



- Multiclient web based monitoring software, Cloud and on premises solutions.
- Software to monitor and configure LOVATO Electric devices.
- APP for monitoring and configuration via Wi-Fi or NFC.



**Software**

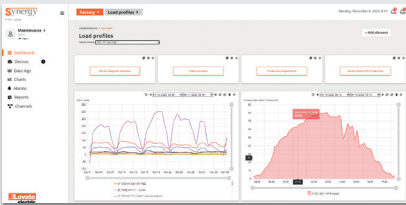
<b>Synergy</b> : supervision and Energy Management software .....	36 - 2
<b>Xpress</b> : configuration and remote control software .....	36 - 5

**APP**

<b>Sam1</b> : APP for smartphone and tablet to setup and monitor LOVATO Electric devices .....	36 - 6
<b>NFC</b> : APP for programming LOVATO Electric devices via <u>NFC</u> technology .....	36 - 7

**SEC. - PAGE**

## Synergy

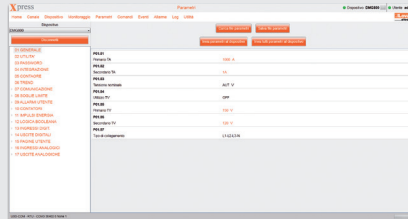


Page 36-2

### SUPERVISION AND ENERGY MANAGEMENT SOFTWARE

- Windows services and web applications to collect and publish device data on the most popular browsers
- Data management in MS SQL database
- Multi-user access either in local area networks or internet
- Cloud service available on LOVATO Electric portal.

## Xpress



Page 36-5

### CONFIGURATION AND REMOTE CONTROL SOFTWARE - FREE OF CHARGE

- Parameter setting
- Point-by-point monitoring
- Memory module management.



Page 36-6

### APP FOR SMARTPHONES AND TABLETS

- Users can program the device, view alarm conditions, send commands, read measurements, download statistical data and events and send retrieved data by email
- iOS and Android compatible.



Page 36-7

### APP FOR PROGRAMMING VIA NFC TECHNOLOGY

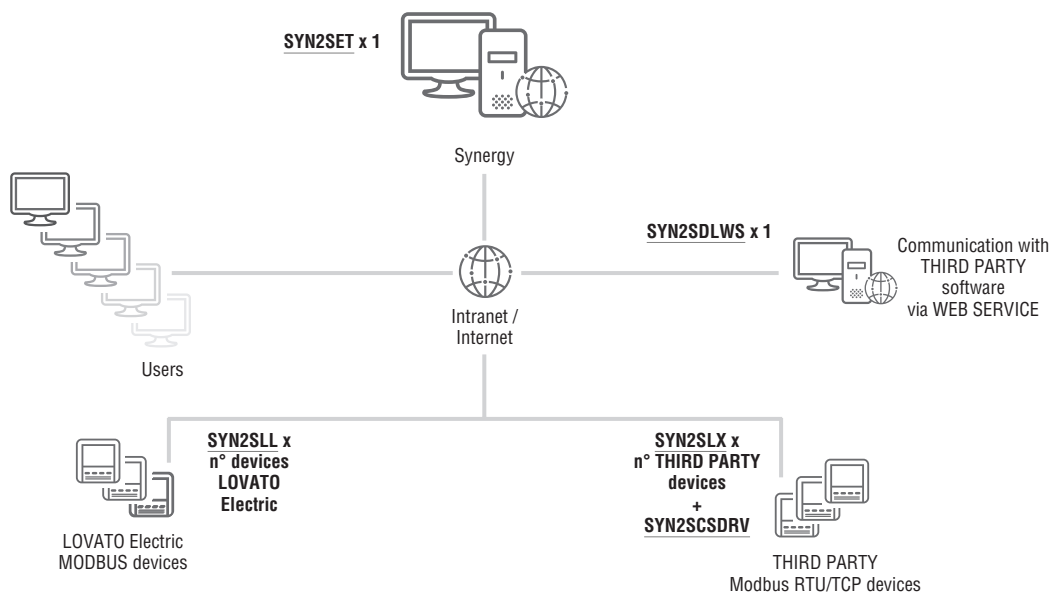
- Parameter setting with NFC technology
- Access without the need to power up the LOVATO Electric device
- iOS and Android compatible.



