TEKON®

TEST & MEASUREMENT
INSTRUMENTS

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TEST INSTRUMENT

Power Quality Analyzer

TEKON 550
TEKON 560
TEKON 570

Energy Storage System Diagnostic

TEKON 650

Industrial Robot Diagnostic

TEKON 700

ESS Battery Module Monitoring System

TEKON 910

Battery Quality Analyzer

TEKON 950
TEKON 960

TEKON®

TEKON® is a customer-oriented solution provider by offering measurement systems ensuring the highest level of precision, safety and durability, such as battery quality analyzer, power quality analyzer, EESS performance test system, transformer analyzer, EV/HEV test used in applications of testing RMS (Risk Management System), FMS (Facility Management System) and EMS (Energy Management System).

Transformer Turn To Ratio

TEKON 600

Transformer Analyzer

TEKON 610

Insulation Resistance meter

TEKON 200

EV/HEV Diagnostic

TEKON 800

AC Voltage, Current Generator

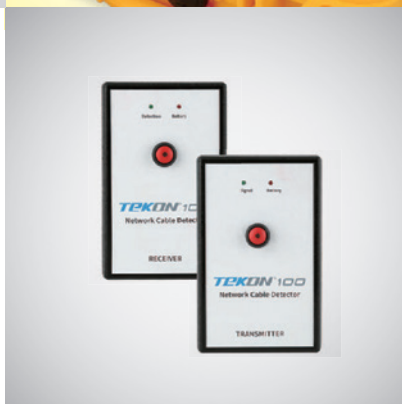
TEKON 300

Energy Storage System Battery Quality Analyzer

TEKON 970

Network Cable Detector

TEKON 100



Power Quality Analyzer

Multifunction Electrical Tester

TEKON® 550

A Power Quality Analyzer measures electrical power characteristics of devices that generate, transform or consume electricity; TEKON550 Series (A, D) are handheld instruments that accurately measure and analyze electrical parameters and incorporate cable tester functions for better convenience in use. These portable devices also allow laboratory personnel, production facility maintenance professionals and electricians to troubleshoot and benchmark power quality issues in their daily jobs.

Features

- Measurement of power quality: Power, power factor (PF), THD (%), unbalanced rate (%)
- 1P2W, 3P3W (balance), 3P3W (imbalance/sequential measurement), 3P4W (imbalance/sequential measurement)
- Harmonic : 50th (chart/graphic)
- Measurement of voltage, current waveforms
- Measurement of inrush current
- Event analysis
- Current sensor: clamp-on sensor
- Function of cable detection (550D)
- Records and displays the quality of power

General Specifications

Common Specifications	
Dimension & weight	100mm(W)×220mm(H)×54mm(D), Approx 800g
LCD display	3.5¨ 240×160 pixels, monotype graphic
Power	7.2V 2.5AH NiMH battery pack, DC12V/1A adaptor
Charge time	4 hours
Battery life time	8 hours (max)
Product safety	CATIII 600V, EN/IEC61010-1, Pollution Degree 2
PC communication	Bluetooth

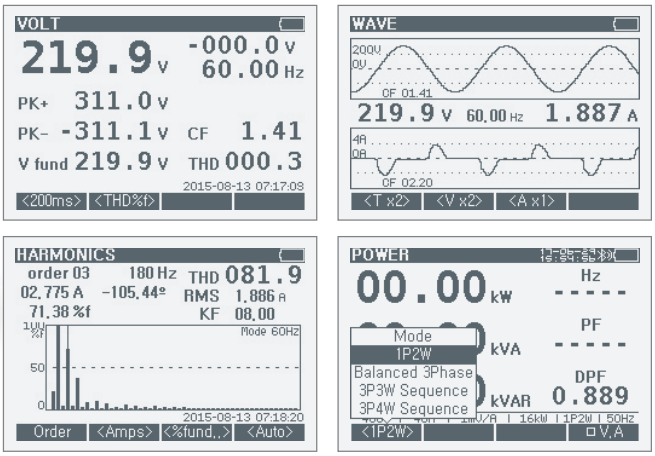
Comparison of Functions by Model

Function	TEKON550A	TEKON550D
DC voltage	1mV~600V	1mV~600V
AC voltage	1mV~600V	1mV~600V
DC	10mA~1000A	10mA~1000A
AC	10mA~1000A	10mA~1000A
Power	16W~600kW	16W~600kW
Accumulated power	○	○
Waveform measurement	DC to 100Hz	DC to 100Hz
Inrush current	○	○
Harmonic	1^{th} ~ 50^{th}	1^{th} ~ 50^{th}
THD	○	○
Trend analysis	○	○
Data storage	20	20
Cable tester	×	○

Accessories

Standard	Tester lead, CT (400A), NiMH battery pack, User's Manual, PC program, 12V/1A adaptor, bag
Option	AC 400A CT (clamp-on type) AC 1000A Current Clamp

Display



Electrical Specifications

Measurement of Power (Auto/Manual)	
Power	1P2W, 3P3W (balance), 3P3W, 3P4W (sequential measurement)
Measurement range	16W~600kW
Measurement parameters	Active power, inactive power, apparent power
Resolution	100mW
Quality of power	Power, power factor (PF), THD (%), unbalanced rate (%)
Frequency	40Hz~200Hz

Measurement of Energy (Auto)	
Measurement value	Active power, inactive power, apparent power
CO2 emission	Displayed simultaneously with energy measurement

Measurement of Waveform (Auto/Manual)	
Measuring mode	Measures voltage and current at the same time
Bandwidth	DC to 100Hz

Inrush Current	
Target	Current
Waveform	Time, measurement value

Measurement of Harmonic	
Order of harmonic	1th ~ 50th
Display of measurement value	Chart, graph
Target	Voltage, current

THD (Total Harmonic Distortion)	
Measuring mode	Voltage, current
Display of measurement value	THD-F, THD-R

DC Voltage (Auto/Manual)	
Measurement range	4V, 40V, 400V, 600V
Resolution	1mV
Accuracy	±0.5% + 5 dgts

AC Voltage (Auto/Manual)	
Measurement range	4V, 40V, 400V, 600V
Resolution	1mV
Accuracy	±0.75% + 5dgts(40Hz~200Hz)

DC Current/Manual	
Measurement range	4A, 40A, 400A, 1000A
Accuracy	±0.5% + CT Tolerance

- Current sensor: Selects in User Mode

AC Current/Manual	
Measurement range	4A, 40A, 400A, 1000A
Accuracy	±0.75% + CT Tolerance(40Hz ~ 200HZ)

- Current sensor: Selects in User Mode
- Flexible (Rogowski coil) current sensor (1000A) applied

Trend Mode	
Setting	Sampling time
Max sampling	2,400 cases
Analysis	Cursor variable, Data storage

Event Analysis	
Target	Swell, Dip, Interrupt

Storage of Measurement data	
Type of storage	Snapshot
Max storage	20

Power Quality Analyzer

TEKON® 560

TEKON560 power Quality analyzers are handheld instruments that accurately measure, diagnose and analyze electrical power characteristics and parameters of power distribution and communication related systems. By incorporating a 7-inch wide touch screen into its lightweight design, they maximize user convenience, allowing the user to perform power quality logging and analysis.

The system allows you in the most effective and easiest manner to perform measurement, data storage, analysis and output via the 7" wide LCD screen.

Features

- Measuring the quality of power and electrical parameters at the same time
- Displaying how to conduct wiring and measurement on the touchscreen
- 7" wide LCD making easier measurements and analyses
- Providing touch functions in order for the user to search/archive menus via intuitive UI
- Enabling the user to download, view and analyze stored data, and make up reports
- Providing flexible coil clamp (Rogowski coil) as basic current sensor
- Captures three-phase power quality measurements
- Simultaneously measures active/reactive/apparent power, power factor, RMS voltage/current, phase angle and neutral line current
- Supports a variety of wiring such as single-phase 2-wire, single-phase 3-wire, three-phase 3-wire and three-phase 4-wire
- Displays voltage and current in waveforms and phase diagram
- EN50 160 Report Output

Functions for Measurement

- Voltage: TRMS, Peak, Crest Factor (4 channels)
- Current: TRMS, Peak, Crest Factor (4 channels)
- Power (active, inactive, apparent)
- Measurement of imbalance and flicker
- Measurement of harmonic(up to 50th harmonic), THD measurement
- Energy (active, inactive, generated, consumed)
- Capturing and recording of power events (shut-down, outage, increase, decrease)
- Analysis of the quality of power in accordance with EN 50160
- Measurement of power factor (cosφ)

