19.04.2023

Eluhoonete energiatõhususe nutikas mõõtmine

Digital revolution

Changing building perception

Investment and performance
Optimized asset management

Pay-by-use
Subscription-based services

Energy efficiency
Aware use promoted by new regulations

Digitalization in buildings
By 2020, 33bn+ internet-connected devices will be used worldwide*

Advanced analytics
Real-time data to take informed decision

Sustainability
Green buildings meeting challenging sustainability targets

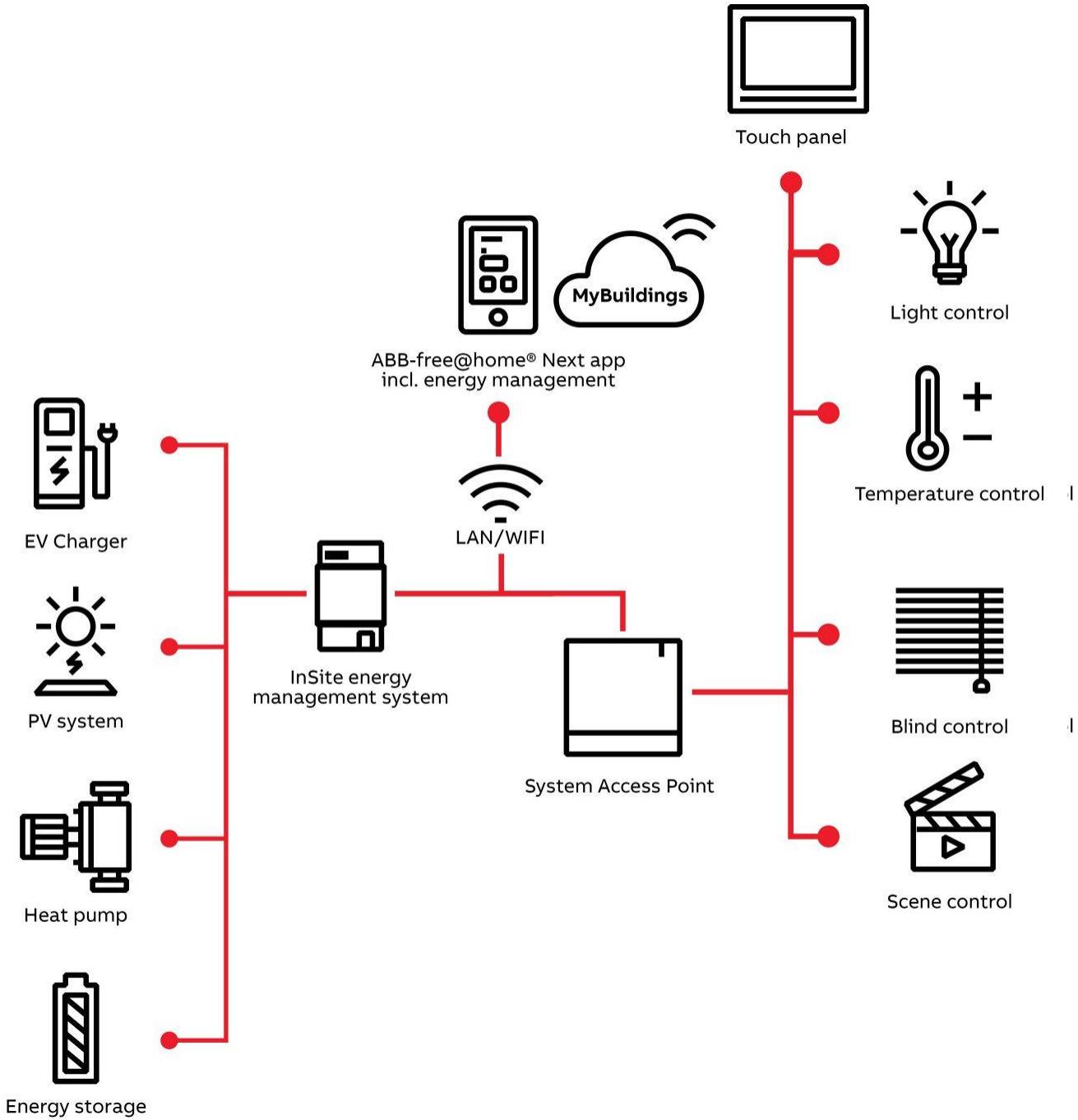
