LEROY SOMER®

Réf. 3426GB - 1.33 / a - 02.01

VARMECA

Regulation of centrifugal pumps

VARMECA

The MAESTRO of regulation

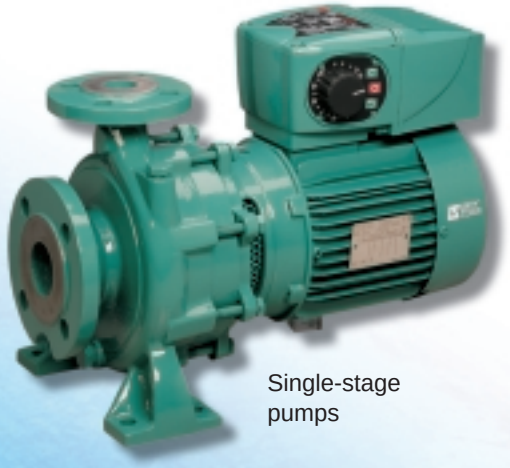
For all types of centrifugal pump

VARMECA is a complete range of motors with integrated inverter control for all types of pump applications including industrial, irrigation, construction and environmental:

- discharge or pressure pumps
- pumps for hot or cold water
- pumps for clear, acidic, contaminated liquids, etc
- monobloc pumps or with coupling
- vertical or horizontal pumps

Submersible pumps

Vertical multistage pumps

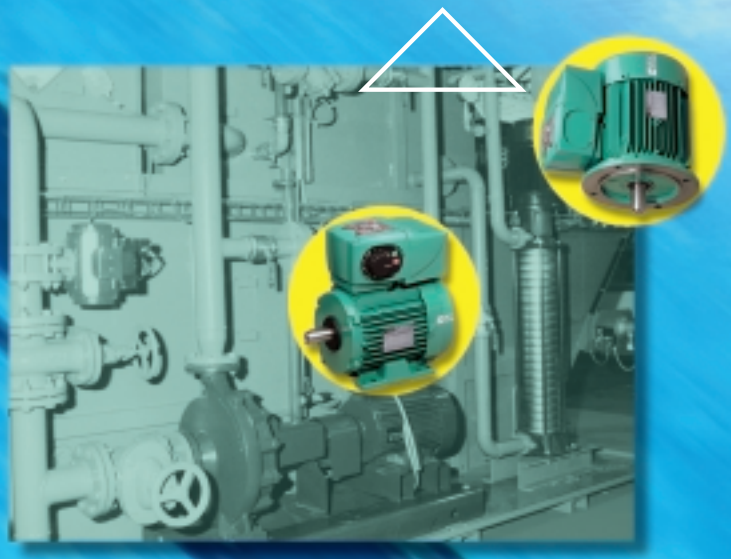


Single-stage pumps

New installations, existing installations

VARMECA: **The variable speed solution** for any new installation where **process optimization** is a key factor.

VARMECA: The option to **integrate variable speed** when upgrading an existing installation due to a design which ensures **total interchangeability**.

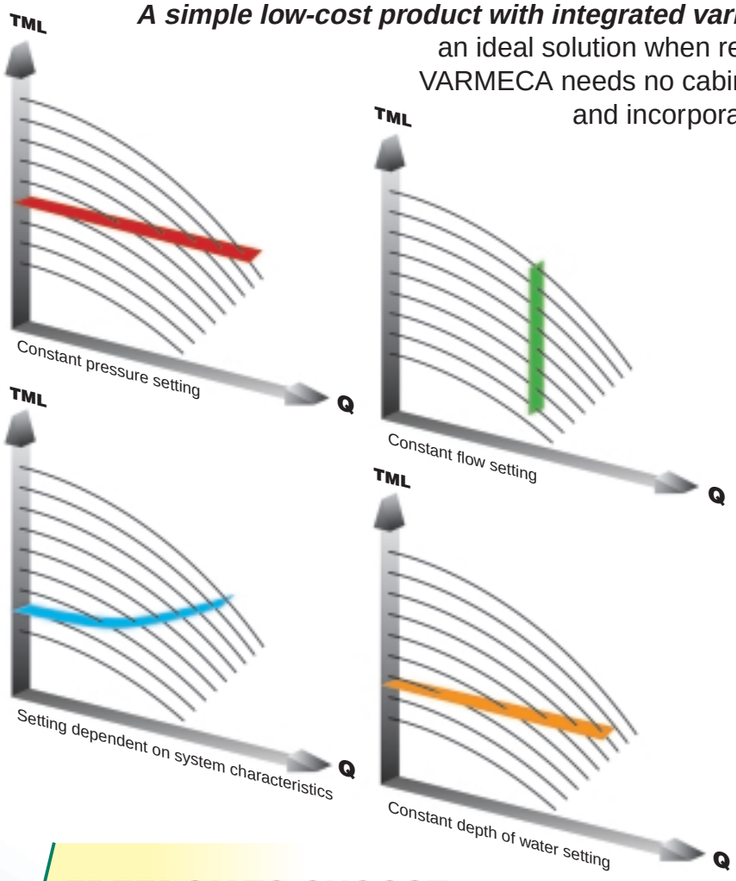


LEROY SOMER

VARMECA

Intelligent management of centrifugal pumps

A simple low-cost product with integrated variable speed control, VARMECA is an ideal solution when replacing separate electronic drives. VARMECA needs no cabinet, is exceptionally easy to set up, and incorporates automatic pump management. By limiting the number of external components, VARMECA reduces the costs of variable speed in the pumping application. The speed is regulated by a sensor (PI regulator) or an external reference (0-10 V / 4-20 mA). Regulation adapts the electrical power consumption to the needs of the application and hence results in **energy savings**.



