



EXC M4G 01



EXC GL A01



EXC GL AX1

Synergy is a supervision and energy management web-based software that provides the monitoring and control of the electrical installation. In addition to electrical quantities, it allows to check all environmental and process information (*operating status, alarms, etc.*), acquired from LOVATO Electric products, equipped with communication port.

Key software features:

- Structure and applications based on MS SQL relational database management system
- Server with Multi Client capability
- Client view through web-browsers, compatible with various platforms and operating systems.
- Communication with all LOVATO Electric measurement and control devices, via serial ports, Ethernet or modem
- Automatic reports of consumption periods (*e.g. time bands*) in both analytical and graphic format
- Energy consumption reports, Graphic display of trends, Database of instantaneous values
- Alarm management, both locally and via e-mail
- Access level management of users

type	description
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Synergy customer server hosted software

SYN1 SET	Licence for single host server install, includes 1 device licence
SYN1 SLL	Licence for single LOVATO Electric device via Modbus-RTU
SYN1 SLX	Licence for single 3rd party device via Modbus-RTU
SYN1 SDLWS	Licence for WEB API to access Synergy SQL database
SYN1 SLM	Licence for single device to access software updates

Synergy cloud hosted software

The Synergy cloud solution is specifically designed to make the software functions described previously available and accessible via PC or tablet on the LovatoElectric.com Internet portal. With Cloud, it is possible to collect and view production and consumption data with the management software without installing software and without a physical server. This saves on server purchasing, configuration and maintenance costs.

Key software features:

- 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
- Limited subscription cost, yearly renewal required

SYN1 CLL	Cloud Licence for single LOVATO Electric device
SYN1 CLX	Cloud Licence for single 3rd party device via Modbus-RTU

Synergy compatible hardware

Hardware expansion modules to enable Lovato product to communicate to **Synergy** or **Synergy cloud**

Compatible on DMG6XX/700/800/900, RGK610/750/800/900, ATL610/800/900, DCRG8x

EXP1012	opto-isolated RS-485 interface	
EXP1013	opto-isolated Ethernet interface	(only for DMG800/900)
EXP1015	GPRS/GSM modem without antenna	(only for DMG800/900)
CX03	GSM Quad-band antenna for EXP1015 modem (800/900/1800/1900MHz)	

Compatible on DMED310T2, DMG300

EXM1012	opto-isolated RS-485 interface
EXM1013	opto-isolated Ethernet interface with Web server function
EXM1020	opto-isolated RS-485 interface and 2 relay outputs (5A 250 VAC)

Compatible on Lovato devices with RS485 port

EXC M4G 01	RS485 Gateway/4G modem, including antenna and programming cable (9.5-27 VAC / 9.5-35 VDC)
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Synergy data logger

EXC GL A01 gateway is able to collect data from devices which are connected through Ethernet or RS485 port. Modbus RTU, ASCII and TCP protocols are supported. The data can be reviewed by a connection to Synergy Cloud service or to Ethernet local web server and a browser. Access to Internet for data sending can be achieved with Ethernet port or by adding **EXC GL AX1** 2G/3G modem.

- CPU ARM 1 GHz, with local memory
- 2 Ethernet port
- 1 RS232 / RS422/RS485 serial port
- 24 VDC (10...32 VDC) power supply
- Operating temperature -20...+60°C
- Simplified connection to Lovato Electric devices, up to 32 devices

EXC GL A01	Gateway data logger for data collecting via Modbus from the devices in the field
EXC GL AX1	2G/3G modem communication module for EXC GL A01