## N1/NCP.02

### **OPTIONS**

### According to the various types:

- 42-column printer for printing detected values and graphs, combined with product code
- Safety lamps to signal machine status
- Variable frequency power supply or different from the machine power supply

### **GENERAL FEATURES**

- Industrial Panel PC
- 32GB or higher removable solid state HD
- 15" TFT display with touch-screen
- Built-in membrane keyboard
- WINDOWS 7 EMBEDDED
- · Possibility of TEAM VIEWER remote assistance
- · 42 column printer for test receipt
- Selftest
- · Data archive and parameterization under password
- · Production batch and serial number management
- Results recording on DATA-BASE with filters search in Excel or Access format
- Indication of partial results on the monitor and final via LED indicators and a reject sounder
- STOP CYCLE button for interruption testing or cancellation of the outcome
- Interface to line PLC
- · Selectable multilingual SW

### **OTHER MACHINES**

### (see specific documentation)



Z3/NCP

Final test for motors or similar. Safety tests (ground efficiency, insulation, dielectric strength and dispersion) and functional tests.



O16/A Die-cast rotors testing. Detection of all defects: interruption of bars, blowholes, porosity, angle of inclination, quality of aluminum, sticking of bars/iron, etc. Various models depending on the size.



H3/CPS Multifunctional tester for laboratory and service: SURGE tests, electrical resistance, insulation resistance, rigidity, IP, DAR, partial discharges, rotor tests, etc.

# **N1/NCP.02** MAGNETIC LEAKAGE IN THE STATOR PACK



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**N1** 

**SERIES** 



Computerized equipment for the comparative analysis of magnetic leakage in the stator pack of electric motors.



In an electric motor, the efficiency is higher when the losses are reduced, both in copper and in iron. To obtain the best compromise results between the highest possible yield and the cost-effectiveness of the product, it is necessary to keep well under control the extent and the causes that determine these losses.



### N1/NCP.02

By checking against a sample stator pack, it's possible to detect the increase in losses due to the various processing stages:

- Losses due to shearing for the breakage of the crystalline system that makes up the sheet.
- Losses due to the short circuit between laminations for the burr generated by the blanking, especially for the reduced sharpening of the dies.
- Losses caused by the various packing systems, such as: stapling, riveting, nailing, welding, buttoning, etc.
- Reduced surface insulation of the laminations, with a consequent increase of interlamellar eddy currents.
- · Control of the effectiveness of the heat treatment of the package, to facilitate the orientation of the crystals and to improve interlamellar insulation.

The range of stators allowed by the standard equipment is extremely high: from a minimum hole of 50 mm to a maximum external diameter of 250 mm and a maximum height of 200 mm (other dimensions on request).



### **MAIN FEATURES**

- Quick measurement
- Very wide range of stators
- · Possibility of installation in automatic lines

### VALUES THAT CAN BE SET BY PROGRAM

- Package height
- Thickness of the crown
- Induction value

### **OPERATIONS PERFORMED**

The machine calculates the voltage value to obtain the desired induction. Set this value you get:

- The total iron losses W and W/kg
- The hysteresis loop

If the allowed tolerance is set, the result will be automatically good or rejected.

The machine operates by obtaining the test data from its own database, that is set manually, and then comparing them with the measured data. The machine provides:

- Calculation of the section and induced voltage values deriving from the set flux.
- · Measurement of the current supplied, of the actual applied voltage and magnitude and phase of the induced voltage.
- Calculation of the weight of the crown to indicate the loss W/kg
- Pass/fail comparison with database data
- Graphic indication of the measured quantities and of the hysteresis cycle
- Magnetization curve
- Measurement time 1" plus loading and unloading



Test result: GO









Ongoing test