TML : total manometric lift
Q : flow rate

FREEDOM TO CHOOSE THE TYPE OF SPEED REFERENCE

- **local** analogue control knob

or

- **local/remote** digital programmable via console or PC

or

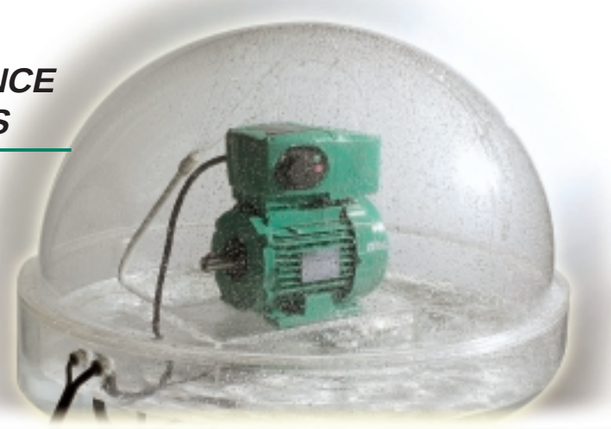
- **remote** analogue 0-10 V/4-20 mA

OPERATIONAL SAFETY OF THE INSTALLATION

- Detection of draining, preventing the pump running when dry
- Prevention of water hammer due to controlled deceleration phases
- Auto-adaptation of the flow in the event of overload (avoids drive malfunctions)
- Can be programmed to stop in the event of a reduced flow (programmable standby operation)
- Indication of operating status (automatic operation, maximum flow rate, draining)

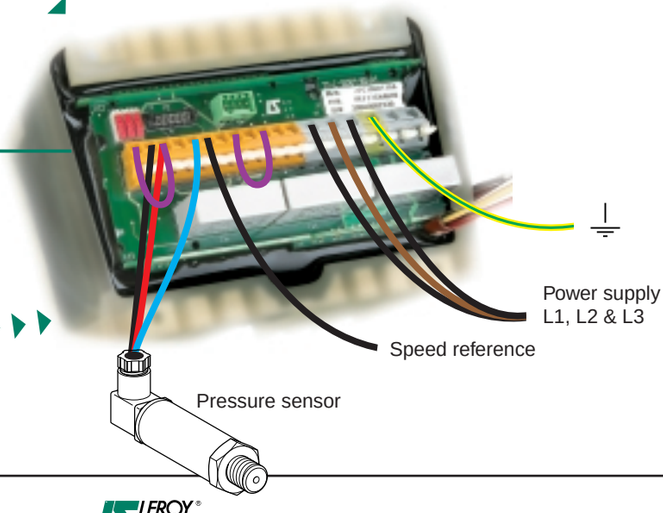
GUARANTEED PERFORMANCE IN VERY HUMID CONDITIONS

- Resistant to splashing liquids (sealed construction)
- Resistant to vibration (electronics moulded in resin, terminal block with flexible blade connector, etc)



AS EASY TO CONNECT AS A SIMPLE MOTOR

- The power supply requires just 3 wires and a connection to earth.



LEROY SOMER

VARMECA

General characteristics

Power supply 50/60 Hz

• Single-phase	200 V to 240 V ±10%	0.25 to 1.5 kW
• Three-phase	200 V to 240 V ±10%	0.25 to 2.2 kW
• Three-phase	380 V to 480 V ±10%	0.25 to 7.5 kW

Control mode	- Fixed or dynamic U/F ratio
Regulation	- Speed - Pressure; flow rate; depth of water via integrated PI function (3% accuracy)
Control logic	- Positive (source 24 V DC / 30 mA integrated)
Speed reference	- Local: analogue via control knob - Local/remote: digital via console or PC: up to 4 preset speeds - Remote: analogue 0-10 V / 4-20 mA - Min. and max. speed limiting
Pump-specific functions	- Selection of direction of rotation - T1: draining time delay (s) - P1: draining pressure (%) - T2: min. frequency time delay (s) - Display of PI reference (%) - Display of PI feedback (%) - Operating status - Digital reference (%) - Conversion coefficient (read directly from the sensor)
Ramps	- Adjustment from 0 to 60 sec.
Stopping modes	- Ramp control - Freewheel stopping
Sensor	- Integrated power supply 24 V DC / 30 mA - 0 / 10 V or 4-20 mA output
Approvals	CE c UL us
Communication	- Serial link: RS 232 - CDC VMA20 programming console (2-line LCD with text of 16 characters) - Fieldbus: PROFIBUS DP INTERBUS S CAN OPEN DEVICENET - PEGASE VMA20 programming software (PC compatible, Windows 95-98-NT or later)
Protection index	- IP 65

For complete information on the VARMECA range, ask for the general brochure Ref. 2329GB