HITACHI

EN INSTALLATION AND OPERATION MANUAL
ES MANUAL DE INSTALACIÓN Y FUNCIONAMIENTO
DE INSTALLATIONS- UND BETRIEBSHANDBUCH
FR MANUEL D'INSTALLATION ET DE FONCTIONNEMENT
IT MANUALE D'INSTALLAZIONE E D'USO
RU ИНСТРУКЦИЯ ПО МОНТАЖУ И ЭКСПЛУАТАЦИИ
CA MANUAL D'INSTAL·LACIÓ I FUNCIONAMENT
PT MANUAL DE INSTALAÇÃO E DE FUNCIONAMENTO
NL INSTALLATIE- EN BEDIENINGSHANDLEIDING
CS NÁVOD K MONTÁŽI A OBSLUZE
BG РЪКОВОДСТВОТО ЗА ИНСТАЛИРАНЕ И ЕКСПЛОАТАЦИЯ
DA INSTALLATIONS- OG BETJENINGSVEJLEDNINGEN
EL ΕΓΧΕΙΡΙΔΙΟ ΕΓΚΑΤΑΣΤΑΣΗΣ ΚΑΙ ΛΕΙΤΟΥΡΓΙΑΣ
HR PRIRUČNIKU ZA INSTALACIJU I UPOTREBU
HU TELEPÍTÉSI ÉS ÜZEMELTETÉSI ÚTMUTATÓJÁNAK
PL INSTRUKCJI MONTAŻU I OBSŁUGI
RO MANUALUL DE INSTALARE ȘI UTILIZARE
SL NAVODILA ZA MONTAŽO IN DELOVANJE
SV INSTALLATIONS- OCH DRIFTHANDBOKEN
SK NÁVOD NA PREVÁDZKU A INŠTALÁCIU
FI ASENNUS- JA KÄYTTÖOPPAASTA
UK ПОСІБНИКА З МОНТАЖУ ТА ЕКСПЛУАТАЦІЇ

CSNET Manager 2 (T10/T15/SL)
CSNET Lite

English

Specifications in this manual are subject to change without notice in order that Hitachi may bring the latest innovations to their customers.Whilst every effort is made to ensure that all specifications are correct, printing errors are beyond Hitachi's control; Hitachi cannot be held responsible for these errors.

Español

Las especificaciones de este manual están sujetas a cambios sin previo aviso a fin de que Hitachi pueda ofrecer las últimas innovaciones a sus clientes.

A pesar de que se hacen todos los esfuerzos posibles para asegurarse de que las especificaciones sean correctas, los errores de impresión están fuera del control de Hitachi, a quien no se hará responsable de ellos.

Deutsch

Bei den technischen Angaben in diesem Handbuch sind Änderungen vorbehalten, damit Hitachi seinen Kunden die jeweils neuesten Innovationen präsentieren kann.

Sämtliche Anstrengungen wurden unternommen, um sicherzustellen, dass alle technischen Informationen ohne Fehler veröffentlicht worden sind. Für Druckfehler kann Hitachi jedoch keine Verantwortung übernehmen, da sie außerhalb ihrer Kontrolle liegen.

Français

Les caractéristiques publiées dans ce manuel peuvent être modifiées sans préavis, Hitachi souhaitant pouvoir toujours offrir à ses clients les dernières innovations.

Bien que tous les efforts sont faits pour assurer l'exactitude des caractéristiques, les erreurs d'impression sont hors du contrôle de Hitachi qui ne pourrait en être tenu responsable.

Italiano

Le specifiche di questo manuale sono soggette a modifica senza preavviso affinché Hitachi possa offrire ai propri clienti le ultime novità.

Sebbene sia stata posta la massima cura nel garantire la correttezza dei dati, Hitachi non è responsabile per eventuali errori di stampa che esulano dal proprio controllo.

Русский

Технические характеристики, содержащиеся в данном руководстве, могут быть изменены Hitachi без предварительного уведомления, по причине постоянного внедрения последних инноваций. Несмотря на то, что мы принимаем все возможные меры для актуализации технических данных, при публикации возможны ошибки, которые Hitachi не может контролировать, и за которые не несет ответственности.

Català

Les especificacions d'aquest manual poden canviar sense preavís, per tal que Hitachi pugui oferir les innovacions més avançades als seus clients. Hitachi fa tot el possible per a garantir que totes les especificacions són correctes però no pot garantir l'absència d'errors tipogràfics. Hitachi no es responsabilitzarà d'aquests errors.

Português

As especificações apresentadas neste manual estão sujeitas a alterações sem aviso prévio, de modo a que a Hitachi possa oferecer aos seus clientes, da forma mais expedita possível, as inovações mais recentes. Apesar de serem feitos todos os esforços para assegurar que todas as especificações apresentadas são correctas, quaisquer erros de impressão estão fora do controlo da Hitachi, que não pode ser responsabilizada por estes erros eventuais.

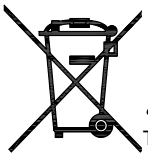
Nederlands

De specificaties in deze handleiding kunnen worden gewijzigd zonder verdere kennisgeving zodat Hitachi zijn klanten kan voorzien van de nieuwste innovaties.

Iedere poging wordt ondernomen om te zorgen dat alle specificaties juist zijn. Voorkomende drukfouten kunnen echter niet door Hitachi worden gecontroleerd, waardoor Hitachi niet aansprakelijk kan worden gesteld voor deze fouten.

Čeština

Aby společnost Hitachi mohla svým zákazníkům poskytovat nejnovější inovace, specifikace uvedené v této příručce podléhají změnám bez předchozího upozornění. Přestože vynakládáme maximální úsilí, aby všechny specifikace byly správné, tiskové chyby nespadají pod kontrolu společnosti Hitachi, která za takové chyby nenese odpovědnost.



⚠ CAUTION

This product shall not be mixed with general house waste at the end of its life and it shall be retired according to the appropriated local or national regulations in a environmentally correct way.

Due to the refrigerant, oil and other components contained in Air Conditioner, its dismantling must be done by a professional installer according to the applicable regulations. Contact to the corresponding authorities for more information.

⚠ PRECAUCIÓN

Éste producto no se debe eliminar con la basura doméstica al final de su vida útil y se debe desechar de manera respetuosa con el medio ambiente de acuerdo con los reglamentos locales o nacionales aplicables.
Debido al refrigerante, el aceite y otros componentes contenidos en el sistema de aire acondicionado, su desmontaje debe realizarlo un instalador profesional de acuerdo con la normativa aplicable. Para obtener más información, póngase en contacto con las autoridades competentes.

⚠ VORSICHT

Dass Ihr Produkt am Ende seiner Betriebsdauer nicht in den allgemeinen Hausmüll geworfen werden darf, sondern entsprechend den geltenden örtlichen und nationalen Bestimmungen auf umweltfreundliche Weise entsorgt werden muss.
Aufgrund des Kältemittels, des Öls und anderer in der Klimaanlage enthaltener Komponenten muss die Demontage von einem Fachmann entsprechend den geltenden Vorschriften durchgeführt werden. Für weitere Informationen setzen Sie sich bitte mit den entsprechenden Behörden in Verbindung.

⚠ ADVERTISSEMENT

Ne doit pas être mélangé aux ordures ménagères ordinaires à la fin de sa vie utile et qu'il doit être éliminé conformément à la réglementation locale ou nationale, dans le plus strict respect de l'environnement.
En raison du frigorigène, de l'huile et des autres composants que le climatiseur contient, son démontage doit être réalisé par un installateur professionnel conformément aux réglementations en vigueur.

⚠ AVVERTENZE

Indicazioni per il corretto smaltimento del prodotto ai sensi della Direttiva Europea 2011/65/EU e D.Lgs 04 marzo 2014 n.27
Il simbolo del cassonetto barrato riportato sull' apparecchiatura indica che il prodotto alla fine della propria vita utile deve essere raccolto separatamente dagli altri rifiuti.
L'utente dovrà, pertanto, conferire l'apparecchiatura giunta a fine vita agli idonei centri di raccolta differenziata dei rifiuti elettronici ed elettrotecnici, oppure riconsegnarla al rivenditore al momento dell' acquisto di una nuova apparecchiatura di tipo equivalente.
L'adeguata raccolta differenziata delle apparecchiature dismesse, per il loro avvio al riciclaggio, al trattamento ed allo smaltimento ambientalmente compatibile, contribuisce ad evitare possibili effetti negativi sull' ambiente e sulla salute e favorisce il riciclo dei materiali di cui è composta l' apparecchiatura. Non tentate di smontare il sistema o l'unità da soli poichè ciò potrebbe causare effetti dannosi sulla vostra salute o sull' ambiente. Vogliate contattare l' installatore, il rivenditore, o le autorità locali per ulteriori informazioni.
Lo smaltimento abusivo del prodotto da parte dell'utente può comportare l'applicazione delle sanzioni amministrative di cui all'articolo 50 e seguenti del D.Lgs. n. 22/1997.

⚠ ВНИМАНИЕ

Этот продукт не должен утилизироваться вместе с обычными бытовыми отходами по истечению срока службы, а сдан в экологические пункты сбора в соответствии с местными или национальными нормами.
Для получения дополнительной информации свяжитесь с соответствующими органами.

⚠ ATENCIÓ

Quan arribi al final de la seva vida útil, aquest producte no es pot barrejar amb els residus domèstics; cal processar-lo d'acord amb les regulacions locals o nacionals pertinents i d'una manera respectuosa amb el medi ambient.
Demani informació a les autoritats competents.

⚠ CUIDADO

O seu produto não deve ser misturado com os desperdícios domésticos de carácter geral no final da sua duração e que deve ser eliminado de acordo com os regulamentos locais ou nacionais adequados de uma forma correcta para o meio ambiente.
Devido ao refrigerante, ao óleo e a outros componentes contidos no Ar condicionado, a desmontagem deve ser realizada por um instalador profissional de acordo com os regulamentos aplicáveis. Contacte as autoridades correspondentes para obter mais informações.

⚠ VOORZICHTIG

Dit houdt in dat uw product niet wordt gemengd met gewoon huisvuil wanneer u het weg doet en dat het wordt gescheiden op een milieuvriendelijke manier volgens de geldige plaatselijke en landelijke reguleringen.
Vanwege het koelmiddel, de olie en andere onderdelen in de airconditioner moet het apparaat volgens de geldige regulering door een professionele installateur uit elkaar gehaald worden. Neem contact op met de betreffende overheidsdienst voor meer informatie.

⚠ POZOR

Tento výrobek nesmí být na konci své životnosti likvidován v rámci běžného komunálního odpadu, nýbrž ekologickým způsobem v souladu s příslušnými místními nebo vnitrostátními předpisy.
Více informací lze získat od příslušných orgánů.

DANGER – Hazards or unsafe practices which COULD result in severe personal injuries or death.

PELIGRO – Riesgos o prácticas poco seguras que PODRÍAN producir lesiones personales e incluso la muerte.

GEFAHR – Gefährliche oder unsichere Anwendung, die zu schweren Körperverletzungen oder zum Tod führen kann.

DANGER – Utilisation dangereuse ou sans garantie de sécurité qui PEUT provoquer de sévères blessures personnelles ou la mort.

PERICOLO – Pericoli o azioni pericolose che POTREBBERO avere come esito lesioni fisiche gravi o il decesso.

ОПАСНОСТЬ – Опасные или рискованные действия, которые МОГУТ привести к серьезной травме или гибели.

PERILL – Riscos o pràctiques poc segures que PODRIEN causar lesions greus o la mort.

PERIGO – Riesgos o prácticas poco seguras que PUEDEN producir lesiones personales e incluso la muerte

GEVAAR – Gevaren of onveilige praktijken die ernstig persoonlijk letsel of de dood tot gevolg KUNNEN hebben.

NEBEZPEČÍ – Rizika nebo nebezpečné postupy, které MOHOU vést k vážným zraněním nebo smrti.

CAUTION – Hazards or unsafe practices which COULD result in minor personal injury or product or property damage.

PRECAUCIÓN – Riesgos o prácticas poco seguras que PODRÍAN provocar lesiones personales de menor importancia o daños en el producto u otros bienes.

VORSICHT – Gefährliche oder unsichere Anwendung, die geringfügigen Personen-, Produkt- oder Sachschaden verursachen kann.

ATTENTION – Utilisation dangereuse ou sans garantie de sécurité qui PEUT provoquer des blessures mineures ou des dommages au produit ou aux biens.

AVVERTENZA – Pericoli o azioni pericolose che POTREBBERO avere come esito lesioni fisiche minori o danni al prodotto o ad altri beni.

ПРЕДУПРЕЖДЕНИЕ – Опасные или рискованные действия, которые МОГУТ привести к легким травмам или повреждению имущества.

ATENCIÓ – Riscos o pràctiques poc segures que PODRIEN causar lesions físiques lleus, danys materials o danys al producte.

CUIDADO – Perigos e procedimentos perigosos que PODERÃO PROVOCAR danos pessoais ligeiros ou danos em produtos e bens.

LET OP – Gevaren of onveilige praktijken die licht persoonlijk letsel of beschadiging van het product of eigendommen tot gevolg KUNNEN hebben.

POZOR – Rizika nebo nebezpečné postupy, které MOHOU vést k lehkým osobním zraněním, poškození výrobku nebo hmotné škodě.

NOTE – The text following this symbol contains information or instructions that may be of use or that require a more thorough explanation.

NOTA – El texto que sigue a este símbolo contiene información o instrucciones que pueden ser de utilidad o requeridas para ampliar una explicación.

HINWEIS – Der diesem Symbol folgende Text enthält konkrete Informationen und Anleitungen, die nützlich sein können oder eine tiefergehende Erklärung benötigen.

REMARQUE – Les textes précédés de ce symbole contiennent des informations ou des indications qui peuvent être utiles, ou qui méritent une explication plus étendue.

NOTA – I testi preceduti da questo simbolo contengono informazioni o indicazioni che possono risultare utili o che meritano una spiegazione più estesa.

ПРИМЕЧАНИЕ – Сообщение, которое сопровождается этим символом, содержит информацию или указания, которые могут быть полезными, или которые требуют последующего объяснения.

NOTA – El text que acompanya aquest símbol conté informació o instruccions que poden ser útils o requerir una explicació més completa.

NOTA – Os textos precedidos deste símbolo contêm informações ou indicações que podem ser úteis, ou que merecem uma explicação mais detalhada.

OPMERKING – De teksten waar dit symbool voorstaat bevatten nuttige informatie en aanwijzingen, of informatie en aanwijzingen meer uitleg behoeven.

POZNÁMKA – Text uvozený tímto symbolem obsahuje informace nebo pokyny, které je případně nutné použít nebo které vyžadují podrobnější vysvětlení.

EN	English	Original version
ES	Español	Versión traducida
DE	Deutsch	Übersetzte Version
FR	Français	Version traduite
IT	Italiano	Versione tradotta
PT	Português	Versão traduzida
NL	Nederlands	Vertaalde versie
CA	Català	Versió traduïda
RU	Русский	Переведенная версия
CS	Čeština	Přeložená verze

1 START-UP PROCESS

After switching on CSNET Manager 2 / CSNET Lite, create the first user on the Welcome Screen and then follow the Wizard, Auto-configuration, Area tree and Unit configuration screens to complete the system configuration.

1.1 WELCOME SCREEN

❶ **Language:** select the application default language. Login screen will be always shown in this language. After login, the language used will be the selected by the user.

❷ **User name:** enter the name of the user who will access the installation. The first user created has full privileges to create other users and create the installation.

NOTE

User name must have more than 3 characters.

❸ **Password:** write the password of the user you have entered.

NOTE

Password must have 8 or more characters.

❹ + **Add sign:** click on the add sign to create the user and start the wizard to configure the installation.

❺ **Restore:** Restore dialogue allows to load a backup file to re-establish the configuration stored in the specified file.

❻ **Update:** select the file to upgrade the CSNET software.

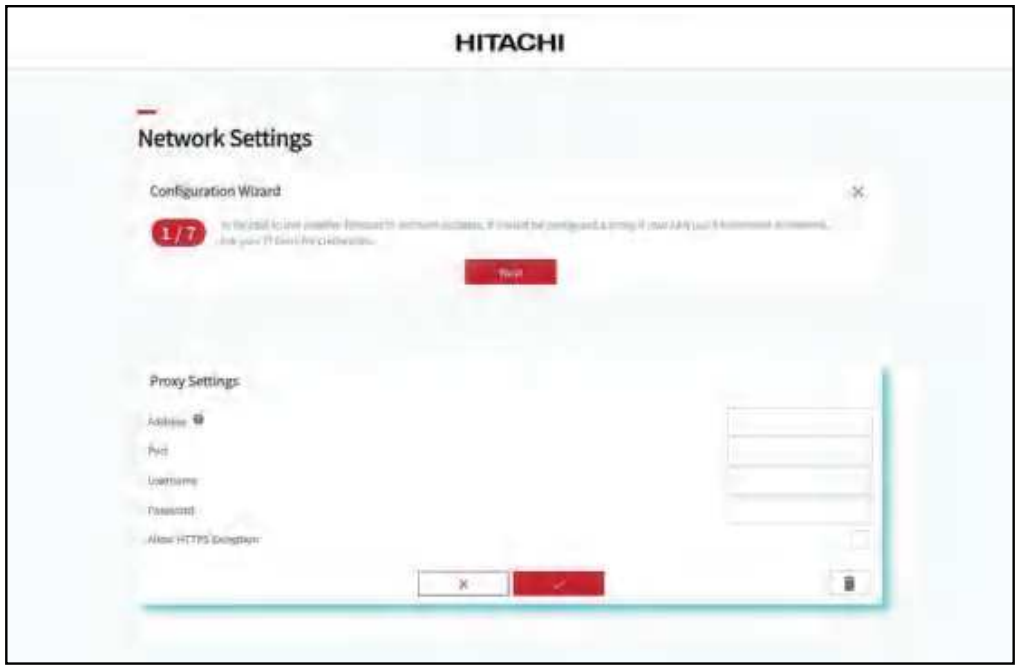
1.2 WIZARD

The Wizard procedure drives the Installer to all the necessary configuration steps.

Step 1: to be able to use “Weather forecast” or software updates, it should be configured a proxy if your LAN use it to connect to internet. Ask your IT team for credentials.

NOTE

For more details refer to "13.2 Network Settings" chapter.



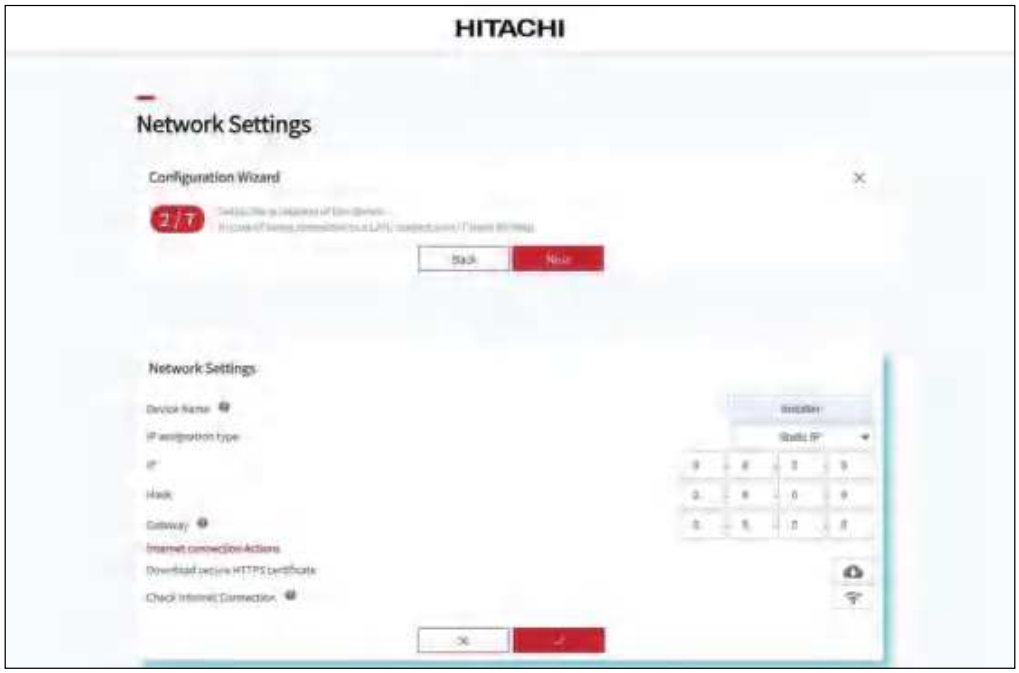
Step 2: setup the IP address and the host name of this device. In case of being connected to a LAN, contact your IT team for help.

This step is strictly necessary to connect with H-LINK gateways.

System is reset after entering the IP address, and it is necessary to log in again to access the local computer setup.

NOTE

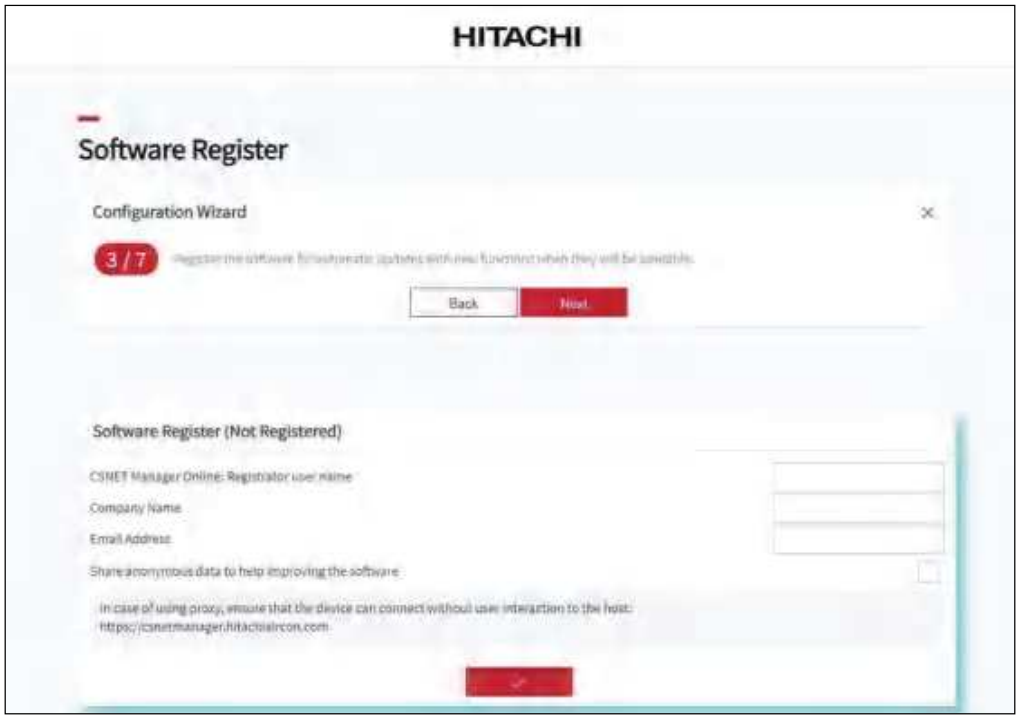
For more details refer to "13.2 Network Settings" chapter.



Step 3: register the software for automatic updates with new functions when they will be available.

NOTE

For more details refer to "13.4 Register And Updater" chapter.



Step 4: specify which functionalities will be used for your installation.

NOTE

For more details refer to "13.1 Installation" chapter.

CSNET Manager 2

CSNET Lite

Step 5: configure the devices on your network that work as H-LINK gateway. You can use device automatic search to find connected devices on your LAN.