Network Integration
One single solution

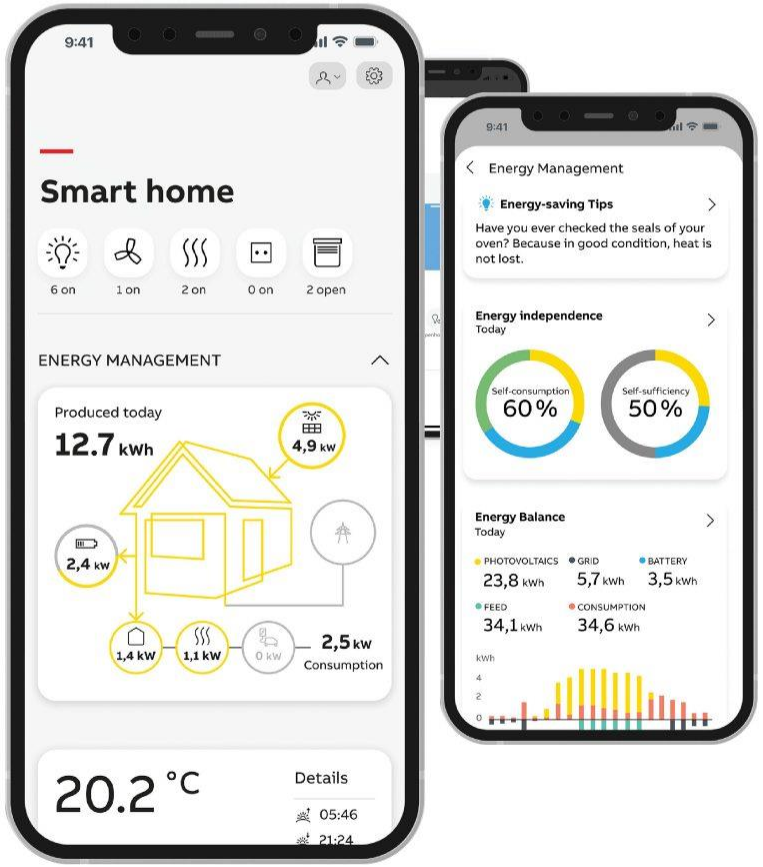
Key stakeholders
Building owners, facilities and energy manager, investors

TRENDS
DRIVERS
NEEDS

NEW TECHNOLOGIES
BUSINESS MODELS

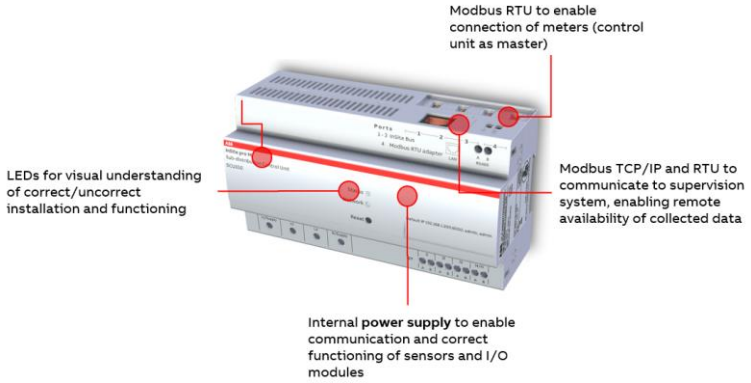
*) according to Strategy Analytics study


Touch panel
MyBuildings
ABB-free@home® Next app
incl. energy management
LAN/WIFI
Light control
Temperature control
EV Charger
PV system
InSite energy
management system
System Access Point
Blind control
Heat pump
Scene control
Energy storage


