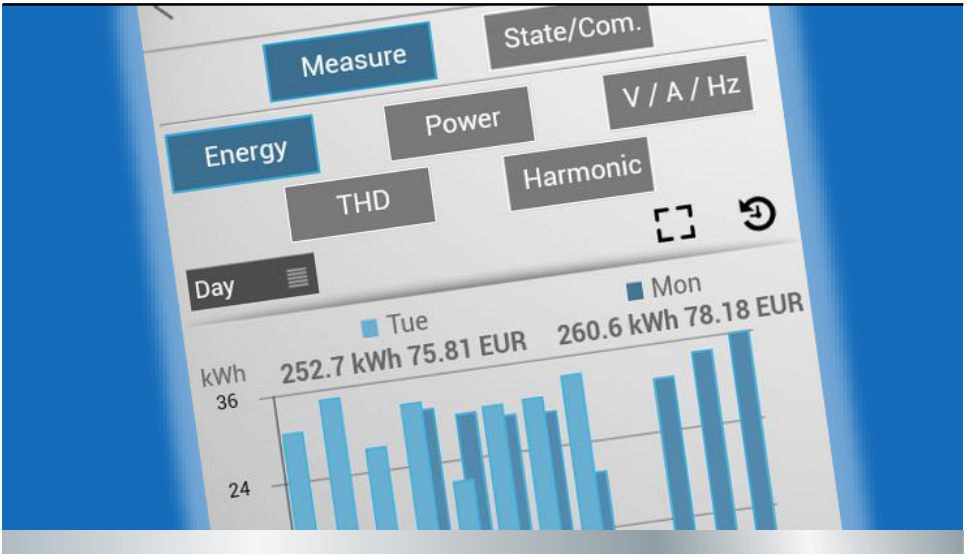
SXWS10 - SXWS32

Mini Energy Web Server

User guide



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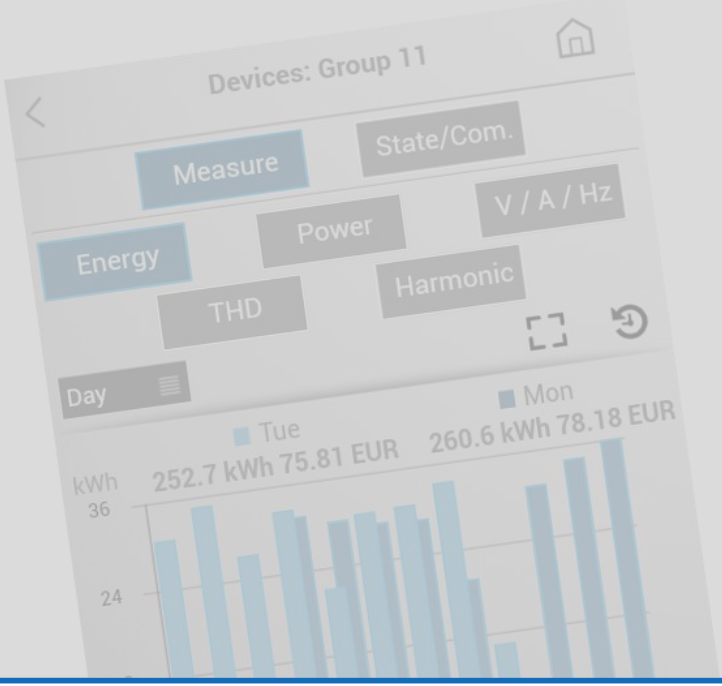
Devices: Group 11
Measure
State/Com.
Energy
Power
V / A / Hz
THD
Harmonic
Day
Tue
Mon
kWh
252.7 kWh 75.81 EUR
260.6 kWh 78.18 EUR
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24

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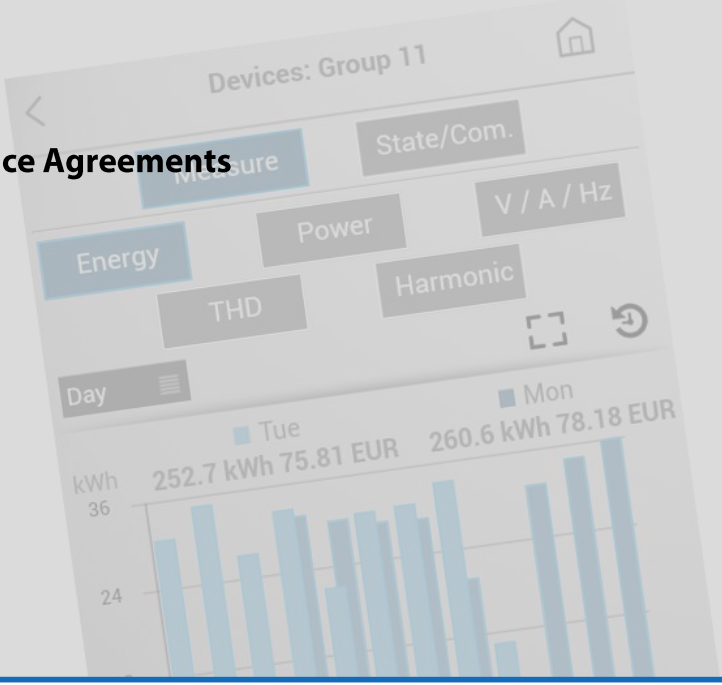
Licence Agreements