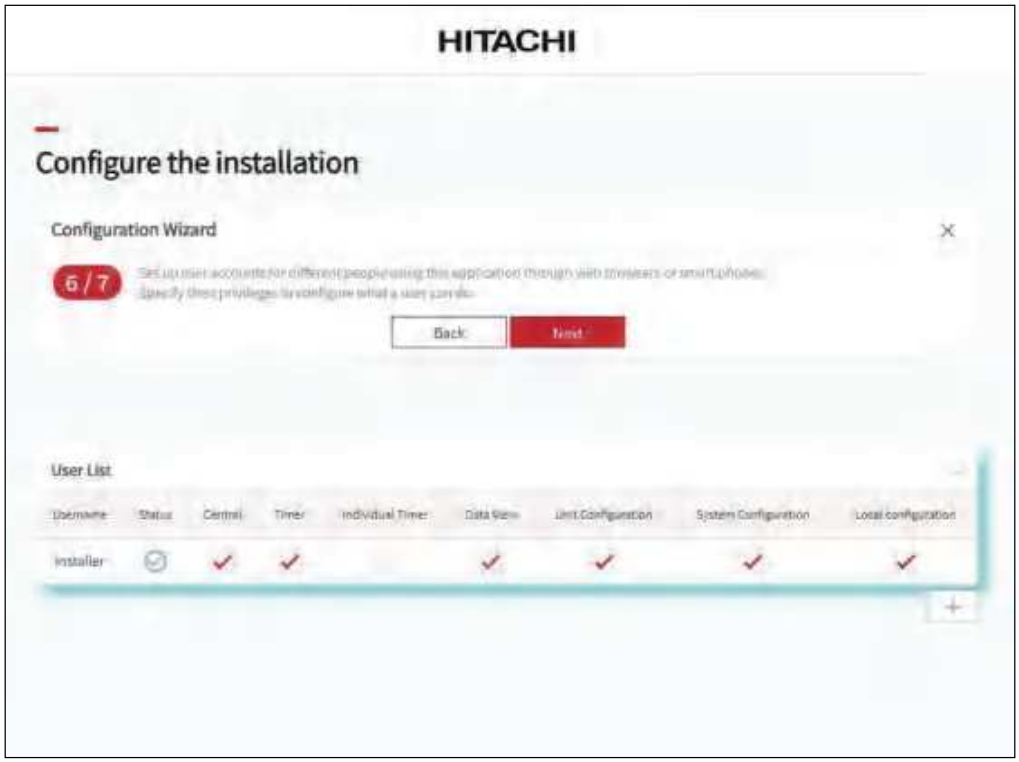
NOTE

- *This function is not available for CSNET Lite.*
- *For more details refer to "13.1 Installation" chapter.*

Step 6: set up user accounts for different people using this application through web browsers or smart phones. Specify their privileges to configure what a user can do.

NOTE

For more details refer to "13.1 Installation" chapter.

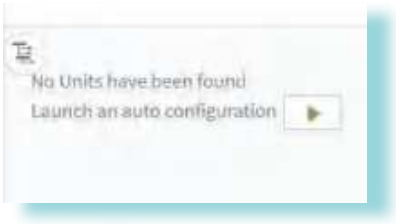


Step 7: press ▶ to launch the installation, login and start managing the air conditioning units.

1.3 UNIT DETECTION

Step 1: enter the user name and password and press to make login on the installation.

Step 2: press to launch an auto configuration to find automatically the units.



1.4 AREA TREE CREATION

Step 1: press the "Area tree" icon to show or hide the installation tree. This menu is accessible from the following screens:

- Dashboard view
- List view
- Grid view
- Building layout view (Only for CSNET Manager 2)
- Units (Timer configuration menu)
- Auto Cool/Heat
- Cold Draft
- Heat Draft
- Set back
- Unit configuration
- Owners (Power management menu)
- Modbus
- Interlock
- Hotel application (Only for CSNET Manager 2)
- Fidelio (Only for CSNET Manager 2)
- Optional functions

Step 2: press the icon to create or edit different areas for the installation.

Step 3: press the add a new area or sub area of the installation. Areas can be arranged by dragging the button or by clicking the button.

Use to delete the selected area.

Use to accept the changes.

Use to cancel and turn to the previous view.

1.5 UNIT CONFIGURATION

The unit configuration menu shows all the data of the units controlled by CSNET software. Complete the following fields for all the connected units to define the installation.

NOTE

The port column is not available for CSNET Lite.

❶ Indoor unit configuration:

Unit name: name of the unit.

Area: zone to which this unit belongs. CSNET software allows to select among areas created in *"1.4 Area tree creation".*

IU Type: model of indoor unit (recognized by the system) (see Note 1).

IU Type Overwrite: to change the indoor unit model recognized by the system.

IU Model: exact model of the indoor unit (see Note 2).

IU Serial No: serial Number of the indoor unit (see Note 2).

Sec. Address: in SET-FREE of H-LINK (I) with more than 16 indoor units, we use a virtual address to indicate that this unit is a secondary unit of the previous unit.

Cooling only: sets the indoor unit in cooling mode only. Also dry and fan modes are allowed. Heat draft is not allowed when this option is activated.

Timer Disabled: deactivate the timer setting option.

CH Box Type: select the CH-Box type used (none, single, multi) to the selected indoor units. (see Note 4).

CH Box Number: number of the CH-Box connected to the selected indoor units.

CH Box Output: Selection of the output used for the CH box. When ch box type is multi, every ch box output works like a single ch box, with a same working mode.

RCS Group: remote control number used by more than one indoor unit including this one, for example 1. A second group should have a different number, etc. If any of the parameters within a group changes, all the group units will adopt the specified value at the same time. This process is automatic and there is no need to select the unit group to change. (Note 3).

RCS Control: sets the RCS control as Main, Sub or RCS not installed. (see Note 6 for RCS Control configuration examples).

RCS Copy Action: selection of the action (none, copy all changes, block and overwrite) to be copied to all the remote controllers used within the same RCS Group.

Cool Range: sets the maximum and the minimum temperature values in cool mode.

Heat Range: sets the maximum and the minimum temperature values in heat mode.

❷ **Outdoor unit configuration:**

OU Type: model of the outdoor unit connected to this indoor unit (recognized by the system).

OU Model: exact model of the outdoor unit connected to this indoor unit (see Note 2).

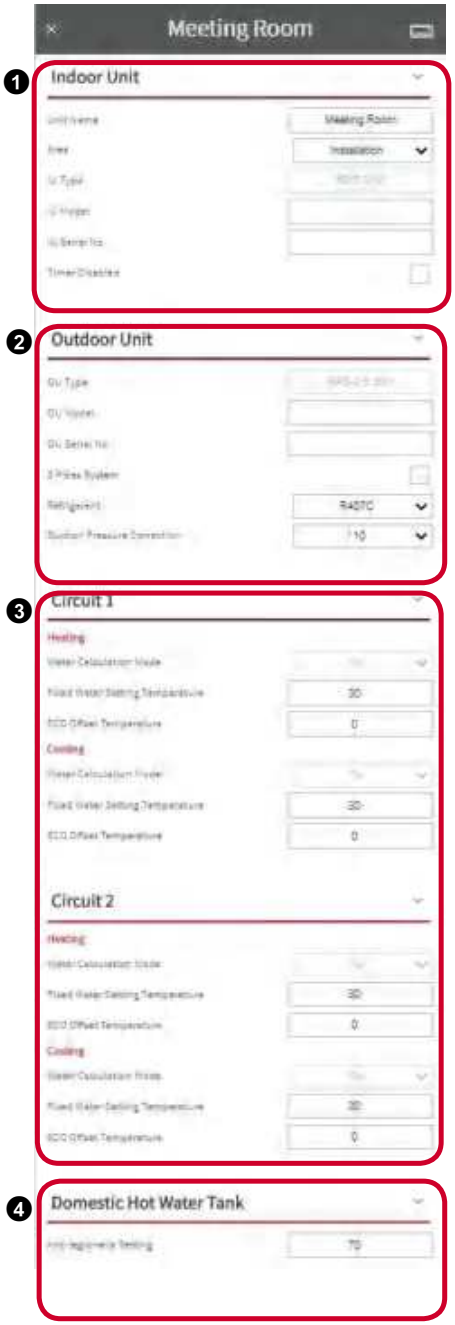
OU Serial No: serial number of the outdoor unit to which the indoor unit is connected (see Note 2).

3 Pipes System: activate when using a CH-Box (Heat recovery systems).

R410A: if you mark the check box, the cooling system used is R410A; if you do not mark it, the cooler is R407C (see Note 5).

Suction Pressure correction: correction factor used for the suction pressure shown at the System Status.

◆ In case of heating units



❶ **Indoor unit configuration:**

Unit name: name of the unit.

Area: zone to which this unit belongs. CSNET software allows to select among areas created in *"1.4 Area tree creation".*

IU Type: model of indoor unit (recognized by the system) (see Note 1).

IU Model: exact model of the indoor unit (see Note 2).

IU Serial No: serial Number of the indoor unit (see Note 2).

Timer Disabled: disable timer of the indoor unit.

❷ **Outdoor unit configuration:**

OU Type: model of the outdoor unit connected to this indoor unit (recognized by the system).

OU Model: exact model of the outdoor unit connected to this indoor unit (see Note 2).

OU Serial No: serial number of the outdoor unit to which the indoor unit is connected (see Note 2).

3 Pipes System: activate when using a CH-Box (Heat recovery systems).

Refrigerant: selection of the refrigerant type (R407C, R410A, R32) (see Note 5).

Suction Pressure correction: correction factor used for the suction pressure shown at the System Status.

❸ **Circuit 1 and Circuit 2 Heating / Cooling configuration:**

Water Calculation Mode: shows the selected water calculation mode

Fixed Water Setting Temperature: By using this function, current water temperature setting is reduced by the indicated parameter.

ECO Offset Temperature: Configure the offset water temperature for the ECO mode. By using this function, current water temperature setting is reduced by the indicated parameter.

❹ Domestic Hot Water Tank:

Antilegionella Settings: In order to help prevent against Legionella in the DHW system, the DHW set point can be raised to a higher than normal temperature.

NOTE

1 If the indoor unit is RPC or RPK, CSNET software will display RPC(RPK), as they cannot be identified properly.

2 The precise model should be entered to make necessary maintenance and repair work easier.

3 It is not possible for two or more units with a remote controller to function in different conditions. Only use the remote control Group within the same cooling system or CH Box. Do not use a single controller to control indoor units connected to different outdoor units or CH boxes. RCS is set automatically when HC-A64NET is doing auto configuration for the units that let detect this configuration. The assigned value is indicative and it's always suggested to revise the assignation or do it manually.

- In case of units without remote control:

a. Set RCS control as not installed.
b. Set individual RCS group for each unit.

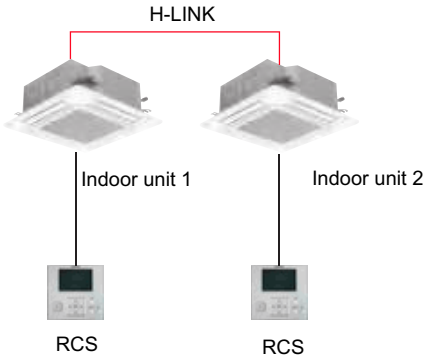
4 The compatibility of the operation modes is as follows:

Operation mode	Compatible modes in the other units bellow the same CH-Box
Cool	Cool, Dry, Fan
Heat	Heat, Fan
Dry	Cool, Dry, Fan
Fan	Cool, Dry, Heat, Fan
Automatic cooling / heating	Automatic cooling / heating

5 This information will be used by CSNET software to calculate the control parameters of the cooling system, like TdSH.

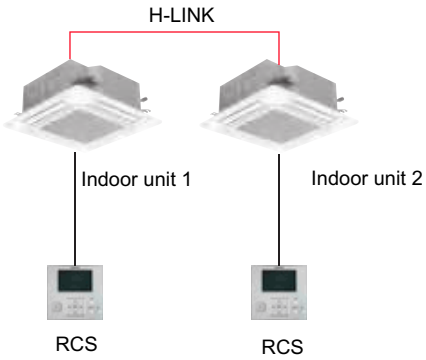
6 RCS Control configuration examples:

a. Not mandatory to create RCS Group:



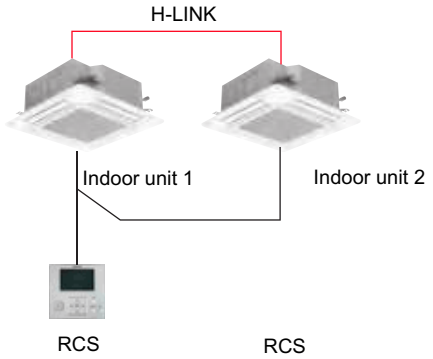
- Indoor unit 1 RCS Control: Main
- Indoor unit 1 RCS Group: 1
- Indoor unit 2 RCS Control: Main
- Indoor unit 2 RCS Group: 1

b. Not possible since a unit having a RCS directly connected to it can not be configured as Sub:

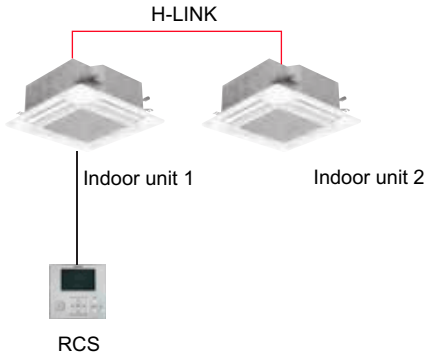


- Indoor unit 1 RCS Control: Main
- Indoor unit 1 RCS Group: 1
- Indoor unit 2 RCS Control: Sub
- Indoor unit 2 RCS Group: 1

c. Mandatory to create RCS Group:



- Indoor unit 1 RCS Control: Main
- Indoor unit 1 RCS Group: 1
- Indoor unit 2 RCS Control: Sub
- Indoor unit 2 RCS Group: 1



- Indoor unit 1 RCS Control: Main
- Indoor unit 1 RCS Group: 1
- Indoor unit 2 RCS Control: Not installed
- Indoor unit 2 RCS Group: 1

2 INTERFACE UTILITIES

2.1 UNIT ICONS

	Icon	Description
ON/OFF		ON
		Off
		Off state by heat draft (Air conditioning units)
		Demand off (Heat pump units)
MODE		Cool
		Dry
		Fan
		Heat
		Auto
		Auto RCS
HEATING UNITS FUNCTIONS		Eco
		Comfort
		Boost
FAN		Low
		Medium
		High
		High-h
		Automatic fan
		No fan

	Icon	Description
LOUVER		Step 1
		Step 2
		Step 3
		Step 4
		Step 5
		Step 6
		Step 7
		Automatic louver
		No louver
CENTRAL		All settings can be changed from the remote controller
		Any settings can be changed from the remote controller
		Some settings can be changed from the remote controller
		Block Mode / Block Temperature / Block Fan
		No central
REMOTE CONTROL		Remote control not detected on a indoor unit configured with remote controller
		Remote control not installed

2.2 SYSTEM ICONS

	Icon	Description
COMMUNICATION STATUS		Communication is established
		Web server is running but it has some communication problems
		Auto configuration is running
		Auto configuration is searching units
FIDELIO		Fidelio data is configured and working
		Fidelio data is configured but it is not working
MODBUS		CSNET software is accepting Modbus TCP connection
		Modbus TCP connection error
MAIL		Mail alarm is running
		Mail alarm error sending
		Mail alarm is sending an email
		Mail alarm is waiting to send an email

	Icon	Description
POWER STATUS		Power meters are configured and enabled
		Problem communicating with Power Meters
POWER CONSUMPTION		Power consumption files are uploaded
		Error sending power consumptions files
GATEWAY		Multiple connection to network gateway notification
UPDATES		There are updates available for some of the connected devices
		There are updates available for CSNET software
MANUAL		Open the operation documentation file for helping the user to find extended information about the product
ABOUT		About information

2.3 UNIT SELECTION TOOL

The following options can be used to select the units:

CSNET Lite

CSNET Manager 2

	Name	Send the order to
	Indoor unit	The selected indoor unit
	Outdoor unit	All the indoor units belonging to the same outdoor unit than the selected one
	Area	All the indoor units belonging to the same tree area unit than the selected one
	Device	All the units connected on the same device than the selected units. (Only for CSNET Manager 2)
	All	All the units
	Selection	The selected units on the table or layout

This menu is accessible from the following screens:

- Dashboard view
- List view
- Grid view
- Building layout view (Only for CSNET Manager 2)
- Units Assignation (Timer configuration menu)
- Auto Cool/Heat
- Cold Draft
- Heat Draft
- Set back
- Unit configuration
- Optional functions
- Hotel application (Only for CSNET Manager 2)

2.4 VIRTUAL KEYBOARD

When an empty field is selected, the virtual keyboard icon  is shown.

The virtual keyboard adapts key disposition to the selected language.

Alphanumeric keyboard

Numeric keyboard

2.5 FUNCTIONS COMPARISON

2.5.1 Capabilities of the different functions depending on the device

Functions		CSNET Manager 2 T10/T15 SL	CSNET Lite
Units Views	Dashboard	Yes	Yes
	Table of indoors view	Yes	Yes
	Building layout view	Yes	No
	Matrix view on Web	Yes	Yes
	Embedded Building Layout	Yes	Yes
Timer Configuration	Pattern	Yes	Yes
	Timer	Yes	Yes
	Units assignation	Yes	Yes
	ICS Calendar	Yes	No
	User Timers	Yes	Yes
Registered Data	Historical Data	Yes 2 years	Yes 1 year
	Alarm Log	Yes 1 year	Yes 6 months
	Order log	Yes 1 year	Yes 6 months
	Live Data	Yes	Yes
	System status	Yes	Yes
Power management	Power consumption	Yes	Yes
	Maximum number of power meters	100	8
	Owners	Yes	Yes
	Settings	Yes	Yes
	Power meters not linked to units	Yes	Yes
	Power Meter Data	Yes 1 years	Yes 1 years
Unit Functions	Auto Cool/Heat	Yes	Yes
	Heat Draft (Fan stop during Thermo-OFF in heating mode)	Yes	Yes
	Cold Draft	Yes	Yes
	Set Back	Yes	Yes
	Unit Configuration	Yes	Yes
	Optional functions	Yes (if use Lite or new HC-A64NET)	Yes
System Settings	H-LINK Installation management	Yes	Yes
	Web Server	Yes	Yes
	Email server	Yes	Yes
	Modbus	Yes	Yes
	Hotel Application	Yes	No
	Fidelio	Yes	No
	Interlock	Yes	Yes
	Outdoor Control	Yes	Yes
	Power Meters configuration	Yes	Yes
	Inputs & Outputs	Yes (if use Lite or new HC-A64NET)	Yes
	Configuration Files	Yes	Yes

2.5.2 Function consideration when using Main/Sub CSNET devices

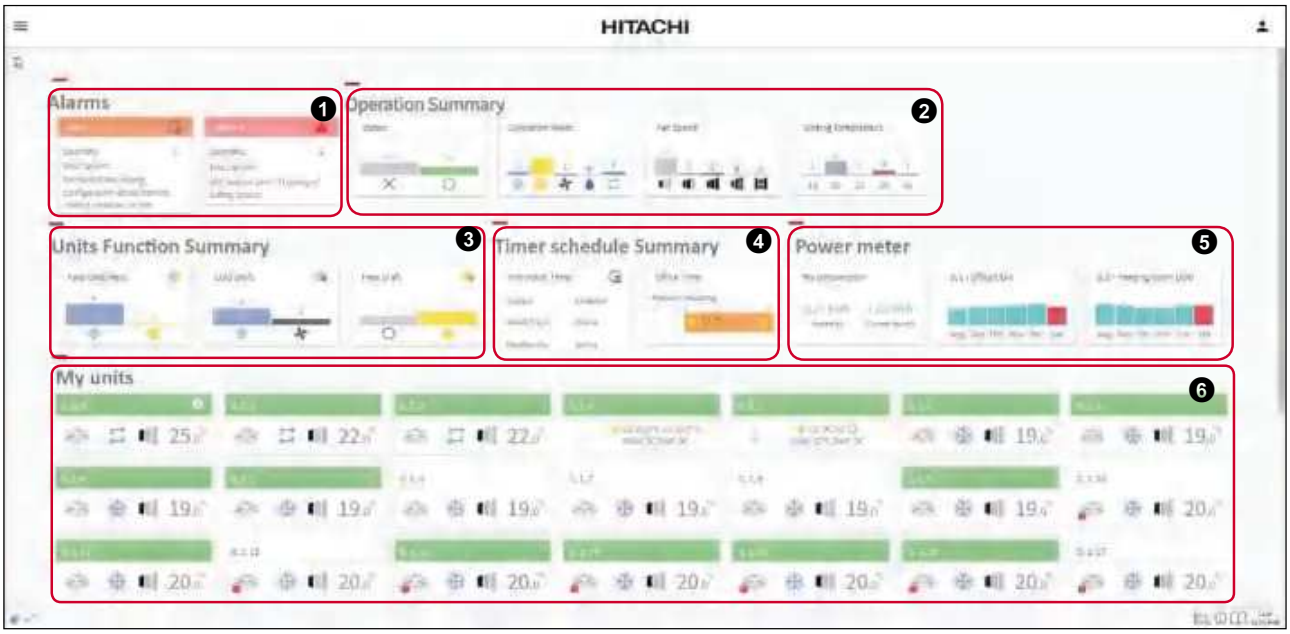
				Behavior of the system when a function is set from the Sub device and shared with the Main device	
	Local operation from the Main device (can this function be set and operated from the Main device?)	Local operation from the Sub device (can this function be set and operated from the Sub device?)	This function can be shared between the Main and the Sub device	Main CSNET Manager device: CSNET Manager connected to another CSNET Manager	Sub CSNET Manager device: CSNET Manager connected to one HLINK interface (HC-A64NET or CSNET Lite)
Installation Tree	Yes	Yes	Yes	Read Only	Total control
Building layout	Yes	Yes	No	Not readable	Total control
Unit assignations to zone	Yes	Yes	Yes	Read Only when zones are created on the Sub device Total control when zones are created on the Main device	Local operation
Timers	Yes	Yes	Yes	Read Only	Total control
Patterns	Yes	Yes	No	Not readable	Total control
ICS calendar	Yes	Yes	No	Not readable	Total control
User calendars	Yes	Yes	No	Not readable	Total control
Auto Cool/Heat	Yes, but Main device is only reading / writing the data through the Sub device. This is not a local operation on the Main device, independently from the Sub device.	Yes, Sub device is always storing the information and applying the commands	Yes	Read and Write	Execute function
Cold Draft			Yes	Read and Write	Execute function
Heat Draft			Yes	Read and Write	Execute function
Set Back			Yes	Read and Write	Execute function
Unit Configuration			Yes	Read and Write	Execute function
Optional functions			Yes	Read and Write	Execute function
Power Consumption			Yes	Read and Write	Execute function
Power Meter	Yes	Yes	No	Local operation (Power meter configured on Main device)	Local operation (Power meter configured on sub device)
Power Configuration	Yes	Yes	No	Local operation	Local operation
Power Meter Data (historic)	Yes	Yes	No	Local operation	Local operation
Historical Data	Yes	Yes	No	Local operation	Local operation
Order Log	Yes	Yes	No	Local operation	Local operation
Alarm Log	Yes, but Main device is only reading / writing the data through the Sub device. This is not a local operation on the Main device, independently from the Sub device.	Yes, Sub device is always storing the information and applying the commands	Yes	Read and Write	Execute function
Live Data			Yes	Read and Write	Execute function
Tenants Management	Yes	Yes	No	Local operation	Local operation
Hotel Aplication	Yes	Yes	No	Local operation	Local operation

				Behavior of the system when a function is set from the Sub device and shared with the Main device	
	Local operation from the Main device (can this function be set and operated from the Main device?)	Local operation from the Sub device (can this function be set and operated from the Sub device?)	This function can be shared between the Main and the Sub device	Main CSNET Manager device: CSNET Manager connected to another CSNET Manager	Sub CSNET Manager device: CSNET Manager connected to one HLINK interface (HC-A64NET or CSNET Lite)
Server's Room	Yes	Yes	No	Local operation (if communication fails between the Main CSNET and the Sub CSNET, the Sub CSNET is turning ON automatically the units of the server room)	Local operation
Maintenance Function	Yes	Yes	No	Local operation	Local operation
Interlock	Yes	Yes	No	Local operation	Local operation
Input/Output of CSNET Lite	Yes, when the Sub device is CSNET Lite	Yes, when the Sub device is CSNET Lite	No	Local operation, with a CSNET Lite as Sub interface	Local operation if the Sub interface is CSNET Lite
Outdoor Control	Yes, but Main device is only reading / writing the data through the Sub device. This is not a local operation on the Main device, independently from the Sub device.	Yes, Sub device is always storing the information and applying the commands	Yes	Read and Write	Execute function
H-LINK installation	Yes	Yes	No	Local operation	Local operation
Email Server	Yes	Yes	No	Local operation	Local operation
Web Server	Yes	Yes	No	Local operation	Local operation
Files Management	Yes	Yes	No	Local operation	Local operation

3 UNIT VIEWS

3.1 DASHBOARD VIEW

The dashboard view provides a general overview of the installation. In any case information on cards is updated according to the viewed area.