**Synergy Software**

Order code	Description	Details	Provisioning
Software.			
<b>SYN2SET</b>	Supervision and Energy Management <b>Synergy</b> software	Supervision and Energy Management software web based for Windows operating system	Permanent licence
Licence.			
<b>SYN2SLL</b>	<b>Synergy</b> licence for LOVATO Electric device	Monitoring function for each LOVATO Electric device equipped by Modbus communication port	Permanent licence for single device
<b>SYN2SLX</b>	<b>Synergy</b> licence for THIRD PARTY devices	Monitoring function for each THIRD PARTY device equipped by Modbus communication port	Permanent licence for single device
<b>SYN2SDLWS</b>	Licence to access to <b>Synergy</b> database	Access function by WEB API to <b>Synergy</b> MS SQL database by THIRD PARTY software	Permanent licence
<b>SYN2SLM</b>	Licence to access to <b>Synergy</b> updates	Access to <b>Synergy</b> updates (e.g. compliant with new operating systems and new <b>Synergy</b> features for each LOVATO Electric or THIRD PARTY devices)	Annual subscription licence for single device
<b>SYN2UPG</b>	Update to Synergy2	Update from Synergy to Synergy2	Permanent licence for single device
Technical support and training.			
<b>SYN2SCS00</b>	<b>Synergy</b> technical support	<b>Synergy</b> technical support by phone or team viewer	Hourly rate
<b>SYN2SCS11</b>	<b>Synergy</b> commissioning	On site <b>Synergy</b> technical support: – check on field devices configuration – SYN2SET setup on customer PC – check of exchanging data between <b>Synergy</b> and on field devices – <b>Synergy</b> configuration based on customer needs – travel costs and labour hours to setup <b>Synergy</b> and on field devices	Commissioning cost
<b>SYN2SCSDRV</b>	Interface driver development for THIRD PARTY devices	<b>Synergy</b> support to develop the interface driver between <b>Synergy</b> and THIRD PARTY devices for a maximum of 5 measurements and feasibility study by LOVATO Electric Technical support (Tel. + 39 035 4282422; E-mail: service@LovatoElectric.com)	Cost for each driver
<b>SYN2TRAINING</b>	<b>Synergy</b> training sessions (basic and advanced courses)	Introduction to Energy Management topics. Measurement devices: range and selection criteria with case studies. <b>Synergy</b> software key features for monitoring and supervising: architecture and access, channels, tools, graphs, data logs, pages and access criteria. Practical exercises. For further information visit EVENTS section on <a href="http://www.LovatoElectric.com">www.LovatoElectric.com</a>	Based on requirements

Example of a **Synergy** on premises solution:



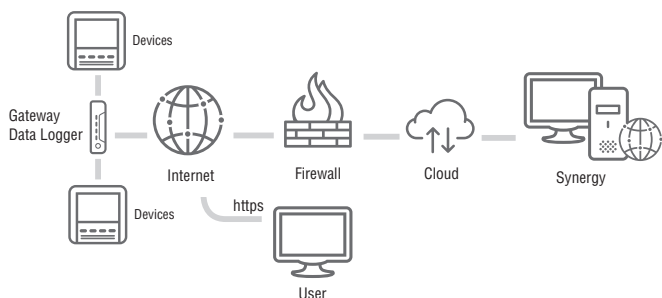
# Synergy cloud

**Synergy** Cloud is a subscription service that allows the supervision and control of systems via LOVATO Electric Cloud server accessible from any computer or mobile device through the most common web browsers. The functions of the **Synergy** Cloud software are the same as those made available with the local installation of the **Synergy** software but without the need to install any software and without the need of a dedicated server at company premises. The costs of purchase, configuration and maintenance of the hardware and software necessary for energy monitoring are saved. The devices in the field send the monitored data to the Gateway Data Logger (EXCGLB...) device which collects and represents them at the integrated web server. **Synergy** Cloud lets the user remotely view the instantaneous monitored data, receive reports about alarms via email and execute commands (SYN2CLRW licence). With the appropriate licence for supervision and Energy Management (SYN2CLL licence), **Synergy** Cloud periodically receives via Internet (either wired or mobile network) the data collected by the Gateway Data Logger in order to store historical data, process and represent them graphically as well.