General Specifications

Power (battery)	7.2V/5.2Ah Li-ion, 12V/2.5A DC adaptor
Data storage	Micro SD card (8GB), 32GB max
Communication	USB Ver2.0, Bluetooth Ver2.1 + EDR Class2
LCD display	1024×600 pixels, 7.0-inch color TFT screen (touch panel)
Operating temp/ humidity	0°C ~ 50°C, RH 85% max
Storage temp/ humidity	-20°C ~ 60°C, RH 85% max
Compliant Standard	IEC 61010-1 CAT IV 300V, CAT III 600V Pollution Degree 2, IEC 61010-2-030, IEC 61010-031, IEC 61326, EN 50160, IEC 61000-4-30 Class S, IEC 61000-4-15, IEC 61000-4-7
Dimension	270(L)×246(W)×124(H) mm
Weight	2.3kg
Case Color	Yellow(Black, Orange)

Accessories

Standard	Test Lead, Rogowski Coil (dia. 200mm), 12V/2.5A adaptor, 7.2V/5.2Ah Li-ion battery, USB cable, Micro SD card (8GB), Portable bag, PC S/W, User's manual
Optional	**Current Clamp** Rogowski Coil(dia. 200mm), T108(5A), T130(60A), T130BE(60A, ac/dc), T135BE(1000A, ac/dc), T168B(1000A)

Electrical Specifications

Power Quality Analyzer	
Voltage Input	AC+DC
Input channels	4
Voltage range(L-N)	Phase voltage (L-N) : 50 ~ 1000VRMS Line voltage (L-L) : 50 ~ 1730VRMS
Measurable range	10% ~ 150% of nominal voltage
Sampling	10.24k Samples/sec @ 50/60Hz
Frequency	40 ~ 70Hz ± 20 mHz
Current input	AC+DC
Input channels	4
Measurable range	(Rogowski Coil used) 3 ~ 5000ARMS ± 1.5% of mV (Current clamp-on used) 50m ~ 1000ARMS ± 0.5% of mV.
Power wiring	1P2W, 1P3W, 3P3W, 3P4W
Measurement parameters	Voltage, Current, Frequency, Active power, Inactive power, Apparent power, Active power value, Inactive power value, Apparent power value, Power factor (cos θ), Neutral current, Harmonics, Power quality (swell / dip / cycle / transients / over voltage / inrush current /unbalanced rate), Flicker

Measurement of Voltage (RMS)	
Range	1000V
Accuracy	±0.25%rdg±0.2%f.s. (sine wave, 40~70Hz)
Effective input	1~120%(rms) of each range; 200%(peak) of each range
Display	0.15~130% of each range (less than 0.15% will be displayed as 0)
CF(Crest Factor)	3 max

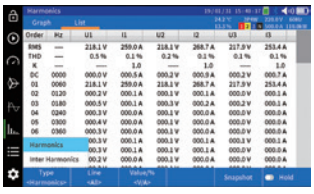
Measurement of Current (RMS)	
Range	Rogowski coil : 50/500/5000A Clamp : 5/50/500/1000A
Accuracy	±0.25%rdg±0.2%f.s. + clamp-on sensor accuracy (sine wave, 40~70Hz)
Active power	1~110%(rms) of each range; 200%(peak) of each range
Display	0.15~130% of rach range
CF(Crest Factor)	3 max

Active Power	
Accuracy	±0.3%rdg±0.2%f.s. + clamp-on sensor accuracy (PF 1, sine wave, 40~70Hz)
Power Factor	±1.0%rdg (reading at power factor 0.5 against PF 1.0)

Measurement of Waveforms	
Channel	4
Bandwidth	DC to 100Hz

Temperature & Humidity (operating environment)		
Measurement	Measurable range	Accuracy
Temperature	-40°C ~ 125°C	Non-specification
Humidity	0 ~ 100%RH	Non-specification
- Built-in temp/humidity sensor		

Display



Power Quality Analyzer

TEKON® 570

TEKON570 power Quality analyzers are handheld instruments that accurately measure, diagnose and analyze electrical power characteristics and parameters of power distribution and communication related systems. By incorporating a 7-inch wide touch screen into its lightweight design, they maximize user convenience, allowing the user to perform power quality logging and analysis.

The system allows you in the most effective and easiest manner to perform measurement, data storage, analysis and output via the 7" wide LCD screen.

Features

- Measuring the quality of power and electrical parameters at the same time
- Displaying how to conduct wiring and measurement on the touchscreen
- 7" wide LCD making easier measurements and analyses
- Providing touch functions in order for the user to search/archive menus via intuitive UI
- Enabling the user to download, view and analyze stored data, and make up reports
- Providing flexible coil clamp (Rogowski coil) as basic current sensor
- Captures three-phase power quality measurements
- Simultaneously measures active/reactive/apparent power, power factor, RMS voltage/ current, phase angle and neutral line current
- Supports a variety of wiring such as single-phase 2-wire, single-phase 3-wire, three-phase 3-wire and three-phase 4-wire
- Displays voltage and current in waveforms and phase diagram
- EN50 160 Report Output

Functions for Measurement

- Voltage: TRMS, Peak, Crest Factor (4 channels)
- Current: TRMS, Peak, Crest Factor (4 channels)
- Power (active, inactive, apparent)
- Measurement of imbalance and flicker
- Measurement of harmonic(up to 50th harmonic), THD measurement
- Energy (active, inactive, generated, consumed)
- Capturing and recording of power events (shut-down, outage, increase, decrease)
- Analysis of the quality of power in accordance with EN 50160
- Measurement of power factor (cosφ)

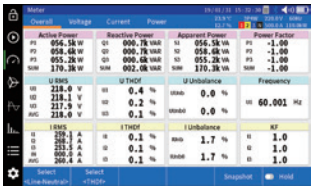
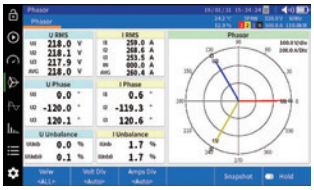
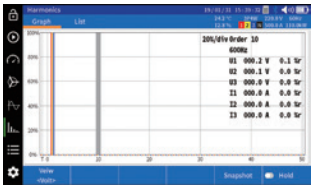
General Specifications

Power (battery)	7.2V/5.2Ah Li-ion, 12V/2.5A DC adaptor
Data storage	Micro SD card (8GB), 32GB max
Communication	USB Ver2.0, Bluetooth Ver2.1 + EDR Class2
LCD display	1024×600 pixels, 7.0-inch color TFT screen (touch panel)
Operating temp/ humidity	0°C ~ 50°C, RH 85% max
Storage temp/ humidity	-20°C ~ 60°C, RH 85% max
Compliant Standard	IEC 61010-1 CAT IV 300V, CAT III 600V Pollution Degree 2, IEC 61010-2-030, IEC 61010-031, IEC 61326, EN 50160, IEC 61000-4-30 Class S, IEC 61000-4-15, IEC 61000-4-7
Dimension	240(L)×160(W)×65(H) mm
Weight	900g
Case Color	Black

Accessories

Standard	Test Lead, Rogowski Coil (dia. 200mm), 12V/2.5A adaptor, 7.2V/5.2Ah Li-ion battery, USB cable, Micro SD card (8GB), Portable bag, PC S/W, User's manual
Optional	**Current Clamp** Rogowski Coil(dia. 100mm, 200mm), T108(5A), T130(60A), T130BE(60A, ac/dc), T135BE(1000A, ac/dc), T168B(1000A)

Display


Electrical Specifications

Power Quality Analyzer	
Voltage Input	AC+DC
Input channels	4
Voltage range(L-N)	Phase voltage (L-N) : 50 ~ 1000VRMS Line voltage (L-L) : 50 ~ 1730VRMS
Measurable range	10% ~ 150% of nominal voltage
Sampling	10.24k Samples/sec @ 50/60Hz
Frequency	40 ~ 70Hz ± 20 mHz
Current input	AC+DC
Input channels	4
Measurable range	(Rogowski Coil used) 3 ~ 5000ARMS ± 1.5% of mV (Current clamp-on used) 50m ~ 1000ARMS ± 0.5% of mV.
Power wiring	1P2W, 1P3W, 3P3W, 3P4W
Measurement parameters	Voltage, Current, Frequency, Active power, Inactive power, Apparent power, Active power value, Inactive power value, Apparent power value, Power factor (cos θ), Neutral current, Harmonics, Power quality (swell / dip / cycle / transients / over voltage / inrush current /unbalanced rate), Flicker

Measurement of Voltage (RMS)	
Range	1000V
Accuracy	±0.25%rdg±0.2%f.s. (sine wave, 40~70Hz)
Effective input	1~120%(rms) of each range; 200%(peak) of each range
Display	0.15~130% of each range (less than 0.15% will be displayed as 0)
CF(Crest Factor)	3 max

Measurement of Current (RMS)	
Range	Rogowski coil : 50/500/5000A Clamp : 5/50/500/1000A
Accuracy	±0.25%rdg±0.2%f.s. + clamp-on sensor accuracy (sine wave, 40~70Hz)
Active power	1~110%(rms) of each range; 200%(peak) of each range
Display	0.15~130% of rach range
CF(Crest Factor)	3 max

Active Power	
Accuracy	±0.3%rdg±0.2%f.s. + clamp-on sensor accuracy (PF 1, sine wave, 40~70Hz)
Power Factor	±1.0%rdg (reading at power factor 0.5 against PF 1.0)

Measurement of Waveforms	
Channel	4
Bandwidth	DC to 100Hz

Temperature & Humidity (Operating Environment)		
Measurement	Measurable range	Accuracy
Temperature	-40°C ~ 125°C	Non-specification
Humidity	0 ~ 100%RH	Non-specification

- Built-in temp/humidity sensor

Transformer Turn To Ratio

TEKON® 600

TEKON600 is a tester that measures the turns ratio of windings in single-phase and three-phase distribution with the application of 7" wide touchscreen aimed to maximize user convenience. In particular, it can be used anywhere as it is powered by chargeable battery. Selectable test voltages include 5Vac, 10Vac, 40Vac, enabling you to measure a variety of transformers.

