



Products and solutions for machine builders (OEM)



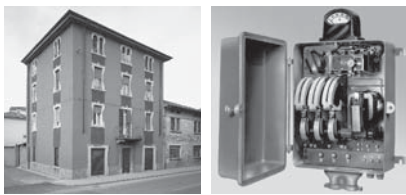
ENERGY AND AUTOMATION



Tradition and Innovation



LOVATO Electric S.p.A. - Bergamo - Italy



Since 1922

The first LOVATO Electric headquarters founded in Bergamo (Italy) in 1922: the starting point of the grand industrial adventure.



Italian design

Highly-qualified design, technical and research staff fully develop and design innovative and reliable products in the Bergamo offices, using state-of-the-art software.



Most advanced manufacturing facilities

LOVATO Electric manufactures its products with cutting-edge technology.



Quality and certifications

LOVATO Electric products comply with the major international quality standard requirements.



Customer care service

The Customer Service team offers prompt and professional assistance for products and applications.



International presence in over 100 countries

Foreign branches and widespread official sales affiliates assure product assistance and availability in over 100 countries worldwide.



Lovato
Italy

LOVATO ELECTRIC S.P.A.

Lovato
Canada

LOVATO ELECTRIC CORP.

Lovato
China

LOVATO ELECTRIC (SHANGAI) CO LTD

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Lovato
Germany

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USA

LOVATO ELECTRIC INC.

PRODUCTS AND SOLUTIONS FOR MACHINE BUILDERS (OEM)

Application fields



Food industry

Food catering and processing.



Packaging

Machinery for product packaging, packing and film wrapping.



Materials movement

Conveyor belts and automatic product stocking machinery.



Lifting systems

Industrial and civil elevators, platform lifts, escalators.



HVACR

Heating, ventilation, air conditioning and refrigeration.



Textile industry

Textile and clothing machinery.



Machine tools

Machinery used in manufacturing and mechanical industries.