❶ **Alarms:** a description of the issue is shown in a card for each alarm or alert.

❷ **Operation summary:** the following information is shown:

Status: the number of indoor units in switched ON and switched OFF states.

Operation mode: the number of indoor units operating in each mode.

Fan speed: the number of indoor units operating in each fan speed.

Setting Temperature: the number of indoor units in operation with the same setting temperature.

❸ **Unit function summary:** the following information is shown:

Auto Cool/Heat: the number of indoor units in COOL or HEAT mode which are additionally set to Auto Cool/Heat.

Cold Draft: the number of indoor units in COOL or FAN mode which also have the Cold Draft option enabled.

Heat Draft: the number of indoor units in HEAT or FAN mode which also have the Heat Draft option enabled.

❹ **Timer schedule summary:** the individual timer and timers scheduled are shown in a card with the name of the pattern applied and a graphic summary for the current day.

❺ **Power meter:** a power meter card is shown for each power meter installed. The “My consumption card” provides a summarised view when multiple power meters are installed.

❻ **My units:** Units installed can be shown in 3 different ways:

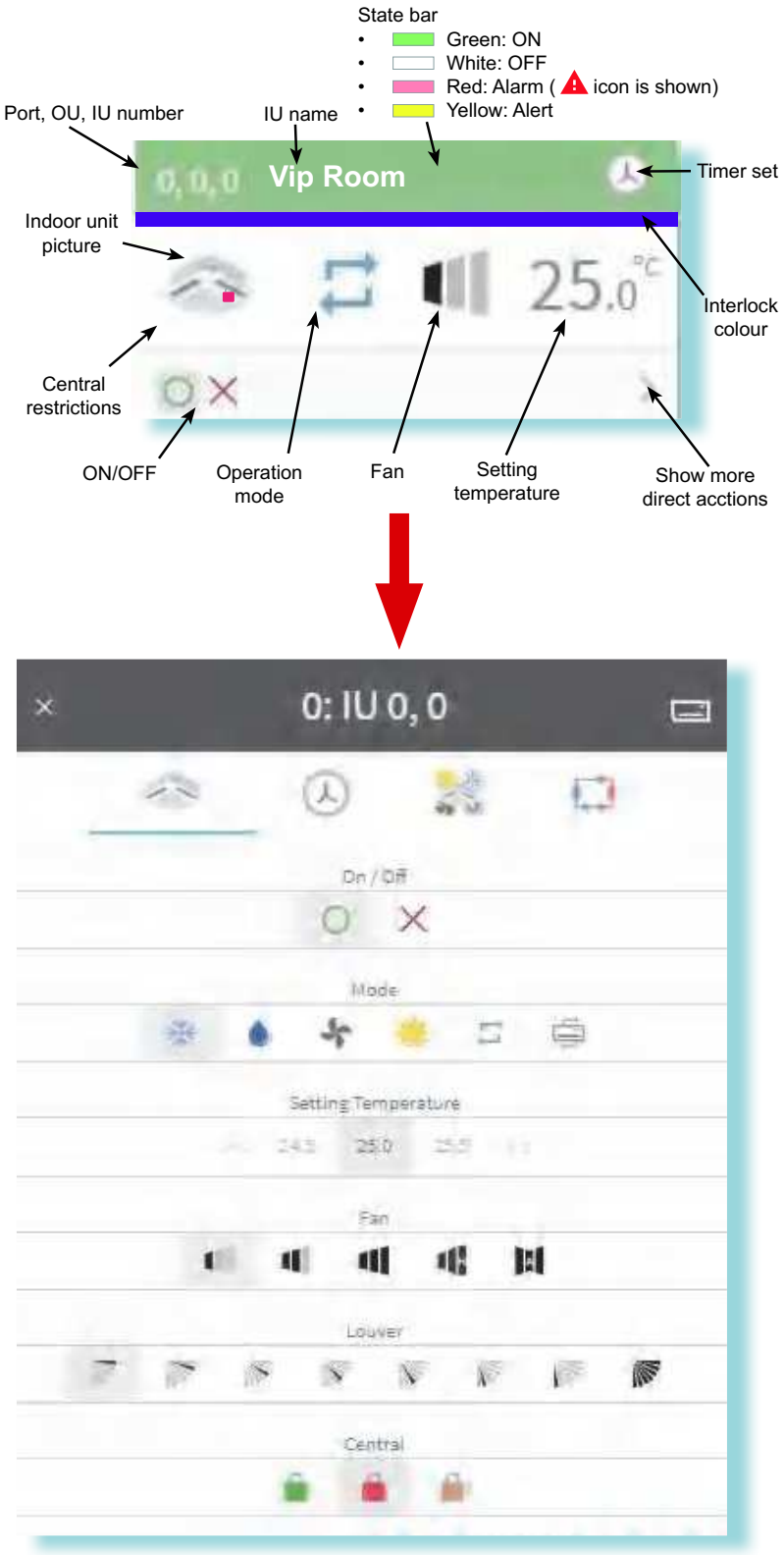
- Card: a card is shown for each unit installed with updated information about state, operation mode, setting temperature, interlock or timer of the indoor unit. Clicking on the unit card the unit operation panel appears.
- Card with direct actions: a card is show for each unit installed (except for heating units). On/Off element is always present, and by click on the right arrow, the bar displays mode, fan or setting temperature. Clicking on the unit card the unit operation panel appears.
- Remote controller: A virtual remote controller PC-ARFH / PC-ARFP1E is shown for each unit (except for heating units).

NOTE

- *Cards are displayed when the information on it is relevant. For example: setting temperature will not be shown if all units on the chart have the same temperature.*
- *Dashboard contents can be set in "14.1 My Preferences" menu.*

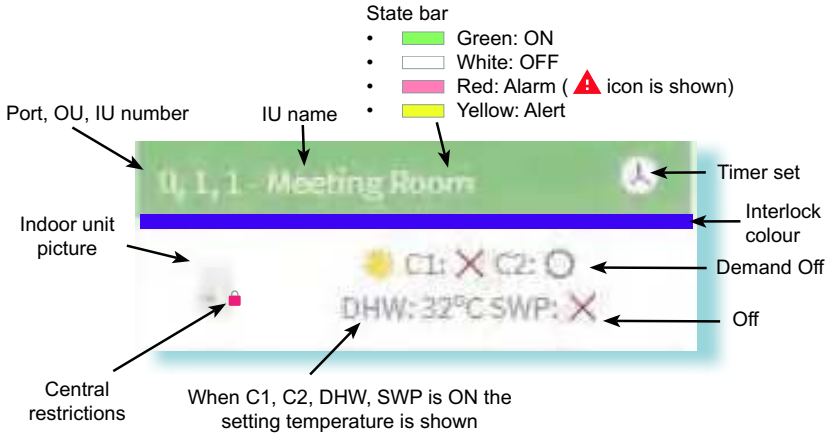
3.1.1 Units at the dashboard view

◆ **Cards with direct action view**



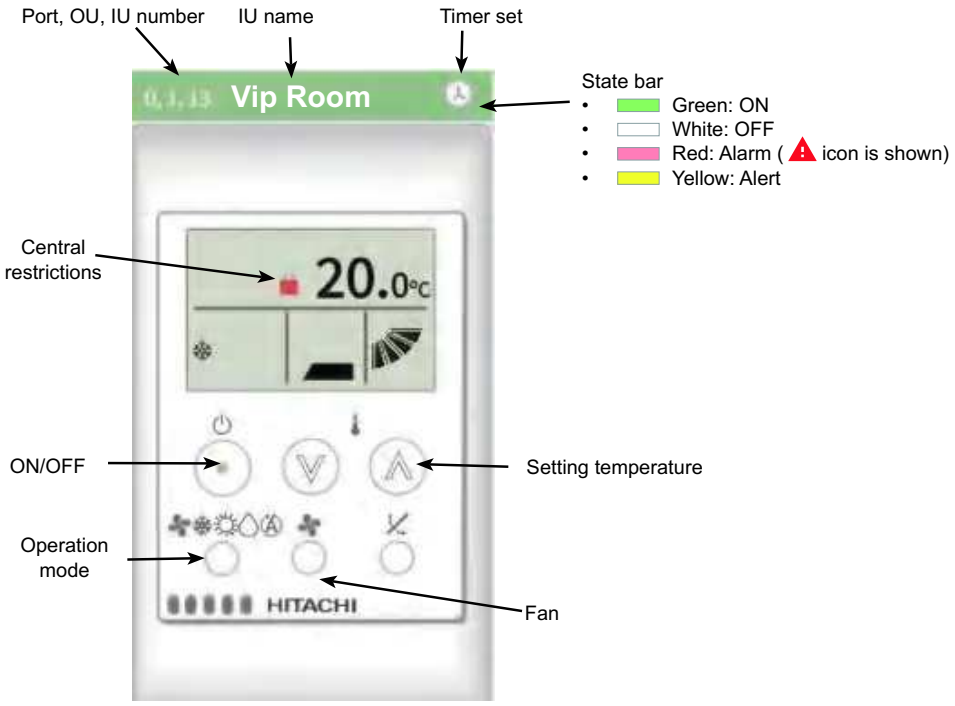
Unit operation panel

◆ Cards view

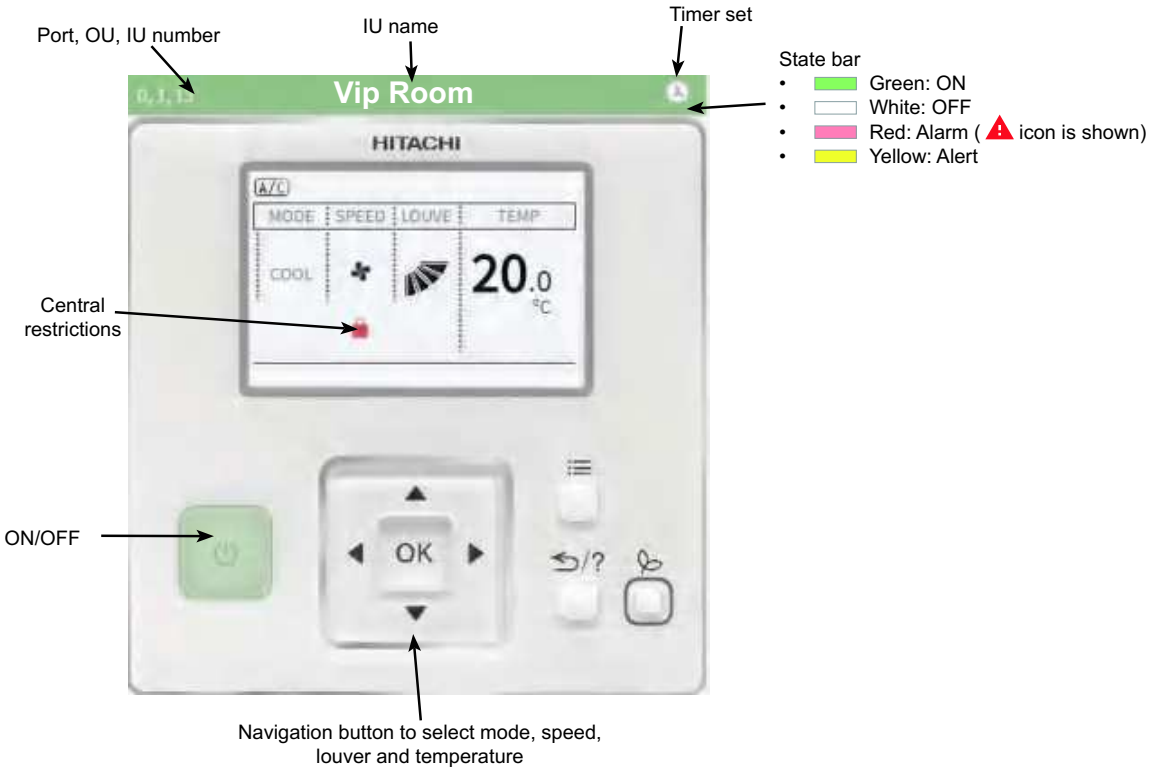


Unit operation panel

◆ Virtual remote controller view



PC-ARH Remote Controller



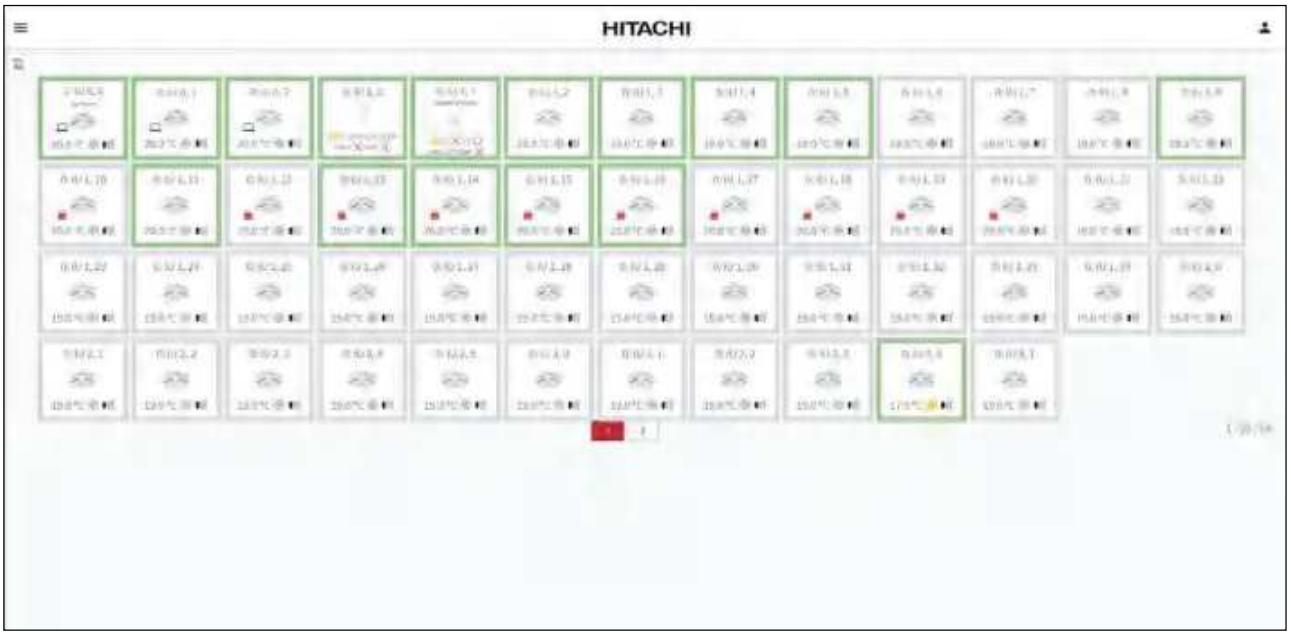
PC-ARFP1E Remote Controller

3.2 GRID VIEW

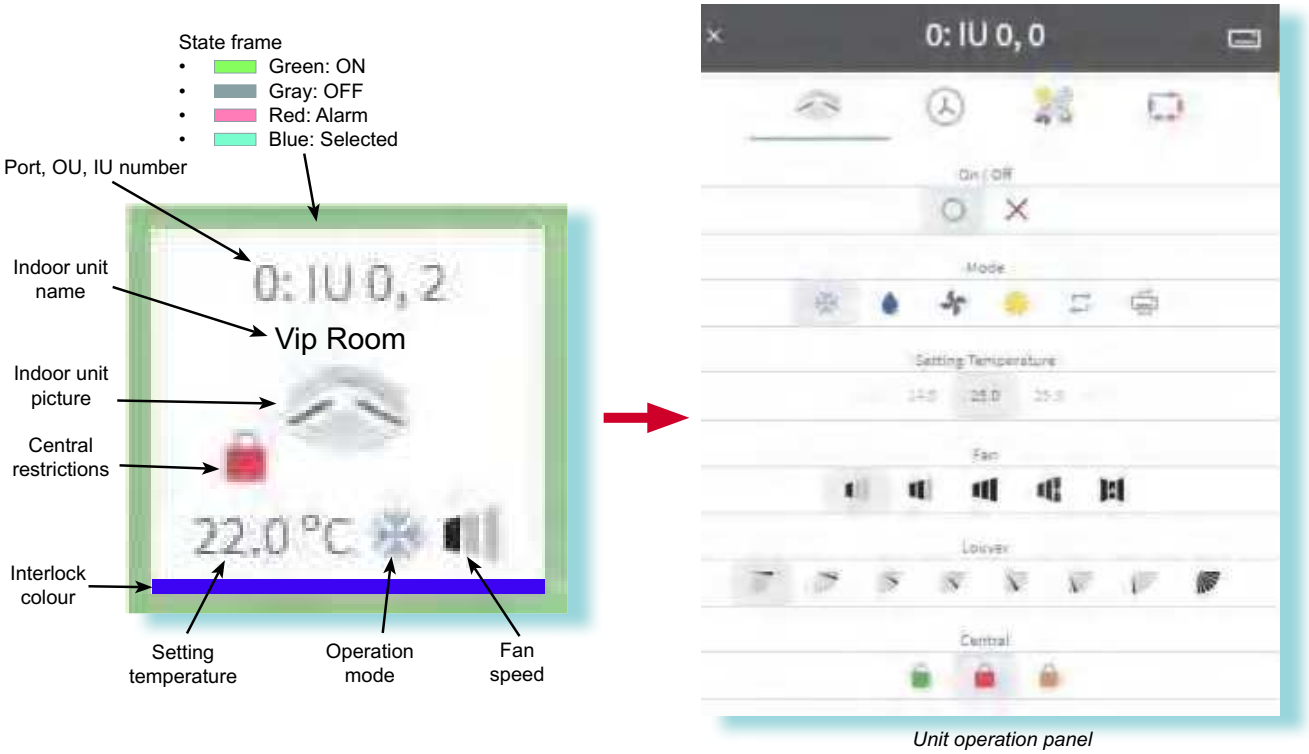
The Grid view shows all the units connected and gives updated information about state, operation mode, setting temperature and fan speed of the indoor units. Clicking on the unit the unit operation panel appears.

NOTE

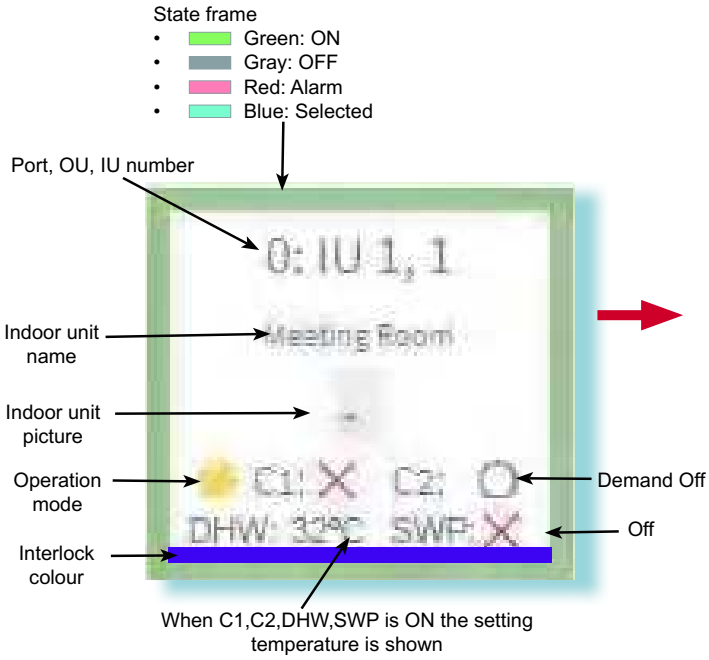
The Grid view is only available when "Building Layout" is disabled.



3.2.1 Units at the grid view



Unit operation panel



Unit operation panel

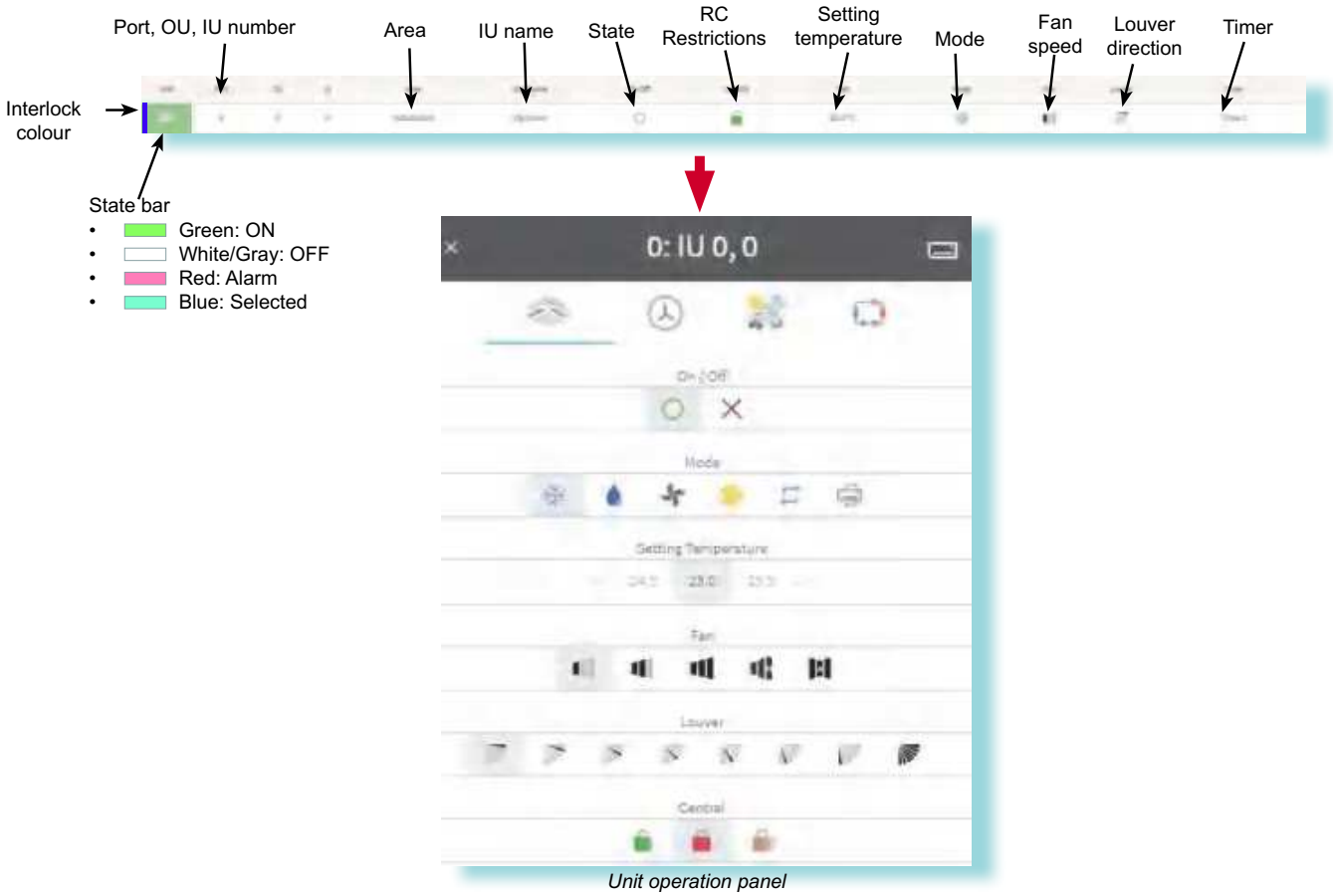
3.3 LIST VIEW

The list view provides updated information for all the units about the area, state, operation mode, setting temperature, fan speed, RC restrictions and timer settings of the indoor units. Clicking on the unit the unit operation panel appears.

