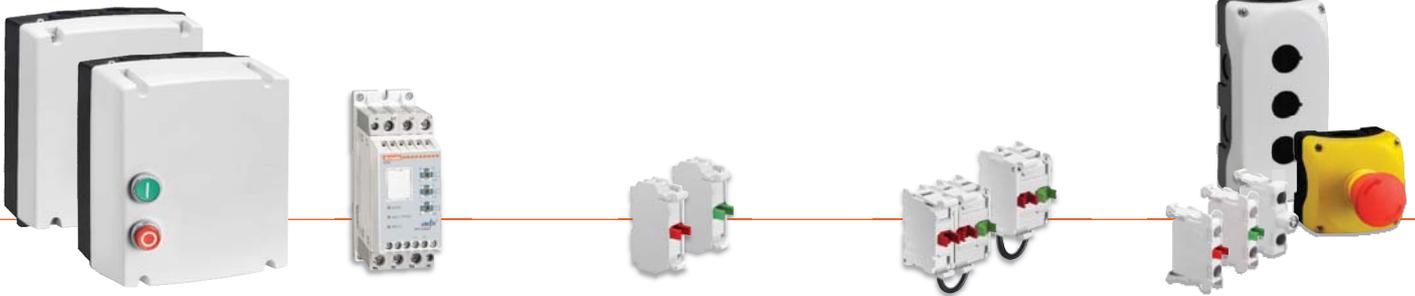


2014 new products



- **Insulated polycarbonate IP65 enclosures**

A new frame size allows mounting direct-on-line starters and changeover contactor assemblies up to 38A.

Available in two versions, with a deep cover (M25) or a shallow one (M24), for different configurations of electromechanical or electronic devices which can be fixed to the standard supplied metal plate.

- **ADXC soft starters**

ADXC soft starters have a 45mm wide casing. They can be installed either on 35mm DIN rail or fixed on a mounting plate, by screws, are suitable for soft start and stop, by current limitation, of three-phase asynchronous motors rated up to 45A. Alarms are available, across the range, for overcurrent, over temperature and over voltage conditions. The 600V version is also equipped with two relay outputs for remote signalling of alarms and bypass relay closing.

- **Spring-clamp terminal contact and LED elements**

PLatinum LOVATO Electric add new spring-clamp terminal types to the existing screw and faston terminal contact and LED elements, all to be mounted on the LPXAU120 adapter. This type of push-in connecting technology is time saving during wiring since it is a tool-less operation.

- **Auto-monitor contact elements**

PLatinum These particular NC contacts, used with non-illuminated latch emergency stop pushbuttons, provide for constant monitoring of exact mounting and operation of the NC contacts. Once the contacts are installed on the mounting adapter in a correct way and with a correct running of the equipment, they work as normal NC contacts. Their trait is to break to normally-open state and, in so doing, isolate the circuit when malfunctions take place, for instance after the contact detaches from the adapter or if these two come loose from the pushbutton itself, due to strong vibrations or shock of some sort.

- **Control stations and base-mount contact and LED elements**

PLatinum LOVATO Electric release the new insulated polycarbonate LPZ control stations featuring modern design and aesthetics in line with **PLatinum** pushbuttons and selector switches. The types include empty stations, with 1 to 6 holes, having excellent protection degrees per IEC IP66, 67, 69K and UL Type 4/4X. The extreme sturdiness allows use in every type of application. To ease wiring inside the new LPZ pushbutton stations, dedicated contact and LED elements have been made to directly fit onto the control station base. This sort of installation provides for all wiring to be entirely within the base. As a result, cover opening and fixing are safe, quick and simple operations.



- **IP65 enclosed switch disconnectors**

LOVATO Electric have completed the line of enclosed switch disconnectors by introducing a new enclosure frame size in between the two available GAZ1 and GAZ3 types. The new GAZ2 version is available empty or already complete with either a three or four-pole switch disconnector, rated 63A, 80A or 100A in IEC AC21A duty. The IP65 protection degree allows them to be installed in severe ambient conditions. This product range has been extended to include new changeover switches, in both three and four-pole versions, rated 25A to 125A in IEC AC21A duty, housed in insulated enclosures.