It uses the IEEE C57.12.90 measurement method and accurately measures the voltage at the transformer's winding at no load. The TEKON600 can be used to test power regulator, power transformer, CT (Current Transformer) and PT (Potential Transformers).

This model is divided into two: TEKON600-1P (single-phase) and TEKON600-3P (three-phase). You are able to print out measurement data via printer, save them to the meter's internal memory, or download to your PC.

Features

- Portable with robust and lightweight enclosure
- Simultaneously measures turns ratio, excitation current, polarity and phase angle
- Verifies limiter settings: function to judge whether acceptable or non-acceptable
- Application of dockable wireless printer (bluetooth) (Optional)
- Micro SD 8GB applied as basic memory.
- Measurements automatically saved to designated storage space in real time
- Automatic measurement and display of measurement result
- Communication: USB
- Output of measurement data in reports
- Chargeable battery (Li-ion) operated
- Removable wireless printer applied

General Specifications

LCD display	1024×600 pixels, 7.0-in color TFT screen (touch panel)
Power(battery)	7.2V/5.2A Li-ion, 12V/2.5A Adaptor
Communication	USB, Bluetooth
Print	External printer (Bluetooth)
Data Storage	MicroSD(8GB)
Operating temp/ humidity	0°C ~ 50°C, RH 85% max
Storage temp/ humidity	-20°C ~ 60°C, RH 85% max
Dimension	270(L)×246(W)×124(H) mm
Weight	3.5kg
Case Color	Black, Yellow, Orange

Electrical Specifications

Measurement of Turns Ratio (1P/3P)

Type		Range	Resolution	Accuracy
Ext Voltage	5V	1~1999	0.0001~0.1	± 0.15%
		2000~4000	0.1	± 0.3%
	10V	1~1999	0.0001~0.1	± 0.1%
		2000~4000	0.1	± 0.25%
		4000~10000	0.1~1	± 2.5%
	40V	1~1999	0.0001~0.1	± 0.1%
		2000~4000	0.1	± 0.25%
		4000~15000	0.1~1	± 3.0%
Ext current		0~1A	0.1mA	
Phase Angle		Range : 0~360 degree Accuracy : ±0.2degree + 2dgts		
Polarity		Displayed on screen		

Temperature & Humidity (Operating Environment)

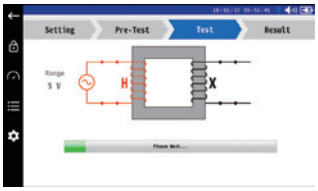
Measurement	Measurable range	Accuracy
Temp	-40°C ~ 125°C	Non-specification
Humidity	0 ~ 100%RH	Non-specification

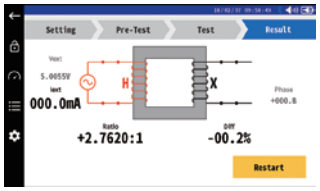
- Built-in temp/humidity sensor

Accessories

Standard	TTR Cable Assembly, 12V/2.5A power adaptor, 7.2V/5.2Ah Li-ion battery, USB cable, Micro SD card (8GB), Portable bag, PC S/W, User's manual
Optional	TTR Cable Assembly(3m), TTR Cable Assembly(10m) Wireless Printer

Display





Transformer Analyzer

TEKON® 610

TEKON610 is a system designed for distribution (service) transformer, which not only measures electrical conditions such as turns ratio, excitation current, power, harmonics and inrush current, but also tests transformer's electrical characteristics.

It can comprehensively diagnose the electrical integrity of the transformer including risk of outage, presence of internal failure and the installed condition. It is a small-size portable device ideally suited to production, installation, post maintenance and R&D of distribution transformers.
The system allows you in the most effective and easiest manner to perform measurement, data storage, analysis and output via the 7" wide LCD screen, in addition a function of transferring measurement data to remote locations by using a mobile app. You can also print out measurement data via printer, save them to the meter's internal memory, or download to your PC.

Features

- Measures transformer's turns ratio and excitation voltage
- Measures the quality of three-phase power
- Testing of transformer: transformer ratio, polarity, phase angle, impedance, no load
- Verifies limiter settings: function to judge whether acceptable or non-acceptable
- Application of dockable wireless printer (bluetooth) (Optional)
- Measurements automatically saved to designated storage space in real time
- Automatic measurement and display of measurement result
- Output of measurement data in reports
- Removable wireless printer applied

General Specifications

Power(battery)	7.2V/5.2Ah Li-ion, 12V/2.5A DC adaptor
Data storage	Micro SD card (8GB), 32GB max
Communication	USB Ver2.0(Bluetooth Ver2.1)
LCD display	1024×600 pixels, 7.0-inch color TFT screen (touch panel)
Operating temp/ humidity	0°C ~ 50°C, RH 85% max
Storage temp/ humidity	-20°C ~ 60°C, RH 85% max
Compliant Standard	IEC 61010-1 CAT IV 300V, CAT III 600V Pollution Degree 2, IEC 61010-2-030, IEC 61010-031, IEC 61326, EN 50160
Dimension	270(L)×246(W)×124(H) mm
Weight	3.5kg
Case Color	Black, Yellow, Orange

Accessories

Standard	Test Lead, Rogowski Coil (dia. 200mm), 12V/2.5A adaptor, 7.2V/5.2Ah Li-ion battery, USB cable, Micro SD card (8GB), Portable bag, PC S/W, User's manual
Optional	**Current Clamp** Rogowski Coil(dia. 100mm, 200mm), T108(5A), T130(60A), T130BE(60A, ac/dc), T135BE(1000A, ac/dc), T168B(1000A), TTR Cable Assembly(3m), TTR Cable Assembly(10m), Wireless Printer

Electrical Specifications

Measurement of Turns Ratio (1P/3P)

Type		Range	Resolution	Accuracy
Ext Voltage	5V	1~1999	0.0001~0.1	± 0.15%
		2000~4000	0.1	± 0.3%
	10V	1~1999	0.0001~0.1	± 0.1%
		2000~4000	0.1	± 0.25%
		4000~10000	0.1~1	± 2.5%
	40V	1~1999	0.0001~0.1	± 0.1%
		2000~4000	0.1	± 0.25%
		4000~15000	0.1~1	± 3.0%
Ext current		0~1A	0.1mA	
Phase Angle		Range : 0~360 degree Accuracy : ±0.2degree + 2dgts		
Polarity		Displayed on screen		

Power Quality Analyzer

Voltage input	AC+DC
Input channels	4
Voltage range(L-N)	Phase voltage (L-N) : 50 ~ 1000 VRMS Line voltage (L-L) : 50 ~ 1730 VRMS
Measurable range	10% ~ 150% of nominal voltage
Sampling	10.24k Samples/sec @ 50/60Hz
Frequency	40 ~ 70Hz ± 20 mHz
Current input	AC+DC
Input channels	4
Measurable range	(Rogowski Coil used) 3 ~ 5000ARMS ± 1.5% of mV (Current clamp-on used) 50m ~ 1000ARMS ± 0.5% of mV
Power wiring	1P2W, 1P3W, 3P3W, 3P4W
Measurement parameters	Voltage, Current, Frequency, Active power, Inactive power, Apparent power, Active power value, Inactive power value, Apparent power value, Power factor (cos θ), Neutral current, Harmonics (up to 50st harmonic), Power quality (swell / dip / cycle / transients / over voltage / inrush current / unbalanced rate), flicker

Measurement of Waveforms

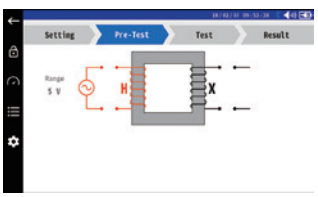
Channel	4
Bandwidth	DC to 100Hz

Temperature & Humidity (Operating Environment)

Measurement	Measurable range	Accuracy
Temperature	-40°C ~ 125°C	Non-specification
Humidity	0 ~ 100%RH	Non-specification

- Built-in temp/humidity sensor

Display



Energy Storage System Diagnostic

TEKON® 650

TEKON650 ESS performance diagnostic is a configurable test platform used in EESS (electrical energy storage system) that store electrical energy produced and allow it to be used whenever necessary. The tester dedicated to EESS (PCS, BMS, PMS) evaluates and tests all electrical parameters thereby certifying the performance thereof, which is indispensible for installation, maintenance/repair (including inspection) and after-sale service activity for EESS.

