Which trends offer opportunities on the European electric motors market?

Despite the economic crisis, which still can be felt in Europe, the electric motors market may offer opportunities to exporters from developing countries. The main trend in the electric motor market is energy efficiency, mainly as a result of the European Minimum Energy Performance Standards (MEPS) scheme. Some exporters from developing countries may find it hard to enter the European market without meeting the existing and forthcoming MEPS requirements.

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1. Availability gained in importance

In recent years, electric motor manufacturers have rationalised and reduced both their stock profiles and their stock levels. Distributors have responded to this development by widening their range of stock products and increasing their stock levels. As lead time is one of the key drivers for many of their customers, distributors have invested considerably in their inventory service level.

Tip:

- Exporters from developing countries must be prepared to be transparent and to communicate quickly with distributors. Participation in an online inventory monitoring system or even consignment stocking will help to keep inventories in the supply chain as low as possible.

2. Industry consolidation continues

Over the past 20 years, the electric motors industry has changed as a result of several acquisitions. This change has not only involved production facilities in Eastern and Central European countries (acquisitions by virtually all multinational producers), but also facility locations in other European countries. Among the latest acquisitions were the takeover of Baldor from the USA by ABB in 2011,
3. Trend toward earlier replacement

In many European countries, customers currently expect the average working life of an Alternating Current (AC) motor to be 12-15 years, including minor repairs. As a rule of thumb, smaller motors of less than 40 kilowatt (kW) are rarely repaired in the case of failure and are instead replaced by new motors.

The falling costs of new motors in recent decades have dramatically changed the size and viability of the motors now being repaired instead of replaced. In Ireland, for example, the repair/replace cut-off is around 90 kW for a major repair and 30-40 kW for a minor repair. Note that this cut-off depends on who is quoting; importers will replace at a lower kW, as their cost for a new motor will be relatively low.

Tip:
- The repair market may be a good target market for sales of motors below 40 kW. This market is mostly supplied by rewinders or electric equipment repair companies, but also by importers/distributors.

4. MEPS increases energy efficiency of electric motors

Much of the electricity generated in Europe is used to drive electric motors. It is therefore clear that a higher efficiency of electric motors can have a very large impact on energy consumption. To stimulate the development and use of efficient motors, the European Commission has set regulations for mandatory minimum efficiency standards for industrial electric motors, which are called the Minimum Energy Performance Standard (MEPS) scheme.

The efficiency scheme is being introduced in three stages between 2011 and 2017, covering single-speed; two-, four- or six-pole; three-phase; 50Hz or 50/60Hz; and squirrel-cage induction motors. These motors may have rated voltages of up to 1 kV and power outputs between 750 W and 375 kW.

The new scheme has prohibited the sale of motors below the International Efficiency 2 (IE2) standard (comparable to the former EFF1 standard) from June 2011 onwards. Only highly efficient IE3 motors will be allowed for certain smaller applications (in the range of 0.75-7.5 kW) from 2015 and for all applications from 2017. As an alternative, IE2 motors can be sold after 2015 if they are used together with a variable-speed drive (VSD).

Note that some other trends can also be identified. However, these trends have far less market impact than the energy efficiency issue. Two more technology trends worth mentioning are higher
Rotation per Minute (RPMs) offered, and increased sales of permanent magnet motors and motors with a growing number of control functions. Also new to the market are inverter-optimised motors, which allow better control than standard AC motors. However, these are not servos and are better characterised as hybrids.

Tips:

- The MEPS changes have made the launch of new brands into the market very difficult, which has a number of consequences:
- Only companies from developing countries that are able to respond to the trend of energy efficiency in electric motors have opportunities on the European market. Your motors should meet MEPS requirements and be equipped with efficient technologies, for example Direct Torque Control (DTC, motor flux optimisation).
- As an electric motor producer, it is essential to gain more up-to-date knowledge of applications and energy efficiency issues in the European market. Good and regular contact with your European customers may offer great insight.
- Exporters from developing countries must be prepared for the new efficiency schemes. In addition, the IE class and efficiency values need to be printed both on motor rating plates and in product documentation material.
- The motors offered to European importers should ideally be inverter rated, meaning that the motor will be compatible with any inverter. This rating sometimes requires the incorporated bearings to have electrical insulation coatings applied before sale.

5 . Growing transition toward electric vehicles

The AC motors industry is driven by the rising sales of electric vehicles, as more and more electric vehicles are produced and bought by consumers. The growing trend in electric vehicles is also caused by the increasing environmental consciousness and unstable oil prices. Governments in some European countries, such as the Netherlands, have introduced incentives to stimulate the sale of electric automobiles. The International Energy Agency (IEA) estimates that 80% of the total cars sold will be hybrid or electric cars by 2050.

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