MotorMaster+ International

The U.S. Department of Energy’s (DOE’s) Industrial Technologies Program (ITP) offers a collection of software tools to help you identify and analyze energy system savings opportunities within your plant or facility. As part of ITP’s Tool Suite, MotorMaster+ International enables you to evaluate the energy efficiency opportunities of your motor-driven system using an unbiased approach. This, in turn, could lead to further private sector detailed engineering analyses and design specifications with the goal of implementing identified energy-saving opportunities.

MotorMaster+ International helps international plants manage their motor inventory and make cost-effective decisions when repairing and replacing motor systems.

Resources
To download MotorMaster+ International, other free software tools, or to participate in an online tool forum, visit www.eere.energy.gov/industry/bestpractices.

Improve Motor System Performance for a Broader Range of Motors with MotorMaster+ International

- Are your plant motor systems running at optimal energy efficiency?
- Do you know how to cost-effectively determine whether to repair or replace a motor?
- Do you need a replacement for a metric (IEC) motor installed on your imported equipment?
- Does your overseas subsidiary need assistance in identifying and purchasing high or improved efficiency motors?

Available at no charge, MotorMaster+ International is designed to support motor systems improvement planning at industrial facilities by identifying the most cost-effective choice when deciding to repair or replace older motor models. MotorMaster+ International includes many of the same capabilities and features as MotorMaster+, but also allows you to evaluate repair/replacement options for a broader range of motors, including those tested under the Institute of Electrical and Electronic Engineers (IEEE) standard, and those tested using the International Electrotechnical Commission (IEC) methodology.

MotorMaster+ International has multi-language capability (with the current release supporting Spanish, French, and English) and allows users to conduct economic analyses using various currencies. The software also allows users to insert applicable country or regional motor full-load minimum efficiency standards and country-specific motor repair and installation cost defaults.

Figure 1: MotorMaster+ International offers multi-language capability. Currently, it supports Spanish, French, and English.
Tool Description

MotorMaster+ International displays motor performance and technical data that can help optimize a drive system. Data is available for both 60 hertz National Electrical Manufacturers Association (NEMA) and 50 Hz metric or IEC motors. The current version of the software contains manufacturer’s databases for over 25,000 NEMA motors and over 7,200 IEC motors. Full- and part-load efficiency values are taken in accordance with either the NEMA IEEE 112 or IEC 60034-2 testing standards. The software also displays minimum full-load efficiency standards for labeling schemes adopted by NEMA and the European Committee of Manufacturers of Electrical Machines and Power Electronics.

MotorMaster+ International determines energy and cost savings for motor selection decisions while taking into account such variables as motor efficiency at its load point, purchase price, energy costs, operating hours, load factor, and utility rebates. The software tool’s analysis features include selection of the “best available” motor for a given application and determination of energy savings, demand reductions, dollar savings, greenhouse gas emission reductions, simple payback, cash flows, and after-tax rate-of-return on investment.

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A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, DOE’s Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

MotorMaster+ International will be a part of the upcoming Energy Management Toolkit, which will act as the primary delivery mechanism for additional tool access from the Energy Management Portal.