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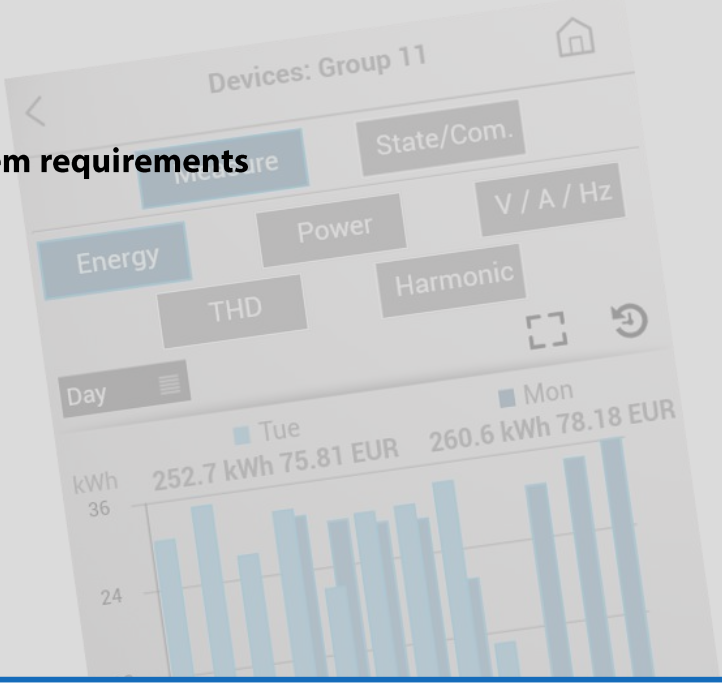
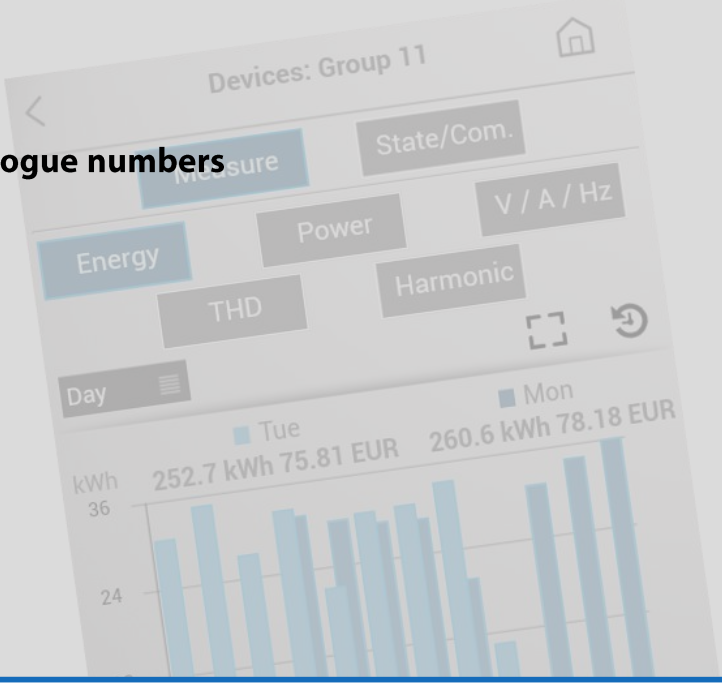
System requirements



Display possible on: (Device, Operating system, Web Browser)

– iPhone:
  - 5 and following, iOS 10 and following, Safari

Catalogue numbers



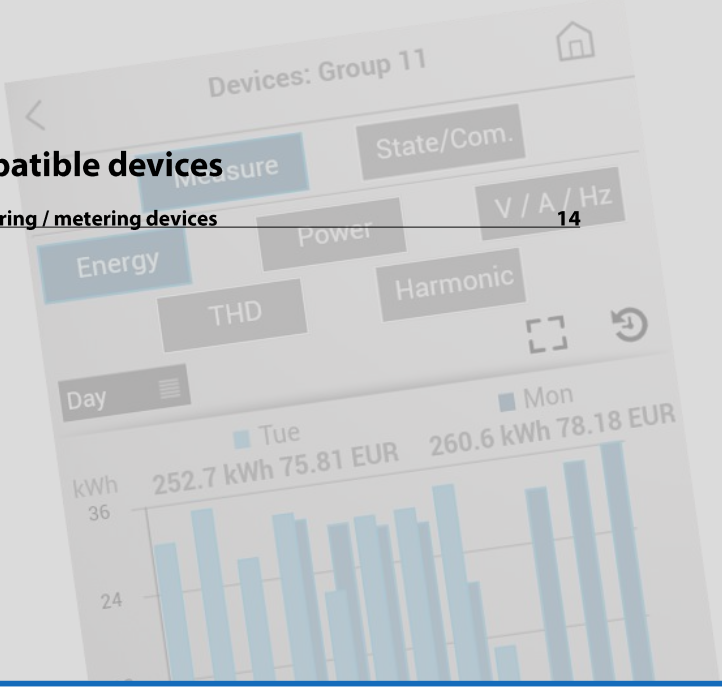
SXWS10: "Mini Energy Web Server 10"

– Management up to 10 Modbus addresses or 10 pulse counters

SXWS32: "Mini Energy Web Server 32"

– Management up to 32 Modbus addresses or 32 pulse counters

Software version 3.9.0



Compatible devices

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4.1 Measuring / metering devices