Features

- Power measurement (3P), insulation resistance, battery internal resistance, harmonics (up to 50st harmonic), leakage current(optional)
- Measurement of ESS inspection items, including judgment of acceptable/non-acceptable according to EESS inspection directives
- Generates standardized inspected records and system performance reports
- A comprehensive performance tester for compliance testing of electrical systems and equipment
- Comprehensively evaluates the performance of EESS installed failure potentials there of and internal faults
- Stores measurement data and transmits them to remote location
- Measures temperature and humidity in the ambient environment of the target EESS
- Removable wireless printer applied

General Specifications

Power (battery)	7.2V/5.2Ah Li-ion, 12V/2.5A DC adaptor
Data storage	Micro SD card (8GB), 32GB max
Communication	USB Ver2.0(Bluetooth Ver2.1)
LCD display	1024×600 pixels, 7.0-inch color TFT display (touch panel)
Operating temp/ humidity	0°C ~ 50°C, RH 85% max
Storage temp/ humidity	-20°C ~ 60°C, RH 85% max
Compliant standards	IEC 61010-1 CAT IV 300V, CAT III 600V Pollution Degree 2, IEC 61010-2-030, IEC 61010-031, IEC 61326, EN 50160
Dimension	270(L)×246(W)×124(H) mm
Weight	3.5kg
Case Color	Orange(Yellow,Black)

Check & Inspection of ESS

Check and Verification	
Div	Inspection item
Installation environment	Ambient temp, altitude, relative humidity
Ratings	Accumulator capacity, rated output, rated voltage, rated frequency
Grounding	Frame grounding, terminal signs, grounding condition
Shutoff	Over-charge of accumulator, short circuit inside PCS, failure in control, occurrence of ground fault
DC breaking	Sign for DC, breaking capacity, shutoff of circuit in the event of ground fault
Short-circuit breaking	Shutoff within 0.5 sec in the event of short circuit
System splitting	in the event of ESS failure, reverse charge, system accident, or electrical failure
DC component limiting	Within 5% of rated current
Info visualization	Power, normal run such as operation condition, abnormal temp, over-charge alarm
Operation mode	Emergency operation, load leveling, independent operation
E-stop	When activated, whether the system stops during charge, discharge or standby

Measurement & Testing	
Basic functions	Charge/discharge, rated output magnitude, performance after retention duration
System link	Voltage, power factor, frequency, phase angle
Failure clearing time	Voltage variation, frequency variation
PMS function	Measurement function, control function, protection function, communication and storage - Measurements: Voltage, current, frequency
BMS function	Measurement function, calculation function, control function, display & alarms - Measurements: Voltage, current, temperature and internal resistance (optional)
Measurement	- Insulation resistance: Check ensuring 500V/5MΩ min - Grounding resistance: Check whether no greater than threshold - Frequency: Max allowable error (59.3Hz~60.5Hz) - Voltage: Voltage variation (88%~110% of nominal voltage) - DC voltage: Within 0.5% of rating - Harmonic spectrum: Check whether measurement results are within the permissible range - Phase difference
Testing	- Charge-discharge testing: testing with a C-rate of 1C - Measure voltage, current and power to be input - Check ensuring 5% or less of rating

Measurement Function

Power Quality Analyzer	
Voltage input	AC+DC
Input channels	4
Voltage range (L-N)	Phase voltage (L-N) : 50 ~ 1000V RMS Line voltage (L-L) : 50 ~ 1730V RMS
Measurement range	10% ~ 150% of nominal voltage
Sampling	10.24k Samples/sec @ 50/60Hz
Frequency	40 ~ 70Hz ± 20 mHz
Current input	AC+DC
Input channel	4
Measurement range	(Rogowski Coil used) 3 ~ 5,000A RMS ± 1.5% of mV (Current clamp-on used) 50m ~ 1,000A RMS ± 0.5% of mV
Power wiring	1P2W, 1P3W, 3P3W, 3P4W
Measurement parameters	Voltage, Current, Frequency, Active power, Inactive power, Apparent power, Active power value, Inactive power value, Apparent power value, Power factor (cos θ), Neutral current, Harmonics (up to 50st harmonic), Power quality (swell / dip / cycle / transients / over voltage / inrush current / unbalanced rate), Flicker

Waveform Measurement	
Channel	4
Bandwidth	DC to 100Hz

Insulation Resistance	
Test voltage	100V, 250V, 500V, 1000V
Measurement range	10KΩ ~ 200GΩ
Teset current	1mA
- Measuring mode: t, PL, DAR, INS	

Battery Internal Resistance	
Measurement range	3mΩ~300Ω
Resolution	0.001mΩ
Accuracy	±0.8%+10dgts
Max Test Voltage	500V DC

Earth Resistance(Optional) - External Interface	
Measurement range	0.01~1200Ω
Resolution	0.001Ω
Accuracy	±1%+10dgts
- External measurements displayed - Clamp-on type	

Leakage Current (Optional) - External Interface	
Measurement range	0.00mA~20A
Resolution	0.01mA
Accuracy	±2%+5dgts

Temperature & Humidity (Operating Environment)		
Measurement	Measurement range	Accuracy
Temp	-40°C ~ 125°C	±2°C(10~60°C)
Humidity	0 ~ 100%RH	±2%(20~80%RH)
- In-built temperature and humidity sensors		

Accessories

Standard	Insulation Test Cable, Test Lead, Rogowski Coil (dia. 200mm), 12V/2.5A adaptor, 7.2V/5.2Ah Li-ion battery, USB cable, Micro SD card (8GB), Portable bag, PC S/W, User's manual
Optional	**Current Clamp** Rogowski Coil(dia. 100mm, 200mm), T108(5A), T130(60A), T130BE(60A, ac/dc), T135BE(1000A, ac/dc), T168B(1000A), Kelvin Probe(clip), Kelvin Probe(Pin)

Industrial Robot Diagnostic

TEKON® 700

TEKON700 Industrial Robot Comprehensive Diagnosis is a dedicated equipment for safety inspection of production robots and conveyors installed in the industrial field. It is used for diagnosing power, control, operation status and electrical safety requirements of grounding, insulation, power, This is a portable industrial robot comprehensive diagnostic tool.

Main applications are installation, maintenance (inspection, inspection) of industrial robots and conveyors, measurement of all electrical performance required for after-sales service, diagnosis.

Features

- Power measurement (3P), Insulation resistance, battery internal resistance, harmonics (up to 50st harmonic), leakage current(optional), earth resistance(optional)
- Measurement of Robot inspection items, including judgment of acceptable/non-acceptable according to Industrial Robot inspection directives
- Generates standardized inspected records and system performance reports
- A comprehensive performance tester for compliance testing of electrical systems and equipment
- Comprehensively evaluates the performance of Industrial Robot installed, failure potentials thereof and internal faults
- Stores measurement data and transmits them to remote location
- Measures temperature and humidity
- Removable wireless printer applied

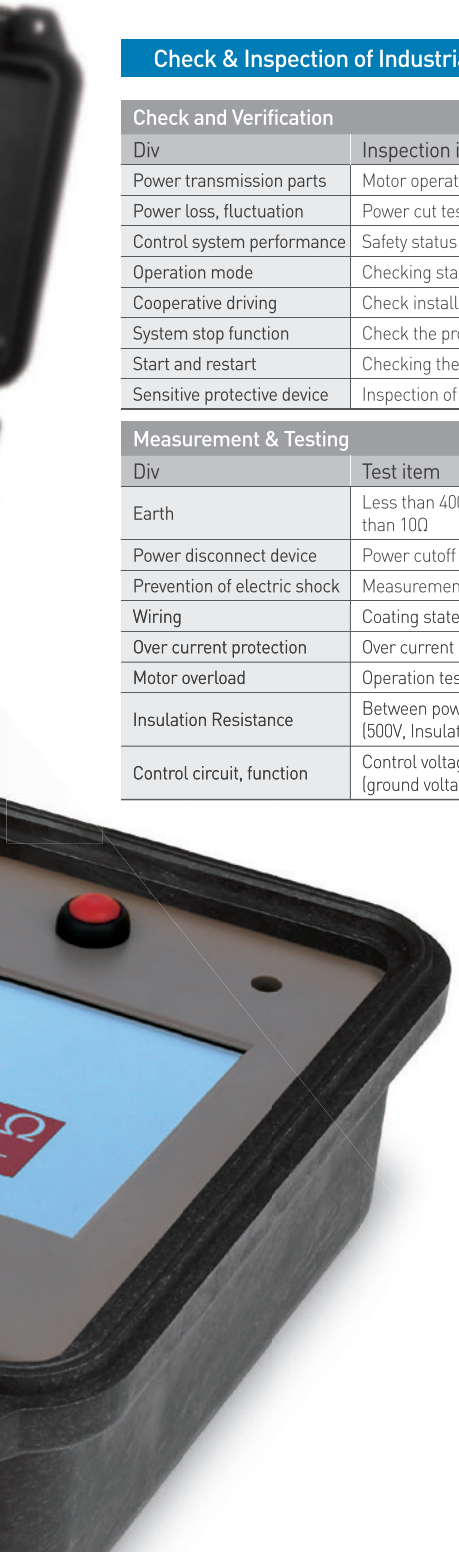
General Specifications

Power (battery)	7.2V/5.2Ah Li-ion, 12V/2.5A DC adaptor
Data storage	Micro SD card (8GB), 32GB max
Communication	USB Ver2.0(Bluetooth Ver2.1)
LCD display	1024×600 pixels, 7.0-inch color TFT display (TSP)
Operating	0°C ~ 50°C, RH 85% max
Storage	-20°C ~ 60°C, RH 85% max
Compliant standards	IEC 61010-1 CAT III 600V Pollution Degree 2; IEC 61010-2-030, IEC 61010-031, IEC 61326, EN 50160
Dimension	270(L)×246(W)×124(H) mm
Weight	3.5kg
Case Color	Black(Yellow, Orange)

