



Control solutions for industry

- Timers
- Energy Meters
- Isolating switches
- Cam Switches
- Limit, micro and foot switches
- Transfer Switches
- Protection, control and level control relays
- Power Factor Controllers
- Power supplies and battery chargers



PLANET Switch



Switch disconnectors

- 16 to 1250A ratings of three and four-pole switch disconnectors
- Versions for photovoltaic duty
- Versions with NFC, NH and BS fuse holders
- Versions in enclosure
- Three and four-pole changeover switch disconnectors.
- Versions: door coupling, direct operating handle, door mounting and in enclosure.



Limit, micro and foot switches

- Limit switches:
 - Dimensions to EN 50047 (bottom entry)
 - Dimensions compatible to EN 50047 (side entry)
 - Dimensions to EN 50041
 - Direct opening operation of NC contacts
 - Interchangeable and orientation adjustable heads
 - Removable and interchangeable auxiliary contacts.
- Prewired limit switches
- Micro switches
- Foot switches:
 - Single or double pedal version (plastic and metal housing)
 - Version with or without cover.



Rotary cam switches

- GX series up to 40A, GN series up to 125A ratings
- Suitable for circuit connection, changeover, switching on and off as well as motor starting
- Possibility of special switch configurations
- IP65 (GX) or IP40 (GN) front degree of protection
- 2-screw panel fixing
- Wide range of features.

PLANET Logic



Metering instruments and current transformers

- Digital voltmeter, ammeter, watt meter, cos-phi meter, and frequency meter, single and three phase
- Digital multimeters for monitoring and measuring of 47 and 251 electrical parameters
- Digital multimeters, expandible, with LCD, for monitoring and measuring of 150 to 590 electrical parameters
- Digital multimeters for distribution and co-generation energy systems, stand-by generating sets and on-board machinery
- Energy counters, single and three phase with or without neutral
- Current transformers, 40 to 1500A primary current ratings.



Automatic power factor controllers

- Microprocessor supervision and control
- Accurate current evaluation with TRMS readings
- Automatic rational adjustment
- Versions with 5, 7, 8 or 12 steps
- Version with static outputs
- Use in co-generation systems
- Communication serial interface
- Modbus®-RTU and Modbus®-ASCII communication protocols.



Automatic transfer switch controllers

- Supervision of two three-phase supply lines:
- Emergency demand supervision for stand-by generating set
- Contactors, motorised circuit breakers or motorised changeover switches management
- Event logging
- TRMS measures of voltage values
- Microprocessor remote control and supervision
- RS232 and RS485 ports
- Modbus®-RTU and Modbus®-ASCII communication protocols
- Real time clock.



Modular contactors

- Two, three and four-pole versions, 20 to 63A
- Very silent during operation or control phase
- Operation flag indicator
- Add-on auxiliary contacts.



Time relays

- Modular version for consumer switchboards
- DIN mount industrial version
- Plug-in or flush-mount version
- Vast range of functions and time scales
- Reliable time and repeat accuracy.



Protection relays

- Versions: modular, 35mm DIN mount rail, plug-in and flush mount
- Minimum and maximum voltage monitoring relays for single and three phase systems, with or without neutral
- Voltage asymmetry, phase sequence and phase failure control relays
- Minimum and/or maximum current monitoring relays
- Pump protection relays
- Phase shift relays
- Frequency monitoring relays.



Level control relays

- Level monitoring for electrically conductive liquids
- Versions: modular or plug-in
- Adjustable 2.5-200k Ω sensitivity
- Startup priority change relays
- Single and three-pole electrodes.



Earth leakage relays

- Modular, flush and internal panel mount version, with or without flag indicator, configurable prealarm indication and fail-safe operation
- Versions with automatic toroid connection control
- Choice of supply voltage ranges
- Adjustable fault current $I \Delta n$
- Choice and adjustment of tripping range both for fault current and delay time.



Switching power supplies

- Single phase, 12 or 24VDC (5 to 480W)
- Two phase, 24VDC (100W)
- Three phase, 24VDC (120 to 960W)
- Versions: modular or 35mm DIN mount rail.



Automatic battery chargers

- 1 charging level
- Versions for lead-acid batteries, 2.5 to 12A ratings for 12VDC and 24VDC output
- Charging current limitation selectable.

Customer Support

Klinkmann Technical Support and Customer Training for the LOVATO Electric products and their use will keep customers updated and offers effective product support if needed.

Innovation

Modern technology for research, development, design and manufacture consent LOVATO Electric to offer products and solutions to enhance efficiency, reliability and safety in industrial and electrical systems.

LOVATO Electric products comply with major international standard requirements.

International presence

LOVATO Electric presence in the most important world markets is the result of the company's constant international strategy. LOVATO Electric Italy, together with the 10 foreign branches and official sales affiliates, represent the reference point for the distribution of the LOVATO Electric products in over 80 countries.

Manufacturing facilities

LOVATO Electric products are fully designed in the head office of Bergamo, Italy.

The highly qualified technical staff and the continuous technological improvement of the manufacturing facilities ensure the achievement of high quality standards.



Quality

LOVATO Electric, among the first in Italy, in 1992, to hold the certification of the company's quality management system, in compliance with ISO 9001 standards, has obtained the ISO 14001 certification for the environment management system as well.



The company's laboratories are, in addition, qualified and certified to conduct type testing, under ACAE direct control, for the emission of ACAE/LOVAG certifications.



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