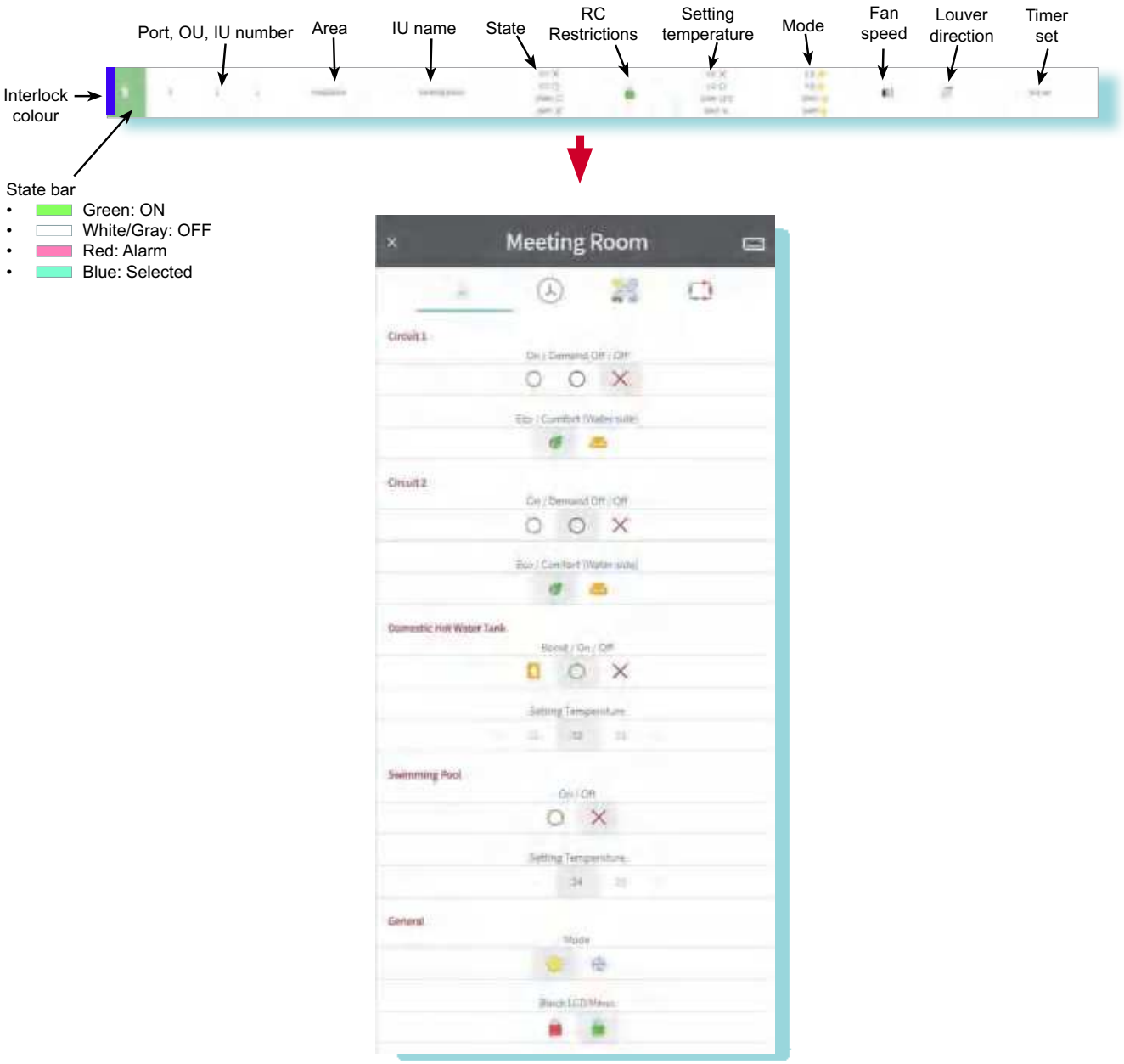
NOTE

CH Box and RCS Group columns appear if there is some configured.

3.3.1 Units at the list view



Unit operation panel



Unit operation panel

3.4 BUILDING LAYOUT VIEW (ONLY FOR CSNET MANAGER 2)

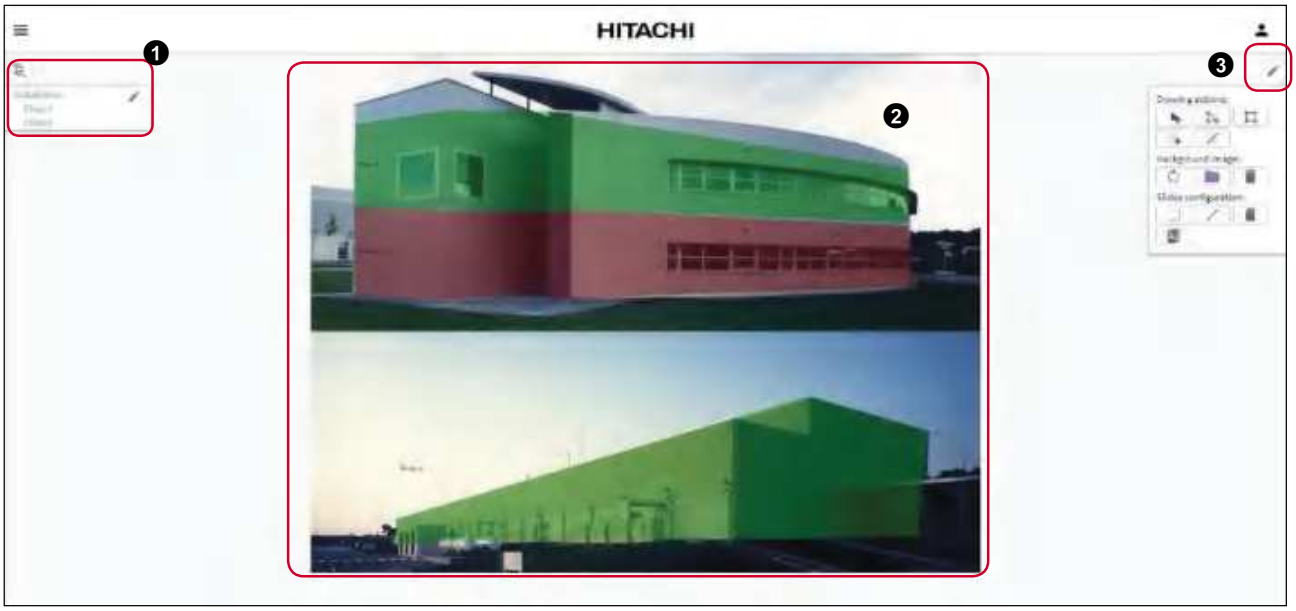
Building Layout lets the user to customize their view and the way of how the units are distributed through the installation.

If there is an existing Building Layout file, that must be created using the editor, should be configured as the layout of our installation.

Inside the “Local configuration” option (in the initial page) when creating or editing an installation you can set the path of the building layout file.

Otherwise, CSNET Manager 2 is creating its own building layout based on the area tree settings, which gives a matrix view of the units.

The shape colour shows the state of the unit. Unit Icons has a little frame that indicates the same.



❶ **Area tree:** shows the area tree of the installation, it is possible to edit the area tree from this menu. When a sub-area is selected a back button is shown to return to the previous area.

❷ **Slide:** shows the main areas of the installation. Clicking on each area shows a display with all the indoor units belonging that area.

❸ **Drawing menu:** to put a background image for the building layout creation or to edit the shapes of each area.

3.4.1 Creating a new building layout

DRAWING ACTIONS		Move area
		Polygon creation
		Square creation
		Move unit
		Hide unit
BACKGROUND IMAGE		Rotate background
		Fit image to a drawn rectangle
		Match Image to slide background
	1:1	Reset Aspect Ratio
		Open background
		Delete background
SLIDES CONFIGURATION		Slide dimension
		Hide background
		Delete active background
	ALL	Delete all backgrounds

Step 1: open the drawing menu and select the folder of the background image with the icon.

Step 2: edit the shape of each area. Select the area and then create a polygon or a square.

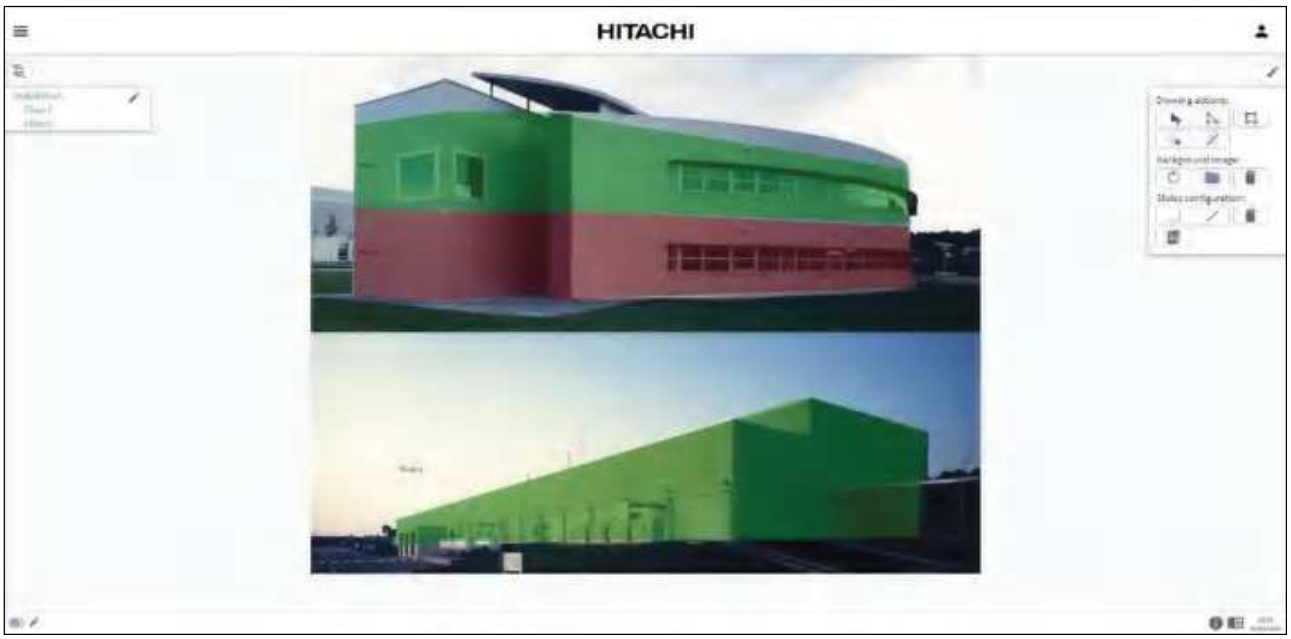
Polygon Creation:

Adding a polygon consist on clicking in each limiting point of the desired shape. A line will indicate you where the next point will be added.

Rectangle creation:

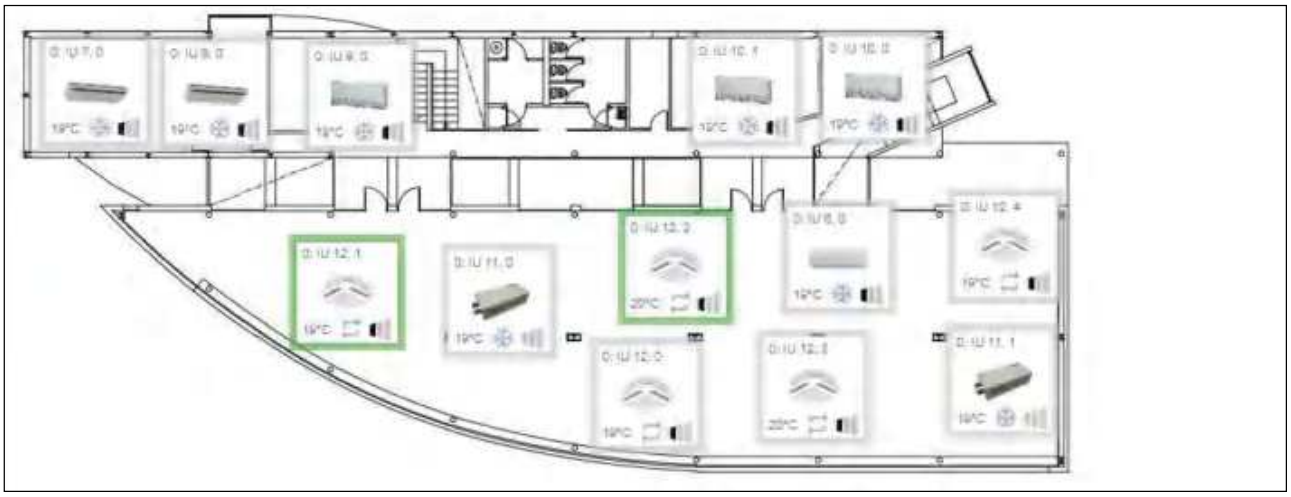
Rectangular shapes creation is easy, you only have to click with the mouse and drag selecting the area you are creating.

Step 3: select the area and press to move the area to the desired zone of the background image.



Step 4: close the drawing menu and click on an area. The indoor units of the selected area are shown.

Step 5: choose another background for the sub area and move the indoor units to their respective room with .



Step 6: to adjust the influence area of the indoor unit select the unit with . and then edit the shape of the area with the polygon or square buttons.

Step 7: to move the unit to the respective influence area press or to hide the indoor unit.

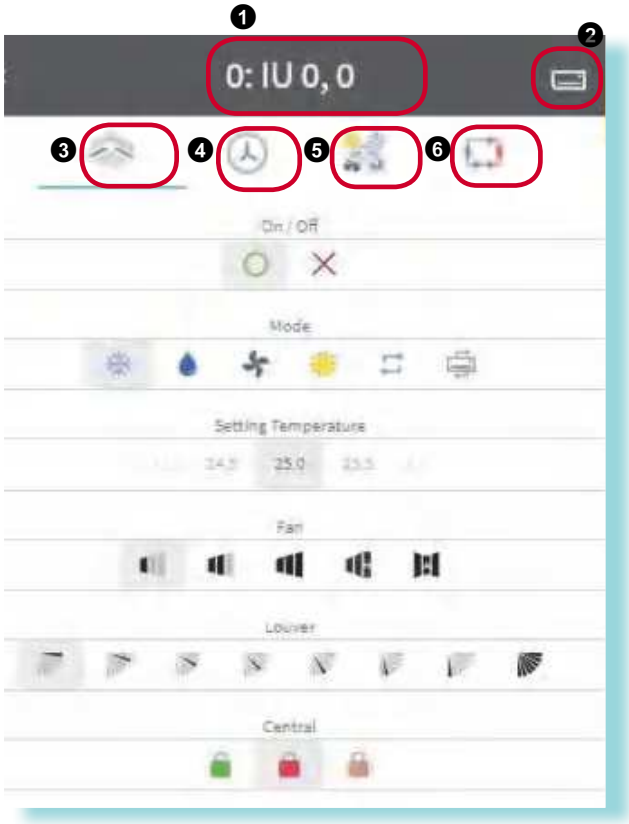
Step 8: clicking on the unit the unit operation panel appears.

NOTE

- *For installations with more than 100 units, the Building Layout only allows to show the first 100 units for slide.*
- *Icons style (classic, transparent, only unit image, small card, information only) can be selected from "13 Local configuration" menu.*

4 UNIT OPERATION PANEL

It is possible to access to this menu, through all the views (Home-dashboard, Grid, Building layout and List view).



❶ **Indoor unit name:** When any name has been configured, the information about port, outdoor unit and indoor unit number is not shown.

❷ **Multi selection:** Different options for selecting units appears.

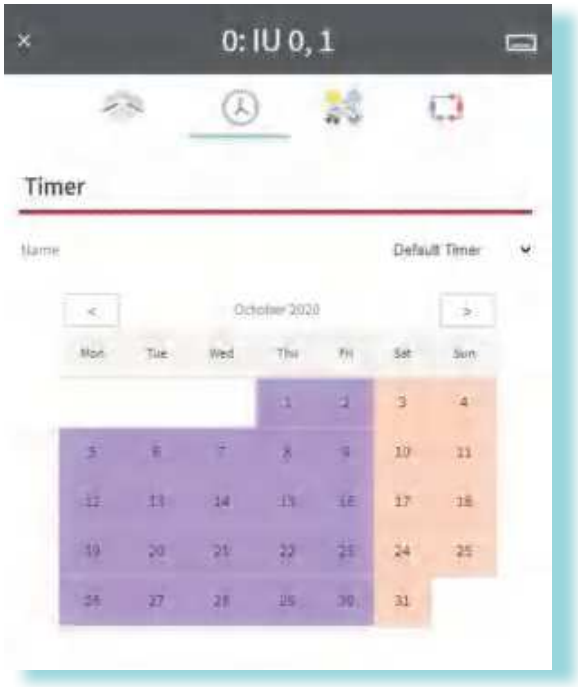
❸ **Indoor unit operations:**

- Air coinditioning units:
  - On / Off (also shows when indoor unit is in Off status due to heat draft)
  - Setting temperature
  - Mode (Cool, Dry, Fan, Heat or Auto heat/cool)
  - Fan (Low, Medium, High, High H or Auto)
  - Louver (8 different steps)
  - Central: Restrictions applied to the remote control (Without restrictions, all restricted and with some restrictions)
- Heat pump units:
  - Circuit 1 and Circuit 2
    - On / Demand Off /Off
    - Eco / Comfort
  - Domestic Hot Water Tank
    - Boost / On / Off
    - Setting temperature
  - Swimming Pool
    - On / Off
    - Setting temperature
  - General
    - Mode
    - Block LCD Menu

NOTE

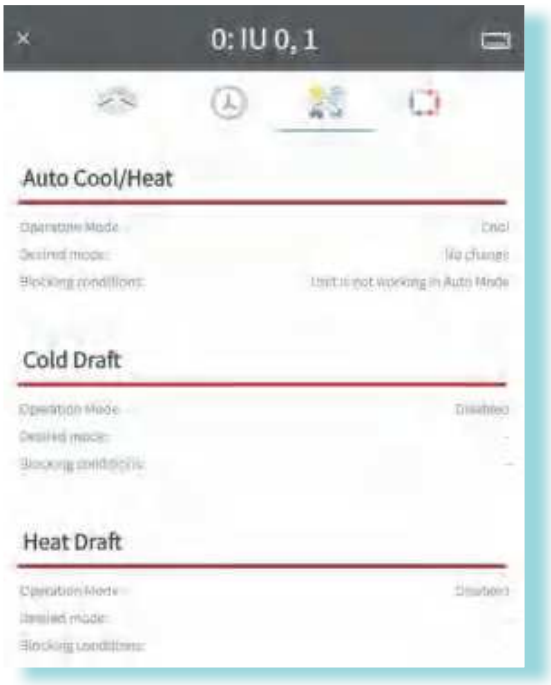
- *Setting temperature, Mode, Fan and Louver panels could not be shown if unit does not have them.*
- *Central panel only appears if user has privilege for it.*

❹ **Timer:** change between timers and to visualize the selected timer.



❺ **Unit functions:** show information about the configured unit functions:

- Auto Cool/Heat
- Cold Draft
- Heat Draft
- Set Back



❻ **System status:** shows the operating conditions of each of the units controlled by CSNET software.

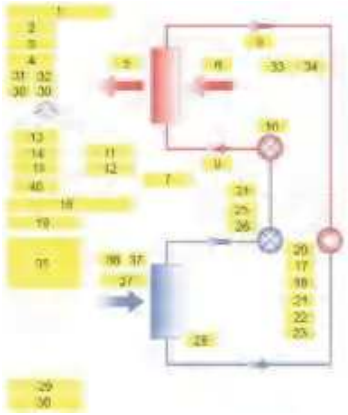
The system status shown corresponds to the same unit selected in the indoor unit table, as shown in the adjoining example.

The information display is divided into 4 parts:

- Data of the indoor unit.
- Setting data of the remote control and/or the configuration field.
- Data of the outdoor unit.
- Alarm produced and reason for the compressor status.

◆ Explanation of the fields

Parameters are available depending on the system. Check the indoor and outdoor unit technical documentation for availability.



No.	Group	Description		Units
		Air conditioning units	Heat pump units	
1	Indoor unit	Model of the indoor unit and its power	Model of the indoor unit and its power	—
2		Thermo-ON/OFF	Thermo-ON/OFF	—
3		OFF/ON	OFF/ON	—
4		Filter time	Not applicable	h
5		Air outlet temperature (5)	Not applicable	ºC
6		Air inlet temperature (6)		ºC
7		Optional remote thermistor (RCS / THM4) (4)	SWP Temperture, setting and status	ºC
8		Gas piping temperature	Gas piping temperature	ºC
9		Liquid piping temperature	Liquid piping temperature	ºC
10		Expansion valve opening	Expansion valve opening	%
11		Real operation mode	Real operation mode	ºC
12		Real vent speed	DHW Temperture, setting and status	—
13	Remote control	Setting temperature	Setting temperature	—
14		Selected operation mode	C1 and C2 Temperature, setting and status	—
15		Selected fan speed	Selected fan speed	—
16	Outdoor unit	Model of outdoor unit and its power	Model of outdoor unit and its power	—
17		Discharge pressure	Discharge pressure	MPa
18		Suction pressure	Suction pressure	MPa
19		Discharge gas overheating (TdSH)	Discharge gas overheating (TdSH)	ºC
20		Discharge gas temperature	Discharge gas temperature	ºC
21		Compressor frequency	Compressor frequency	Hz
22		Total consumption of compressors	Total consumption of compressors	A
23		Number of compressors operating	Number of compressors operating	—
24		MV1 expansion valve opening	MV1 expansion valve opening	%
25		MV2 expansion valve opening (1)	MV2 expansion valve opening (1)	%
26		MV3 expansion valve opening/MVB (2)	Not applicable	%
27		Ambient temperature	Ambient temperature	ºC
28		Evaporating temperature (Heating)	Evaporating temperature (Heating)	ºC
29	Alarms	Number and description of alarm	Number and description of alarm	—
30		Last cause of compressor stop (3)	Last cause of compressor stop (3)	—
31	Others	THM1	THM1	ºC
32		THM2 (DX-kit only)	THM2 (DX-kit only)	ºC
33		PCB1 THM1 (RA) (KPI only)	Not applicable	ºC
34		PCB1 THM2 (OA) (KPI only)	Not applicable	ºC
35	Power Meter	Power Meter values	Power Meter values	—
36	OU Control	Power control activated	Power control activated	—
37		Night mode activated	Night mode activated	—
38	CN3 Inputs	Input 1	Input 1	—
39		Input 2	Input 2	—

NOTE

- *(1) Not for FS units of up to 10HP.*
- *(2) Not for FS units of up to 20HP.*
- *(3) The value shown does not disappear until the cause of the compressor stop does not change.*
- *(4) THM4 is the remote thermistor.*
- *(5) Water outlet temperature.*
- *(6) Water inlet temperature.*

◆ PC-A1IO System status

PC-A1IO has an special system status layout, it shows the value of all the digital outputs and two analogue inputs.

◆ RAD Units System Status

Its special view only shows the values that can be read when a PSC-6RAD adapter is connected.

◆ Alarms

The alarms shown in CSNET Manager 2 are the same that can be found in the Service Manual of the outdoor unit in question.

◆ Cause of compressor stop

The cause of the compressor stop shown in CSNET Manager 2 is the same that can be found in the service manual of the outdoor unit in question.

5 TIMER CONFIGURATION

5.1 PATTERNS CONFIGURATION

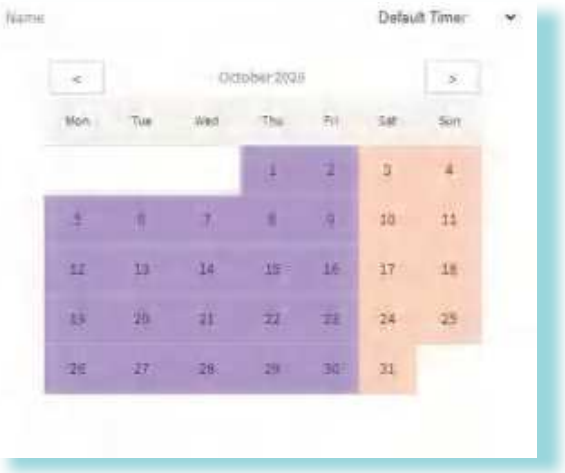
A pattern defines the operations to apply in a period of a day for the selected days of the weeks.