- Range **NEMO**
  - Multifunction measuring units RS485 :
    - Nemo D4-L, Cat.No **MF6FT40026**
    - Nemo D4-L +, Cat.Nos **MF6HT40003, MF6HT40006, MF6HT4000H**
    - Nemo D4-e, Cat.No **MFD4E06**
    - Nemo D4-Le, Cat.Nos **MFD4421, MFD4422, KRNEMOD4LE080, KRNEMOD4LE142, KRNEMOD4LE190**
    - Nemo D4-Dc, Cat.Nos **MF6DC4200H, MF6DC42006, MF6DC4206H, MF6DC42066**
    - Nemo D4-EC, Cat.Nos **MKD4R63DT, MKD4R125DT, MFD4ORFCDT1, MFD41ORFCDT, MFD42ORFCDT**
    - Nemo 72-Le, Cat.Nos **MF72421, MF72422**
    - Nemo 96HD-e, Cat.No **MF96E06**
    - Nemo 96HD-Le, Cat.Nos **MF96411 + IF96001, MF96412 + IF96001, MF96411 + IF96012, MF96412 + IF96012, MF96421, MF96422, KRNEMOHDLE080, KRNEMOHDLE142, KRNEMOHDLE190**
    - Nemo 96HD, Cat.Nos **MF96001 + IF96001, MF96002 + IF96001, MF96001 + IF96012, MF96002 + IF96012**
    - Nemo 96HD+, Cat.Nos **MF96021 + IF96001, MF96022 + IF96001, MF96021 + IF96012, MF96022 + IF96012**
    - Nemo 96EA, Cat.Nos **MFQ96021 + IF96001, MFQ96022 + IF96001**
    - Nemo 96-EC, Cat.Nos **MK96R63DT, MK96R125DT, MF96ORFCDT1, MF961ORFCDT, MF962ORFCDT**

- Range **NEMO** ***(continued)***
  - Multifunction measuring units pulse output (via the Pulse Concentrators Cat.Nos **IF4C001*** or **SXMIMP*** or pulse input of Energy counters Cat.Nos **CE2DF3DTCL1***, **CE4DF3DTCL1*** and **CE4TBDTCL1***):
    - Nemo D4-L +, Cat.Nos **MF6HTU0003, MF6HTU0006, MF6HTU000H**
    - Nemo D4-Le, Cat.Nos **MFD4411, MFD4412**
    - Nemo 72-Le, Cat.Nos **MF72411, MF72412**
    - Nemo 96HD-Le, Cat.Nos **MF96411, MF96412**

- Range **CONTO**
  - Energy counters RS485:
    - Conto D1, Cat.No **CE11165A4**
    - Conto D2, Cat.Nos **CE20195A4, CE2DF3DTCL1**
    - Conto D2 MID, Cat.Nos **CE2DMID11, CE2DF3DTMID**
    - Conto D4-Pd, Cat.Nos **CE4DT06A4, CE4DF3DTCL1**
    - Conto D4-Pd MID, Cat.Nos **CE4DMID31, CE4DF3DTMID**
    - Conto D4-Pt, Cat.Nos **CE4DT14A4, CE4DT12A6, CE4DT14A4, CE4DT14A6, CE4TBDTCL1**
    - Conto D4-Pt MID, Cat.Nos **CE4DMID01, CE4TBDTMID**
    - Conto D6-Pd, Cat.No **CE6DT1256**
    - Conto D6-Pd MID, Cat.No **CE6DMID56**

- Range **CONTO** ***(continued)***
  - Energy counters pulse output (via the Pulse Concentrators Cat.Nos **IF4C001*** or **SXMIMP*** or pulse input of Energy counters Cat.Nos **CE2DF3DTCL1*, CE4DF3DTCL1*** and **CE4TBDTCL1***):
    - Conto D1, Cat.No **CE11165A2**
    - Conto D1 MID, Cat.No **CE1DMID12**
    - Conto D2, Cat.Nos **CE20195A2, CE2DF30PCL1**
    - Conto D2 MID, Cat.Nos **CE2DMID12, CE2DF30PMID**
    - Conto D4-Pd, Cat.Nos **CE4DT06A2, CE4DT06A23F, CE4DF30PCL1**
    - Conto D4-Pd MID, Cat.No **CE4DMID22, CE4DMID32, CE4DF30PMID**
    - Conto D4-Pt, Cat.Nos **CE4DT12A2, CE4DT14A2, CE4TB0PCL1**
    - Conto D6-Pd, Cat.No **CE6DT1252**
    - Conto D6-Pd MID, Cat.No **CE6DMID52**

- Range **NEMO SX**
  - Multifunction measuring devices:
    - Single-phase connection via Closed Rogowski coil(s) – Cat.Nos **SX3M63** and **SXMM63**
    - Three-phase connection via Closed Rogowski coil(s) – Cat.Nos **SXMT63** and **SXMT125**
    - Single-phase or Three-phase (configurable) connection with CT - Cat.No **SXMMT5**
    - Three-phase connection via Open Flexible Rogowski coils - Cat.Nos **SXMR02**, **SXMR04**, **SXMR06** and **SXMR08**
  - State and Control modules:
    - Multifunction State Module - Cat.No **SXMC02**
    - Multifunction Control Module - Cat.No **SXM0C1**
  - via Modbus/NEMO SX interface - Cat.No **SXI485**

- Gas counters
  - Any device with pulse output via the Pulse Concentrators Cat.Nos **IF4C001*** or **SXMIMP*** or pulse input of Energy counters Cat.Nos **CE2DF3DTCL1***, **CE4DF3DTCL1*** and **CE4TBDTCL1***