- **Fuse holders 10x38 size**

The range is composed of: one-pole, one-pole with light indicator, one-pole + neutral, two-pole, three-pole and three-pole + neutral versions. Using the available accessories, multi-pole types can be assembled starting from the single-pole device. In addition, there is an insertable label to identify each single pole. UL certifications, as Listed or Recognized (cULus or cURus) for USA and Canada depending on type, have now been obtained for all 10x38mm fuse holders, both AC and photovoltaic DC versions.



- **Miniature and residual circuit breakers**

LOVATO Electric include in its product offering new modular devices dedicated to protect people and installations. They are miniature circuit breakers (MCBs) up to 125A and residual current circuit breakers (both RCBs and RCCBs). The MCBs have a high breaking capacity of 10kA and most are certified by UL for USA and Canada as supplementary protectors per UL 1077.



- **Surge protection devices**

LOVATO Electric release two new types of surge protection devices for photovoltaic applications, compliant with the new EN 50539-11 standard. The new products, available with removable plug-in cartridges, are used in installations with voltage up to 1200VDC. By using their contact remote feature, indication of the device status can be remotely so as to signal when replacement is needed. The new SPDs have high I_{scpv} short-circuit current rating up to 1000A. This current value is very important because it indicates the maximum current which their thermal disconnector is capable of isolating.



- **Interface protection PMVF 51**

The PMVF 51 interface protection gives all the functions and controls required by the Italian CEI 0-21 standard (June 2012 edition and subsequent revisions) regarding low-voltage connection of micro-generation systems, such as solar or wind installations, between the energy generation system and the national power grid. In addition to compulsory voltage and frequency controls, when current transformers are connected with the PMVF51 interface protection, it can also put at disposal current and energy measurements as well as unbalanced power control with the optional dedicated expansion module installed.

- **New GE series handles**



New design for the direct operating and door-coupling handles introduced for GE switch disconnectors - 160 to 1600A ratings. OFF and ON positions are clearly and precisely identifiable.

2014 new products



- **Micro PLC with built-in RS485**

Kinco

LRD20R D024 P1 is a new version of the Micro PLCs, featuring integrated RS485 serial interface, which provides for simple automated function integration, typical of the LRD series with supervision and control software. Transducers, field and user commands can all be easily elaborated by the Micro PLC to program its outputs.

- **Automatic battery chargers BCG**

The new BGC battery charger series introduces switching technology even for the 12A 12VDC and 10A 24VDC ratings of lead-acid battery applications. Two voltage levels can be selected, suitable for different sorts of battery and maximum charging current can be adjusted. The battery chargers are enhanced by automatic protections and indication LEDs for alarm and battery operating conditions. The relay output is automatically activated whenever a malfunction of the system takes place.

- **Digital multimeters DMG 600 - DMG 610 (96x96mm)**

DMG6... digital multimeters, for single or three-phase systems, permit to view electrical quantities of the installation on their backlight LCD screen and, by installing one of the EXP series communication modules (USB, RS232, RS485, Ethernet), these measurements can be accessible to the supervision software via appropriate protocol. The DMG 610 type is already equipped with built-in RS485 interface. Data collection can be done directly on the multimeter front as well, by connecting the CX01 or CX02 dongle to its optical port, without having to open the electrical panel.

- **DME energy meters**

Four new models complete the existing range: DME D115 T1 (40A single phase, 2-module type) improves legibility of installation energy and power measurements by users, DME D130 (63A single phase) is expandable with EXP series modules (e.g. for load supervision); while DME D121 (63A single phase) and DME D320 (CT /5A three phase) have a built-in RS485 communication port making these two directly integrable in supervision systems. Therefore, acquired data of the energy meters can be centralised and then developed with software elaboration.

