

Dyneo® Drive Systems

Permanent Magnet Motors



LSRPM
0.75 to 300 kW - 375 to 5500 min⁻¹

The LSRPM series of motors has been developed using an IP55 IEC standard housing with aluminium frame. Strict compliance with IEC standards makes it simple to mount and integrate in a wide variety of machines.



PLSRPM
300 to 550 kW - 1500 to 3600 min⁻¹

The PLSRPM series of motors has been developed using an IP23 IEC standard housing. Just like the LSRPM, strict compliance with IEC standards makes it simple to mount and integrate.



HPM
30 to 270 kW

The HPM is a stator/rotor subassembly designed for manufacturers who wish to simplify, or even eliminate, mechanical transmissions in order to increase an installation's overall efficiency.

Geared Motors



250 to 23,000 N.m

Leroy-Somer offers a high-efficiency range of geared motors, the result of combining new generation 3000 range gearboxes with Dyneo® permanent magnet synchronous motors.

In addition to the energy savings delivered by the Dyneo® technology, the helical teeth gear technology can be used to obtain mechanical efficiency of more than 95%. This facilitates integration close to the drive shaft and therefore eliminates the need for intermediate devices (pinion, chain, belt pulley).

AC and PM Drives



Unidrive M
Drive Modules for applications up to 90 kW*

The Unidrive M drive module range is specifically designed for demanding industrial applications, providing exceptional levels of functionality, flexibility and performance. The motor control algorithm in Unidrive M drives has been qualified with Dyneo® motors to ensure optimal performance. Unidrive M drive modules are designed for easy integration into cabinets.

** 1.2 MW from mid 2014*

Powerdrive MD2
Drive modules & cabinets from 75 kW to 2.8 MW

The Powerdrive range is suitable for all environments and processes. The range includes compact drive modules for integration into a system, as wall mount drives or as a pre-engineered cabinet drive. The free standing cabinet drive integrates seamlessly into your site through its many options and add-on's.



www.emersonindustrial.com

© - This document is the property of Emerson, it can not be reproduced in any form without prior written authorization.
Emerson reserves the right to modify the design, technical specifications and dimensions of the products shown in this document.
The descriptions cannot in any way be considered contractual.

Moteurs Leroy-Somer SAS - RCS 338 567 258 ANGOUÛME - Capital de 65 800 512 €

The Emerson logo is a trademark and service mark of Emerson Electric Co. © 2013

EMERSON. CONSIDER IT SOLVED.™



**INCREASING PROCESS PERFORMANCE
&
ENERGY SAVING**

Variable speed permanent magnet drive solutions

Increasing process performance & Energy saving - Variable speed permanent magnet drive solutions

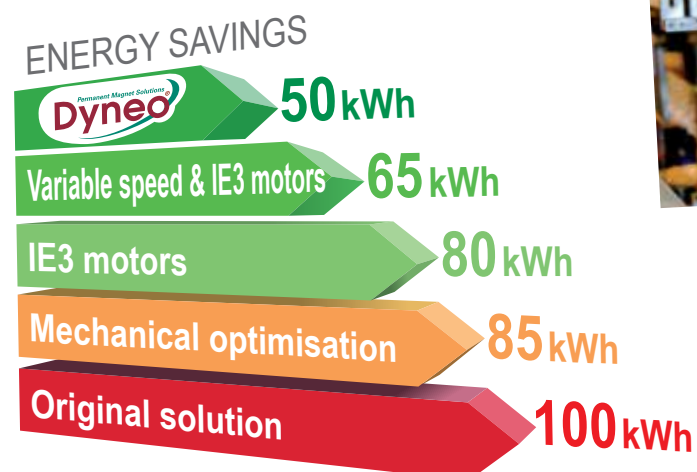
INNOVATION

Dyneo®, at the cutting edge of commercially available variable speed technologies, brings together all Leroy-Somer's permanent magnet solutions for drives and synchronous motors.

> Energy Savings

The use of variable speed and optimisation of mechanical systems are the main routes to achieving maximum savings.

