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ELECTROTECHNICS AND MECHANICS OF STRUCTURES

R&D EXPERTISE AT THE SERVICE OF INDUSTRY

FIELD EXPERTISE | **TESTING AND MEASUREMENTS** | **NUMERICAL SIMULATIONS** | **PROTOTYPED PRODUCT** | **MARKET-READY PRODUCT**

OPERATIONS & MAINTENANCE SUPPORT

Evaluating energy efficiency of a fleet of electrical motors

YOUR STAKES

- **Measure the energy performance of your remote electric motor fleet**
- **Evaluate potential energy savings**
- **Evaluate eco-efficiency solutions adapted to your engines**

OUR SOLUTION

Called Motorbox, this innovative tool for energy efficiency diagnosis of an electric motor fleet uses a measurement system developed by EDF R&D.

This patented and easy-to-use tool allows the use of a communicating current clamp to remotely monitor the consumption of each motor and proposes energy optimization solutions via dedicated software and the support of our experts.

EDF can, thus, offer its customers a remote spot audit of an engine fleet or monitoring over time of the performance of an installation (consumption assessment, proposals of eco-efficiency solutions).

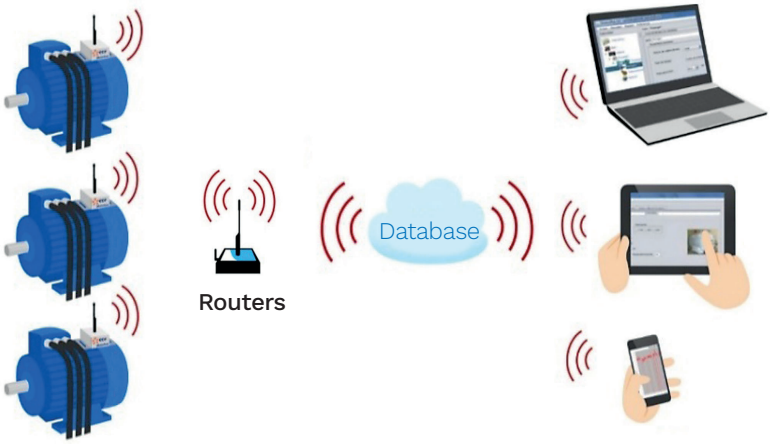
Several levels of service possible:

- Digital, with remote assistance
- Full technical assistance package, with expert personnel visits

Kit installation

SECTORS OF APPLICATION

- Industry in all sectors (automotive, food industry, etc.) with a fleet of electric motors



Evaluating the energy efficiency of a electrical motor fleet

KEY FIGURES:

- 70% of industrial electricity consumption corresponds to the consumption of electric motors, and 63% of current motors can be optimized (source CEREN)
- Easy installation: 5 min per engine
- Remote monitoring for a one-off audit (about 2 weeks) or over time (more than 1 year)
- Calculations and report editing via a proprietary EDF R&D software

AN INNOVATIVE SOLUTION

This is a non-intrusive measurement and optimization system fully developed by EDF R&D.

It contains an algorithm integrated into the system which allows power consumption to be calculated from the current of a single phase on the motor.

It allows:

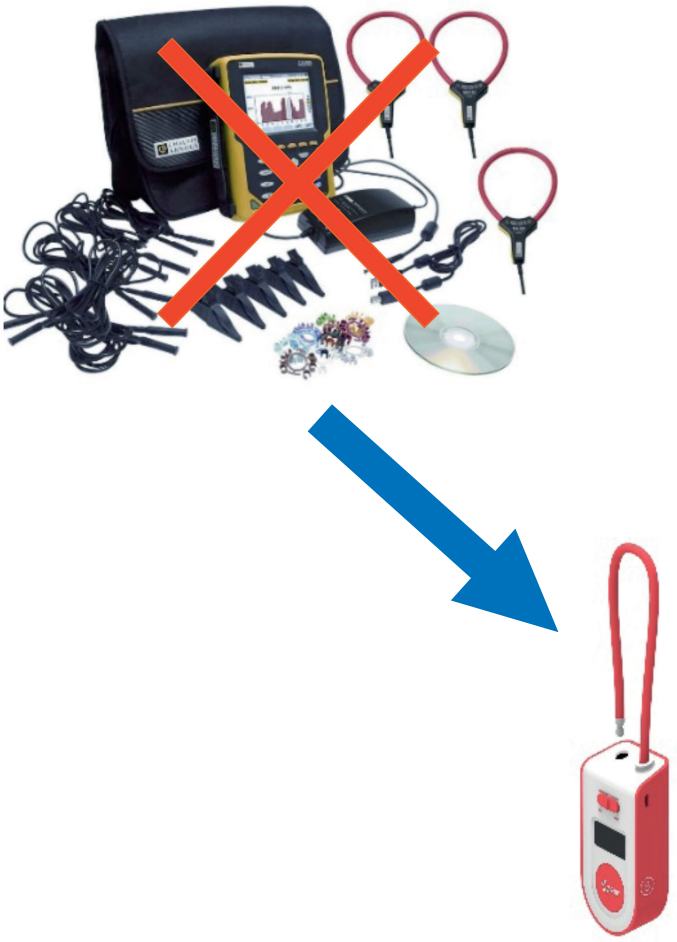
1 - to simultaneously audit a large number of engines simply and quickly

2 - map your fleet of electric motors, and thus better understand how they work

3 - assess gains and investments for each engine

This offer includes software support at each stage of the audit:

- Software to assist in the selection of good quality motors
- Software for automatic data processing:
  - Proposal of technical solutions to reduce consumption
  - Evaluation of the profitability of each solution (investment required, gains and IRR)
- Software for automatic editing and sending of reports



SATISFIED CLIENTS

- Perfesco
- L'Oréal, Calcia, SNCF, Crystal Union

A RICH HISTORY

- Used for 3 years by the sales department, the "energy efficiency diagnosis" offer is offered to industrial customers and as part of new offers created by the Marketing Division.
- For example, this solution was used by the EDF subsidiary, Perfesco, in 2017 as part of an offer to renew a fleet of more than 300 engines at a major cement company.

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