Check & Inspection of Industrial Robot

Check and Verification	
Div	Inspection item
Power transmission parts	Motor operation
Power loss, fluctuation	Power cut test (runaway, unsteady stop)
Control system performance	Safety status check
Operation mode	Checking status and operation
Cooperative driving	Check installation that meets safety standards
System stop function	Check the protective stop and emergency stop
Start and restart	Checking the interlocking device
Sensitive protective device	Inspection of protective device operation

Measurement & Testing	
Div	Test item
Earth	Less than 400V: Less than 100Ω, 400V or more: Less than 10Ω
Power disconnect device	Power cutoff behavior
Prevention of electric shock	Measurement of residual voltage (60V or less)
Wiring	Coating state of wiring (insulation measurement)
Over current protection	Over current shut-off (breaking capacity measurement)
Motor overload	Operation test of motor overload device
Insulation Resistance	Between power line and protective bonding circuit (500V, Insulation resistance 1MΩ or more)
Control circuit, function	Control voltage (277V or less), operation voltage (ground voltage: AC150V, DC300V or less)



Measurement Function

Power Quality Analyzer	
Voltage input	AC+DC
Input channels	4
Voltage range (L-N)	Phase voltage (L-N) : 50 ~ 1000V RMS Line voltage (L-L) : 50 ~ 1730V RMS
Measurement range	10% ~ 150% of nominal voltage
Sampling	10.24k Samples/sec @ 50/60Hz
Frequency	40 ~ 70Hz ± 20 mHz
Current input	AC+DC
Input channel	4
Measurement range	Flexible clamp-on: 3~5,000A RMS±1.5% of mV Clamp: 50m~1,000A RMS ± 0.5% of mV
Power wiring	1P2W, 1P3W, 3P3W, 3P4W
Measurement parameters	Voltage, current, frequency, active power, inactive power, apparent power, active power value, inactive power value, apparent power value, power factor (cos θ), neutral current, harmonics (up to 51st harmonic), Power quality, inrush current

Waveform Measurement	
Channel	4
Bandwidth	DC to 100Hz

Insulation Resistance	
Test voltage	100V, 250V, 500V, 1000V
Measurement range	10kΩ ~ 200GΩ
Teset current	1mA
- Measuring mode: t, PL, DAR, INS	

Battery Internal Resistance	
Measurement range	3mΩ~300Ω
Resolution	0.001mΩ
Accuracy	±0.8%+10dgts
Max Test Voltage	500V DC

Leakage Current(Optional) - External Interface	
Measurement range	3mA~20A
Resolution	0.01mA
Accuracy	±2%+5dgts

Temperature & Humidity (Under Operating Environment)		
Measurement	Measurement range	Accuracy
Temp	-40°C ~ 125°C	±2°C(10~60°C)
Humidity	0 ~ 100%RH	±2%(20~80%RH)
- In-built temperature and humidity sensors		

Earth Resistance(Optional) - External Interface	
Measurement range	0.01~1200Ω
Resolution	0.001Ω
Accuracy	±1%+10dgts
- External measurements displayed - Clamp-on type	

Accessories

Standard	Cable for measuring insulation resistance, lead for measuring power, flexible current sensor (dia. 200mm), 12V/2.5A adaptor, 7.2V/5.2Ah Li-ion battery, USB cable, Micro SD card (8GB), portable bag, PC S/W, user's manual
Optional	**Current Clamp** Rogowski Coil(dia. 100mm, 200mm), T108(5A), T130(60A), T130BE(60A, ac/dc), T135BE(1000A, ac/dc), T168B(1000A), Kelvin Probe(clip), Kelvin Probe(Pin)

EV/HEV Diagnostic

TEKON® 800

TEKON800 EV/HEV diagnostic is a testing system capable of comprehensively testing the performance characteristics of power system in hybrid-electric (HEV) and electric vehicles(EV). This is a portable type tester dedicated to EV and HEV, which offers comprehensive power measurements and analyses including internal faults and degree of ageing of parts used therein.

Key functions for measurements : Analysis of power (AC/three-phase, DC), internal resistance of battery pack, motor, harness, insulation resistance, harmonics analysis

Features

- EV, HEV battery pack (BMS), motor control unit (MCU), power, cable assembly, sensor electrical performance diagnosis
- Measurement of EV/HEV inspection items, including judgment of acceptable/non-acceptable according toEV/HEV inspection directives
- Enables the user to download, view and analyze stored data, and make up reports
- Generates standardized inspected records and system performance reports
- Measures internal resistance (mΩ) of EV/HEV battery pack (500V max)
- Measures three-phase power (1P2W, 3P3W, 3P4W)
- Measures waveforms (4 channels)
- Measures harmonic spectrum (up to 50st harmonic)
- Measures insulation resistance
- Measures earth resistance (optional)
- Removable wireless printer applied

General Specifications

Power (battery)	7.2V/5.2Ah Li-ion, 12V/2.5A DC adaptor
Data storage	Micro SD card (8GB), 32GB max
Communication	USB Ver2.0(Bluetooth Ver2.1)
LCD display	1024×600 pixels, 7.0-inch color TFT display (touch panel)
Operating temp/ humidity	0°C ~ 50°C, RH 85% max
Storage temp/ humidity	-20°C ~ 60°C, RH 85% max
Compliant standards	IEC 61010-1 CAT IV 300V, CAT III 600V Pollution Degree 2, IEC 61010-2-030, IEC 61010-031, IEC 61326, EN 50160
Dimension	270(L)×246(W)×124(H) mm
Weight	3.5kg
Case Color	Orange(Yellow, Black)

Check & Inspection of EV/HEV

Check and Verification	
Div	Inspection item
General check	High voltage, safety condition, contact state
Motor System	Motor Control Unit (MCU), Power, High Voltage Cable Condition, Motor Assembly, Position Sensor, Temperature Sensor
Vehicle Control system	Power Control System, Inverter, Battery, DC Converter
Battery control system	Connector (contact resistance), BMS (voltage, internal resistance, temperature), Battery pack condition, Insulation status, Battery control system, High voltage charging system
Power Cable, Sensor	Insulation Resistance, Contact Resistance, Sensor status

Electrical Specifications

Battery Internal Resistance (Auto/Manual)			
Range	Resolution	Measurable current	Accuracy
3mΩ	1uΩ	100mA	±1.0%rdg±10dgts
30mΩ	10uΩ	100mA	±0.8%rdg±10dgts
300mΩ	100uΩ	10mA	
3Ω	1mΩ	1mA	
30Ω	10mΩ	0.1mA	
300Ω	100mΩ	0.1mA	
- Max Test Voltage : 500V			

Power Quality Analyzer	
Voltage input	AC+DC
Input channels	4
Voltage range(L-N)	Phase voltage (L-N) : 50 ~ 1000VRMS Line voltage (L-L) : 50 ~ 1730VRMS
Measurable range	10% ~ 150% of nominal voltage
Sampling	10.24k Samples/sec @ 50/60Hz
Frequency	40 ~ 70Hz ± 20mHz
Current input	AC+DC
Input channels	4
Measurable range	(Current clamp-on used) 50m ~ 1000ARMS ± 0.5% of mV

Measurement of Waveforms	
Channel	4
Bandwidth	DC to 100Hz

Measurement of Harmonic	
Order of harmonic	50st, Max
Display	Chart, Data

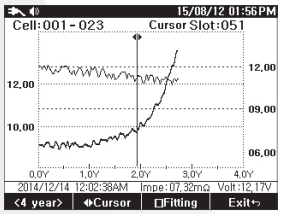
Insulation Resistance	
Test voltage	100V, 250V, 500V, 1000V
Measurable range	10kΩ ~ 200GΩ
Test current	1mA
- Measuring Mode: t, PL, DAR, INS	

Temperature & Humidity (Operating Environment)		
Measurement	Measurable range	Accuracy
Temperature	-40°C ~ 125°C	±2°C(10~60°C)
Humidity	0 ~ 100%RH	±2%(20~80%RH)
- Built-In temp/humidity sensor		

Accessories

Standard	Insulation Test Cable, Test Lead, 12V/2.5A power adaptor, 7.2V/5.2Ah Li-ion battery, USB cable, Micro SD card (8GB), Portable bag, PC S/W, User's manual
Optional	**Current Clamp** Rogowski Coil(dia. 100mm, 200mm), T108(5A), T130(60A), T130BE(60A, ac/dc), T135BE(1000A, ac/dc), T168B(1000A), Kelvin Probe(clip), Kelvin Probe(Pin)

Battery Quality Analyzer



Battery change time estimate

TEKON® 950

Korean Government Certification

To prevent faults or quality issues in critical battery back-up applications caused by defects in stationary batteries, TEKON950 battery quality analyzer enables the user to diagnose and evaluate the performance and the degree of ageing by testing the conditions of individual batteries (400V max) in type of cell, module or pack.