9:41
Smart home
6 on
1 on
2 on
0 on
2 open
ENERGY MANAGEMENT
Produced today
12.7 kWh
4,9 kW
2,4 kW
1,4 kW
1,1 kW
0 kW
2,5 kW
Consumption
20.2 °C
Details
05:46
21:24
Energy Management
Energy-saving Tips
Have you ever checked the seals of your oven? Because in good condition, heat is not lost.
Energy independence
Today
Self-consumption
60 %
Self-sufficiency
50 %
Energy Balance
Today
PHOTOVOLTAICS
23,8 kWh
GRID
5,7 kWh
BATTERY
3,5 kWh
FEED
34,1 kWh
CONSUMPTION
34,6 kWh
kWh
4
2
0

System pro M compact® InSite

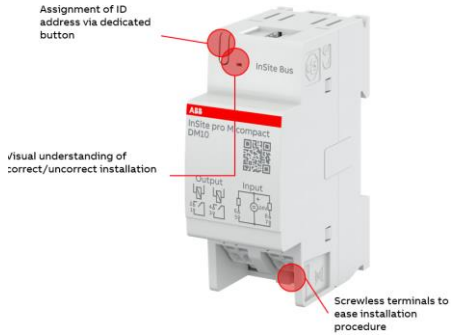
System overview



SCU100 control unit

- Control unit as **single access point** in the sub-distribution panelboard
  - Data aggregator from field devices
  - Data storage
  - Send information to ABB Ability™ EDCS

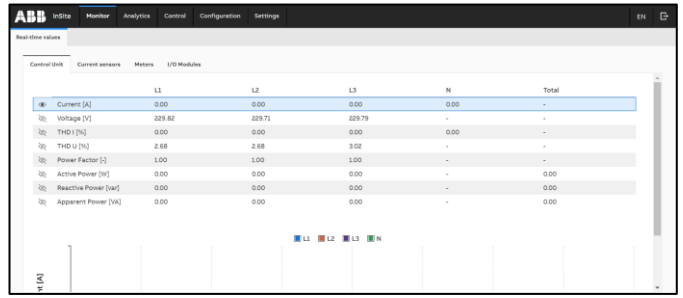
- **Operations**:
  - In addition to branch monitioring sensors, control unit receives data from I/O modules (to support all main application functionalities), and metering via Modbus RTU



Digital Modules (DM)

- Digital input module with 4 channels → DM11
- Digital output module with 4 channels → DM00
- Digital input/output module with 4 channels (2 inputs and 2 outputs) → DM10
- No external **power supply**

- **Operations**:
  - Input to receive data from hard-wired connected devices (accessories, meters)
  - Output to act on connected accessories

