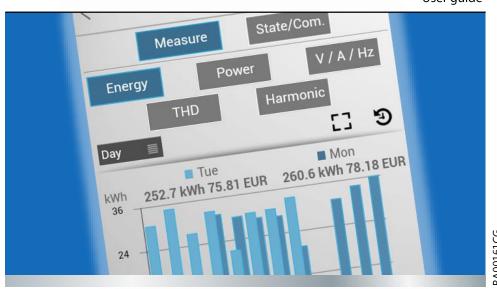
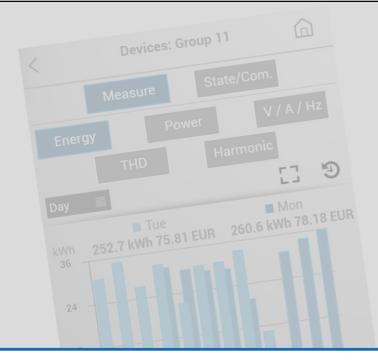


User guide

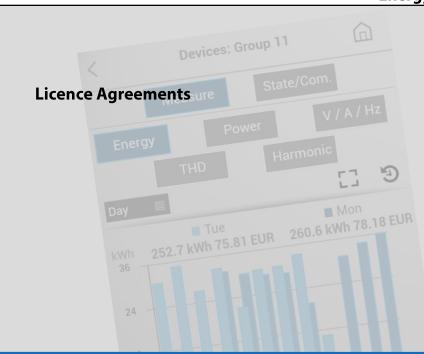






1 <u>Licence Agreements</u>	6
2 System requirements	10
3 <u>Catalogue numbers</u>	12
4 Compatible devices	14
4.1 Measuring / metering devices	14
5 <u>Languages available</u>	18
6 <u>Implementation</u>	20
7 <u>Use</u>	22
7.1 Access	22
7.1.1 Access rights	22
7.1.2 Login procedure	23
7.1.3 Changing of the display language	24
7.1.4 Logout procedure	24
7.2 Data display pages	25
7.2.1 My panel board	25
7.2.2 Consumptions: data & diagrm.	28
8 FAQ	38

IME





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(b) related explanatory written materials or files

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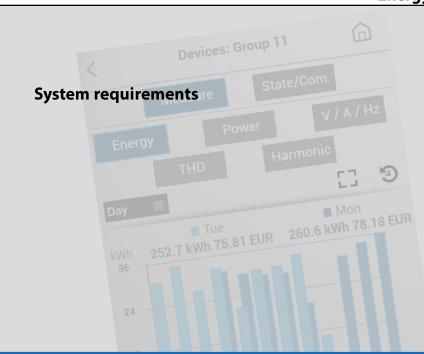
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This Agreement will be governed by Italian Law.

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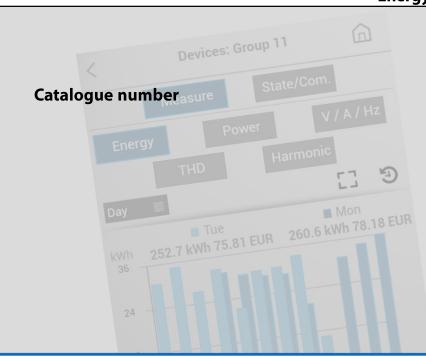
Failing such a settlement, the disputes shall be submitted to the exclusive jurisdiction of the Court of Milan.





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

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





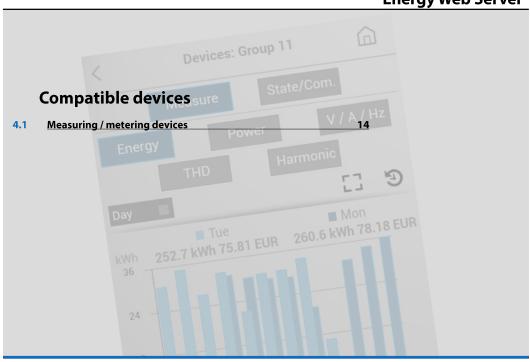
SXWS255: "Energy Web Server 255"

Management up to 255* devices

Note: 32 for each Gateway max. 32 Modbus addresses or 32 pulse counters

* Recommended value 128

Software version 3.9.0





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.
 - 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:

State and Control modules:

- 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
- Multifunction State Module Cat No SXMC02
 - Multifunction Control Module Cat.No SXM0C1
- via Modbus/NEMO SX interface Cat.No SXI485

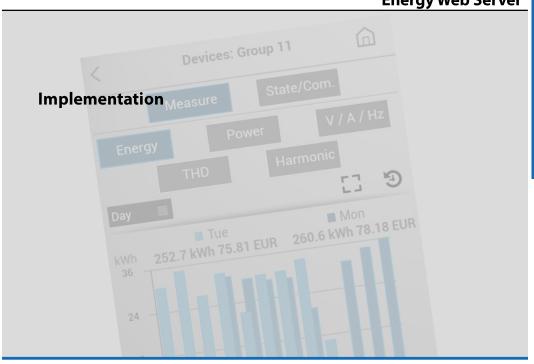
- Gas counters
 - Any device with pulse output via the Pulse Concentrators Cat.Nos IF4C001* or SXMIMP* or pulse input of Energy counters Cat.Nos CE2DF3DTCL1*, CE4DF3DTCL1* and CE4TBDTCL1*
- Water counters
 - Any device with pulse output via the Pulse Concentrators Cat.Nos IF4C001* or SXMIMP* or pulse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