## SECURITY

The security of the data is guaranteed by HTTPS encryption with certificate between server and client PC, by daily backup of the data collected and by state-of-the-art firewall for server access.

The **Synergy** Cloud solution:



## FEATURES

- Extremely intuitive interface: no particular technical background required
- Data access from all over the world thanks to the Internet and common browsers
- Specific design for client requirements (selection of measurement scenarios)
- Low data traffic thanks to the extreme economy of the protocol used (Modbus)
- Instantaneous data acquisition from various devices that can even be located in different sites
- Simple and clear reporting of all energy data
- No investment in software database or server
- Extremely secure data thanks to HTTPS and daily backup
- Automatic updates included
- Limited subscription cost.

Order code	Description	Details	Provisioning
Licence.			
<b>SYN2CLRW</b>	<b>Synergy</b> licence for basic remote view	Remote view of instantaneous data, creation of alarms and relevant mail sending, execution of commands	Annual subscription licence (365 days) for each device
<b>SYN2CLL</b>	<b>Synergy</b> Cloud licence for LOVATO Electric device	Supervision, Energy Management, data storage functions for a LOVATO Electric device with Modbus communication	Annual subscription licence (365 days) for each device
<b>SYN2CLX</b>	<b>Synergy</b> Cloud licence for THIRD PARTY devices	Supervision, Energy Management, data storage functions for a third party device with Modbus communication	Annual subscription licence (365 days) for each device
<b>SYN2CDLWS</b>	Licence to access to <b>Synergy</b> database	Access function by WEB API to <b>Synergy</b> MS SQL database by THIRD PARTY software	Annual subscription licence (365 days)
Technical support.			
<b>SYN2SCS00</b>	<b>Synergy</b> Technical support	<b>Synergy</b> Technical support by phone or team viewer	Hourly rate
<b>SYN2SCS11</b>	<b>Synergy</b> commissioning	On site <b>Synergy</b> technical support: - check on field devices configuration - SYN2SET setup on customer PC - check of exchanging data between <b>Synergy</b> and on field devices - <b>Synergy</b> configuration based on customer needs - travel costs and labour hours to set up <b>Synergy</b> and on field devices	Commissioning cost
<b>SYN2SCSDRV</b>	Interface driver development for THIRD PARTY devices	<b>Synergy</b> support to develop the interface driver between <b>Synergy</b> and third party devices for a maximum of 5 measurements and feasibility study by LOVATO Electric Technical support	Cost for each driver
<b>SYN2TRAINING</b>	<b>Synergy</b> training sessions (basic and advanced courses)	Introduction to Energy Management topics. Measurement devices: range and selection criteria with case studies. <b>Synergy</b> software key features for monitoring and supervision architecture and access, channels, tools, graphs, data logs, pages and access criteria. Practical exercises. For further information visit EVENTS section on <b>www.LovatoElectric.com</b>	Based on requirements

Note: every monitored device has a defined set of measures that are stored and available for a customizable period. Further information available on: <http://em.LovatoElectric.com>.

## Xpress

**Xpress** is parameter configuration and remote monitoring software shared by the entire latest generation of LOVATO Electric products with communication port. It can be installed in the Windows environment and connected individually (one node at a time) to the LOVATO Electric products.

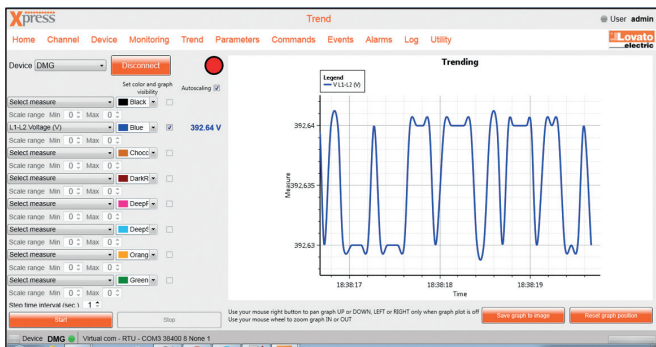
- Supports connection via **CX01** (USB) or **CX02** (Wi-Fi) device, USB, RS232, RS485, Ethernet or modem
- Product configuration:
  - Parameter setting
  - Project file management
- Product firmware update (via **CX01**)
- Remote control:
  - Monitoring of main measurements
  - Measurements graphic trends
  - Sending commands to products
- Reading alarms and events memory
- Memory modules management EXP1030, EXM1030, EXP1031.