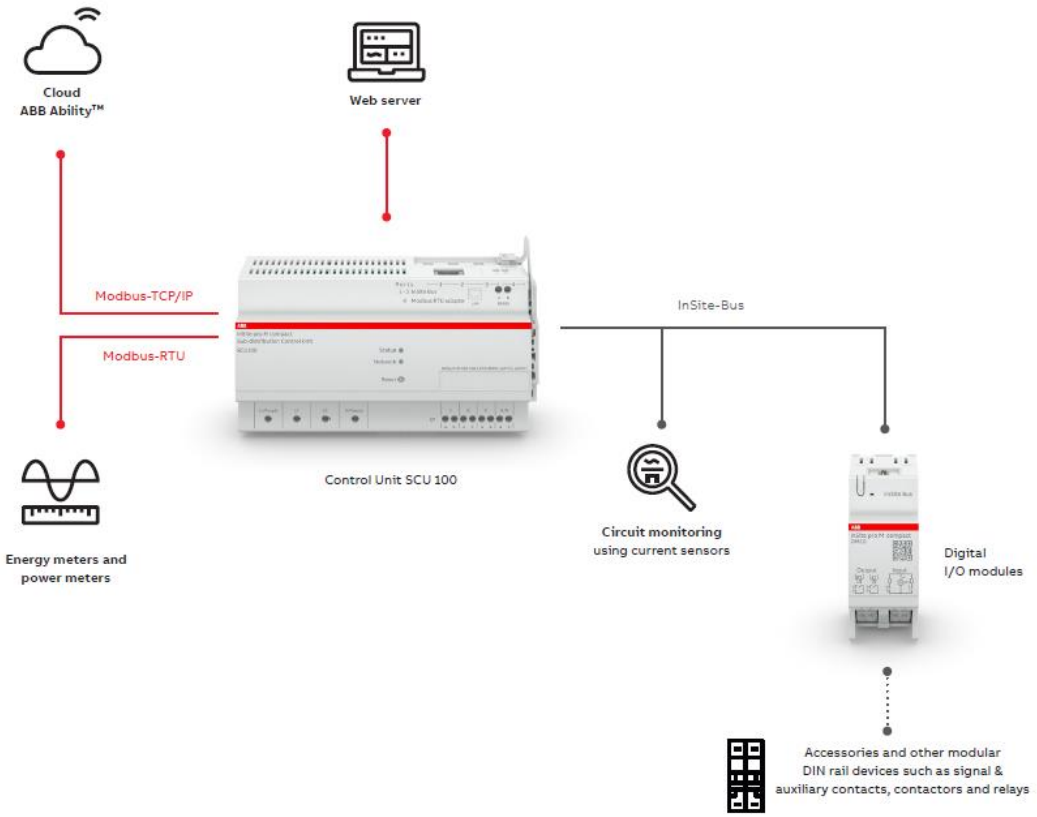


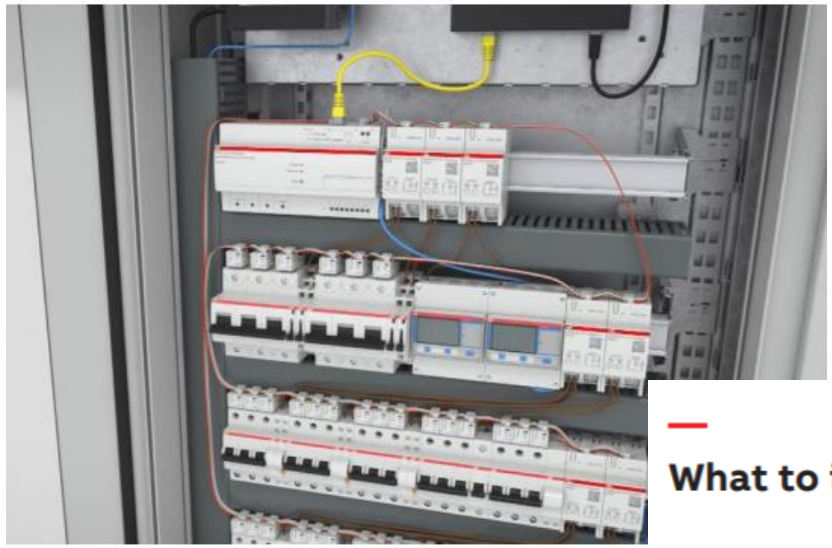
InSite webserver

- Monitoring of the complete system
- Configuration
- Remote action both manual and through implementation of automated logics
- Real time alarms/alerts
- Historical data, comparison between different devices

