

New!

POWERDRIVE



Power to suit all needs...

Because users' needs
are always changing!

LEROY-SOMER offers a modular concept with its new generation of high-power variable speed drives, **POWERDRIVE**, a versatile range up to 900 kW integrating only those functions required by the application.

◆ Modularity

POWERDRIVE is created by a combination of rectifier, inverter and cooling modules, associated with electronic control boards. These modules are assembled on a chassis or in standard cabinets.

The combination of modules and the choice of cooling mode (air-cooled as standard or liquid-cooled on request) make it possible to create numerous configurations optimised according to the application: 6-pulse, multi-output 6-pulse, 12-pulse, regenerative or DC bus solution.

◆ Compactness

Compactness is **POWERDRIVE**'s strongest feature: a complete 355 kW drive, containing the power modules, the RFI filter, the braking module and also a safety emergency stop, with dimensions of 600 x 600 x 2160 mm.

The protection class for the cabinet-mounted version is IP21, and IP54 is available in the same dimensions.

◆ Simplicity

Setup is simplicity itself, thanks to the human-machine Interface on the front panel, which provides user-friendly access to the parameters and the display of operating data. The default factory configuration adapted to most common applications allows start-up with only eight parameters (4 for the application and 4 for the motor).

Parameters can be saved and duplicated quickly using a key patented by **LEROY-SOMER**, the « **XpressKey** ».

The **PowerSoft** program also offers a parameter-setting wizard and an online help.

◆ Safety

A secure disable input conforming to EN 954-1 category 3, and approved by CETIM, can be used to de-energise the motor by a hardware lock on the **POWERDRIVE** power bridge. This leads to savings in the protection components required (line contactor, contactor and safety relay, associated wiring).

To ensure reliability of operation, a preventive self-test is performed on each start-up. Any faults are then detected (motor phase to earth, short-circuit, etc) before causing irreparable damage.

Diagnostics after an emergency shutdown is assisted by the recording of various data: component temperature, memorising of the time between events, configurable average and instantaneous values (mains voltage, DC bus voltage, rotation speed, motor current, etc).

◆ Communication

The add-on fieldbus modules can be used to adapt the drive to all control/monitoring systems: Profibus, Canopen, DeviceNet, Modbus, Interbus, Ethernet, etc.

Thanks to a communication interface module internal to the **POWERDRIVE**, alerting or information messages can be generated for remote maintenance/ remote monitoring of machines.

◆ Energy savings

You can reduce energy costs while improving the process and productivity, irrespective of the application, thanks to the diversity of **POWERDRIVE**'s technical solutions:

- restoration of energy to the mains power supply (regenerative version)

- reduction of energy consumption by optimising the motor speed

- solution of placing several modules in parallel, on the same DC bus, to guarantee regulation of the energy consumed

POWERDRIVE only draws active power from the mains power supply.

POWERDRIVE for any application! Pumping, ventilation, centrifugal treatment, compressors, winding/unwinding, handling, hoisting, etc.

Several control modes are possible for controlling asynchronous, synchronous magnet and HPM *Hybrid Permanent Magnet* motors.