Consult the [www.LovatoElectric.com](http://www.LovatoElectric.com) site for the list of products supported by **Xpress**.

**Xpress** can be ordered using code SYN1XP00 or downloaded for free from: [www.LovatoElectric.com](http://www.LovatoElectric.com)

### MONITORING

The measurements of the product connected are divided into context menus to make searching for the right value easy and shown on appropriate graphical gauges. It is also possible to show measurements trends.



### PARAMETERS

The options in the setup menu and parameters on the product connected are replicated in the software to allow the user to operate using the terms that they already know. Parameters that differ from the factory values are highlighted in a different colour.

The parameters can be saved to a file and recalled in subsequent installations, or defined even in the absence of a connection to the product, to permit preparation of a project to send later.

### EVENTS

If the product connected features an event memory, the complete list can be downloaded for saving as an external file, in text or spreadsheet format.

### DATA-LOGGER MEMORY MANAGEMENT

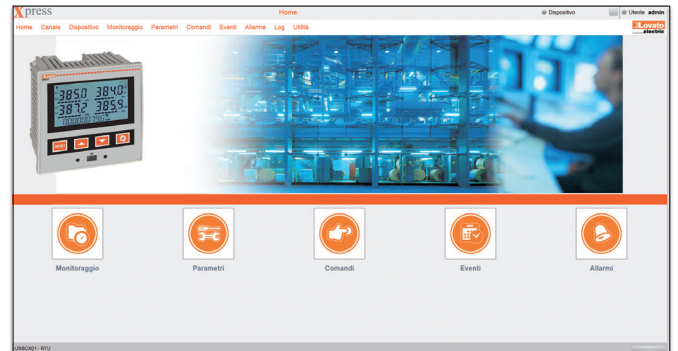
**Xpress** can be used to configure and manage the EXP1030, EXP1031 or EXM1030 memory modules, in order to create tables indicating the history of the measurements selected by the user.

In particular, the software can be used to set:

- The measurements to be sampled
- The sampling time
- The event that triggers and ends sampling
- Memory capacity management (FIFO or stop when memory is full).

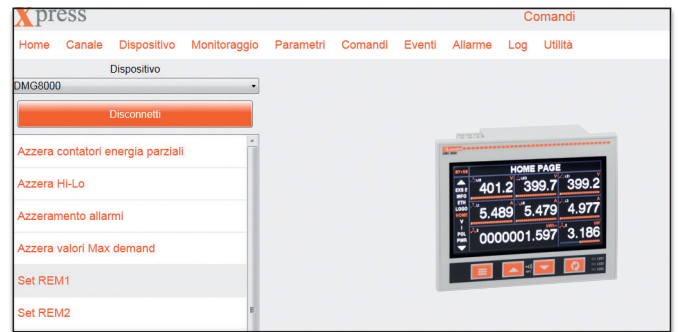
The software can show the waveforms stored in **EXP1031** Energy Quality module as well.

The data acquired can be displayed in graphs and exported to text files or spreadsheets.



### COMMANDS

A command can be sent to the product connected to energise outputs or reset energy consumption or operating time counters for maintenance.



Parameter ID	Parameter Name	Value
P01.01	Language	Italiano
P01.02	Set clock at power-on	ON
P01.03	Op. Mode At Power On	OFF Mode
P01.04	Display contrast	75 %
P01.05	High backlight level	100 %
P01.06	Low backlight level	25 %

### ALARMS

The alarms active on the product connected can be displayed in the software, for a single screen with the complete list of the faults detected.