- **Data concentrator DME CDPV1 for photovoltaic monitoring**

DME CDPV1 is a device specifically for monitoring photovoltaic installations. By connecting at least two single or three-phase DMED energy meters to the data concentrator in an installation, the user can obtain energy produced by the PV installation, energy drawn by loads and ultimately, energy exchanged (import and export) with the energy provider. DME CDPV1 is already duly programmed to automatically calculate the percentages of produced (total and partial) and consumed apparent power, average power values and the operating status of the AC/DC inverter (if it is equipped with any digital outputs). It is customisable by the user by setting up additional values to control the installation efficiency. In addition, with the EXM series expansion modules, DME CDPV1 can also be used to supervise loads according to logic functions, defined by the user and based on the energy availability. By adding an Ethernet communication port in addition to the RS485 already built in, remote control and supervision can be done by the **Synergy** software.

Synergy

- **Supervision and energy management software**

The new software is based on the most modern technology that provides for the management of multiclient access through Web browser, thus allowing supervision and control of installations by any computer whatsoever.

Graphic pages, data logs and trend graphs can be created and easily navigated. Moreover, alarms and functions can be operated to send emails with notifications and reports.

Synergy supports all LOVATO Electric products equipped with communication interface.





• **Current transformer DMOT**

LOVATO Electric extend the series of its solid-core current transformers to include new DMOT 50 to 150A types. The new transformers are tested according to a class 1 accuracy and reduce line current to a 5A secondary value. They have screw terminals on the secondary and sealable terminal blocks are standard supplied.



• **Automatic power factor controllers DCRL (96x96mm)**

The new DCRL3 and DCRL5 power factor controllers have 3 and 5 steps respectively built in to connect capacitor banks. When needed, two extra steps can be added by installing the EXP10 06 expansion module to obtain a maximum of 7 steps in total. The backlight icon LCD viewing is made up of symbols and texts which offer a clear, intuitive image of the installation status. The controllers are equipped with all the functions and alarms to guarantee long capacitor bank life. An optical communication port is available on the controller front and provides for controller setup, programming and data collection for diagnostics and elaboration, in a safe way, by using the CX01 or CX02 dongle, without having to disconnect and open the electrical panel.



• **Automatic transfer switch controllers ATL 600 / 610 (144x144mm)**

The automatic transfer switch controllers ATL 600 and ATL 610 permit to supervise two power sources interacting with the user through the backlight graphic LCD and LED synoptic capable of viewing the installation status, with complete text and graphs. The ATL 610 version has the 12 or 24VDC supply inputs in addition to the 110...240VAC inputs of the ATL 600 type, and comes equipped with two expansion slots for EXP series modules to combine additional digital inputs and outputs and communication function, such as USB, RS232, RS485, Ethernet. In this way, the ATS switchboard can be remotely controlled through supervision software.



• **Dual power supply module ATL DPS1**

LOVATO Electric release a dual power supply module for the product offering of automatic transfer switching. This new device is capable of checking the voltage values at its inputs and identifying which is the ideal to use and connect to its output. ATL DPS1 is suitable to supply motorised changeover switches and circuit breakers. The module functionality is done by a microprocessor. The two single-phase voltage inputs are independent, isolated from each other and each capable of supplying the internal measuring circuit. Additional controls are made on the output voltage to check that the device operation is correctly carried out. In case of malfunction, the red LED will switch on to signal it; voltage flow is stopped and not available at output terminals. The green LEDs on the module front permit to constantly monitor the status of the power sources, availability of input lines and presence of the module output voltage.



• **APP Sam1**

Configuration and maintenance operations, often done in intolerable ambience due to weather or noisy conditions, are now easier to do for all LOVATO Electric products with communication interface on front compatible with CX02 dongle. Indeed, tablets and smartphones with Android or iOS operating system can connect to them using the new application called **Sam1** directly downloadable from Google Play or iTunes. Therefore, it is no longer necessary to connect and switch on a PC using cables to change configurations, set up parameters or even clone device programming. With this APP, a file previously saved can be uploaded; commands can be sent; measured quantities can be read from LOVATO Electric devices. The events can be viewed and saved in a text file and later copied and sent by email.



• **Communication devices CX**

The CX communication dongles available as USB and Wi-Fi versions allow connection between tablets, smartphones, PCs and LOVATO Electric products with front optical communication interface.