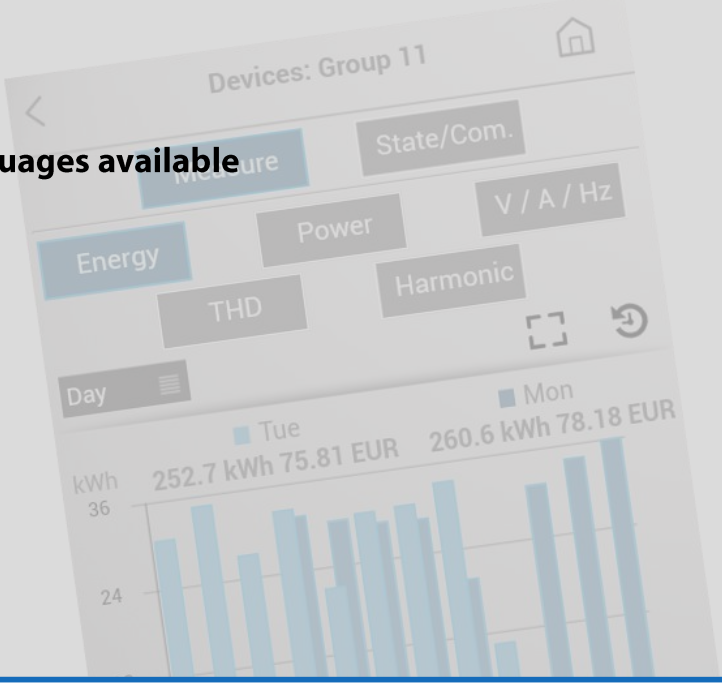
- Water counters
  - Any device with pulse output via the Pulse Concentrators Cat.Nos **IF4C001*** or **SXMIMP*** or pulse input of Energy counters Cat.Nos **CE2DF3DTCL1***, **CE4DF3DTCL1*** and **CE4TBDTCL1***

* **Note:** Pulse Concentrator and Energy counters with pulse input must be properly programmed to be compatible with the type of counter *(Refer to the technical documentation of each device)*

- Range **Power factor controller ALPTEC**
  - ALPTEC3.2 + ExtRS485
  - ALPTEC5.2 + ExtRS485
  - ALPTEC8.2 + ExtRS485
  - ALPTEC8 + ExtRS485

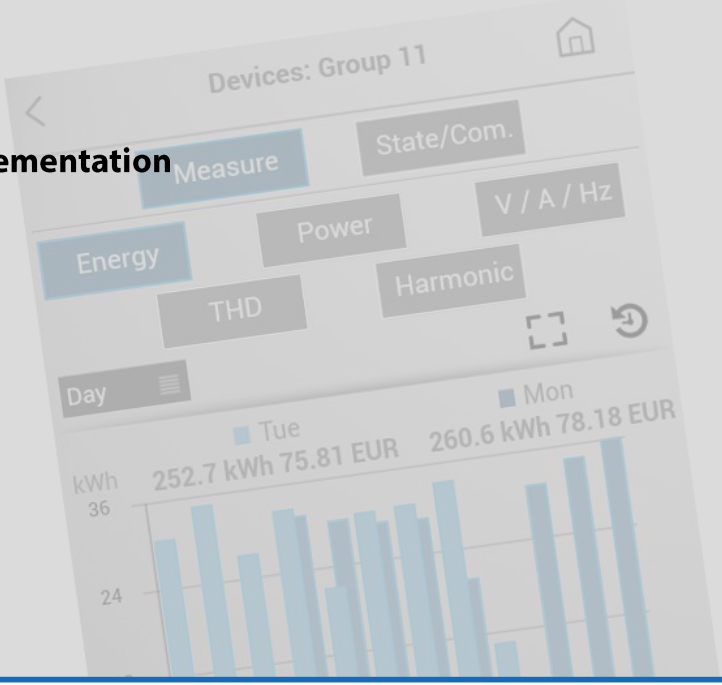
- "Generic" Measurement/Counting Devices with Modbus RS485 output
  - Any "other manufacturers" meter or counter with Modbus RS485 output, **limited only to positive active energy**

Languages available



- **Languages:**
- 中国
- Deutsch
- English
- Español
- Français
- Français (Belgique)
- Ελληνικά
- Italiano
- Nederlands (België)
- Nederlands
- Polski
- Portuguese
- Русский

Implementation



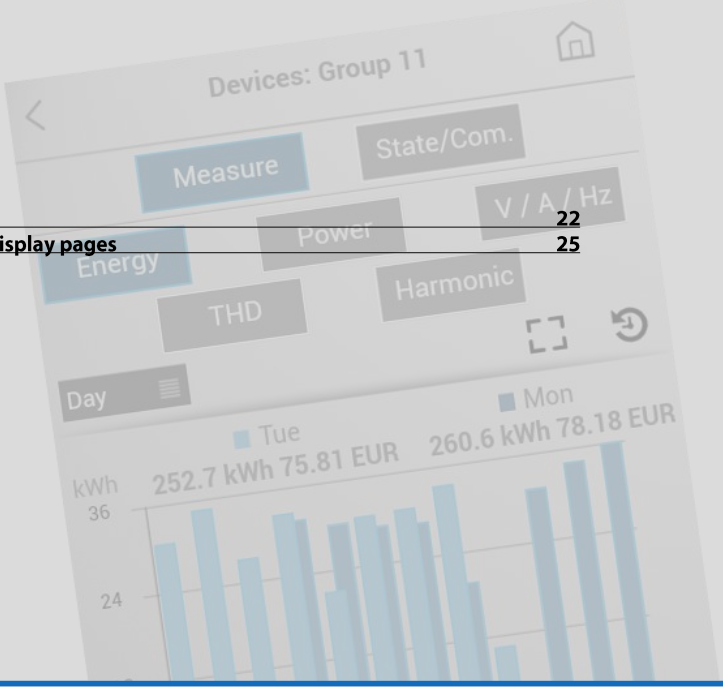
ATTENTION!