APP  
**Sami1**



**General characteristics**

Configuration and maintenance operations, often done in intolerable or awkward environments due to weather or noisy conditions or narrow places, are now easier to do for all LOVATO Electric devices with communication interface on the front, compatible with CX02 device. Tablets and smartphones with Android or iOS operating systems can connect to them using the new application called **Sami1**. Therefore, it is no longer necessary to connect and switch on a PC using cables to change configurations, setup parameters etc.

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 shared.

The **Sami1** App LOVATO can be downloaded from Google Play Store or App store.

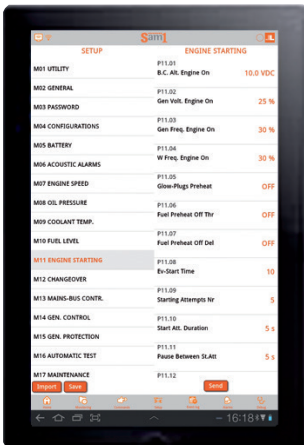


Updating driver

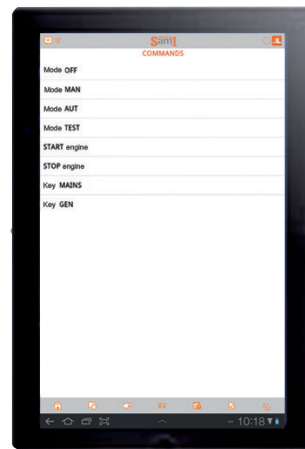


Sending e-mail (events, parameters)

PARAMETERS SETTING



SENDING COMMANDS



EVENT LOG VIEWING



ALARMS VIEWING



MEASUREMENTS VIEWING

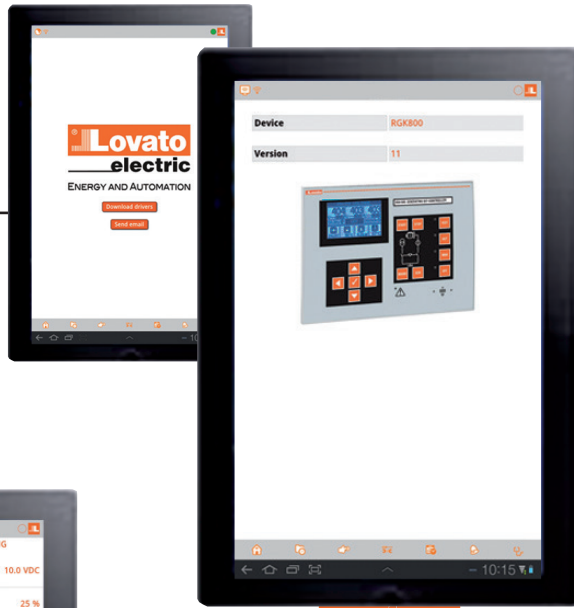


APP  
**NFC**

Updating driver



Sending e-mail (parameters)



**General characteristics**

The parameter setting for some LOVATO Electric products is now possible via tablet and smartphone through **NFC** wireless technology.

Bringing the display of a smartphone or tablet (with NFC connection enabled) in close proximity to a LOVATO Electric product, activates the LOVATO **NFC** App and the device connected is recognised automatically.

The parameters can be set without powering up the LOVATO Electric device.

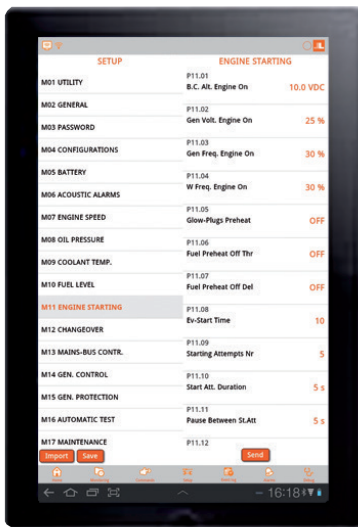
The application allows you to:

- Set the parameters for the product connected
- Save the parameters in a file and share it
- Load a parameter file saved previously
- Simple, fast and intuitive programming
- Very high accuracy and repeatability of the settings.

The app can be downloaded from Google Play Store and App Store.



PARAMETERS SETTING



NFC