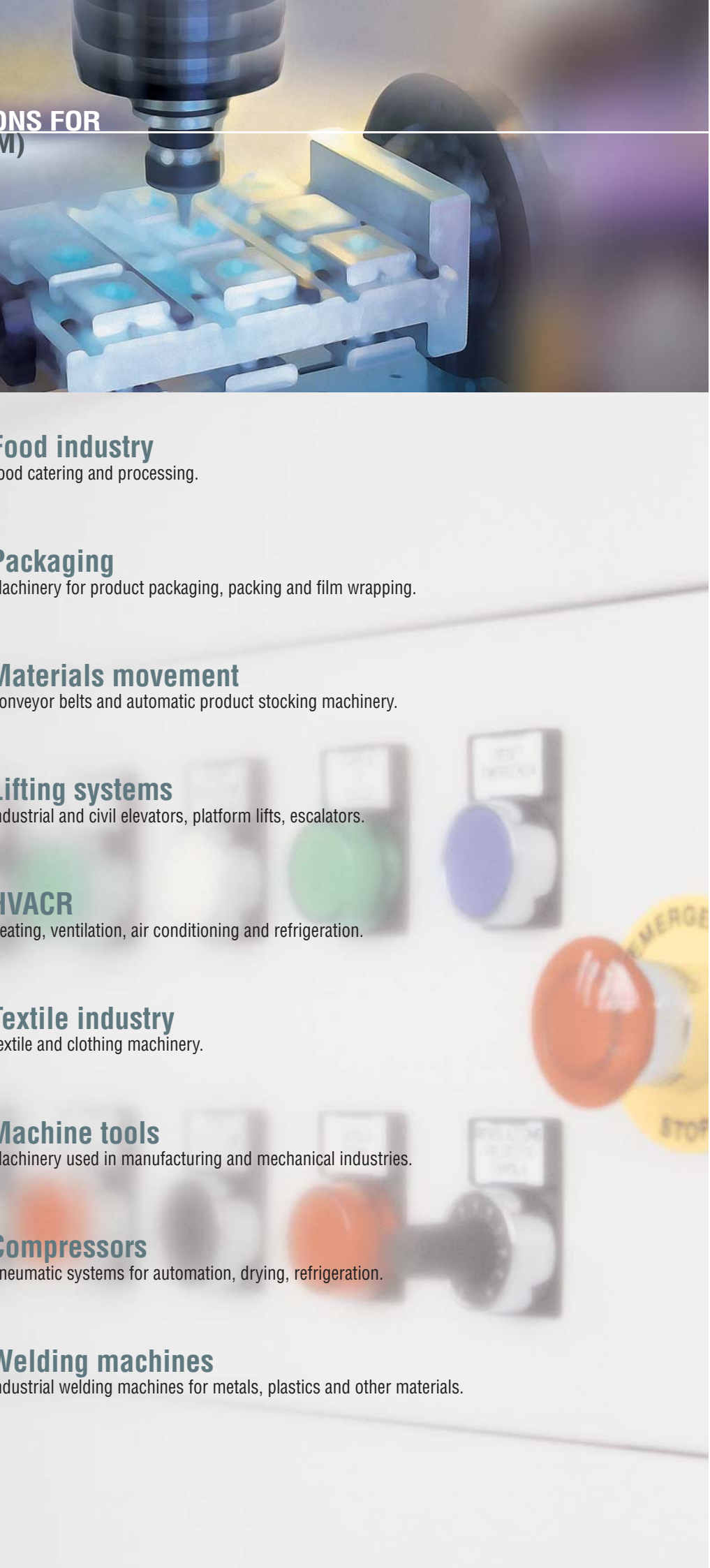
Compressors

Pneumatic systems for automation, drying, refrigeration.