System pro M compact® InSite

System overview

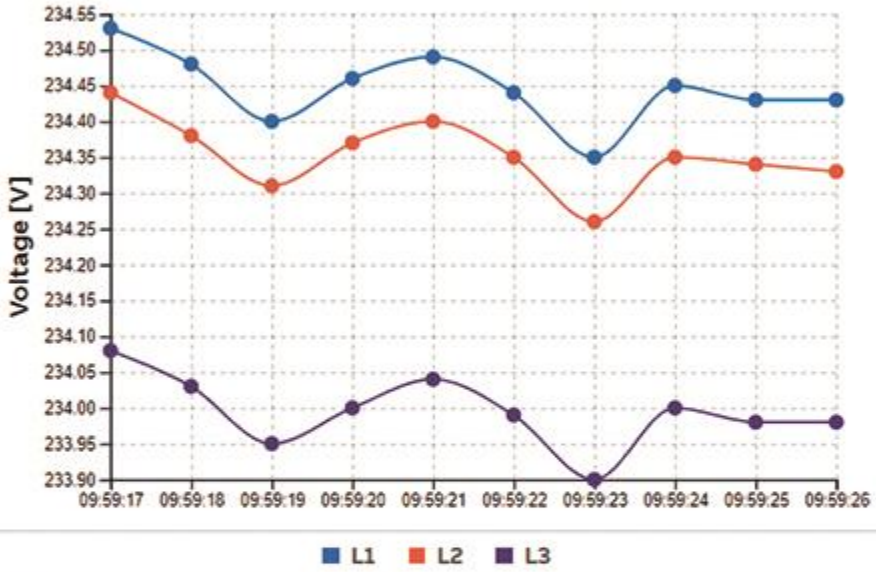




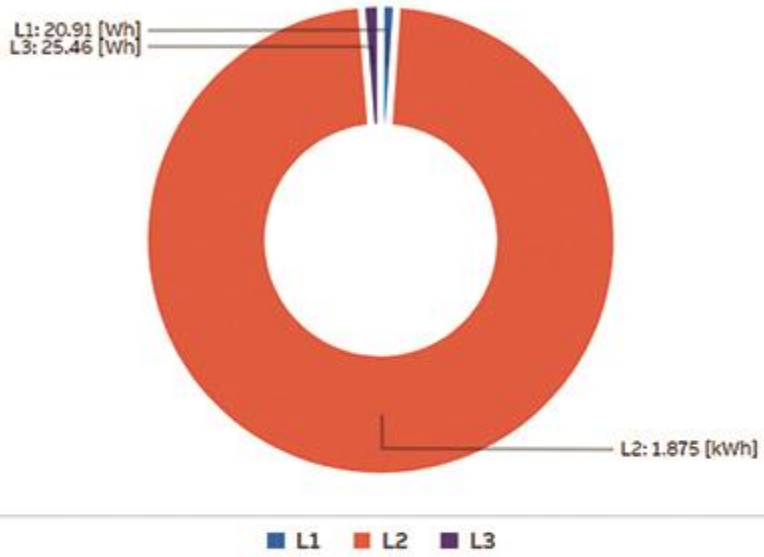
What to include in the panel:

1. Control Unit
2. Digital I/O modules
3. Current sensors
4. Flat cable

Control Unit



Energy



Device time

1.06.2021, 09:59:26

Devices status

Current sensors: 32 ● 0 ●
Meters: 13 ● 1 ●
I/O Modules: 2 ● 0 ●

Firmware version

1.3.0-C3

Alarms log

ID	Name	Device	Measure	Value	Date and Time
414	PV production		P	0 [W]	31.05.2021, 02:43:37
413	PV production		P	0 [W]	31.05.2021, 00:40:36
412	PV production		P	0 [W]	31.05.2021, 00:18:30
411	PV production		P	0 [W]	31.05.2021, 00:16:25
410	PV production		P	0 [W]	30.05.2021, 23:30:11

I/O Modules

ID	Channel tag name	Channel type	Device type	Status	Counte
97.1	Module 1 Port 1	-	-	Close	37
97.2	Module 1 Port 2	-	-	Close	21
97.3	Module 1 Port 3	-	-	Open	2
97.4	Module 1 Port 4	-	-	Open	2
98.1	Gas 1	Pulse	Gas	-	5
98.2	Water 1	Pulse	Water	-	4
98.3	Heat	Pulse	Heat	-	4
98.4	Gas 2	Pulse	Gas	-	4

Control Unit - Energy