LEROY-SOMER, specialist in industrial electric motors, offers a range of LSFA asynchronous three-phase motors designed to drive oven and baking furnace fans, typically bread ovens, heat treatment ovens, glass or ceramic furnaces and many others.

✈ Harsh operating conditions

Oven and baking furnace motors are put to a severe test. Indeed, as the temperature inside the furnace or the oven can reach 750°C, an intense heat is conducted to the motor and components through the shaft, particularly to the bearings and the winding. In addition, some applications generate high ambient temperature.

Consequently, it was necessary to design a motor capable of withstanding the severity of this kind of application. The selection of components used in the LSFA fan motors enables LEROY-SOMER to guarantee a durable service under such conditions.
The LEROY-SOMER solution

The LSFA motors are flange-mounted motors equipped with an aluminium heat sink. Due to this particular design, they can be fitted directly to the wall of the furnace to drive the fan.

This technology makes it possible to achieve substantial savings. Indeed, it removes the constraints of a costly external ventilation system (couplings, air vents, belts, mountings…). Moreover, using LSFA motors considerably reduces machine down time, thus improving manufacturing productivity and significantly reducing maintenance costs.

According to the operating conditions, LEROY-SOMER can define a « made-to-measure » LSFA motor (for example adapted winding, special dimensions, special bearings).

Main characteristics

The LSFA motors range from 0,55 to 15 kW in frame sizes from 80 to 160 and have the following characteristics:

- Aluminium heat sink
- Protection grill
- Metallic terminal box
- Special motor shaft dimensions according to customer specifications
- Special shaft material (steel, refractory stainless steel)
- Special flange enabling direct fitting to the wall of the furnace
- Special winding depending on operating conditions (ambient temperature, temperature at the motor shaft)
- Special high temperature bearings