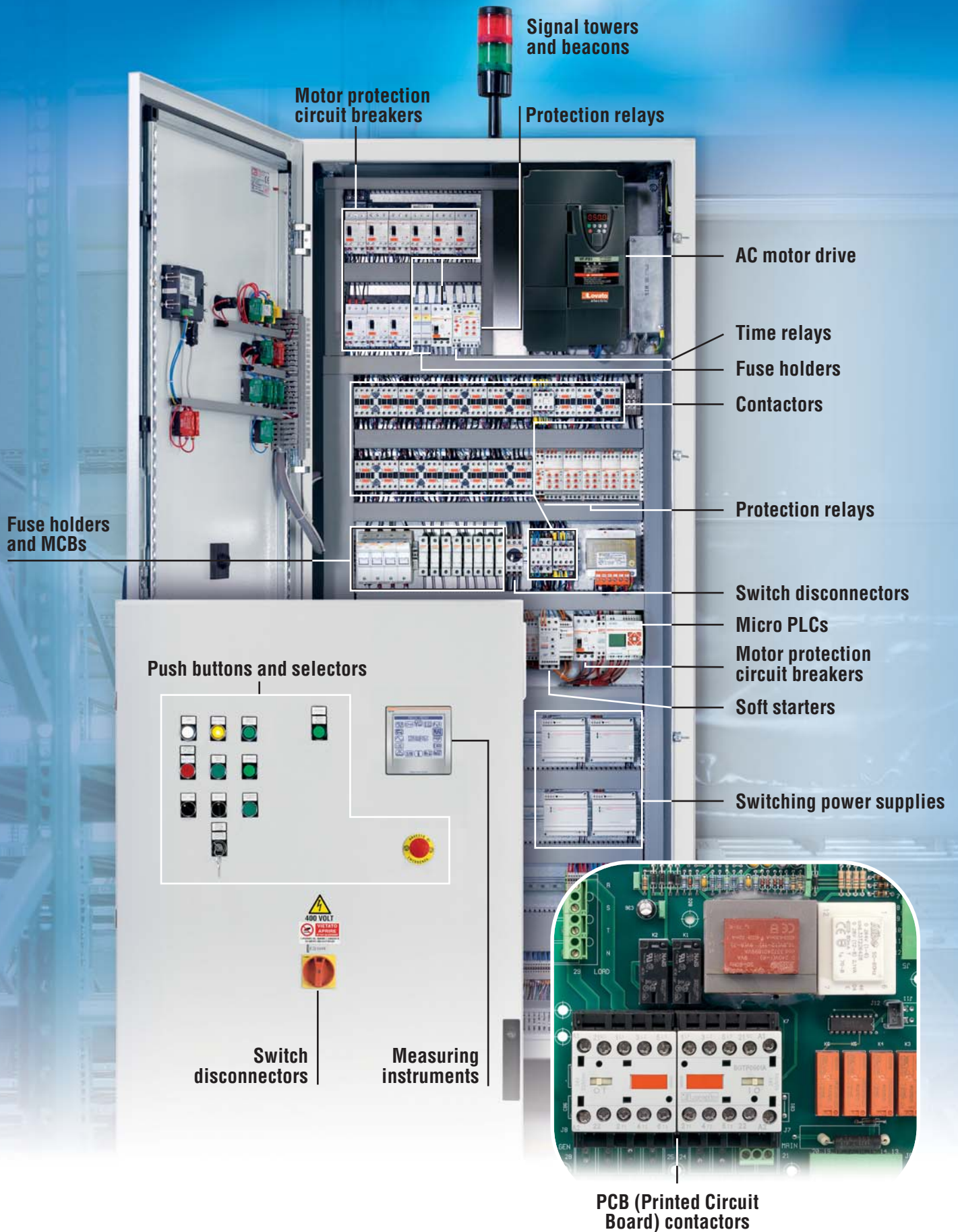


Welding machines

Industrial welding machines for metals, plastics and other materials.



PRODUCTS AND



MOTOR PROTECTION CIRCUIT BREAKERS

- ▶ Wide adjustment range 0.1 to 100A
- ▶ Breaking capacity Icu 50kA (400V) up to 100A
- ▶ Suitable for isolation
- ▶ Comprehensive line of accessories
- ▶ Wall and flush mount enclosures.



CONTACTORS

- ▶ Three-pole versions up to 630A in AC3 duty
- ▶ Four-pole versions up to 1600A in AC1 duty
- ▶ Two-pole versions 2NO+2NC or 4NC
- ▶ Control relays with 1NO+3NC, 2NO+2NC or 4NC contacts
- ▶ Versions for AC or DC control
- ▶ Low-consumption DC versions.



MOTOR PROTECTION RELAYS

- ▶ Thermal overload relays for current between 0.09 and 420A
- ▶ Phase failure sensitive and non phase failure sensitive versions
- ▶ Automatic and/or manual resetting
- ▶ Independent or direct mounting on contactor
- ▶ Thermistor protection relay.



ELECTROMECHANICAL STARTERS AND INSULATED ENCLOSURES

- ▶ Direct-on-line starters in insulated enclosure complete with or without thermal overload relay
- ▶ Insulated enclosures for customer-assembled starters
- ▶ Reversing and changeover contact or assemblies
- ▶ Star-delta starters, open frame and in insulated enclosure versions.



SOFT STARTERS

- ▶ 12A to 1200A starter ratings
- ▶ Standard and severe duty types
- ▶ Internal bypass contactor up to 245A rating
- ▶ Torque ramp starting
- ▶ Total motor protection incorporated
- ▶ Clock calendar
- ▶ Digital control and adjustment
- ▶ RS232 and RS485 serial ports for remote supervision and control
- ▶ Modbus®-RTU and proprietary ASCII communication protocols.



AC MOTOR DRIVES

- ▶ Versions for single-phase up to 2.2kW / 3HP and three-phase up to 630kW / 1000HP
- ▶ Special function for pump and fan control using PID algorithm
- ▶ Active earth leakage protection
- ▶ EMC suppressor built-in all versions
- ▶ Selectable motor control mode: V/f, vector, energy saving
- ▶ Selectable digital and analog input and output functions.



CONTROL AND SIGNALLING UNITS

Push buttons and selectors

- Simple and snap on installation
- Highly conductive contacts
- High degree of protection per IEC IP66, IP67, IP69K and UL type 4X.



