Trainingen, seminars en workshops
- Demonstratie- en instructievideo's
- Application notes



Servicebalie



Onderhoud, reparatie en kalibratie



Trainingen en seminars



Mobiele Service

Wijzigingen voorbehouden EURO-INDEX® VL 23001



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