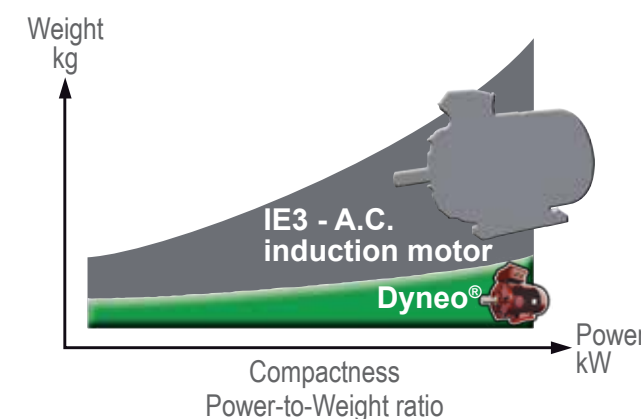
- Exceptional efficiency levels throughout the complete range of operating speeds
- Huge energy savings and lower life cycle costs
- Return on investment often less than 12 months



kWh: electricity consumption



Permanent Magnet Solutions
Dyneo



> Compactness

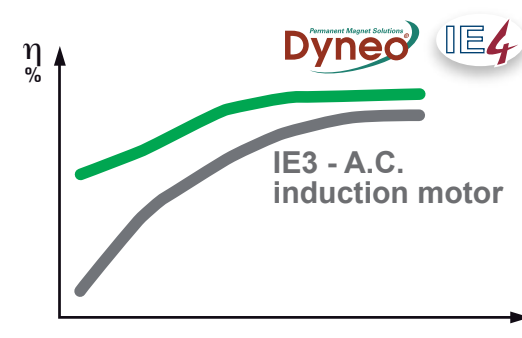
Dyneo® motors are significantly smaller when compared with a conventional induction motor. They can easily replace an existing motor.

- Smaller chassis supporting the motor reduces the overall dimensions of the machine
- Easier installation of the motor on site
- Simplified lifting equipment
- Lower transport costs

> State of the Art Technology

The Dyneo® motor magnetic flux is directly created from a set of permanent magnets inserted in the rotor.

- Dyneo® motor rotor losses are negligible
- Better efficiency than high-efficiency induction motors at rated speed, even more significant when operating at lower speed



> Torque & Speed Performance

The Dyneo® solution guarantees optimal torque over the whole speed range, demonstrably higher than traditional technologies.

- Motor speed adapted to the speed of the machine to be driven
- Potential elimination of transmission systems
- Improved performance of the machine to be driven by increasing its speed

Customer Benefits



Brewery production plant

REFRIGERATION COMPRESSORS

An installation comprising four fixed speed screw compressors was enhanced with the addition of a variable speed screw compressor equipped with a highly efficient Dyneo® permanent magnet motor and inverter. This drive solution delivers outstanding efficiency especially at part load.

- > Coefficient of Performance increased from 3.6 to 4.1
- > Huge energy savings of 600,000 kWh/year



Water treatment station

PUMPING

Two induction motors were replaced by a single 350 kW Dyneo® motor combined with an inverter.

- > Energy consumption has been reduced by 10% for every m³ of water pumped. In addition, the pump flow rate has increased by 15%
- > 14 month Return On Investment



Animal feed

CRUSHING

A 220 kW induction motor was replaced by a Dyneo® motor combined with an inverter. The crushing process represented 25% of the site's total electricity consumption.

- > Overall motor dimensions halved
- > 30% energy saving for the grain crushing process



Quarries

CONVEYING

Modernisation of a conveyor in a quarry with the addition of a Dyneo® variable speed geared motor:

- 160 kg weight reduction
- optimised installation cost (cable sizing, transformer size, etc.)
- > Energy savings of 52,600 kWh/year
- > 11 month Return On Investment



Guaranteed Availability !

DELIVERY TIMES EX-WORKS: 5, 10 or 15 working days on a selection of drive systems