Ø70mm signal towers

- Modular and combinations up to 7 modules
- Steady or blinking light, flash, pulsed or continuous sound

Ø62mm signal beacons

- Steady and blinking light, pulsed and continuous sound.

LIMIT, MICRO AND FOOT SWITCHES

- Dimensions to EN 50047 standards
- Dimensions to EN 50041 standards
- Versions with interchangeable and rotatable heads
- Insertable and interchangeable auxiliary contact blocks
- Safety function versions.



ROTARY CAM SWITCHES

- 16A to 125A ratings
- Suitable for motor starting, circuit connection, changeover, switching on and off
- Custom circuit schemes available
- Versions in housing.



SWITCH DISCONNECTORS

- 16A to 1600A ratings
- Three and four pole types and with fuse holder
- Versions: direct operating, door coupling and in housing
- Wide range of accessories
- Interlocking fuse holder up to 32A.



FUSE HOLDERS AND FUSES

- Modular concept for 10x38, 14x51 and 22x58 fuse sizes
- IP20 protection degree, finger safe and sealable cover to increase user's safety
- Version with status indicator to quickly identify the fuse to replace
- UL and CSA certified versions.



MINIATURE AND RESIDUAL CIRCUIT BREAKERS

- High breaking capacity
- Various trip characteristic curves: type B, C and D
- 1 to 125A current range
- Accessories available
- UL approved versions.



LEADERS (OEM)

SURGE PROTECTION DEVICES

- ▶ Protection against overvoltage and high surge conditions caused by direct or indirect lightning strikes
- ▶ Types with plug-in cartridge provide fast servicing capability
- ▶ Mechanical indicator for visual failure status signalling of single modules
- ▶ Versions with or without output for remote SPD status indication.



TIME RELAYS

- ▶ Modular version for consumer switchboards
- ▶ 35mm DIN rail mount version
- ▶ Plug-in and flush-mount versions
- ▶ Vast range of functions and time scales
- ▶ Reliable time and repeat accuracy.



PROTECTION RELAYS

- ▶ Modular versions for 35mm DIN rail fixing
- ▶ Minimum and maximum voltage monitoring relays for single and three-phase systems, with or without neutral
- ▶ Voltage monitoring relays for asymmetry, phase loss and phase sequence control
- ▶ Minimum and maximum current monitoring relays
- ▶ Frequency monitoring relays
- ▶ Phase shift control relays.



MICRO PLCs

- ▶ 10, 12 and 20 Input/Output base modules
- ▶ Expansion modules with 4 Inputs and 4 Outputs
- ▶ Maximum configuration: 44 Inputs/Outputs
- ▶ RS232 serial interface for PC or program backup memory connection
- ▶ HMI terminal.



SWITCHING POWER SUPPLIES

- ▶ Single-phase versions up to 480W output, two-phase up to 100W and three-phase up to 960W
- ▶ 12VDC and 24VDC versions
- ▶ Modular and DIN rail mount versions
- ▶ Output voltage adjustment by front potentiometer
- ▶ Versions with configurable parallel connection.



MEASURING INSTRUMENTS AND CURRENT TRANSFORMERS

- ▶ Digital voltmeters, ammeters, wattmeters, frequency meters and cosphi meters
- ▶ Digital multimeters, expandable, with graphic LCD
- ▶ Single, two and three-phase connection
- ▶ Totally programmable digital outputs
- ▶ Communication interface RS485, RS232, USB, Ethernet for remote control and datalogger
- ▶ Data concentrator
- ▶ Current transformers up to 4000A.



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LOVATO Electric products are available in over 100 countries through its distributors

The products described in this publication are subject to be revised or improved at any moment. Catalogue descriptions and details, such as technical and operational data, drawings and instructions, etc., do not have any contractual value. In addition, products should be installed and used by qualified personnel and in compliance with the regulations in force for electrical systems in order to avoid damages and safety hazards.