TEKON950 can handle virtually all battery testing (e.g. aged status of battery under test and the condition of a power system) in systems that use high-voltage battery packs, such as ESS, EV, HEV and PV as well as UPS.

Features

- Measures internal resistance of 400V max of batteries
- Measures voltages at battery (DC500V)
- Measures voltage of UPS (AC500V)
- Measures ripple voltage, current and temperature
- Measures capacity of battery (Capacity)
- Diagnoses ageing of battery and predicts its use life (to determine timing for replacement)
- Can conduct history management of battery using 8MB memory
- Auto Hold and Data Storage
- Prints out measurement data in reports
- Transmits measurement data to remote locations (e-mail, server) using Mobile App
- Removable wireless printer applied

General specifications

Power (battery)	7.2V/5.2Ah Li-ion, 12V/2.5A DC adaptor
Data storage	8MB
Communication	Bluetooth Ver2.1 + EDR Class2
LCD display	4.0 monographic
Operating temp/ humidity	0°C ~ 50°C, RH 85% max
Storage temp/ humidity	-20°C ~ 60°C, RH 85% max
Compliant standards	IEC 61010-1 CAT III 500V Pollution Degree 2, EN61326-1:2013
Dimension	240(L)×198(W)×109(H) mm
Weight	1.4kg
Case Color	Black

Electrical Specifications

Measurement of Resistance (Auto/Manual)			
Range	Resolution	Measurable current	Accuracy
3mΩ	1uΩ	100mA	±1.0%rdg±10dgts
30mΩ	10uΩ	100mA	±0.8%rdg±10dgts
300mΩ	100uΩ	10mA	
3Ω	1mΩ	1mA	
30Ω	10mΩ	0.1mA	
300Ω	100mΩ	0.1mA	

DC/V (Auto/Manual)	
Range	5, 50, 500V
Resolution	1mV
Accuracy	±0.5%rdg±5dgts

AC/V	
Range	0~500V
Resolution	100mV
Frequency	40Hz~100Hz
Accuracy	±0.75%rdg±10dgts

Ripple Voltage (Optional)	
Range	0~5V
Resolution	1mV
Frequency	40Hz~10KHz
Accuracy	±5.0%rdg±10dgts

Measurement of Temperature	
Range	-10°C ~ 100°C
Resolution	0.1°C
Accuracy	±1°C+2dgts

DC Current	
Range	4, 40, 400A
Resolution	1mA
Accuracy	±0.5%rdg±5dgts (+CT Tolerance)

AC Current	
Range	4, 40, 400A
Resolution	1mA
Accuracy	±0.75%rdg±10dgts (+CT Tolerance)

Measurement of Capacity (950B)	
Measuring method	Rated capacity, charge/discharge test
Range	0 ~ 100%
Measurable capacity	0 ~ 2000Ah
Parameters displayed	Efficiency, capacity, Ah, Average current, Charge-discharge time, Graph

Accessories

Standard	Pin-type Kelvin Probe, Test Lead, Li-ion battery (7.2V/5.2Ah), 12V/2.5A adaptor, Zero-Bar, Portable bag, PC Program, User's Manual, Current Clamp(T130BE)/950B
Optional	Current Clamp(T130BE), Current Clamp(T135BE), Kelvin Probe(clip), Kelvin Probe(Pin), Extensible Rod(500mm), Wireless printer

Comparison of Functions in TEKON950 Series

Function		TEKON950A	TEKON950B
Impedance	Scale	3mΩ~300Ω(6range)	3mΩ~300Ω(6range)
	Accuracy	±0.8%	±0.8%
	Max Test Voltage	200V	400V
DC/V		0~500V	0~500V
AC/V		0~500V	0~500V
Ripple Voltage		0~5V	0~5V
DC/A		4A/40A/400A	4A/40A/400A
AC/A		4A/40A/400A	4A/40A/400A
Temperature		○	○
Analyzer	Trend	○	○
	Change time	○	○
Capacity		×	○
Data record		8MB	8MB
PC Interface		Bluetooth	Bluetooth
External Interface		Mobile App	Mobile App
Auto Hold		○	○
Auto Record		○	○

Battery Quality Analyzer

TEKON® 960

To prevent faults or quality issues in critical battery back-up applications caused by defects in stationary batteries, TEKON960 battery quality analyzer enables the user to diagnose and evaluate the performance and the degree of ageing by testing the conditions of individual batteries (500V max) in type of cell, module or pack.

TEKON960 can handle virtually all battery testing (e.g. aged status of battery under test and the condition of a power system) in systems that use high-voltage battery packs, such as ESS, EV, HEV and PV as well as UPS.

Features

- Measures internal resistance of 500V max of batteries
- Measures voltages at battery (DC1000V)
- Measures voltage of UPS (AC600V)
- Measures ripple voltage, current and temperature
- Diagnoses ageing of battery and predicts its use life (to determine timing for replacement)
- Can conduct history management of battery using 8MB memory
- Auto Hold and Data Storage
- Prints out measurement data in reports
- Transmits measurement data to remote locations (e-mail, server) using Mobile App

General specifications

Power (battery)	7.2V/5.2Ah Li-ion, 12V/2.5A DC adaptor
Data storage	Micro SD Card (8GB)
Communication	USB(Bluetooth)
LCD display	1024x600 pixels, 7" TFT with TSP
Operating temp/ humidity	0°C ~ 50°C, RH 85% max
Storage temp/ humidity	-20°C ~ 60°C, RH 85% max
Compliant standards	IEC 61010-1 CAT IV 600V, CAT III 1000V Pollution Degree 2, IEC 61010-2-030, IEC 61010-031, IEC 61326, EN 50160, IEC 61000-4-30 Class S, IEC 61000-4-15, IEC 61000-4-7
Dimension	240(L)×160(W)×65(H) mm
Weight	900g
Case Color	Black

Electrical Specifications

Measurement of Resistance (Auto/Manual)			
Range	Resolution	Measurable current	Accuracy
3mΩ	1uΩ	100mA	±1.0%rdg±10dgts
30mΩ	10uΩ	100mA	±0.8%rdg±10dgts
300mΩ	100uΩ	10mA	
3Ω	1mΩ	1mA	
30Ω	10mΩ	0.1mA	
300Ω	100mΩ	0.1mA	
3KΩ (Optional)	1Ω	0.1mA	

DC/V (Auto/Manual)	
Range	5, 50, 500V, 1000V
Resolution	1mV
Accuracy	±0.5%rdg±5dgts

AC/V	
Range	0~600V
Resolution	100mV
Frequency	40Hz~100Hz
Accuracy	±0.75%rdg±10dgts

Ripple Voltage (Optional)	
Range	0~5V
Resolution	1mV
Frequency	40Hz~10KHz
Accuracy	±5.0%rdg±10dgts

Measurement of Temperature	
Range	-10°C ~ 100°C
Resolution	0.1°C
Accuracy	±1°C+2dgts

Measurement of Humidity	
Range	0 ~ 100%RH
Resolution	1%RH
Accuracy	±2%(20~80%RH)

DC Current	
Range	4, 40, 400A, 1000A
Resolution	1mA
Accuracy	±0.5%rdg±5dgts (+CT Tolerance)

AC Current	
Range	4, 40, 400A, 1000A
Resolution	1mA
Accuracy	±0.75%rdg±10dgts (+CT Tolerance)

Accessories

Standard	Pin-type Kelvin Probe, Test Lead, Li-ion battery (7.2V/5.2Ah), 12V/2.5A adaptor, Zero-Bar, Portable bag, PC Program, User's Manual, Current Clamp(T130BE) / 960B
Optional	Current Clamp(T130BE), Current Clamp(T135BE), Kelvin Probe(clip), Kelvin Probe(Pin), Extensible Rod(500mm), Wireless printer

Comparison of Functions in TEKON960 Series

Function		TEKON960A	TEKON960B
Impedance	Scale	3mΩ~300Ω	3mΩ~3KΩ
	Accuracy	±0.8%	±0.8%
	Max Test Voltage	200V	500V
DC/V		0~500V	0~1000V
AC/V		0~500V	0~600V
Ripple Voltage		0~5V	0~5V
DC/A		4A/40A/400A/1000A	4A/40A/400A/1000A
AC/A		4A/40A/400A/1000A	4A/40A/400A/1000A
Temperature		○	○
Humidity		○	○
Analyzer	Trend	○	○
	Change time	○	○
Data record		8MB	8MB
PC Interface		USB(Bluetooth)	USB(Bluetooth)
External Interface		Mobile App	Mobile App
Auto Hold		○	○
Auto Record		○	○

Energy Storage System Battery Quality Analyzer

TEKON® 970

To prevent faults or quality issues in critical battery back-up applications caused by defects in stationary batteries, TEKON970 ESS(Energy Storage System) Battery Quality Analyzer enables the user to diagnose and evaluate the performance and the degree of ageing by testing the conditions of individual batteries (1500V max) in type of cell, module or pack.