The procedures for configuring the Web Server (Web Server configuration) and the System (System configuration) are only possible by accessing the Web server by a computer.
(refer to the "User manual")

By working locally on Smart-phones are available only setting options and all display pages of consumptions or of charging stations management.

Use

7.1 Access 22
7.2 Data display pages 25



7.1 Access

The access to the Web Server's data is protected by identification codes (PIN and PUK codes).

Three types of "default" users are configurated:
– "administrator"
– "installer"
– "user"
The home page ("home") will be different depending on the type of user that access to the device.

7.1.1 Access rights

- "administrator"

Access to the pages:
– My panel board
– Consumptions: data & diagrm.
Default access PIN code:
99999 (5 characters)
Default access PUK code:
00000 9999 00000 (14 characters)

- "installer"

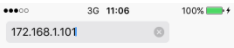
Access to the pages:
– My panel board
– Consumptions: data & diagrm.
Default access PIN code:
55555 (5 characters)
Default access PUK code:
00000 5555 00000 (14 characters)

- "user"

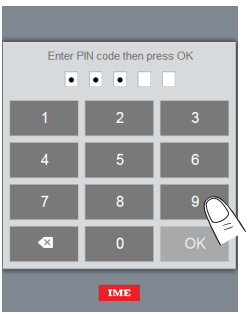
Access to the pages:
– Consumptions: data & diagrm.
Default access PIN code:
11111 (5 characters)
Default access PUK code:
00000 1111 00000 (14 characters)

7.1.2 Login procedure

Connect to the Web Server from your smart-phone by typing in the web browser the IP address set in the configuration procedure (refer to the "User manual" § 7.5)



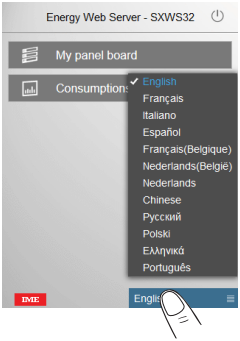
Web Server's login page appears



Type an access PIN code(ex. 99999 - default PIN) then press on "OK".

Type the access PUK code 00000 9999 00000 (default PUK) then press on "OK".
Web Server's home page appears

7.1.3 Changing of the display language

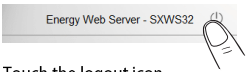


In the Web Server's Home page, touch on the list box in the lower part of the page to choose the proper language.

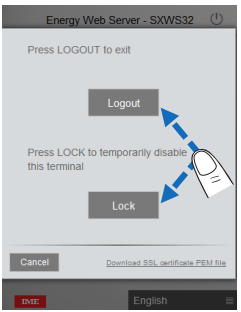
Note: this operation doesn't change the default language. To change the default language follow the procedure described in the User manual (§ 7.8.1)

7.1.4 Logout procedure

The Logout icon appears in the Web Server's home page.



Touch the logout icon.
A confirmation page appears.



Touch "Logout" or "Lock" to confirm the exit from the web server.

Note:
Logout → closing the session; reconnection with the PIN code.
Lock → temporary disabling of the application; reconnection with the codes PIN+PUK.

7.2 Data display pages

7.2.1 My panel board

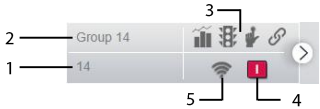
"Devices" page allows to view the data measure by each device added by the users and to .

In the Web Server's home page press on "My panel board"

A page with the Devices list's appears.
This page shows the devices added with their characteristics and status icons.

Possibility to choose a device per "Gateway", "Panel board" or "All devices".

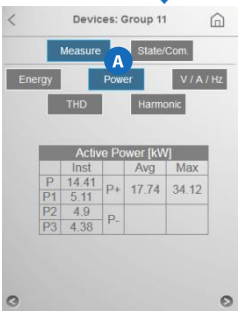
- **Description of the device selection button**



1. Modbus Address (Modbus Address - Position for counters with pulse output or Modbus Address - Indication of the virtual device type for the Master/Slave function)
2. Name of the device
3. Symbols of the functions associated to the Device
   - Measure
   - State
   - Command
   - Link Functionality
4. This symbol appears only if the Device integrates the state function related to a protection device and shows the circuit-breaker state:
   - O Open
   - I Closed
   - O Tripped
5. Device status
   - On
   - Off
   - Communication error

The procedure to switch ON/OFF a device is described in the "User Manual" (§ 7.15.1).

In the Devices list's page press on a Device button.

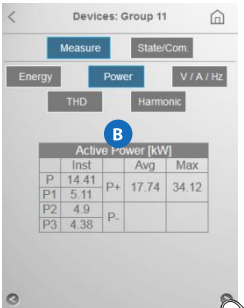


Details page of the selected device appears.
The page is divided into two parts:
section **A** is the area where is possible to select two pages:

- Measure: display of the quantities measured by a device:
  - Electricity measuring device: Energy, Power, Voltages/Currents /Frequency, THD (if available on the Device) and Harmonics (if available on the Device)

    Note: for "generic" measurement/counting devices and "Virtual" devices created with the Master/Slave function, only the table with the value of positive active energy is available.
  - Water Counters: Water consumptions
  - Gas Counters: Gas consumptions
- State/Com.: page dedicate to NEMO SX devices; display of devices status, control buttons… for each NEMO SX device/group of devices

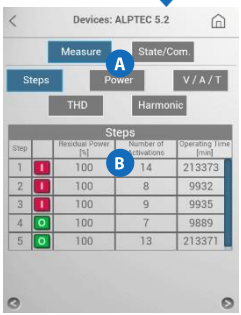
section **B** shows the values measured by the selected device.