There are 5 patterns created by default which can be modified or deleted by the user or create new ones:

- Heating
- Soft Heating
- Summer Season
- Intermediate Season
- Off

Step 1: to create a new pattern press + . A window emerges to define the name of the new pattern. Press ✓ to accept.

Step 2: select the pattern colour. All days affected by this pattern will shown painted by this colour at the timer calendar.



5.1.1 Orders linked to time

Create the orders linked to the selected pattern with the + button.

❶ **Programming orders:** in this area is possible to configure time, on/off, mode, temperature and fan speed for the pattern.

? (By default): this option will not apply any modification on the parameter. It will remaining at their previous state.

- Click on the time (00:00 by default) and a clock picture appears for the time selection.

- Click on the On/Off icon and select the action desired for the selected time (On ○ or Off ✕).
- Select the Mode: Cool, Dry, Fan, Heat, Auto or Auto Once for the selected time.

  Auto Once mode decides automatically the working mode of an specified moment of time. At the specified time, CSNET Manager 2 gets the “input data” defined on Auto Cool / Heat screen (Tin, THM4, RCS Sensor, or the average of any of them).

  - If Setting temperature - “input data” >= HystH: Unit will be switched on in Heating mode.
  - If Setting temperature - “input data” >= HystC*-1: Unit will be switched on in Cooling mode.
  - Otherwise unit will be stopped.

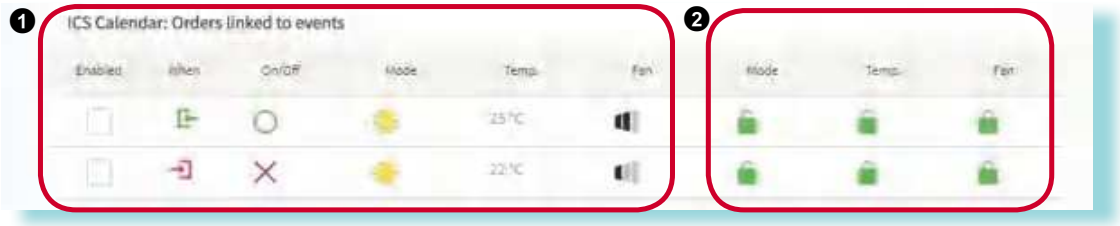
  The sent setting temperature, will be according to the “Corrected Value” configuration on the Auto cool/heat screen.
- Selection of the setting temperature: determine the setting temperature for the selected time.
- Select the fan speed: Low, Medium, High, High-H or Auto for the selected time.

❷ **Restrictions area:** in this area is possible to block some actions at the Remote Controller at the given time.

- Click on the Mode / Temp. or Fan to block 🔒 or unblock 🔓 at the given time.

5.1.2 Orders linked to ICS Events

In case of enabling the ICS Calendar orders it is necessary to import or to select an URL for the ICS Calendar. See chapter *"5.4 Ics Calendar Selection (only for CSNET Manager 2)".*



❶ **Programming orders:** in this area is possible to create orders linked to an ICS event. An .ics event is defined by an entry hour and a exit hour .

(By default): this option will not apply any modification on the parameter. It will remaining at their previous state.

- Select Enabled to allow orders linked to an ICS Calendar.
- Click on the On/Off icon and select the action desired for the entry or exit hour (On or Off).
- Select the Mode: Cool, Dry, Fan, Heat, Auto or Auto Once for the entry or exit hour.

  Auto Once mode decides automatically the working mode of an specified moment of time. At the specified time, CSNET Manager 2 gets the “input data” defined on Auto Cool / Heat screen (Tin, THM4, RCS Sensor, or the average of any of them).

  - If Setting temperature - “input data” >= HystH: Unit will be switched on in Heating mode.
  - If Setting temperature - “input data” >= HystC*-1: Unit will be switched on in Cooling mode.
  - Otherwise unit will be stopped.

  The sent setting temperature, will be according to the “Corrected Value” configuration on the Auto cool/heat screen.
- Selection of the setting temperature: determine the setting temperature for the entry or exit hour.
- Select the fan speed: Low, Medium, High, High-H or Auto for the entry or exit hour.

❷ **Restrictions area:** in this area is possible to block some actions at the Remote Controller when the .ics event is active.

5.2 TIMER CREATION

In the Timer creation screen it is defined the daily pattern that will be executed on each day.

5.2.1 How to create a Program

Defining a program specifies 2 dates in between a pattern will be executed if the day of the week has been selected.

Step 1: to create a new timer press + . A window emerges to define the name of the new timer. Press ✓ to accept.

Step 2: select “Program” and press + to define the period when the daily pattern is executed.

Step 3: choose the daily pattern from the drop-down list.

Step 4: select the period time (start date and finish date) and select the days of the week.

5.2.2 How to create an Exception

Creating exceptions defines the days were a daily pattern will be executed by configuring day, month and/or year.

Step 1: select “Exception” and press + to apply a specific pattern at a specific day/month/year. Exception allows to not define day/month/year.

Step 2: choose the daily pattern from the drop-down list.

Step 3: select Day, Month, Year or Any.

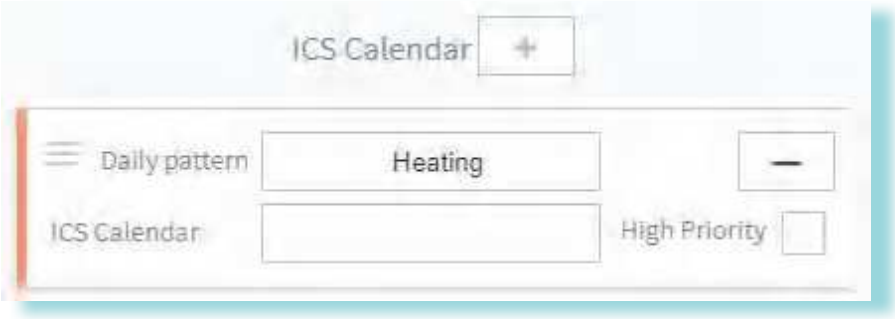
Examples:

- In case only year is not specified, specific exception is applied at specific day at specific month every year.
- In case only day is not specified, specific exception is applied at specific month and year.
- In case only month is not specified, specific exception is applied at specific day every month within specific year.

5.2.3 How to create an ICS Calendar (Only for CSNET Manager 2)

Linking the execution of a daily pattern with an ICS Calendar links up the days where a calendar has events with the days where a daily pattern will be executed.

Step 1: select “ICS Calendar” and press + to apply specific pattern according to the events defined on an .ics calendar. An example of usage would be an ICS calendar that is used to book room occupancy. Whenever room is booked, specific pattern will be applied. In case of add an ICS Calendar orders is necessary to import or to select an URL for the ICS Calendar. See chapter “ICS Calendar creation”.



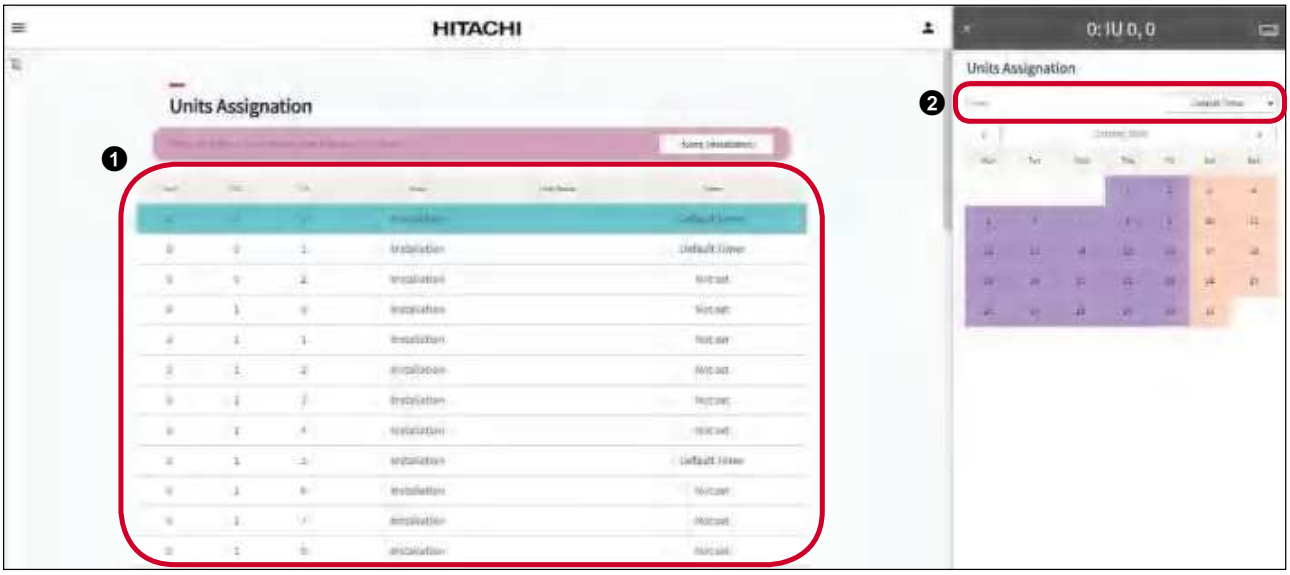
Step 2: choose the daily pattern from the drop-down list.

Step 3: choose the ICS Calendar from the drop-down list.

Step 4: enable the High Priority check-box to prioritize ICS Calendar over Exceptions and Programs. In case that High priority is disabled ICS Calendar only has priority over programs.

5.3 TIMER ASSIGNATION TO UNITS

After the creation of patterns and timers, it is necessary to assign the timers to the specific units.



❶ **Units list:** select the unit or group of units with the multi-selection option .

❷ **Timer:** open the drop-down list to see all the timers created and link the desired on the selected units. The calendar below shows the coloured days depending on the timer selected.

5.4 ICS CALENDAR SELECTION (ONLY FOR CSNET MANAGER 2)

Step 1: to create a new ICS Calendar press . The ICS Calendar configuration window appears to define the name of the new ICS Calendar.

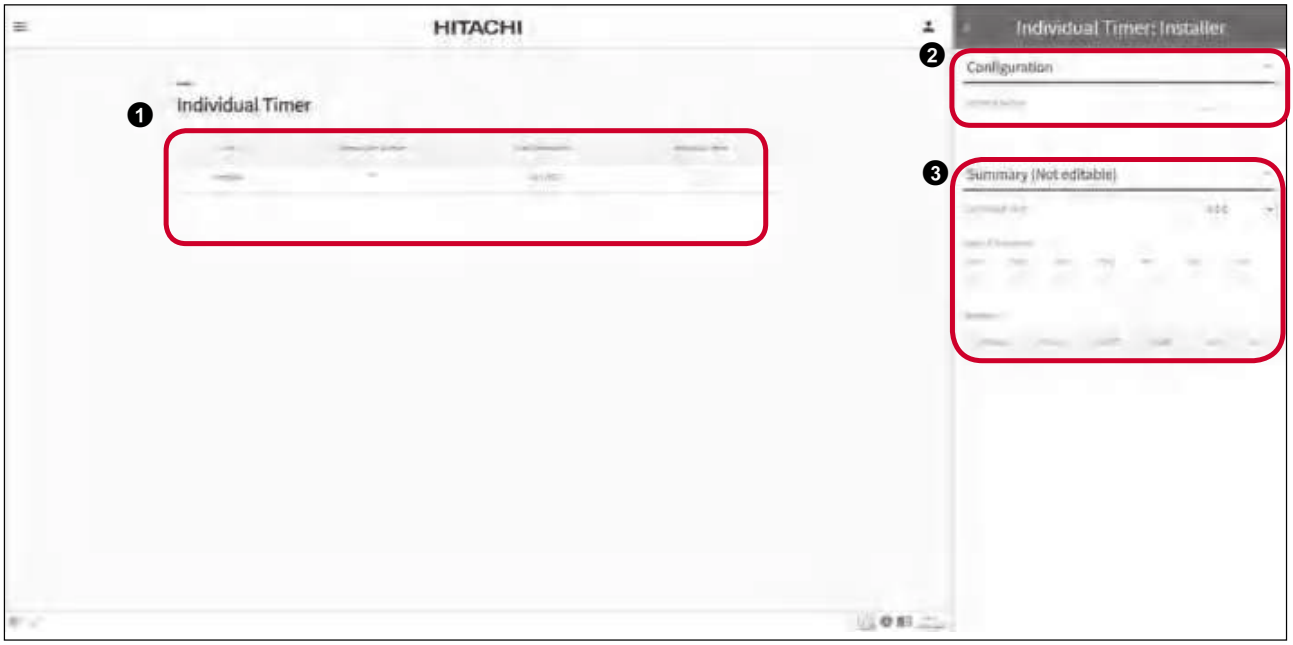
Step 2: press to define a name for the ICS Calendar and then press to accept.

Step 3: select from the drop-down list where is located the file, online or local. In case that the file is local press and select the file. In case that selecting Online, the field to write the URL is active.

Step 4: by selecting “Keep updated”, CSNET Manager 2 is refreshing the data from the calendar file every 30 minutes.

5.5 USER TIMERS

“User timers” screen allows to manage all the individual timers configured by the installation users.



1 **Users list:** list of the users created with or without individual timer privileges. The users with individual timer privileges have a check-box at the individual timer column.

Clicking on a row of a user with individual timer privileges opens a configuration and summary window.

2 **Configuration:** when “option enabled” is checked the user individual timer is enabled.

3 **Summary:** a complete view of the individual timer configured by the user. It is not possible to visualize the days of the week and patterns of the timer and also the controlled units. It is not possible to edit any timer parameter from this window.

5.6 INDIVIDUAL TIMER

Each user is allowed to edit an individual timer in case user have individual timer privileges.

❶ Switch ON/OFF individual timer.

❷ Selection of the week day that individual timer is applied.

❸ Configure up to 5 actions that will be executed according to parameter time.

Step 1: click on the check-box to enable the timer edition.

Step 2: select time (00:00 by default) and a clock picture appears for the time selection.

Step 3: Click on the On/Off icon and select the action desired for the selected time (On ◯ or Off ✕).

Step 4: Select the Mode: Cool, Dry, Fan, Heat, Auto for the selected time.

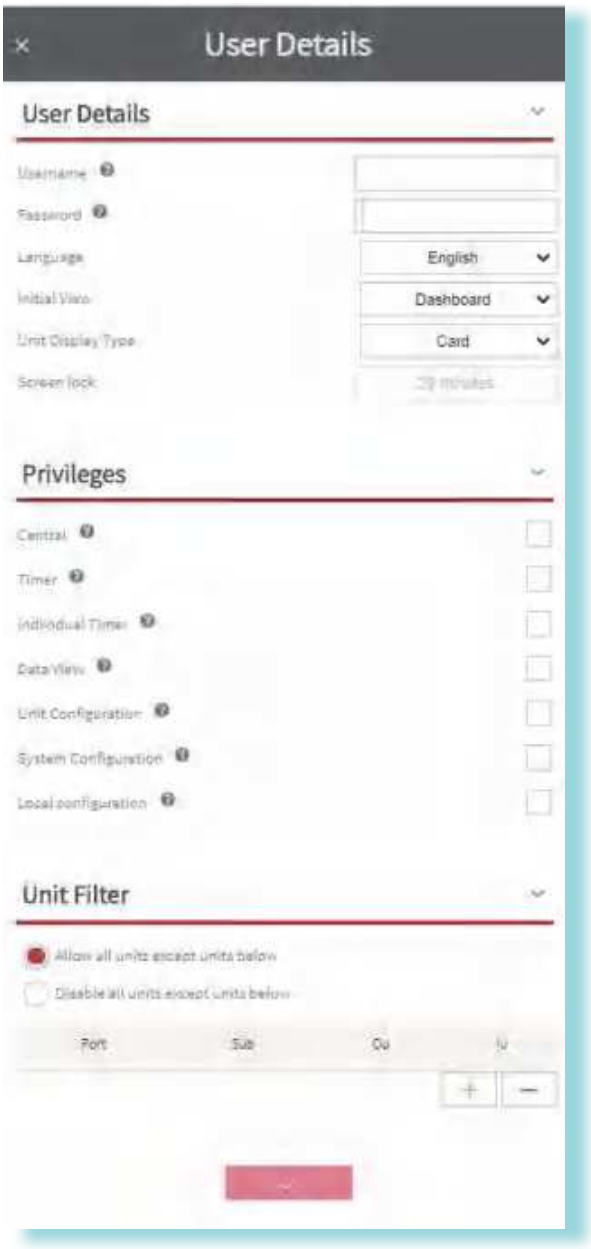
Step 5: Selection of the setting temperature: Determine the setting temperature for the selected time.

Step 6: Select the fan speed: Low, Medium, High, High-H or Auto for the selected time.

Step 7: Press ✓ to save the changes.

Individual Timer is applied to all units assigned to that user at User List at “Local configuration” or at “Web server” - User details menu.

User list at Installation menu



User list at Web server - User details menu

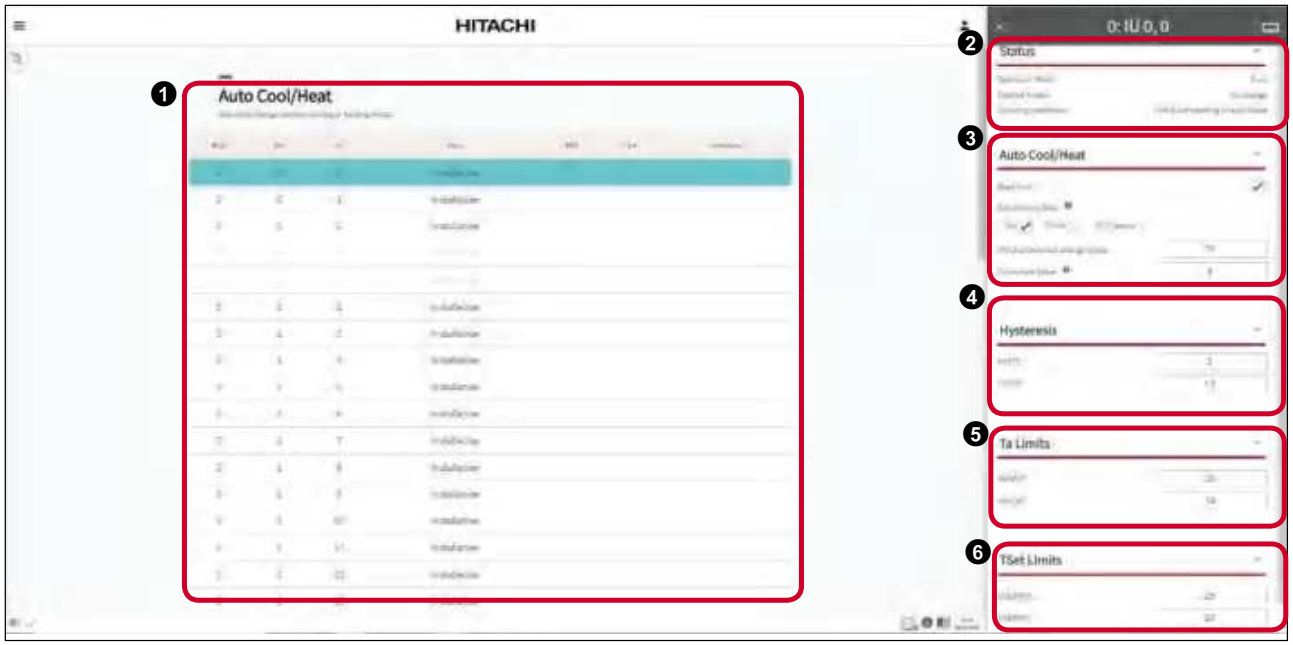
6 UNIT FUNCTIONS

NOTE

Unit functions menu only can be visible for user if this has request privilege.

6.1 AUTO COOL/HEAT

The Auto Cool / Heat function is to avoid discharge air temperature go below comfort value by setting unit in fan mode. Unit is set again in cooling mode once discharge temperature is high enough.



1 Units list: select the unit or group of units with the multi-selection option clicking on ▭.

2 Status: to use this option, you have to set the parameters shown in the **Auto Cool/Heat** operation panel. After that, if unit is working in **Auto Cool/Heat** mode, you can see the status of this operation on the status zone of the panel.

3 Auto Cool / Heat:

- **Main unit:** field for selecting the method CSNET Manager 2 will use to calculate the temperature difference.
  - ☑ (Marked): CSNET will only use this unit to calculate the temperature difference and decide the change, not taking into account the other units connected to the same 2-tube cooling circuit.
  - ☐ (Not marked): CSNET will use the average temperature difference of all the indoor units connected to the same 2-tube cooling circuit.
- **Select input data:** field for selecting what inlet temperature CSNET software should use to calculate the temperature difference if an optional remote temperature sensor is connected in THM4 of the PCB of the indoor unit or if there is RCS remote sensor. When there are selected a combination of different sensor it will calculate the average between them. When nothing is selected, it is forced to use the Tin value.

  NOTE

  In case of configuring Heat Draft, software shall use same sensors than in Heat Draft.
- **Minutes between change mode:** the time which must elapse between the last change of operation mode to the next change.

- **Correction value:** temperature corrected on changing the operation mode, to ensure greater comfort.

  The Setting temperature is adjusted using the following formula when the operation mode is changed, depending on the DIFF option selected:

Depending on the operation mode, setting temperature will be corrected as it is explained on the following table:

Option	Cool	Heat
0	0	0
1	+1	0
2	+1	-1
3	+2	-1
4	+2	-2

NOTE

The remote control and the CSNET Manager 2 always show the corrected temperature (the result is the setting temperature).

❹ **Hysteresis:**

- **HYSTC**: value of the temperature difference calculated to pass from heat to cool mode.
- **HYSTH**: value of the temperature difference calculated to pass from cool to heat mode.

❺ **Ta Limits:**

- **MAXOAT:** maximum outdoor ambient temperature for heat operation.
- **MINOAT:** minimum outdoor ambient temperature for cool operation.

❻ **TSet Limits:**

- **USERMAX:** maximum Setting temperature. If the selected temperature is higher, CSNET will use USERMAX as the value for the Setting temperature, changing this value as soon as the operation mode changes.
- **USERMIN:** minimum Setting temperature. If the selected temperature is lower, CSNET will use USERMIN as the value for the Setting temperature, changing this value as soon as the operation mode changes.

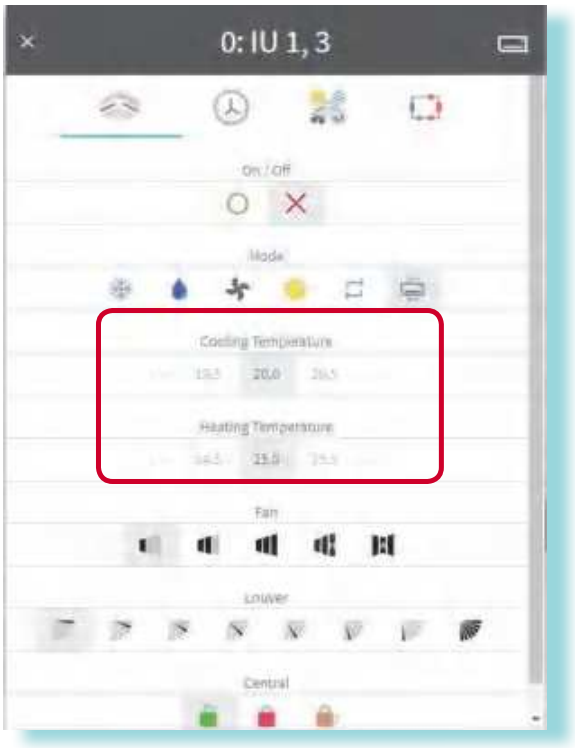
After adjust previously parameters, if unit is working in Auto Cool/Heat mode, it will be displayed on the status zone which option is currently doing.

6.1.1 Dual set point for Auto Cool/Heat

After configure optional function R1 as enabled, the option of manage dual setpoint will appear when unit will work in Auto RCS mode.

