





SURGE, SAFETY AND FUNCTIONAL END LINE TESTING FOR INDUCTION MOTORS

MotorTest Line is a hardware and software system for end line testing of electric asynchronous and dc motors



Main features

High voltage test Insulation resistance test Ohmic resistance test with temperature compensation Functional test Surge Test e Winding polarity control Partial Discharge Automatic setting of star or delta circuit Supply from the Grid or from internal variator or inverter based power supply Computer and LabVIEW Based MotorTEST-Line software Data acquisition from instruments Automatic setting of parameters and thresholds



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Dielectric rigidity (high voltage) test vs ground

Tensione di prova regolabile : 0 - 3000 Vac, classe 2 Limit current: 0.2 to 16 mA Class 3

Insulation Resistance Test

Static test voltage: 500 Vdc Measuring range: 2 to 200 M-ohm

Calibration check: no. 2 sockets

Option: Test voltage adjustable 0 - 800Vdc (analog signal 0-10V)

Test of the ohmic resistance

Range from 0.05 to 500 Ohm, Class 0.5 Temperature compensation from 0 to 50 ° C, class 1

Surge tests (control of coil shorts)

Test voltage adjustable: 500 - 2500 Vp, class 2 Limit current: 0.2 to 16 mA, Class 3 Measuring range: 0.3 to 3000 mH, class 1

- (Option) Reverse winding control (start-end) during the Surge Test (only for motors without jumpers)
- (Option) Test of partial discharge (PD or Crown Effect) during the Surge test with the number of micro-discharges, range from 0 to 250

Functional Test (only with sinusoidal supply at 50 or 60 Hz)

Instrument with display backlit LCD, 10000 points (4 digits), digit height 12 mm

Voltage measurement range: 80 to 500 Vac three-phase, 50 to 290 single-phase, class 0.2



Current measurement: Direct max 16 A

class 0.2, or through CT Frequency: 47 to 63 Hz + / - 0.15 Hz

Power: accuracy class 0.5

Power supply: 230 Vac 50 Hz

Serial communication with PC and software Intesys MotorTEST-Line

Reading update: 1.1 seconds

Front size 96x96 mm

Functional test with motors driven by inverters

Measurement of power, voltage and current through reading of the parameters of the inverter through digital communication port

Motor power supply

Star or delta connection

The system provides for the connection of the

motor with both jumpers or without any

jumper; the connection of the motor in star or

delta is performed automatically by the system according to the parameters

Types of power

The power supply of the motor is independent and this allows to work in different ways:

• direct supply from the mains

- power supply from motorized voltage variator controlled by the software
- with three-phase AC solid state power supply which performs 3 functions: that of regulator, stabilizer and with the frequency converter 50/60 Hz
- with inverter for variable speed motors. The inverter supply is already integrated in our hardware and software MotorTEST-Line



19 " control rack, 32 units, on wheels. The equipment is made with modular technology and functional modules (for easy maintenance). **Output** for the connection to the motor under test on industrial connector

Output for connection to the PLC line control on industrial connector and relay contacts. The measurement and control section is powered at 230Vac buffered by an UPS to avoid shutdowns

MotorTEST-Line software realized in LabVIEW, easy to use with the possibility of presetting of the repetitive control data (eg. the measurement tolerances and the voltages and currents Dielectric Resistance).

- The tolerances can be set as desired
- Save of **statistical data** for each test run (export to Excel, Access, Lotus, etc.).
- Save of the Lot Test Certificate

The system comes with CE Certificate of conformity, Certificate of Calibration, Software

and Operating Manual in Italian and/or English

Testing stations with protection, connectors and quick-connecting terminals

Single or double test station with safe protection, with single or double sliding cover, security level 4, motor connection terminals with



push-button, OK and KO lamps and autostart signal generated by the closure of protection. Multi-pole fast connectors for

quick connection to motor terminal plug.





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