Touch the two arrows in the lower part of the page to view the different tables for the selected quantity (e.g. for Power: Active, Reactive and Apparent power).

For Power Factor Controllers of ALPTEC range, “My panel board” page is structured as follows:

In the Devices list’s page press on a Power factor controller button.



Details page of the selected PFC appears.

The page is divided into two parts:

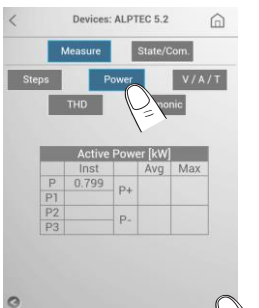
section **A** is the area where is possible to select two pages:

- Measure: display of parameters and electrical quantities measured by the Power Factor Controller:
  - Steps: State (O : not inserted, I : inserted), Residual power (in % for APLTEC3.2/5.2/8.2 and in kvar for ALPTEC8), Number of insertions and Insertion time for each step
  - Others quantities: Power, Power Factor, Voltages/Currents/ Temperature, THD and Harmonics
- State/Com.: display of residual time to maintenance (for APLTEC3.2/5.2/ 8.2) and possibility to reset this time;

section **B** shows the values measured by the selected power factor controller

Touch the two arrows in the lower part of the page to pass to the page containing indication of the Global state of Steps (OK or Default) and AUTO/MAN control button used to show the state of the power factor controller and to switch the device between two operating modes

Press on one of the buttons to view the other measured electrical quantities.

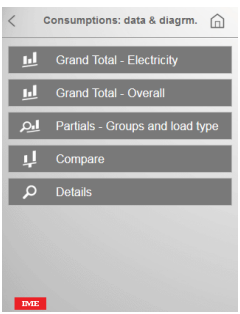


Use two arrows in the lower part of the page to display the different tables for the selected electrical quantity (e.g. for the Power: Active, Reactive and Apparent power and Power factor).

7.2.2 Consumptions: data & diagrm.

"Consumptions" page allows to view the global or detailed consumptions of the devices added by the users.

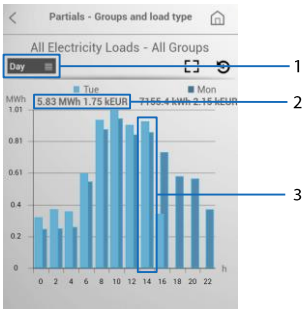
In the Web Server's home page press on "Consumptions: data & diagrm."
Consumptions page appears.



Are available 5 ways of displaying data:

- Grand Total - Electricity (Electrical Consumptions of the entire installation)
- Grand Total - Overall (Overall Consumption of the installation)
- Partials (Consumptions per Load and/or Measure group)
- Compare (Comparison of the Global Consumptions between two Devices)
- Details (Consumptions of a single Device)

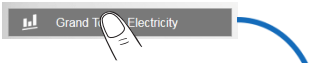
For each page are available:



1. Histograms of the consumptions divided per:
   - Day (per hours)
   - Month (per days)
   - Year (per months)
2. Values in:
   - Wh (and multiples of Wh), dm^3 (and multiples of dm^3) of water, dm^3 (and multiples of dm^3) of gas and "Wh (and multiples of Wh) equivalent" of gas.

   Note: displayed values (resolution , decimal values, etc.) depend only on the quantities read by the measuring instruments.
   - EUR (or other configured currency)
3. Comparison between the actual and the previous value (ex. today/yesterday, etc.)

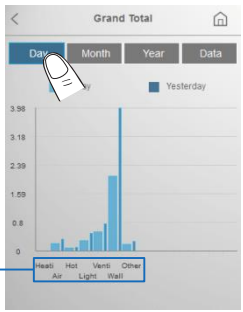
- **Grand Total - Electricity**



In the Consumptions menu page press on "Grand Total - Electricity".

Visualization of Total Energy (Ea+) Consumptions on histograms.

Press "Day", "Month" or "Year" to view consumptions on a different time period (Day (per hours) / Month (per days) / Year (per months)).
Press "Data" to view the table with the values (in kWh and EUR) of global consumptions in different time periods.



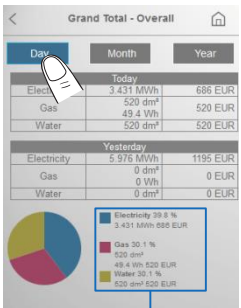
Histograms divided per Load

Note: in this visualization, consumption data for "virtual" devices not excluded from Total are also taken into account.

- **Grand Total - Overall**

In the Consumptions menu page press on "Grand Total - Overall".

Visualization of Overall Consumptions of the system on tables and on a pie chart showing:
-consumptions subdivided per type:
Electricity (blue area)
Gas (violet area)
Water (yellow area)
- consumptions valued according to the measurement unit and the currency set



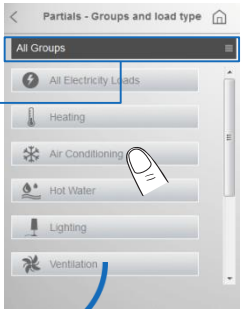
Press "Day", "Month" or "Year" to view consumptions on a different time period (Day (per hours) / Month (per days) / Year (per months)).

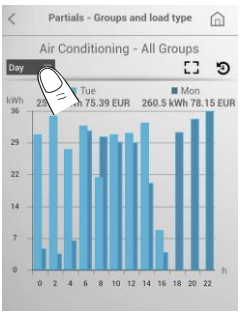
The percentage shown in the pie chart is calculated based on the currency set

Note: in this visualization, consumption data for "virtual" devices not excluded from Total are also taken into account.

