e-IsoTech™ Man

SemiAutomatic machine for Dielectric Strength test and Insulation Resistance test for EV car's components

e-IsoTech™ is a machine designed for the mass production safety test of automotive components installed on hybrid and electric cars.

e-IsoTech™ is a compact end easy solution, that allows an integration into a production line with manual loading and unloading of the products.

MAIN FEATURES:

- Built-in MQTT 5.0 client for Industry 4.0 conformance
- Quick and precise measurement of insulation resistance, dielectric strength and micro discharges
- Check spring probe connection to ensure the real measure of insulation resistance
- High Voltage Matrix to perform separate test between different points of the product under test
- Fast discharge of the product at the end of the test
- Real time graphs during the measures
- Interchangeable fixture to retool the station for different products
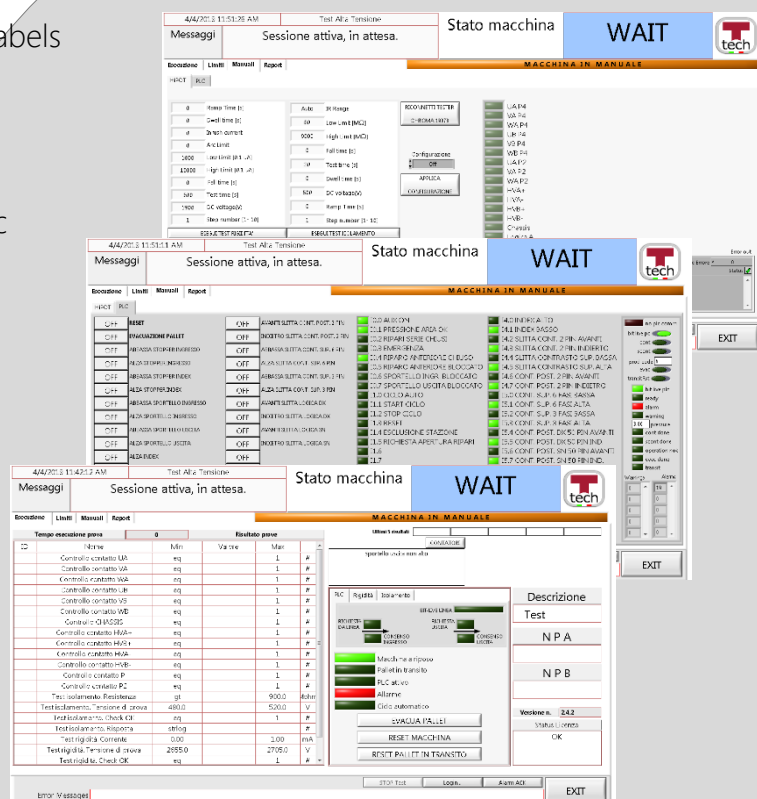- Database for traceability

TECHNICAL SPECIFICATIONS

Specification	Details	Notes
Dielectric Strength	Output Voltage	AC : 0.1 ~ 5kV and DC : 0.1 ~ 6kV
	Voltage Accuracy and resolution	1% + 5 counts, 2V
	Current Cut Off	AC : 0.1~20 mA, DC : 0.01~5 mA
	Current Accuracy and resolution	1.5% + 5 counts, AC : 1µA, DC : 0.1µA
	Frequency	50/60 Hz
Insulation Resistance	Output Voltage	DC : 50 ~ 1000V
	Voltage Accuracy and resolution	5% + 5 counts, 2V
	Range of measurement	0.1MΩ -50GΩ
	Resistance Accuracy	≥ 500V : 1MΩ -1000MΩ±(4% + 5 counts)
		1GΩ -10GΩ ± (7% + 5 counts)
		10GΩ-50GΩ ± (12% + 5 counts)
		< 500V : 0.1MΩ -1000MΩ ± (10% + 5 counts)
Micro Discharge (Arc Detection)	Detection Current	AC : 1mA ~ 15mA, DC : 1mA ~ 5mA
	Minimum Pulse Width	10 µs
Dimensions	WxHxD : 600 x 2000 x 1000 mm	Weight: 200 Kg

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SOFTWARE FEATURES

- Applicative software with easy user interface displaying test sequence with limits and measured values, pass-fail indication for each step with different background color

- Manual operation panel and test sequence editor under password

- Multi-language interface, with user editable labels and messages

- Customizable test sequence to perform different tests configurations

- Test time programmable from 0.1 s to 999 sec

- Auto test of the instrument that performs the measurements of insulation and strength

- Test Report saved for each part

- Database for Traceability (MySQL Database; Tool for Statistic Analysis)

APPLICATIONS

- Mass production of Electric Vehicles components, Battery management system (BMS), Electric Motor, HV Battery Junction Box (eBOX), Coils of actuators for Automatic Gearbox

CONFIGURATIONS AND OPTIONS

Product Code	Description
e-IsoTech-M	Semiautomatic machine for Strength test and Insulation test for hybrid EV car's components
e-IsoTech-MM	Semiautomatic machine for Strength test and Insulation test for hybrid EV car's components with High Voltage matrix