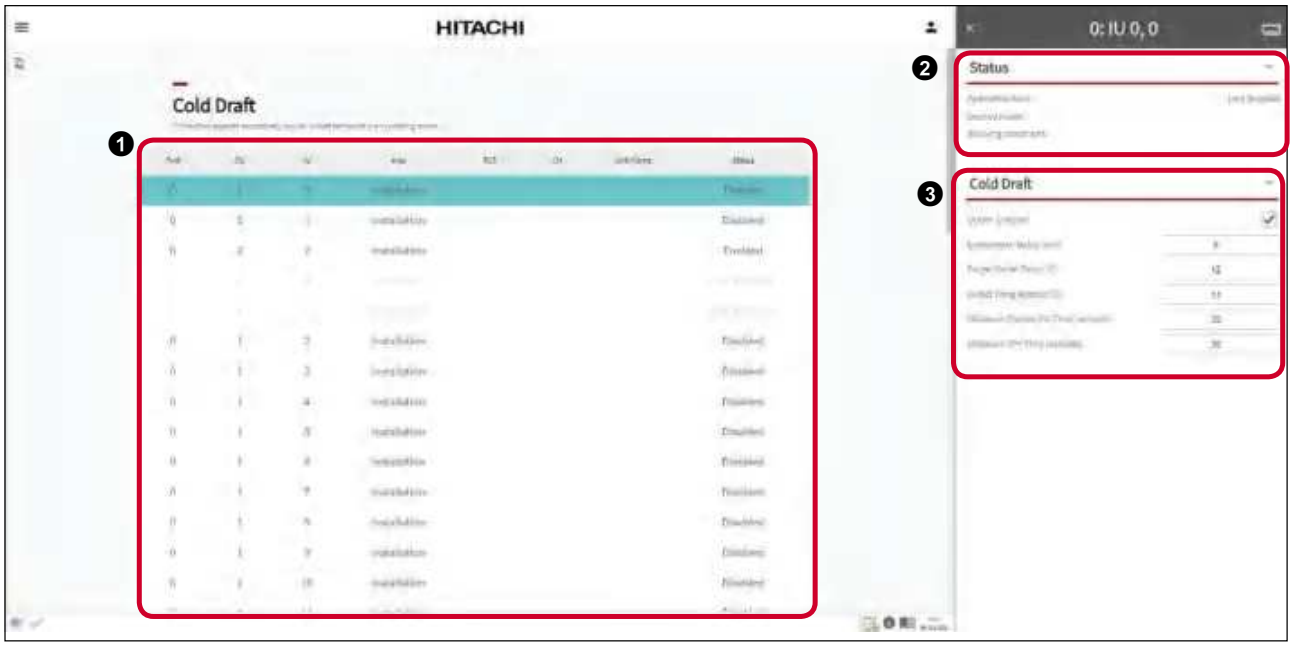
CSNET Manager 2 let now activate or deactivate the Auto RCS Mode from the control panel.

Once auto RCS mode is set, heating and cooling temperature will appear on the panel and will be configurable.



6.2 COLD DRAFT

The Cold draft function is to avoid discharge air temperature go below comfort value by setting unit in fan mode. Unit is set again in cooling mode once discharge temperature is high enough.



❶ **Units list:** select the unit or group of units with the multi-selection option clicking on .

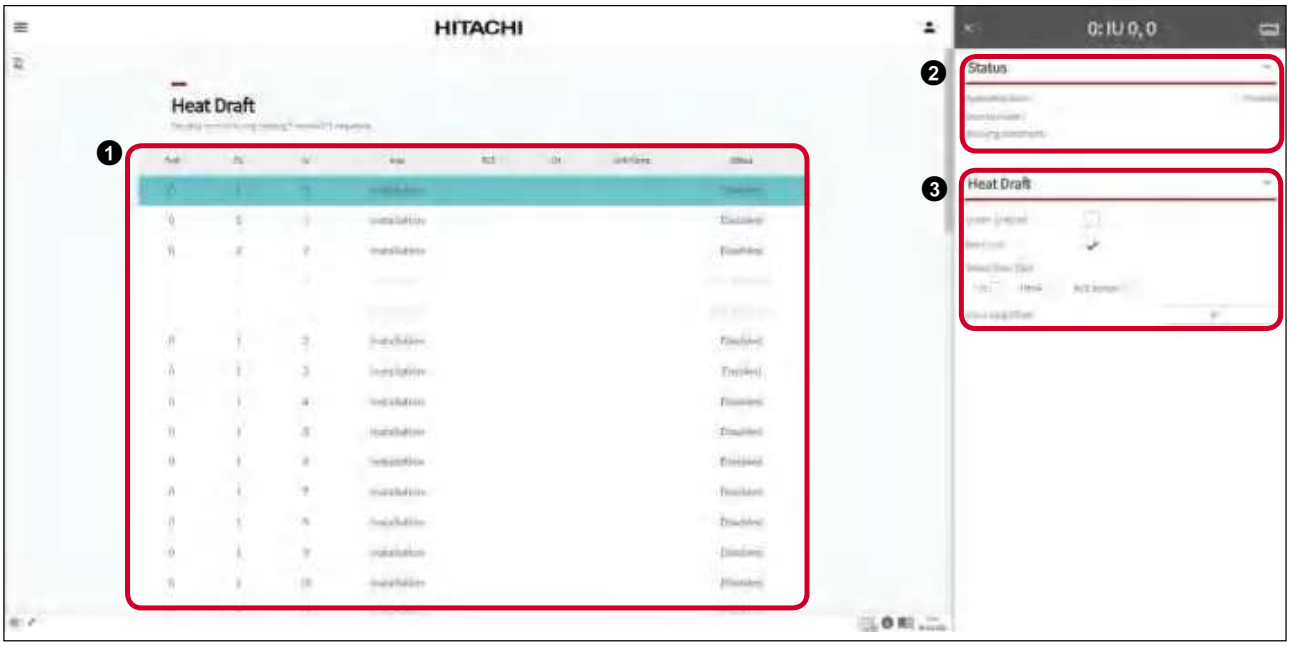
❷ **Status:** to use this option, you have to set the parameters shown in the **Cold Draft** operation panel. After that, if unit is working in **Cold Draft** mode, you can see the status of this operation on the status zone of the panel.

❸ **Cold Draft:**

- **Option Enabled:** activate/not activate cold draft option in the selected indoor unit.
- **Compressor Delay (min):** minimum enforced time between two compressor start up when start required by Cold Draft option.
- **Target Outlet Temp (ºC):** minimum outlet temperature that we accept in this room in order to force the Thermo-OFF.
- **Outlet temp Restart (ºC):** temperature that unit is finishing the forced Thermo-OFF.
- **Minimum Thermo-ON Time (seconds):** minimum time that should be in Thermo-ON before accepting a new Thermo-OFF.
- **Minimum OFF time (seconds):** minimum time that unit should be Thermo-OFF before accepting a new Thermo-ON.

6.3 HEAT DRAFT

The Heat Draft function stops fan when indoor unit reaches Demand OFF conditions in order to avoid Room overheating, cold sensation or noise.



❶ **Units list:** select the unit or group of units with the multi-selection option clicking on .

❷ **Status:** to use this option, you have to set the parameters shown in the **Heat Draft** operation panel. After that, if unit is working in **Heat Draft** mode, you can see the status of this operation on the status zone of the panel.

❸ **Heat Draft:**

- **Option Enabled:** activate/not activate heat draft option in the selected indoor unit.
- **Main unit:** to select a Main Unit within a RCS group.
- **Select input data:** to select the sensor (Tin, THM4 or RCS sensor) to control Heat Draft operation.
- **Input data offset:** add an offset to the value of the selected input data sensors.

6.4 SET BACK

Setback function is a protection against high and low temperatures. In case room temperature is above a defined limit in High Temperature Protection control, unit is switched ON in cooling mode until room temperature reaches the desired lower temperature. In contrary, in case room temperature is below a limit defined in Low Temperature Protection, unit is switched ON in heating mode until room temperature reaches the desired higher temperature.

Selection of the sensors let decide which one of them will be used. In case of more than one it use the average to take decisions. In case of RCS group, one main unit should be selected.

NOTE

Cold Draft and Heat Draft are not compatible with Set back. If unit is performing Set back, Cold Draft or Heat Draft are disabled.

❶ **Units list:** select the unit or group of units with the multi-selection option clicking on .

❷ **Status:** to use this option, you have to set the parameters shown in the **Set Back** operation panel. After that, if unit is working in **Set back** mode, you can see the status of this operation on the status zone of the panel.

❸ **Set back:**

- **Option Enabled:** activate/not activate Set Back option in the selected indoor unit.
- **Main unit:** to select a Main Unit within a RCS group.
- **Select input data:** to select the sensor (Tin, THM4 or RCS sensor) to control Set Back operation.

❹ **Low temperature protection:**

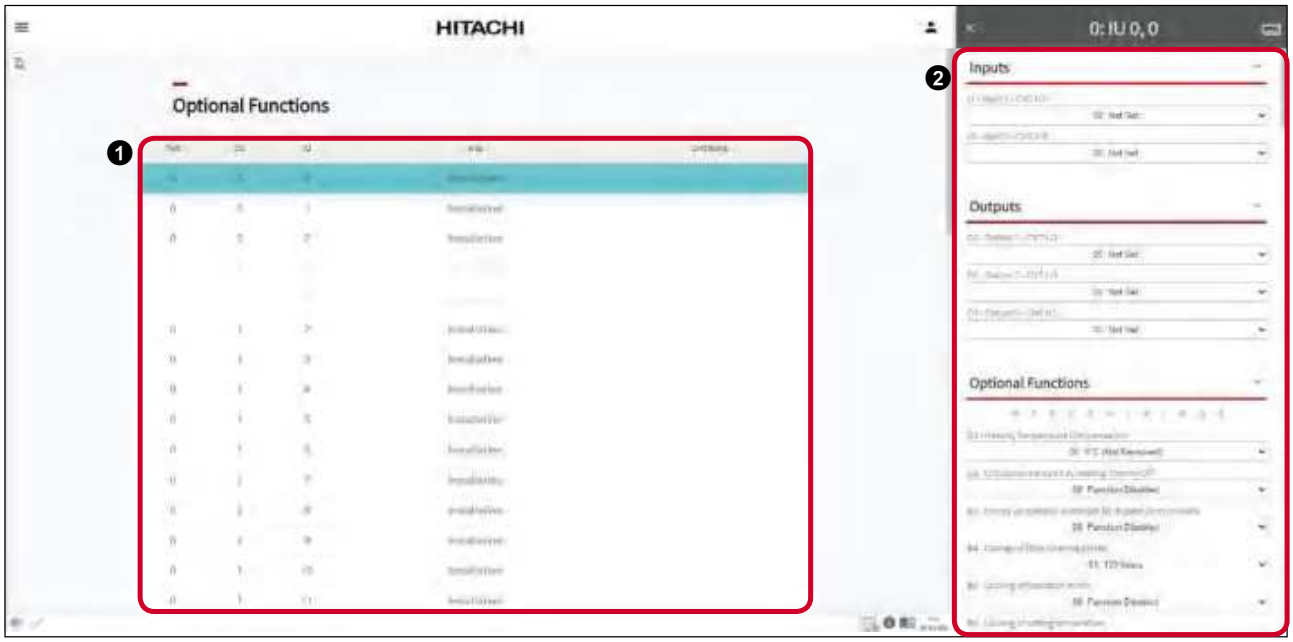
- **Enabled:** activate/not activate Low temperature protection.
  - **Start temperature:** when temperature is lower than start temperature and unit is OFF, the unit is started in heating mode with the minimum heating temperature as setting.
  - **Stop temperature:** in case that stop temperature is higher than minimum heating temperature, the setting send to the unit will be the stop temperature. When the stop temperature is reached, Set back is stopped and previous unit setting is restored.
- **Time limitation:** to select Set Back function activation time frame. In case Time limitation is not selected, set back function can be applied at any moment in case room temperature fulfils starting and stopping conditions for low temperature protections.
  - **Starting time:** to select starting time.
  - **Stopping time:** to select stopping time.

❺ High temperature protection:

- **Enabled:** activate/not activate High temperature protection.
  - **Start temperature:** when temperature is higher than start temperature and unit is OFF, the unit is started in cooling mode with the maximum cooling temperature as setting.
  - **Stop temperature:** in case that stop temperature is lower than maximum cooling temperature, the setting send to the unit will be the stop temperature. When the stop temperature is reached, setback is stopped and previous unit setting is restored.
- **Time limitation:** to select Set Back function activation time frame. In case Time limitation is not selected, set back function can be applied at any moment in case room temperature fulfils starting and stopping conditions for high temperature protections.
  - **Starting time:** to select starting time.
  - **Stopping time:** to select stopping time.

6.5 OPTIONAL FUNCTIONS

Optional functions menu is used to select the optional functions, inputs and outputs for the selected units. The following options are available:



❶ **Units list:** select the unit or group of units with the multi-selection option clicking on .

❷ **Optional functions, inputs and outputs:** configure the desired optional function, input or output at the drop-down menu. It is not possible to configure optional function for that indoor units connected to current HC-A64NET.

Element	Optional function	Individual setting	Settings	Setting conditions	Description
b1	Heating temperature compensation Models: RCI-FSN4 RCIM-FSN4E RCD-FSN3 RPC-FSN3 RPI-FSN5E RPI-FSN3E(P)E(-f) RPIM-FSN4E(-DU) RPK-FSN(H)3M	O	00	Normal (factory setting) (Setting Temperature + 4ºC)	This function is used to adjust the temperature difference between the temperature read by the inlet sensor and the real room temperature. This is useful when the inlet air thermistor is not placed inside the indoor unit or due to uneven heat load. **NOTE** • *The "02", "03", "04" settings may not be available depending on the type of indoor unit.* • *This setting shall be performed separately for each indoor unit, even in case that multiple indoor units are connected to one remote controller.*
			01	No compensation (Setting Temperature)	
			02	Setting Temperature + 2ºC	
			03	Setting Temperature + 3ºC	
			04	Setting Temperature + 1ºC	
	Heating temperature compensation Models: RPF(I)-FSN2E	O	00	RPF(I)-FSN2E: Normal (factory setting) (Setting Temperature + 2ºC)	
			01	No compensation (Setting Temperature)	
			02	Setting Temperature + 2ºC	
b2	Circulation function at heating Thermo-OFF	O	00	Function disabled (factory setting)	This function keeps the fan running during the Thermo-OFF sequence, at the fan speed set on the remote control switch, to prevent the stratification of air in the room.
			01	Function enabled	
b3	Forced compressor operation for at least three minutes	O	00	Function disabled (factory setting): Forced compressor operation for at least three minutes can be enabled or disabled through C7 setting	This function is used to allow the setting of C7, to protect the compressor by preventing it from being started or stopped for periods of less than 3 minutes.
			01	Function enabled: Forced compressor operation for at least three minutes always occurs independently of C7 setting	
b4	Change of filter cleaning period	O	00	Standard (1200 hours)	This function is used to modify the period of operation after which the air filter cleaning indication is shown in the remote control. For RPK-FSN(H)3M models, the factory setting is b4=00: Standard setting 200 hours.
			01	100 hours	
			02	1200 hours (factory setting)	
			03	2500 hours	
			04	No indication	
b5	Locking of operation mode	X	00	Function disabled (factory setting)	This function prevents the modification of the operation mode of the unit from the remote controller and from central controls, once it has been selected.
			01	Function enabled	
b6	Locking of setting temperature	X	00	Function disabled (factory setting)	This function prevents the modification of the setting temperature of the unit from the remote controller and from central controls, once it has been selected.
			01	Function enabled	
b7	Setting operation mode as cooling only	X	00	Function disabled (factory setting)	This function is used to limit the operation mode to cooling only and to prevent heating mode from being enabled.
			01	Function enabled	

Element	Optional function	Individual setting	Settings	Setting conditions	Description
b8	Automatic COOL/HEAT operation	X	00	Function disabled (factory setting)	This function enables the selection of Auto cool/heat operation mode. If the function is not activated, Auto cool/heat mode cannot be selected on the remote control switch.
			01	Function enabled	
b9	Locking of fan speed setting	X	00	Function disabled (factory setting)	This function prevents the modification of the fan speed of the unit from the remote controller and from central controls, once it has been selected.
			01	Function enabled	
bb	Cooling setting temperature correction	O	00	No compensation (factory setting)	This function decreases the setting temperature and is used to produce longer cooling periods.
			01	Setting temperature decreased by 1ºC	
			02	Setting temperature decreased by 2ºC	
C4	Drain pump operation in heating mode	O	00	Function disabled (factory setting)	This function is used to activate the drain pump in heating mode. Only for models with drain pump.
			01	Function enabled	
C5	Static pressure selection Models RPI-FSN5E RPIM-FSN4E(-DU) RPI-FSN3(P)E(-f)	O	00	Standard static pressure (factory setting)	This function is used to change the static pressure of the RPI units from the remote control.
			01	High static pressure	
			02	Low static pressure	
	Increase of fan speed during normal operation (not during heating Thermo-OFF) Models RCI-FSN4 RCIM-FSN4E RCD-FSN3 RPC-FSN3 RPK-FSN(H)3M RPF(I)-FSN2E	O	00	Standard (factory setting)	This function is used to change the fan speed of indoor units installed in high ceilings.
			01	Hi Speed 1	
			02	Hi Speed 2	

	Fan speed setting on the remote controller			
C5	High H	High	Medium	Low
0	Hi2	Hi	Me	Lo
1	Hi2	Hi1	Hi	Me
2	Hi2	Hi2	Hi1	Hi

C6	Increase of fan speed at heating Thermo-OFF	O	00	Function disabled (factory setting)	This function is used to increase the fan speed when the thermostat reaches the set temperature in heating according to the setting of function C5.
			01	Function enabled	
C7	Cancellation of forced compressor operation for at least 3 minutes	O	00	Function disabled (factory setting)	This function is available depending on the setting of function b3.
			01	Function enabled (Compressor operation during 3 minutes is no longer forced)	

Element	Optional function	Individual setting	Settings	Setting conditions	Description
C8	Control by the temperature sensor of the remote control switch **NOTE** *The remote control switch shall be installed in a proper place for the correct detection of room temperature by its temperature sensor.*	O	00	Control by the air inlet sensor of indoor units (factory setting)	This function specifies the temperature sensor to be used as control sensor by the indoor unit.
			01	Control by the temperature sensor of the remote control switch	
			02	Control by the average value of the air inlet sensor of indoor units and the temperature sensor of the remote control switch. (Air inlet + Remote control switch)/2	
	Control sensor when a remote sensor is connected to the THM4 connector in the indoor unit PCB **NOTE** *The remote sensor shall be installed in a proper place for the correct detection of room temperature.* Model RPF(I)-FSN2E	O	00, 01, 02	When a remote sensor is connected to THM4, this remote sensor is used as control sensor, whichever the setting for C8 (factory setting C8=00)	
	Control sensor when a remote sensor is connected to the THM4 connector in the indoor unit PCB **NOTE** *The remote sensor shall be installed in a proper place for the correct detection of room temperature.* Models RCI-FSN4 RCIM-FSN4E RCD-FSN3 RPC-FSN3 RPI-FSN5E RPI-FSN3E(P)E(-f) RPIM-FSN4E(-DU) RPK-FSN(H)3M		00, 02	Air temperature control using the average value of the air inlet thermistor and the remote sensor (factory setting C8=00) (Air inlet + Remote sensor)/2	
			01	Air temperature control using the remote sensor	
Cb	Selection of forced stoppage logic	X	00	Forced stoppage input: A contact, normally open contact (factory setting)	This function determines the logic operation for the forced stoppage contacts.
			01	Forced stoppage input: B contact, normally closed contact	
Cd	Stop of indoor unit fan during cooling Thermo-OFF conditions **NOTE** *For model RPI-FSN3E(P)E and RCD-FSN3, this function is NOT available.*	O	00	Fan speed during cooling Thermo-OFF: Low (factory setting)	The operation of the indoor unit fan is stopped in cooling Thermo-OFF conditions when using the additional remote temperature sensor THM-R2AE (connected to THM4) or the PC-ARFP1E temperature sensor. C8 must be set to 01 to use the Cd=01 setting.
			01	Indoor unit fan is stopped during cooling Thermo-OFF	

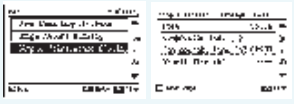
Element	Optional function	Individual setting	Settings	Setting conditions	Description
CE	Stop of indoor unit fan during heating Thermo-OFF conditions Stop of indoor unit fan during heating Thermo-OFF conditions (with remote control switch temperature sensor)	O	00	Fan speed setting during heating Thermo-OFF: Low (factory setting)	The indoor unit uses the PC-ARFP1E temperature sensor to monitor the room temperature when the fan is stopped (heating Thermo-OFF fan stop sequence) C8 must be set to 01 to use the CE=01 setting. Control by remote temperature sensor connected to THM4 is not permitted (use E8 function in that case).
			01	Indoor unit fan is stopped during heating Thermo-OFF. *(In case that automatic louver is set, the louvers will keep operating in both Thermo-ON and Thermo-OFF conditions)*	
CF	Modification of louver swing range Models: RCI-FSN4 RCIM-FSN4E RCD-FSN3 RPC-FSN3	O	00	Standard (7 steps) (factory setting)	This function adjusts the angle of the air outlet louver. *(Changes to the setting of this function are applied after turning the power supply off and on again, or after the automatic louver has made a full cycle in automatic mode)*
			01	Cold draft prevention (5 steps) *(Cannot be set to the lower two steps; lower 2 steps cut off)*	
			02	High ceilings (5 steps) *(Cannot be set the upper two steps; upper 2 steps cut off)*	
	Models: RPK-FSN(H)3M		00	Standard (7 steps) (5 steps for cooling / dry mode)	
			01	Cold draft prevention (5 steps for heating and fan only) *(Cannot be set to the lower two steps, lower 2 steps cut off)*	
			02	Not used	
d1	Management of indoor unit operation after a power supply cut off - option 1	O	00	Function disabled (factory setting)	When power supply is restored, the indoor units controlled by the wired remote control switch are turned on regardless of their ON/OFF status at the time of the last power cut off.
			01	Function enabled	
d3	Management of indoor unit operation after a power supply cut off - option 2	O	00	Function disabled (factory setting)	When power supply is restored, the indoor units controlled by the wired remote control switch are turned on automatically ONLY if they were already ON at the time of the last power cut off. If indoor units were OFF when power was turned OFF, they remain in OFF status when power is restored.
			01	Function enabled	
d4	Prevention of low air outlet temperature in cooling mode Models: RPI-(4.0-6.0)FSN5E RPIM-(0.6-1.5)FSN4E(-DU)	O	00	Function disabled (factory setting)	This function is used to prevent the decrease of discharge air temperature in cooling operation, by controlling Thermo-ON/OFF according to the discharge air temperature. When ambient temperature > setting temperature: If air outlet temperature ≤ 11ºC for 3 minutes, the system is switched to Thermo-OFF. In this status, if air outlet temperature ≥ 13ºC, the system is switched back to Thermo-ON.
			01	Function enabled	
	Not used Models: RCD-FSN3 RPI-(0.4-3.0)FSN5E RPI-FSN3E(P)E(-f) RCI-FSN4 RPC-FSN3 RCIM-FSN4E RPF(I)-FSN2E RPI-(8~20)FSN3(P)E	O	00	-	Use at 00 conditions
			01		