- **Partials - Groups and Loads**

In the Consumptions menu page press on “Partials - Groups and Load type”.
Loads list’s page appears.
This page shows “pre-defined” loads and loads added by the users;
Possibility to choose a load filtering the research per “Measure Group”.



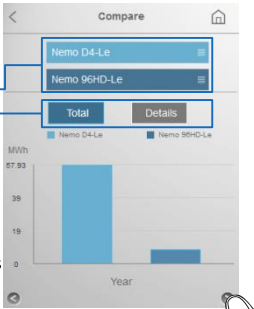


Pressing on a load button the partials consumptions page appears.
Press the drop-down menu to view histograms over a different time period (Day/Month/Year).

- **Compare**

In the Consumptions menu page press on “Compare”.

Comparison page of Consumptions between two Devices.



Selection of two devices to be compared

Selection of Total or Detailed comparison between the two selected devices

Note: Selecting two non homogeneous Measuring Devices (ex Electricity and Gas), comparison is evaluated only according to the currency (EUR or other currency) and not according to the measurement units. It is not possible to compare kWh of energy and “Equivalent kWh of gas.

Touch the two arrows in the lower part of the page to view the comparison histograms on a different time period (Day / Month / Year).

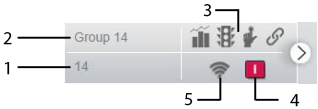
- **Details**

In the Consumptions menu page press on “Details”.

Devices list’s page appears.
This page shows the devices added by the users with their characteristics and status icons.

Possibility to choose a device per “Group”, “Load” or “All devices”.

- **Description of the device selection button**

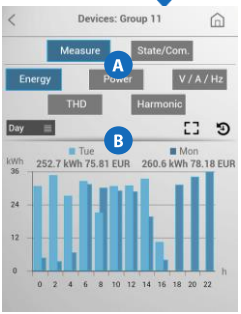


1. Modbus Address (Modbus Address - Position for counters with pulse output or Modbus Address - Indication of the virtual device type for the Master/Slave function)
2. Name of the device
3. Symbols of the functions associated to the Device
   - Measure
   - State
   - Command
   - Link Functionality
4. This symbol appears only if the Device integrates the state function related to a protection device and shows the circuit-breaker state:
   - O Open
   - I Closed
   - O Tripped
5. Device status
   - On
   - Off
   - Communication error

The procedure to switch ON/OFF a device is described in the “User Manual” (§ 7.15.1).

In the Devices list's page press on a Device button.

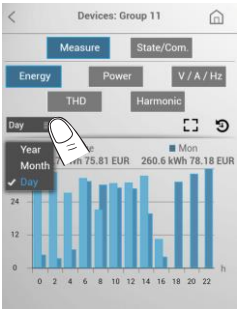
Details page of the selected device appears.
The page is divided into two parts:
section **A** is the area where is possible to select two pages:



•Measure: display of the quantities measured by a device:
– Electricity measuring device: Energy, Power, Voltages/Currents /Frequency, THD (if available on the Device) and Harmonics (if available on the Device)

Note: for "generic" measurement/counting devices and "Virtual" devices created with the Master/Slave function, only Energy histograms are available.

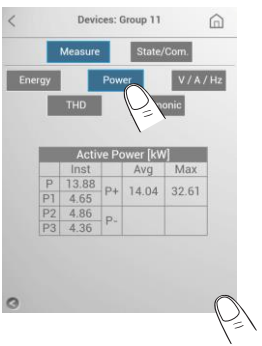
– Water Counters: Water consumptions
– Gas Counters: Gas consumptions
•State/Com.: page dedicate to NEMO SX devices; display of devices status for each NEMO SX device/group of devices
section **B** shows histograms of the consumptions, values measured by the selected device, status icons *(if available)*.



Press the drop-down menu to view energy histograms over a different time period (Day/ Month/Year).

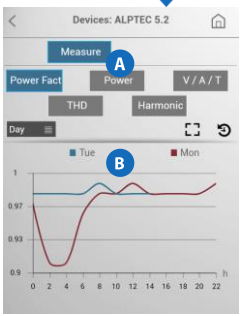
Press on one of the buttons to view the other measured electrical quantities.

Use two arrows in the lower part of the page to display the different tables for the selected electrical quantity (e.g. for the Power: Active, Reactive and Apparent power and Power factor).



For Power Factor Controllers of ALPTEC range, “Details” page of the “Consumptions: data & diagrm.” menu is structured as follows:

In the Devices list’s page press on a Power factor controller button.



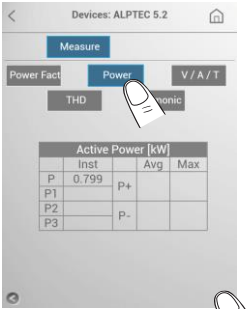
Details page of the selected PFC appears.

The page is divided into two parts:

section **A** is the area where is possible to select two pages:

- Measure: display of parameters and electrical quantities measured by the Power Factor Controller:
  - Power Fact: linear graphs with power factor trend
  - Others quantities: Power, Power Factor, Voltages/Currents/ Temperature, THD and Harmonics

section **B** shows the values measured by the selected power factor controller



Press on one of the buttons to view the other measured electrical quantities.

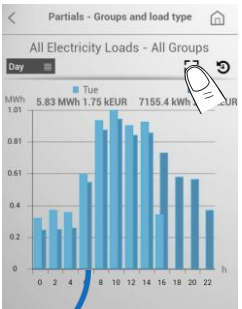
Use two arrows in the lower part of the page to display the different tables for the selected electrical quantity (e.g. for the Power: Active, Reactive and Apparent power and Power factor).