- 中国
- Deutsch
- English
- EspañolFrançais
- Français (Belgique)
- Ελληνικά
- Italiano
- Nederlands (Belgïe)
- Nederlands
- Polski
- Portuguese
- Русский

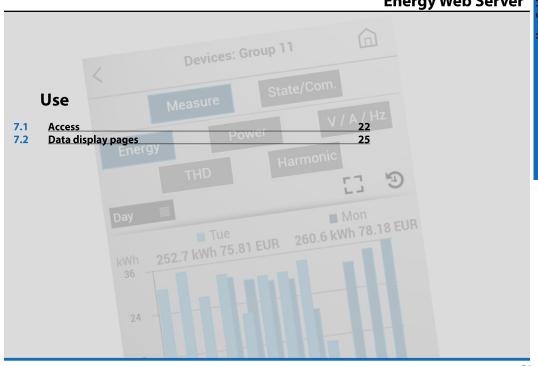




ATTENTION!

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.





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

99999 (5 characters)

- Consumptions: data & diagrm.

Default access PIN code:

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. 999999 - 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 (1) appears in the Web Server's home page.



A confirmation page appears.



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

Note:

 $\label{eq:Logout} \begin{tabular}{ll} Logout \to closing the session; \\ reconnection with the PIN \\ code. \end{tabular}$

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 .



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



- 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 circuitbreaker state:
 - Open
 - **III** Closed
 - Tripped
- 5. Device status
 - On
 Off
 - Off
 - Communication error

The procedure to switch ON/OFF a device is described in the "User Manual" (§ 7.12.1).



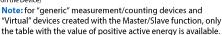


Details page of the selected device appears.

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)



- 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



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).

section B shows the values measured by the selected device.



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

Devices: ALPTEC 5.2

Measure

100

State/Com.

9932

9935

9889

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, ::inserted), Residual power (In % for APLTEC3, //5.2/8.2 and inkvar 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.



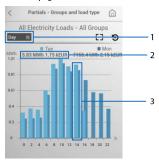
Consumptions page appears.



Are available 5 ways of displaying data:

- $\bullet \ Grand \ Total \ \ Electricity \ (Electrical \ Consumptions \ of the \ entire \ installation)$
- 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), dm³ (and multiples of dm³) of water, dm³ (and multiples of dm²) 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



Visualization of Total Energy (Ea+) Grand Total Consumptions on histograms. Press "Day", "Month" or "Year" to Yesterday view consumptions on a different 3.58 time period (Day (per hours) / 3.18 Month (per days) / Year (per months)). Press "Data" to view the table 2.39 with the values (in kWh and EUR) of 1 59 global consumptions in different time periods.

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

Histograms

divided per Load

Grand Total - Overall

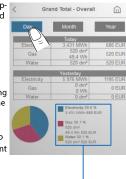


In the Consumptions menu page press on "Grand Total - Overall".

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



All Groups

All Electricity Loads

Heating

Air Conditioning

Lighting

Wentilation

Hot Water

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



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



· Description of the device selection button



- 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
- Command Dick Functionality
- This symbol appears only if the Device integrates the state function related to a protection device and shows the circuitbreaker state:
 - Open
 - Closed
 - Tripped
- 5. Device status
 - On
 - ₹ Off
 - ⚠ Communication error

The procedure to switch ON/OFF a device is described in the "User Manual" (§ 7.12.1).





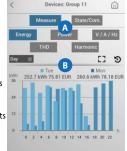
In the Devices list's page press on a Device button.

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:



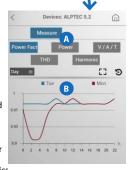
Details page of the selected PFC appears.

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).

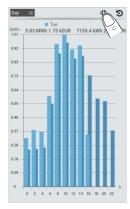


Advanced histograms display

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

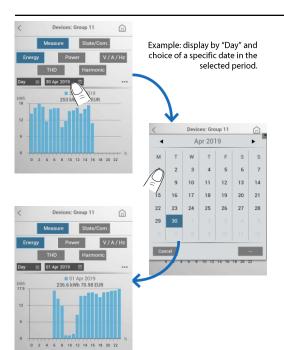


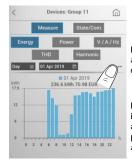
Pressing on the button **3**, it is possible to browse the histograms in detailed mode by:

- 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).







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

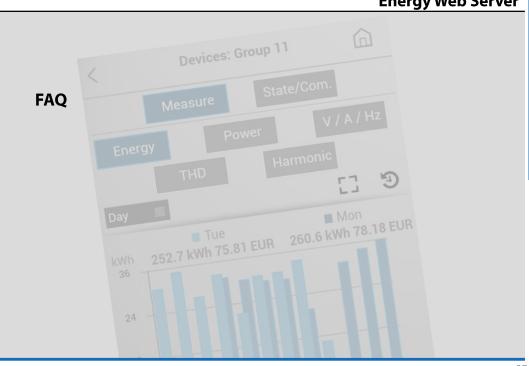
Pressing on two arrows (◀ or ▶), it is possible to pass from one to another histogram in the selected period (e.g. today, yesterday, two days ago, ...).

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 [7].







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")



BTicino SpA

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