Element	Optional function	Individual setting	Settings	Setting conditions	Description
d5	Prevention of low air outlet temperature in heating mode	O	00	Function disabled (factory setting)	This function prevents the occurrence of an excessively cold air flow in heating mode by decreasing the fan speed during heating operation, also taking into account the setting of function C5.
			01	Function enabled	
d6	Room temperature control for energy saving	O	00	Function disabled (factory setting)	This function saves energy when the outdoor temperature is lower than the air conditioning load. The indoor unit is set to cooling Thermo-OFF when: Tout (outside ambient temperature - out of the building) < Tin
			01	Function activated	
d7	Econofresh: Minimum opening angle of the outdoor air (OA) damper	O	00	6º (factory setting)	This function is used to set the minimum opening angle of the damper for fresh outdoor air.
			01	12º	
			02	18º	
			03	24º	
			04	30º	
			05	36º	
			06	42º	
			07	48º	
E1	KPI: Ventilation mode	O	00	Automatic ventilation (factory setting)	This function allows the outdoor air damper to be opened in All Fresh operation mode. This mode allows the full opening of the outdoor air damper (according to the control system).
			01	Ventilation with total heat exchanger	
			02	Ventilation with bypass (no total heat exchange)	
	Econofresh cooling mode		00	Standard process (factory setting)	This function allows the outdoor air damper to be opened in All Fresh operation mode. This mode allows to fully open the outdoor air damper (according to the control system).
			01/02	All Fresh	
E2	KPI: Increase of air supply volume	O	00	Disabled function (factory setting)	This function is used to increase the air supply pressure in the room.
			01	Enabled function	
	Econofresh enthalpy sensor		00	Disabled function (factory setting)	This function selects the enthalpy sensor input for Econofresh.
			01	Enabled function	
E4	KPI: Pre-cooling / pre-heating period	O	00	Disabled (factory setting)	This function delays unit startup with energy recovery.
			01	30 minutes	
			02	60 minutes	
	Econofresh: CO_2 sensor		00	Disabled (factory setting)	This function selects the CO_2 gas sensor input for Econofresh.
			01/02	CO_2 sensor (required setting E1=00)	
E6	Period of indoor fan operation after cooling operation stoppage	O	00	Disabled function (factory setting)	This function prevents the condensation in the unit by keeping the fan running after the unit operation has been turned OFF.
			01	60 minutes	
			02	120 minutes	

Element	Optional function	Individual setting	Settings	Setting conditions	Description
E8	Control for stop of the indoor unit fan during heating Thermo-OFF conditions (with remote sensor THM-R2AE connected to the THM4 connector in the indoor unit PCB)	O	00	Fan operation in Low speed	This function stops the fan to prevent cold draughts or overheating. C8 must be set to 01 to use the E8=01 setting. The connection of a THM-R2AE remote temperature sensor to the THM4 port in the indoor unit PCB is required. The remote sensor shall be installed in a proper place for the correct detection of room temperature. (In case that automatic louver is set, the louver will keep operating in both Thermo-ON and Thermo-OFF condition).
			01	Fan stop in Thermo-OFF conditions.	
E9	Intermittent fan operation in heating stop Not available for models: RPF(I)-FSN2E	O	00	Function disabled (factory setting)	In case that indoor unit operation is set OFF by the remote control switch, under certain conditions the fan is operated in cycles consisting of 3 minutes of operation at Slow speed and 30 minutes of stoppage.
			01	Function enabled	
Eb	Indoor unit fan control during cooling Thermo-OFF conditions	O	00	Function disabled (factory setting)	This function decreases speed of the indoor unit fan during cooling Thermo-OFF, to reduce the spread of smells and humidity.
			01	Low	
			02	Slow	
EC	Forced Thermo-ON when stopping in cooling operation	O	00	Function disabled (factory setting)	This function is used to force Thermo-ON during 6 minutes when stopping in cooling operation.
			01	Enabled	
EE	Control in “Automatic” indoor fan speed mode	O	00	Function disabled (factory setting)	This function limits the speed of the indoor fan when room temperature is close to the setting temperature.
			01	Enabled	
EF	Control in “Automatic” indoor fan speed mode (supporting High H) Models: RCI-FSN4 RCIM-FSN4E RCD-FSN3 RPC-FSN3 RPI-FSN5E RPI-FSN3E(P)E(-f) RPIM-FSN4E(-DU) RPK-FSN(H)3M	O	00	Function disabled	This function limits the speed of the indoor fan when room temperature is close to the setting temperature, allowing to reach High H speed.
			01	Function enabled	

Element	Optional function	Individual setting	Settings	Setting conditions	Description
F1	Automatic OFF timer setting Models: RCI-FSN4 RPC-FSN3 RPK-FSN3M RPI-FSN5E RPIM-FSN4E(-DU) RCD-FSN3 RCIM-FSN4E RPI-FSN3(P)E	X	00	Function disabled (Factory setting)	This function sets an automatic OFF timer to switch OFF the indoor units controlled by the remote control switch (when the units have been started by remote control). (Do not set the values "0C"-"0F" when two remote control switches are used in the same remote control group)
			01	1 hour	
			02	2 hours	
			03	3 hours	
			04-24	(04-24) hours	
			0A	30 minutes	
			0B	90 minutes	
			0C	40 minutes } Do not set these when two wired controllers are used.	
			0D	45 minutes	
			0E	50 minutes	
			0F	55 minutes	
	Automatic OFF timer setting Models: RPF(I)-FSN2E	X	00	Function disabled (factory setting)	This function is used to set the automatic timer to switch off when the unit has been started by remote control.
			01	1 hour	
			02	2 hours	
			03	3 hours	
			04-24	(04-24) hours	
			0A	30 minutes	
			0B	90 minutes	
F2	Remote control main-sub setting	X	00	Main (Main remote control) (factory setting)	This function is used to define which remote control switch is used as Main or Sub, when two remote controllers are connected to one indoor unit.
			01	Sub (Sub remote control)	
F3	Automatic reset of setting temperature	X	00	Function disabled (factory setting)	This function is used to limit unit operation and save energy. The setting temperature is automatically set to the value defined with functions "F5" or "F6", according to the current operation mode, after the time set with function "F4" has passed since the last manual change of setting temperature. In case that the values of "F5" or "F6" are out of the limits set with functions "FC" and "Fd", limitations set by "FC" and "Fd" have priority.
			01	Function enabled	
F4	Automatic reset time	X	00	30 minutes (factory setting)	This function sets the automatic reset time delay for function F3.
			01	15 minutes	
			02	60 minutes	
			03	90 minutes	
F5	Automatic reset temperature for cooling	X	19	19ºC	This function defines the default temperature set point for the automatic reset function F3 in FAN/COOL/DRY modes.
			20	20ºC	
			21	21ºC	
			. . .	. . .	
			24	24ºC	
			25	25ºC (factory setting)	
			26	26ºC	
			. . .	. . .	
			28	28ºC	
			29	29ºC	
			30	30ºC	

Element	Optional function	Individual setting	Settings	Setting conditions	Description
F6	Automatic reset temperature for heating	X	17	17ºC	This function defines the default temperature set point for the automatic reset function F3 in HEAT mode.
			18	18ºC	
			. . .	. . .	
			20	20ºC	
			21	21ºC (factory setting)	
			25	25ºC	
			. . .	. . .	
			28	28ºC	
			29	29ºC	
			30	30ºC	
F7	Prevention of operation stoppage due to wrong operation of the remote controller	X	00	Function disabled (factory setting)	Operation is stopped by pressing the run/ stop switch for 3 seconds.
			01	Function enabled	
F8	Lock function for operation mode selection	X	00	Function disabled	This function is used to prevent changes to the operation mode.
			01	Function enabled (factory setting)	
F9	Lock function for temperature setting	X	00	Function disabled	This function is used to prevent changes to the temperature setting.
			01	Function enabled (factory setting)	
FA	Lock function for fan speed selection	X	00	Function disabled	This function is used to prevent changes to the fan speed.
			01	Function enabled (factory setting)	
Fb	Lock function for swing louver operation	X	00	Function disabled	This function is used to prevent changes to the automatic louver operation.
			01	Function enabled (factory setting)	
FC	Lower limit of setting temperature for cooling (Minimum value of setting temperature allowed in cooling)	X	00	Function disabled 19ºC is the standard minimum set point. (factory setting)	This function defines the lowest temperature setting value for FAN/COOL/DRY modes.
			01	+1ºC (Lower limit 20ºC)	
			02	+2ºC (Lower limit 21ºC)	
			03	+3ºC (Lower limit 22ºC)	
			. . .	. . .	
			08	+8ºC (Lower limit 27ºC)	
			09	+9ºC (Lower limit 28ºC)	
			10	+10ºC (Lower limit 29ºC)	
Fd	Upper limit of setting temperature for heating (Maximum value of setting temperature allowed in heating)	X	00	Function disabled 30ºC is the standard maximum set point. (factory setting)	This function defines the highest temperature setting value for HEATING mode. Models: RPF(I)-FSN2E up to 20ºC (FC=10)
			01	-1ºC (Upper limit 29ºC)	
			02	-2ºC (Upper limit 28ºC)	
			03	-3ºC (Upper limit 27ºC)	
			. . .	. . .	
			10	-10ºC (Upper limit 20ºC)	
			11	-11ºC (Upper limit 19ºC)	
			12	-12ºC (Upper limit 18ºC)	

Element	Optional function	Individual setting	Settings	Setting conditions	Description
H1	No indication of maintenance alarm	–	00	Displayed	This function is used to display or hide the maintenance alarm indication.
			01	Hidden	
H2	Indication of hot start (No Indication of operation limitation)	X	00	Displayed	This function is used to display or hide the automatic control indication. Models: RPF(I)-FSN2E Not available, use at 00 conditions
			01	Hidden	
H3	Operation mode change restriction	×	00	Unlimited operation	**NOTE** *"01" is available only when one controller is used. Do not use this setting when two controllers are used.*
			01	Operation mode set by central control equipment + "Fan" mode	
			02	Operation mode change not available (Hide operation mode) (Factory setting)	
J3	Colour of the Run indicator	X	00	Green (factory setting)	–
			01	Red	
J4	Override of Start/Stop prohibition at the remote controller	X	00	Start/Stop allowed (factory setting)	When there is a remote control prohibition from a central control device, this function overrides this prohibition allowing the operation of the Run/Stop button of the remote control switch. Models: RPF(I)-FSN2E Not used. Use at 00 conditions
			01	Start/Stop not allowed **DANGER** ***Blocking of Start/Stop shall never be set due to safety concerns.***	
			02	Only Stop allowed	
J7	Enabling steps 6 and 7 for the air louver in COOLING or DRY mode	O	00	Function disabled (factory setting)	When a RPK unit is stopped in louver positions 6 or 7, the louver is set to position 5.
			01	Function enabled	
J8	Eco-operation	X	00	Function disabled (factory setting)	When the unit is restarted by the remote control switch, the temperature automatically changes to the setting temperature of "F5" or "F6". Models: RPF(I)-FSN2E Not available, use at 00 conditions
			01	Function enabled	
JA	Display of "Simple maintenance display" menu	O	00	Function disabled (factory setting)	Enables the "Simple maintenance display" menu.  Models: RPF(I)-FSN2E Not available, use at 00 conditions
			01	Function enabled	
Jb	Enable automatic fan speed setting	O	00	Function disabled (factory setting)	Models: RPF(I)-FSN2E Not available, use at 00 conditions
			01	Function enabled	

Element	Optional function	Individual setting	Settings	Setting conditions	Description
K5	Detection level of the motion sensor kit	O	00	Standard (factory setting)	Models: RPF(I)-FSN2E Not available, use at 00 conditions.
			01	High	This parameter defines the sensitiveness of the motion sensor. The amount of activity in the room is assessed according to a different scale based on this setting.
			02	Low	Detailed information about the operation of the motion sensor can be found in the technical documentation of the indoor units.
K6	Selection of allowed operation modes when the control sensor of the indoor unit is set by C8 function	O	00	All modes allowed	This function is used to select the operation modes in which the setting of C8 (use of remote control switch sensor or remote sensor on THM4 to control the indoor unit) is enabled.
			01	Only cooling/dry allowed	
			02	Only heating allowed	
			03	All modes allowed	
K8	Control for the prevention of condensation on the louvers.	O	00	Function disabled (factory setting)	Condensation may occur around air outlet during COOL/DRY operation with horizontal air flow or downward air flow for long periods. This function is used to prevent condensation by moving the louver swing angle to the third step automatically for 30 minutes every 1 hour. (In RPK units, this function is activated by means of DSW2-4 instead of the K8 optional function)
			01	Function enabled	
L3	Operation of the louvers in energy-saving Thermo-OFF (Cooling / Dry mode)	O	00	Direct air blow Low (factory setting)	Power save must be ON in order to use this function (L5 must be set to 01). This function is used to establish louver swinging operation ranging from continuous swing to static operation. Low: Continuous louver swing Medium: Louver swing with intermittent stops for 20/40 seconds High: Louver stopped at full opening position, according to the setting of CF.
			01	Direct air blow Medium	
			02	Direct air blow High	
			03	Disabled	
L4	Fan acceleration in energy-saving Thermo-OFF (Cooling mode)	O	00	Function disabled (factory setting)	This function increases fan speed by one step to prevent the loss of comfort due to the forced Thermo-OFF for energy saving during cooling operation.
			01	Function enabled	
L5	Louver swing operation during energy-saving forced Thermo-OFF	O	00	Function disabled (factory setting)	This function is used to enable the setting of function L3.
			01	Function enabled	
P1	Setting temperature in 0.5ºC steps	X	00	Enabled (0.5ºC steps) (factory setting)	This function is used to define whether setting temperature is adjusted in 0.5ºC steps (when set to “00”) or in 1ºC steps (when set to “01”). This setting also determines whether the resolution of temperature differential of the thermistor is 0.5ºC (when set to “00”) or 1ºC (when set to “01”).
			01	Disabled (1ºC steps)	

Element	Optional function	Individual setting	Settings	Setting conditions	Description
P3	Temperature sensor displayed	X	00	Inlet air thermistor (Tin)	This function is used to select the thermistor whose temperature is shown when function P4 is set to 01.
			01	Outdoor air thermistor (Tout)	
			02	Remote controller thermistor (RCS)	
			03	Remote sensor (THM4)	
P4	Display of sensor temperature	X	00	Hidden	This function is used to display the temperature of the sensor selected with function P3.
			01	Shown	
P5	Display of setting temperature when operation mode is Fan	X	00	Shown	This function is used to hide the display of setting temperature during operation in fan mode.
			01	Hidden	
P6	Operation of the ECO button	X	00	ECO button enabled (factory setting)	The operation of ECO button is disabled when P6 is set to 01
			01	ECO button disabled	
P7	Prohibition of menu screen transition	X	00	Function disabled (factory setting)	This function is used to prohibit the access to the menu screens.
			01	Function enabled	The text "Display disabled" appears on screen instead.
PA	Daylight saving time	X	00	1 hour	This function is used to set the amount of adjustment when daylight saving time is applied.
			01	2 hours	
qb	Operation mode with setback	X	00	Disabled	Operation modes in which setback operation is activated to keep a minimum comfort in the room while it is not occupied.
			01	Cooling	
			02	Heating	
			03	Cooling/Heating	
qC	Temperature differential for the setback function	X	00	2.0ºC	Target temperatures for both cooling and heating operation are determined versus a temperature to start setback operation (rE, rF) Target temperature calculation: Target temperature in cooling mode: rF - qC (°C) Target temperature in heating mode: rE + qC (°C)
			01	3.0ºC	
			02	4.0ºC	
			03	5.0ºC	
			04	1.0ºC	
qd	Minimum stop time of setback	X	00	10 minutes	To avoid the frequent activation of setback operation, a minimum off-time shall pass from the end of setback operation until the beginning of the following setback operation. Even if room temperature reaches the setpoint to start setback operation, setback operation does not start until the minimum off-time has expired.
			01	20 minutes	
			02	30 minutes	
			03	40 minutes	
			04	50 minutes	
			05	60 minutes	
			06	70 minutes	
			07	80 minutes	
			08	90 minutes	
			09	100 minutes	
			10	110 minutes	
			11	120 minutes	

Element	Optional function	Individual setting	Settings	Setting conditions	Description
r1	Dual setpoint	X	00	Function disabled (factory setting)	This function allows the setting of independent setpoints for cooling and heating in the automatic cooling/heating mode.
			01	Function enabled	
r2	Setting of temperature differential for switching cooling and heating	X	0.5	0.5ºC	This function can only be set when function r1 is set to 01.
			1.0	1.0ºC	
			1.5	1.5ºC	
			2.0	2.0ºC	
			2.5	2.5ºC	
			3.0	3.0ºC	
r3	Setback temperature compensation	X	0.5	0.5ºC	This setting is the temperature differential value to adjust the setting temperature during Setback operation.
			1.0	1.0ºC	
			1.5	1.5ºC	
			2.0	2.0ºC	
			2.5	2.5ºC	
			3.0	3.0ºC	
			3.5	3.5ºC	
			4.0	4.0ºC	
			4.5	4.5ºC	
			5.0	5.0ºC	
			5.5	5.5ºC	
r9	Remote control prohibition during setback operation	X	00	Start/Stop allowed (Factory setting)	Manual run/stop from the remote controller can be disabled during setback operation. This function is fixed to 00 (Disabled) when function qE is set to 00 (Always).
			01	Start/Stop not allowed ⚠ **DANGER** ***Blocking of Start/Stop shall never be set due to safety concerns.***	
			02	Only Stop allowed	

Element	Optional function	Individual setting	Settings	Setting conditions	Description
rb	Minimum operation time to allow the change of operation mode in auto cooling/heating mode with dual set point	X	00	Disabled	This function is used to define a minimum time of operation in a given mode, in order to avoid too frequent changes of operation mode. Operation mode does not change until the minimum transition time passes, even if the room temperature reaches the setpoint to shift to the other operation mode.
			01	10 minutes	
			02	20 minutes	
			03	30 minutes	
			04	40 minutes	
			05	50 minutes	
			06	60 minutes	
			07	70 minutes	
			08	80 minutes	
			09	90 minutes	
			10	100 minutes	
			11	110 minutes	
			12	120 minutes	

NOTE

- *O: allows for individual setting.*
- *X: the setting is made for all outdoor units.*
- *–: not used.*

NOTE

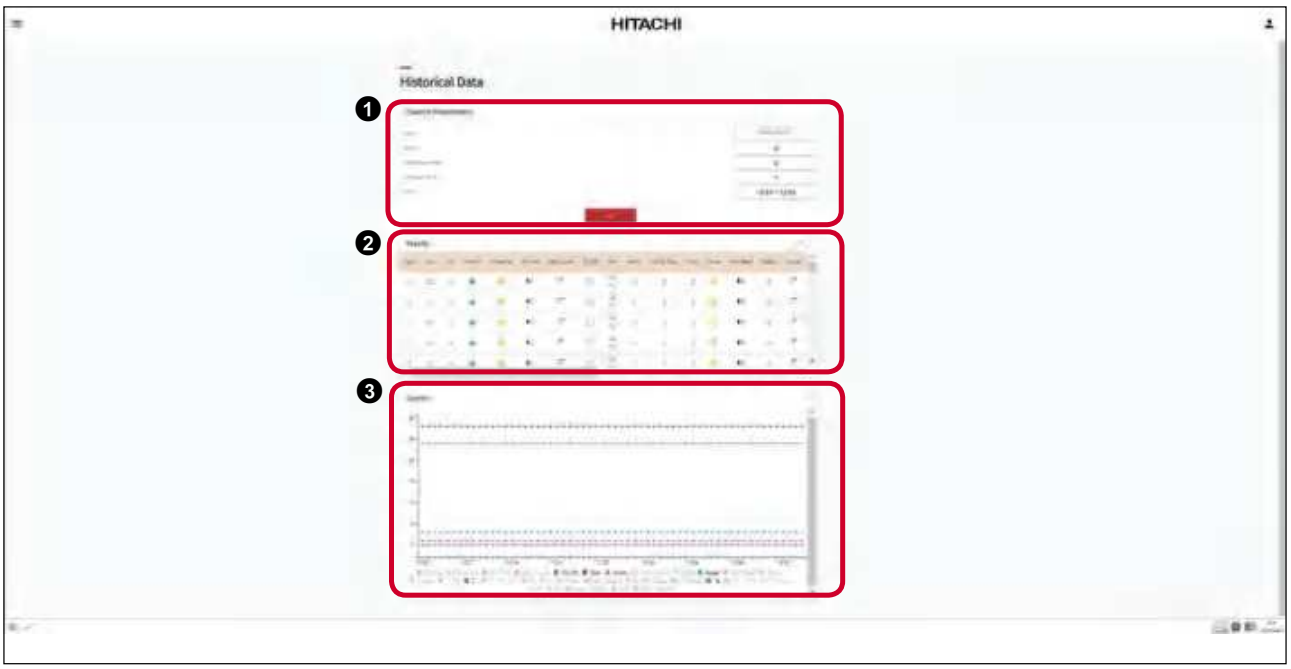
- *The changes to the optional function settings must be done after 3 minutes have passed since start-up.*
- *It is recommended to keep track of the changes made to optional function settings, for further reference.*
- *The available optional settings are different depending on the indoor and outdoor unit models. Check the technical documentation of the indoor and outdoor units to ensure whether the optional settings are available for these units.*
- *The optional functions with “X” mark at the individual setting column can change the condition only when “All Rooms” is set.*
- *The following optional functions are disabled when RPI units with Econofresh are installed: b7, Cd, CF, d6, E9, H1, H4, J4, J7, J8, JA, JB, K5.*
- *The listed optional functions are valid for the following models:*

Indoor Unit series	With software number
RCI-(1.0~6.0)FSN4	P-4736
RCIM-(0.4~2.5)FSN4E	P-4729
RCD-(0.8~6.0)FSN3	P-4729
RPK-(0.4~4.0)FSN(H)4M	P-4725
RPI-(0.4~1.5)FSN5E	P-4725
RPI-(2.0~3.0)FSN5E	P-4725
RPI-(4.0~6.0)FSN5E	P-4735
RPIM-(0.6~1.5)FSN4E	P-4735
RPC-(1.5~6.0)FSN3	P-4736

7 REGISTERED DATA

7.1 HISTORICAL DATA

CSNET software reads unit status every minute and automatically stores the historical data (2 years for CSNET Manager 2 and 1 year for CSNET Lite) for all the units in the system.



❶ **Search parameters:** select the date, port, outdoor unit and indoor unit number to retrieve historical data.

❷ **Results:** the historical data is shown in a table format, also is possible to copy the data to be exported to a document with .