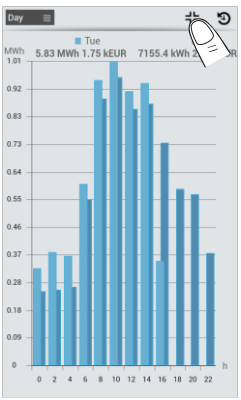
- **Advanced histograms display**

For consumptions histograms of the menus “Partial – Groups and Load types” and “Details”, an advanced display mode is available.

- Full screen display

Pressing on the button ⛶, histograms can be enlarged to full screen on the device.

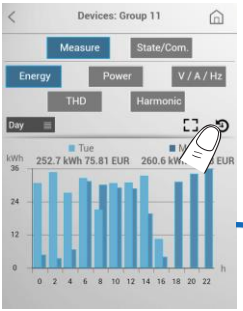




Note: image format and resolution will depend on the screen on which the data will be displayed *(see example for a 4,5” screen).*

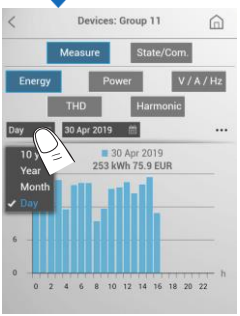
To return to the standard format, press the button ⛶ at the top right.

- Detailed view and direct download of data

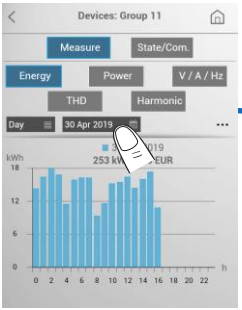


Pressing on the button ⟲ , it is possible to browse the histograms in detailed mode by :

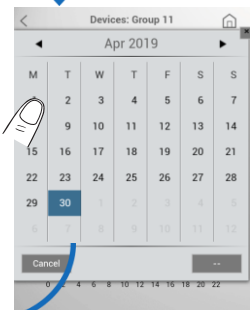
- Day (per hours)
- Month (per days)
- Year (per months)
- 10 years (per years)

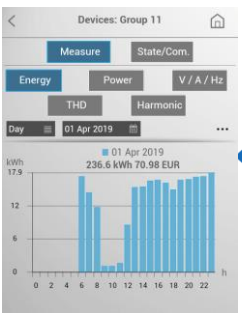


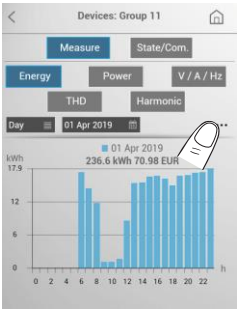
Press the drop-down menu to select the histogram viewing period (Day, Month, Year, 10 years).



Example: display by "Day" and choice of a specific date in the selected period.







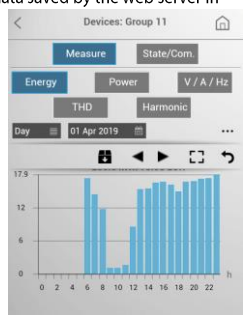
Pressing on the three points "…", another set of options is displayed.

Pressing on two arrows (◀ or ▶), it is possible to pass from one to another histogram in the selected period (e.g. today, yesterday, two days ago, ...).

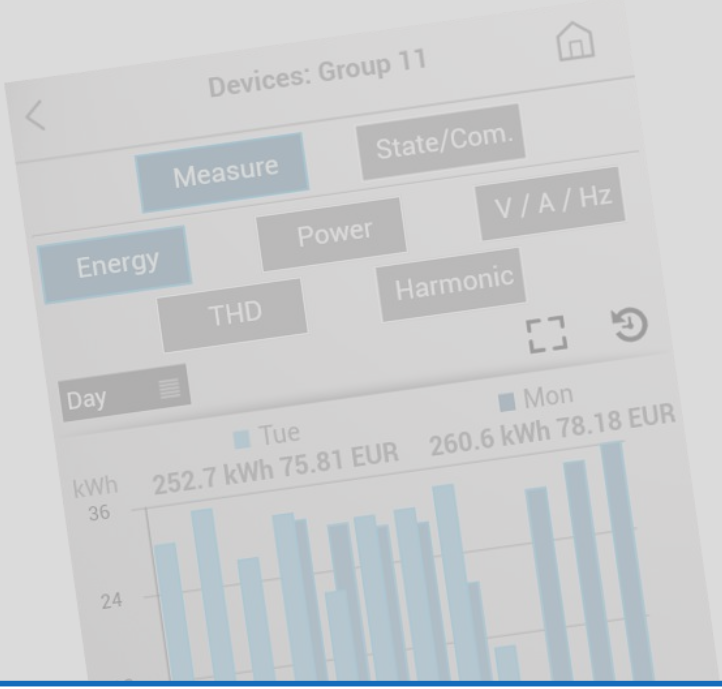
Pressing on the button , it is possible to download a ".csv" file named "datalogger.csv" with the data saved by the web server in the selected period.

Pressing on the button , it is possible to return to the standard view.

Note: it is still possible to put in full screen this type of histogram by pressing the button .



FAQ


Devices: Group 11
Measure
State/Com.
Energy
Power
V / A / Hz
THD
Harmonic
Day
Tue
Mon
kWh
252.7 kWh 75.81 EUR
260.6 kWh 78.18 EUR
36
24

ATTENTION!

Downloading and management of files .CSV and all other functions (management of the database, network types, terms of access and Backup/Restore procedure) are possible only by accessing the Web server by a computer (refer to the "User manual")

IME

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