TEKON970 can handle virtually all battery testing (e.g. aged status of battery under test and the condition of a power system) in systems that use high-voltage battery packs, such as ESS, EV, HEV and PV as well as UPS.

Features

- Measures internal resistance of 1500V max of batteries
- Measures voltages at battery (DC1500V)
- Measures voltage of UPS (AC1000V)
- Measures ripple voltage, current and temperature
- Diagnoses ageing of battery and predicts its use life (to determine timing for replacement)
- Can conduct history management of battery using 8MB memory
- Auto Hold and Data Storage
- Prints out measurement data in reports
- Transmits measurement data to remote locations (e-mail, server) using Mobile App

General Specifications

Power (battery)	7.2V/5.2Ah Li-ion, 12V/2.5A DC adaptor
Data storage	Micro SD Card (8GB)
Communication	USB(Bluetooth)
LCD display	1024x600 pixels, 7" TFT with TSP
Operating temp/ humidity	0°C ~ 50°C, RH 85% max
Storage temp/ humidity	-20°C ~ 60°C, RH 85% max
Compliant standards	IEC 61010-1 CAT IV 600V, CAT III 1000V Pollution Degree 2, IEC 61010-2-030, IEC 61010-031, IEC 61326, EN 50160, IEC 61000-4-30 Class S, IEC 61000-4-15, IEC 61000-4-7
Dimension	270(L)×246(W)×124(H) mm
Weight	3.0kg
Case Color	Orange(Yellow, Black)

Accessories

Standard	Pin-type Kelvin Probe, Test Lead, Li-ion battery (7.2V/5.2Ah), 12V/2.5A adaptor, Zero-Bar, Portable bag, PC Program, User's Manual, Current Clamp(T130BE)
Optional	Current Clamp(T130BE), Current Clamp(T135BE), Kelvin Probe(clip), Kelvin Probe(Pin), Extensible Rod(500mm)

Electrical Specifications

Measurement of Resistance (Auto/Manual)

Range	Resolution	Measurable current	Accuracy
3mΩ	1uΩ	100mA	±1.0%rdg±10dgts
30mΩ	10uΩ	100mA	±0.8%rdg±10dgts
300mΩ	100uΩ	10mA	
3Ω	1mΩ	1mA	
30Ω	10mΩ	0.1mA	
300Ω	100mΩ	0.1mA	
3KΩ(Option)	1Ω	0.1mA	

DC/V (Auto/Manual)

Range	5, 50, 500V, 1500V
Resolution	1mV
Accuracy	±0.5%rdg±5dgts

AC/V

Range	0~1000V
Resolution	100mV
Frequency	40Hz~100Hz
Accuracy	±0.75%rdg±10dgts

Ripple Voltage (Optional)

Range	0~5V
Resolution	1mV
Frequency	40Hz~10KHz
Accuracy	±5.0%rdg±10dgts

Measurement of Temperature

Range	-10°C ~ 100°C
Resolution	0.1°C
Accuracy	±1°C+2dgts

Measurement of Humidity

Range	0 ~ 100%RH
Resolution	1%RH
Accuracy	±2%(20~80%RH)

DC Current

Range	4, 40, 400A, 1000A
Resolution	1mA
Accuracy	±0.5%rdg±5dgts (+CT Tolerance)

AC Current

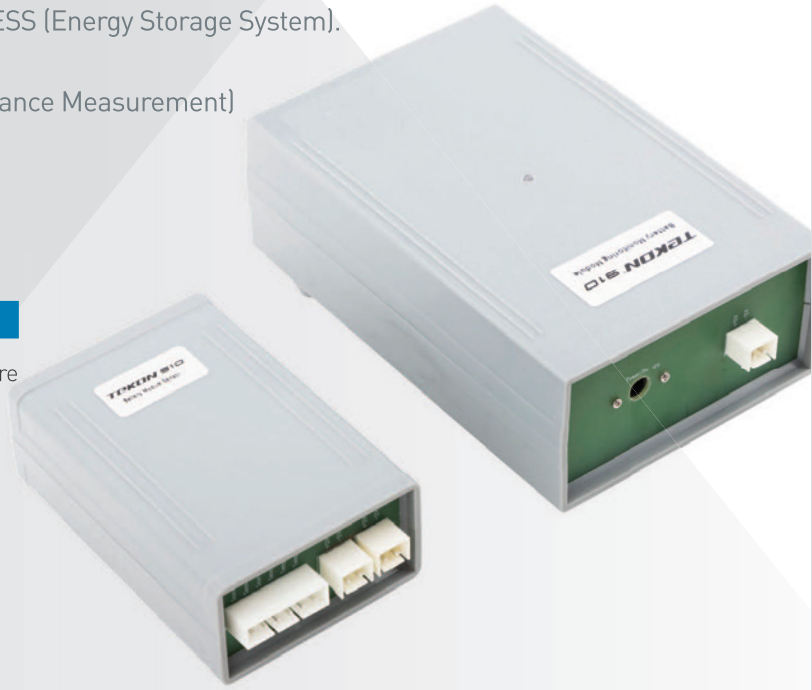
Range	4, 40, 400A, 1000A
Resolution	1mA
Accuracy	±0.75%rdg±10dgts (+CT Tolerance)

Display

ESS Battery Module Monitoring System

TEKON®910

- This battery module monitoring system consists of an "ESS Battery Module Sensor" and an "ESS Battery Monitoring Module".
- Real-time measurement of battery internal resistance, voltage, and temperature of cells and modules used in ESS (energy storage devices).
- Battery deterioration, trend analysis, and replacement time prediction by measuring the internal resistance of cells and modules applied to ESS (Energy Storage System).
- Application criteria: KS C IEC 61960-3:2017
  (Lithium Battery Alternating Current Internal Resistance Measurement)



ESS Battery Module Sensor

General specification

- Measurement factors : internal resistance, voltage, temperature
- Battery voltage : 6V to 100V Max
- Sampling time : user settings (3S to 1H)
- Drive power : monitoring module power, battery power
- Communication : wifi
- Product size : 67mm(L) × 67mm(W) × 30mm(H)
- Product weight : 120g

TEKON910 Battery Monitoring Module

General specification

- Key features : Dada Logging, user settings
- Connection modules : 50 (Max)
- Data Storage : SD Memory (8GB)
- Real Time Clock
- Settings and Data Down : PC, mobile phone
- Drive power : 12V/2.5A (AC Adapter), battery power
- Communication : wifi
- Product size : 160mm(L) × 90mm(W) × 30mm(H)
- Product weight : 180g

PC Program

- Battery module sensor settings
- Save Data

Electrical Specifications

Internal Resistance			
Range	Resolution	Current	Accuracy
0 ~ 300mΩ	100uΩ	10mA	±0.8%rdg+10dgts

Battery Voltage			
Range	Max Test	Resolution	Accuracy
0~100V	±100	100mV	±0.5%rdg+5dgts

Temperature(NTC Sensor)	
Range	-20°C ~ 100°C
Accuracy	- ±1.0°C + 3dgts(10 ~ 60°C)

Accessories

Basic	12V/2.5A Adapter, Test Clip Assembly(Kelvin), Test Cable Assembly, Power Cable, PC Program

Network Cable Detector

TEKON®100

TEKON100 provides clear tracing and locating of network cables on active network Max 72V DC, it's more effectively for complicated work environment where various communication cables are located at communication facilities, transmission equipments, base stations switching equipments and hidden within bundles. TEKON100 finds the cables what others can't.

Features

- Tracing and locating of telecommunication cables on active network Max 72V DC
- Tracing and locating of telecommunication cables for check, maintenance work and installation
- Superior for tracing and locating cables hidden in walls, ceilings, floors and in bundles
- The best device to detect safely and effectively on active networks
- It's one pair equipped with Transmitter and Receiver, 1channel and multichannel(3ch)
- Signal indicator LEDs with buzzer detect and identify clearly one cable that is bundled with others

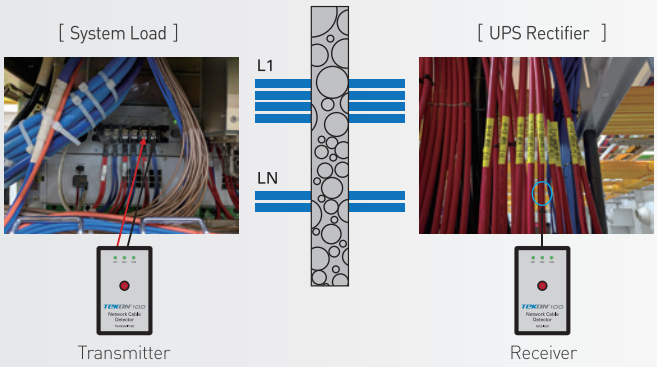
General Specification

	Transmitter	Receiver
Power(Battery)	AA×4(6V)	AA×4(6V)
Size	145×90×33mm	145×90×33mm
Weight	240g	240g

Electrical Specification

	Transmitter	Receiver
Channel	1ch, 3ch	1ch, 3ch
Protection Voltage	Max72Vdc	Max72Vdc
Output Signal	1kHz	
Signal Out Display		LED
Detection Display	LED + Buzzer	
Detection Distance		0~50m
Life Time	8Hour	10Hour
Low Bat	LED	LED

TEKON100 Application



Insulation Resistance Meter

TEKON® 200

The TEKON200 insulation resistance meter is a 5kV digital insulation meter optimized for testing high voltage equipment such as switch gears, motors, generators and cables, which can be tested at the full range of test voltages specified in IEEE 43-2000.
The TEKON200 maximizes user convenience by applying the 7" TSP, especially since it stores measurement data and becomes a PC interface (USB), it is dedicated to preventing and predictive maintenance of high-pressure systems that can proactively identify potential equipment failures.

Features

- For measuring the insulation resistance of high voltage facilities (transformers,cables, motors, etc.)
- Test voltage 250V to 5kV that can be generated widely
- Extensive measurement of up to 10 TΩ
- Maximum PI (polar index), DAR (genetic absorption ratio) automatic calculation/display
- Measurement data memory (8GB, SD)
- 7" TFT screen LCD application
- Measurement data reporter output
- PC Interface(USB)

General Specifications

Power (Battery)	7.2V/5.2Ah Li-Ion, 12V/2.5A DC Adapter
Data Record	Micro SD card(8GB)
PC Interface	USB
LCD Display	1024x600 pixel, 7" TFT with TSP
Operating temp/ humidity	0°C ~ 50°C, RH 85% or less
Storage temp/ humidity	-20°C ~ 60°C, RH 85% or less
Compliant standards	IEC 61010-1 CAT IV 300V, CAT III 600V Pollution Degree 2, IEC 61010-2-030, IEC 61010-031, IEC 61326, EN 50160, IEC 61000-4-30 Class S, IEC 61000-4-15, IEC 61000-4-7
Size	240(L)×198(W)×109(H) mm
Weight	900g

Accessories

Basic	Test Lead, Li-Ion(7.2V/5.2Ah), 12V/2.5A Adapter, USB Cable, PC Program

Electrical Specifications

Test Voltage	Range	Accuracy(± reading)
250V	< 250kΩ 250kΩ~5GΩ 5GΩ~50GΩ > 50GΩ	non-specified 5% 20% non-specified
500V	< 500kΩ 500kΩ~10GΩ 10GΩ~100GΩ > 100GΩ	non-specified 5% 20% non-specified
1000V	< 1MΩ 1MΩ~20GΩ 20GΩ~200GΩ > 200GΩ	non-specified 5% 20% non-specified
2500V	< 2.5MΩ 2.5MΩ~50GΩ 50GΩ~500GΩ > 500GΩ	non-specified 5% 20% non-specified
5000V	< 5MΩ 5MΩ~100GΩ 100GΩ~1TΩ > 1TΩ	non-specified 5% 20% non-specified
Test Voltage Accuracy	1mA Load current -0%, +10%	
Leakage current	1nA ~ 2mA	±(5% + 2nA)
Voltage measurement (circuit warning in operation)	30V~660V AC/DC, 50/60Hz	±(15% + 2V)

AC Voltage, Current Generator

TEKON® 300

The TEKON300 AC Voltage, Current generator is used to adjust or inspect the alternating current meter at the production site or laboratory.

Product Configuration and Structure

- Output screen : 4 digits, FND
- Power On/Off : Power ON/OFF
- AC Voltage output : 5V ~ 500V
- AC Current output : 1mA ~ 10A
- AC Current(CT) : X1, X2, X5
- Functional selection(MENU) : Encoder switch for voltage and current selection
- Output adjustment(ADJ) : knob for output value correction

General Specifications

- Display : 4 Digits FND
- Power : AC 220V (50Hz/60Hz)
- Operating temperature : 0°C to 50°C, 80% RH or less
- Storage temperature and humidity range -10°C to 60°C, 80%RH or less
- Product size : 360mm(L) × 435mm(W) × 177mm(H)
- Weight of product : 11kg

Accessories

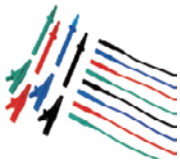
Basic	Power Code, Test Leads, USB Cable

Electrical Specifications

Output voltage	
AC Voltage	5V ~ 500V
Resolution	1mV ~ 100mV
Accuracy	±(0.2% of output)+5digits
Frequency	60Hz
Accuracy	±0.05%

Output current	
AC Current	1mA ~ 10A
Resolution	1μA ~ 10mA
Accuracy	±(0.20% of output)+5digits
Frequency	60Hz
Accuracy	±0.05%
CT output	X1, X2, X5

Accessory

Product	Product Name	Remarks
	TP9 Test Lead	TEKON550, 950, 960
	TP10 Test Lead	TEKON560, 570, 610, 650, 700, 800
	TP11 TTR Cable Assembly	TEKON600, 610
	TKP01-400 Kelvin Probe(Pin)	TEKON950, 960, 650, 700, 800
	TKP02-400 Kelvin Probe(Clip)	TEKON950, 960, 650, 700, 800
	TKP01-1000 Kelvin Probe(Pin)	TEKON970

Product	Product Name	Remarks
	TKP02-1000 Kelvin Probe(Clip)	TEKON970
	KP03 Extensible Rod(500mm)	TEKON950, 960, 970
	KP04 Zero Bar	TEKON950, 960, 970, 650, 700, 800
	KP05 Zero Bar	TEKON950, 960, 970, 650, 700, 800
	T20A AC Adapter(12V/1A)	TEKON550
	T25A AC Adapter(12V/2.5A)	TEKON560, 570, 600, 610, 650, 700, 800, 950, 960, 970

Accessory

Product	Product Name	Remarks
	TB60A Li-Ion Battery(7.2V/5.2Ah)	TEKON570, 960
	TB60B Li-Ion Battery(7.2V/5.2Ah)	TEKON560, 600, 610, 650, 700, 800, 950, 970
	TB61B Ni-MH Battery(7.2V/2.7Ah)	
	T200G Rogowski Coil(100mm) 5000A	TEKON560, 570, 610, 650, 700, 800
	T300G Rogowski Coil(200mm) 5000A	TEKON560, 570, 610, 650, 700, 800
	T108 Current Clamp(8mm) 5A	TEKON560, 570, 610, 650, 700, 800

Product	Product Name	Remarks
	T130 Current Clamp(30mm) 60A	TEKON560, 570, 610, 650, 700, 800
	T168B Current Clamp(68mm) 1000A	TEKON550
	MS3302 Current Clamp(40/400A)	TEKON550
	T130BE Current Clamp(AC/DC) 60A	TEKON560, 570, 600, 610, 650, 700, 800, 950, 960, 970
	T135BE Current Clamp(AC/DC) 1000A	TEKON560, 570, 600, 610, 650, 700, 800, 950, 960, 970
	T40 Carry Bag	TEKON550
	T50A, B	TEKON560, 570, 600, 610, 650, 700, 800, 950, 960, 970

Power Quality Analyzer

TEKON 550
TEKON 560
TEKON 570

Transformer Turn To Ratio

TEKON 600

Transformer Analyzer

TEKON 610

Energy Storage System Diagnostic

TEKON 650

Industrial Robot Diagnostic

TEKON 700

EV/HEV Diagnostic

TEKON 800

Battery Quality Analyzer

TEKON 950
TEKON 960

Energy Storage System Battery Quality Analyzer

TEKON 970

Network Cable Detector

TEKON 100

ESS Battery Module Monitoring System

TEKON 910

Insulation Resistance Meter

TEKON 200

AC Voltage Current Generator

TEKON 300

TEKON®

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