The reported parameter are the following:

Variable	Air conditioning units	Heat pump units
Type	Yes	Yes
Hour	Yes	Yes
Min	Yes	Yes
GW name (*1)	Yes	Yes
OU Name (*1)	Yes	Yes
Location (*1)	Yes	Yes
Central	Yes	Yes
Mode Set	Yes	Yes
Fan Set	Yes	-
Set Louver	Yes	-
C1 On/Off	-	Yes
C2 On/Off	-	Yes
DHW On/Off	-	Yes
SWP On/Off	-	Yes
C1 Tset	-	Yes
C2 Tset	-	Yes
DHW Tset	-	Yes
SWP Tset	-	Yes
Alarm	Yes	Yes
Comp. Stop	Yes	Yes

Variable	Air conditioning units	Heat pump units
Valid	Yes	Yes
Mode	Yes	Yes
Fan Read	Yes	-
Status	Yes	Yes
Louver	Yes	-
IU Hz	-	Yes
Inlet T (*2)	Yes	Yes
Outlet T (*3)	Yes	Yes
IncT (Oulet-Inlet T)	Yes	Yes
T Gas	Yes	Yes
T Liquid	Yes	Yes
T Remote	Yes	-
Tset (Read)	Yes	-
EVI1	Yes	Yes
EVI2	Yes	Yes
OU Mode	Yes	Yes
Ambient T	Yes	Yes
Discharge T	Yes	Yes
Evaporator T	Yes	Yes
N. Comp	Yes	Yes

Variable	Air conditioning units	Heat pump units
Discharge Pressure	Yes	Yes
Suction Pressure	Yes	Yes
Ou Current (Amps)	Yes	Yes
Ou Freq (Hz)	Yes	Yes
OE1	Yes	Yes

Variable	Air conditioning units	Heat pump units
OE2	Yes	Yes
OE3	Yes	Yes
RCS Sensor (*4)	Yes	Yes
THM4 (*5)	Yes	Yes

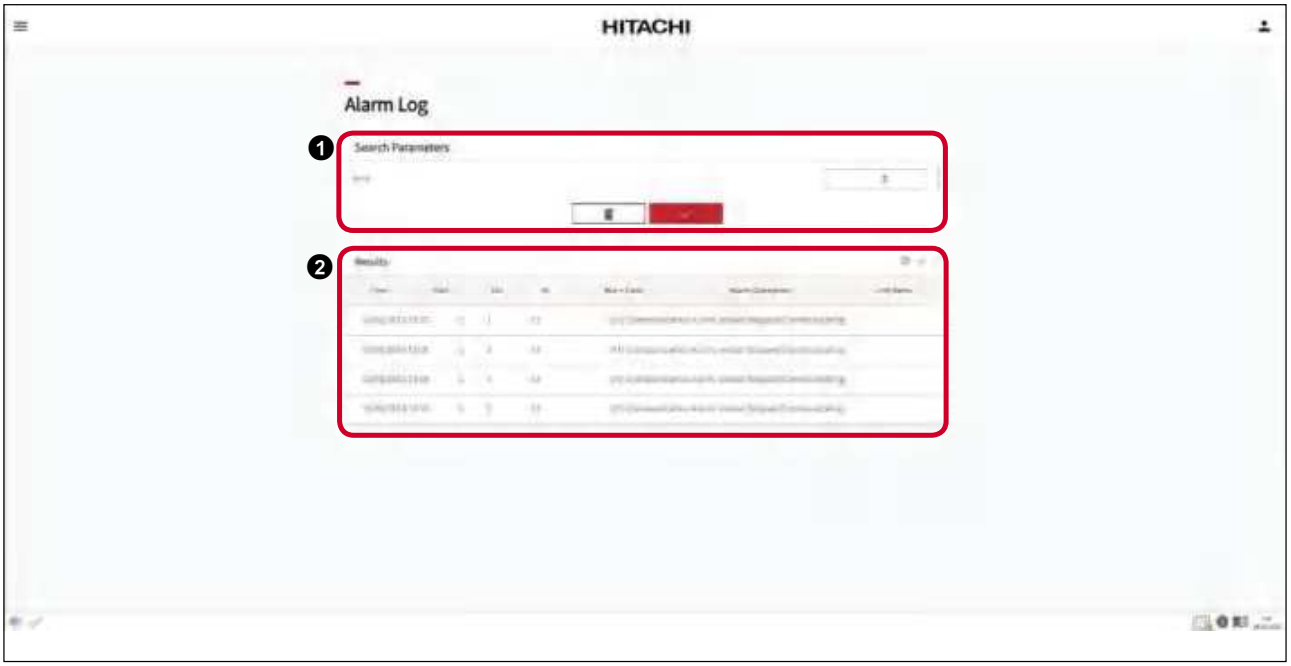
NOTE

- *(*1): Not shown in case information not available*
- *(*2): Name for Heat pump units: Twi*
- *(*3): Name for Heat pump units: Two*
- *(*4): Name for Heat pump units: RCS Sensor 1*
- *(*5): Name for Heat pump units: RCS Sensor 2*

❸ **Graphic:** the historical data is shown in a graphical representation.

7.2 ALARM LOG

Alarm log menu allows to retrieve alarm log once port is selected. CSNET software stores up 1 year of alarm log for CSNET Manager 2 and 6 months for CSNET Lite.

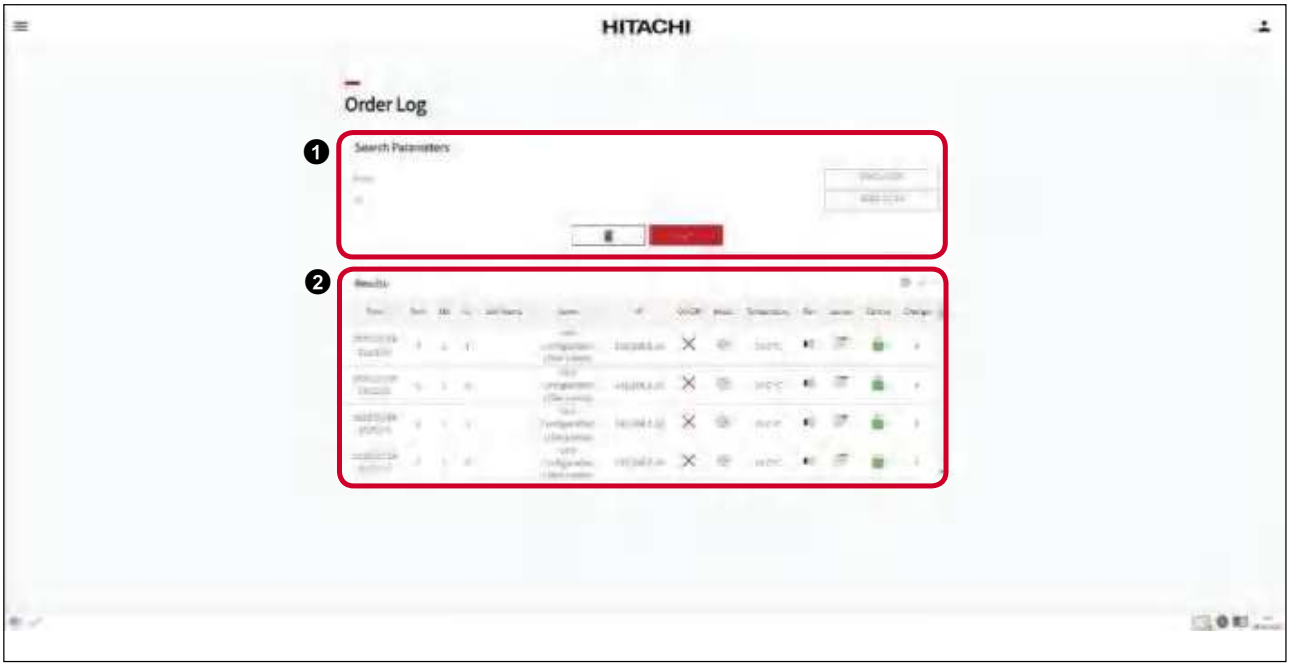


❶ **Search parameters:** select the port of the unit to search the alarm log.

❷ **Results:** the alarm log is shown in a table format the alarm code with the alarm description, also is possible to copy the data to be exported to a document with .

7.3 ORDER LOG

Order log menu lets check a register of every order sent to the units on CSNET software or changes applied by its physical remote controller. CSNET software stores up 1 year of order log for CSNET Manager 2 and 6 months for CSNET Lite.



❶ **Search parameters:** select the period to show the results.

❷ **Results:** the order log is shown in a table format, also is possible to copy the data to be exported to a document with .

The following information is shown:

Time
Port
OU
IU
Unit Name
Name
IP

ON/OFF
Mode
Temperature
Fan
Louver
Central
Change(*)

NOTE

(*) Each binary bit of the "Change" parameter indicates which parameter has been modified on that order.

Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Central	Louver	Fan	Setting	Mode	On/off

7.4 LIVE DATA

Live data menu displays information about all indoor units in real time.

The live data is shown in a table format, also is possible to copy the data to be exported to a document with .

The following information is shown:

Unit Identification (CS-Port, OU, IU)	Discharge gas	Input 2	IncT
Location	Suction Pressure	Energy	Tg
Thermo State	Tdsh	Input	TI
Central	Td	Voltage	TRem
On/Off	Comp Freq	Current	TserRead
Filter Time	Current	Set mode	iE
Outlet T	Cmp Qty	Set Fan	Puls
Inlet T	EV1	Set Swing	Ou mode
RCS	EV2	ON/OFF	Ta
THM4	EV3/EVB	Tset	Td
Tgas	Ambient Temp	Alarm	Te
Liquid T	Alarm	Comp. Stop	NºComp
EV	Compressor Stop Cause	Valid	Pd
Mode read	THM1	Mode	Ps
Fan Read	THM2	Fan	Amps
Tset	PCB1 THM1	Status	Hz
Mode	PCB1 THM2	Swing L	OE1
Fan	Power Control	IU Hz	OE2
Louver	Night Mode	Ti	OE3
	Input 1	To	

8 TENANCY MANAGEMENT

8.1 TENANTS

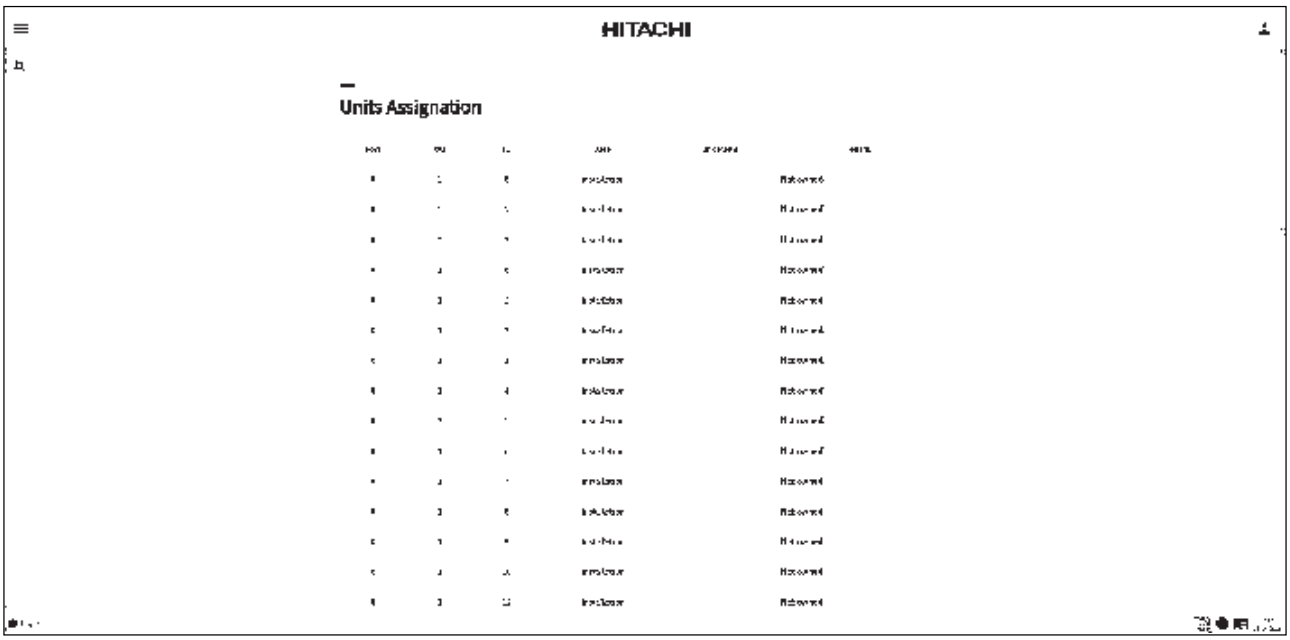
Multiple tenants can be defined on CSNET Software.

It can also be selected if the units on the common zones will be shown for the users on that tenant or not.

The display of the tree can also be selected to choose between show only leaves with units owned by the tenant, or all the installation tree.

8.2 UNITS ASSIGNATION

One unit can be assigned to only one tenant or to the group of common zones, which will be available for all tenants with access to common zones.



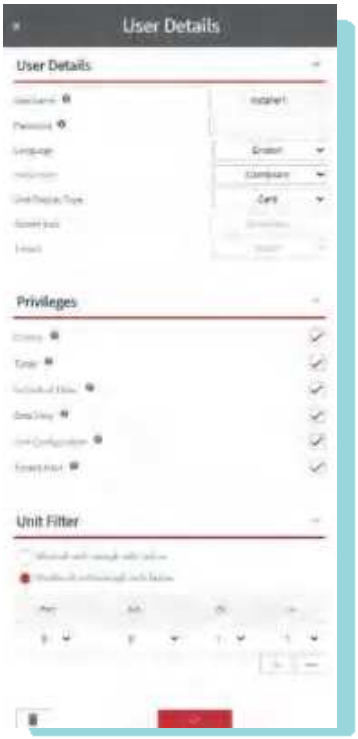
8.3 TENANT USERS

CSNET software allows to create multiple users under a tenant.

❶ **Name:** select the desired tenant to create a new tenant user.

❷ **User List:** list of created users and its privileges. Press + to create a new user.

By clicking on a user the following screen is displayed:



User Details: specify the name, language, initial view and unit display type.

Privileges: define which privileges has the selected user. Users with tenant main privileges will be able to manage addition, edition or deletion of users on that tenant.

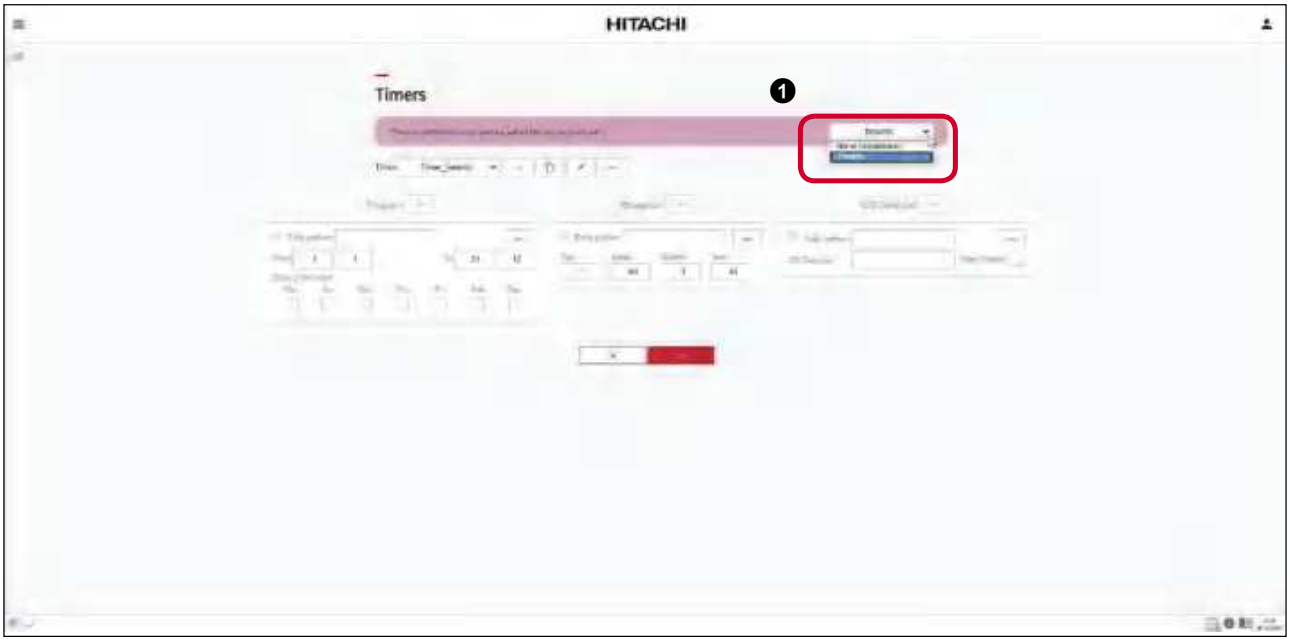
NOTE

Users created below a tenant cannot have System or Local Configuration privileges.

Unit Filter: select which units can be managed by a tenant user.

8.4 TIMER BY TENANT

Users on a tenant can configure timers, patterns or assign the timer to the units.



1 If the user has system configuration privileges, which means that is an admin of the installation, it can browse the configuration of the different patterns by the selector appearing on the top of the screens.

With that it can check or correct anything wrongly configured by the tenant users.

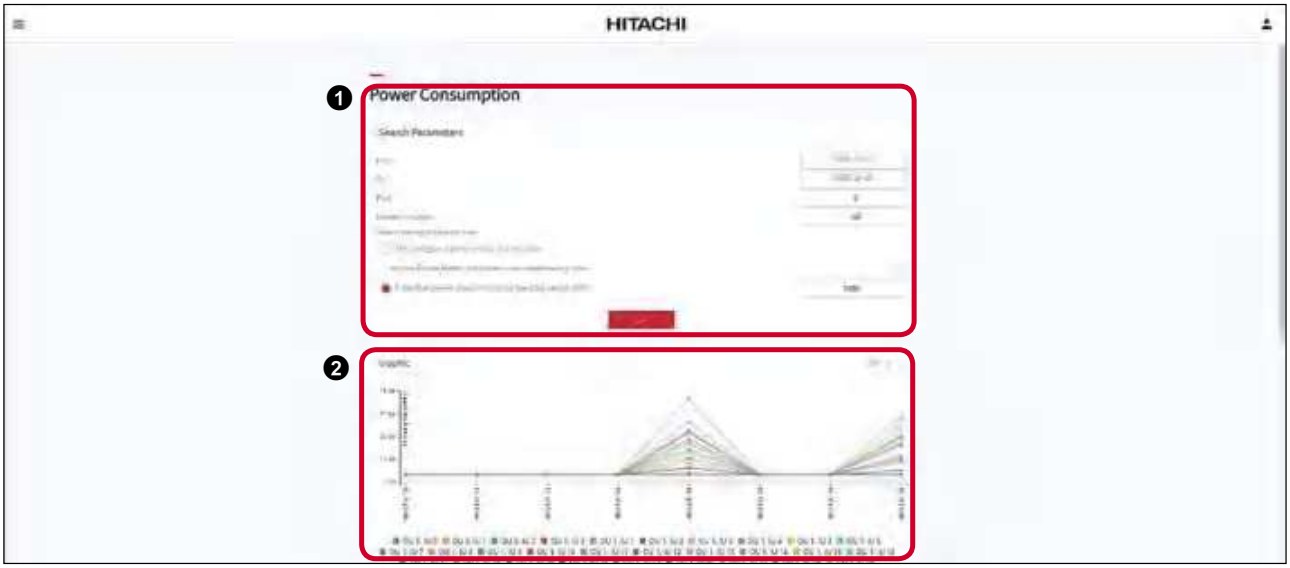
NOTE

- *Note that units could have a timer for the tenant that owns it and another by the general installation.*
- *Users belonging to a tenant can only see and edit the timer of the tenant.*

9 POWER MANAGEMENT

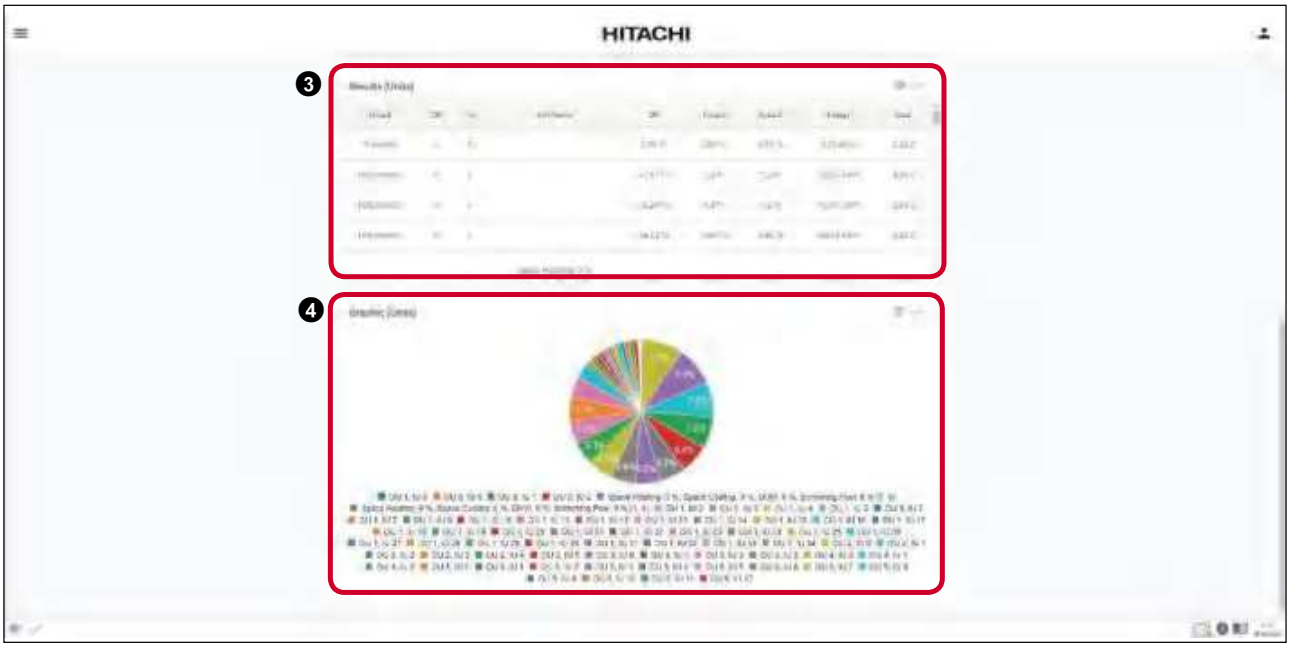
9.1 POWER CONSUMPTION

CSNET Manager 2 saves and calculates the percentage of energy consumption of each indoor unit respecting its outdoor units, owner or system, so that the user can consult the level of consumption at any time.



❶ **Search parameters:** select the range of dates, the port (only for CSNET Manager 2), the modes included (all, cool or heat) and the input data source. The kWh consumed by an indoor unit can be calculated by using the defined power meters (see chapter *"9.2 Power Meter Data"*) or by entering manually the system consumption on the selected period.

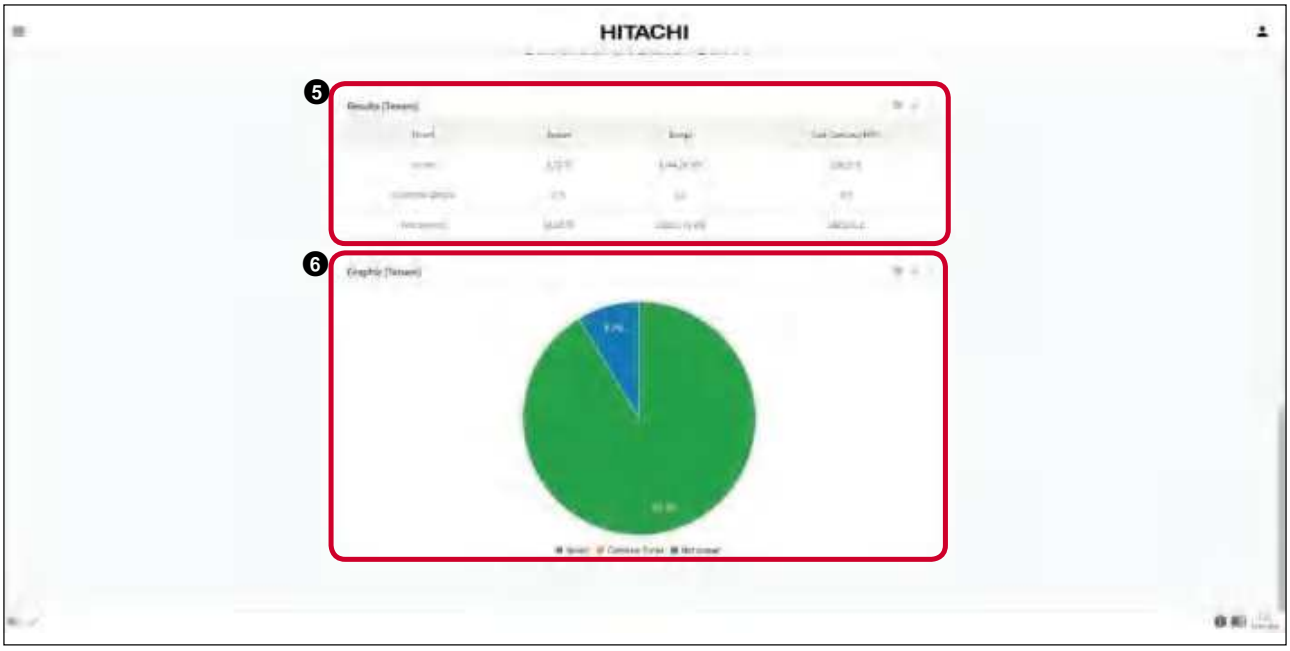
❷ **Graphic:** the chart shows the capacity used by a indoor and outdoor unit every hour on the selected period.



❸ **Results (units):** table gives information about the consumption percentages by owner, outdoor unit, system and it also gives the kWh consumed and the calculated cost.

The tariff of the kWh must be configured on the settings menu (see chapter *"9.3 Power Meter"*).

❹ **Graphic (units):** the pie chart gives information about the consumption percentages for outdoor units and indoor units.



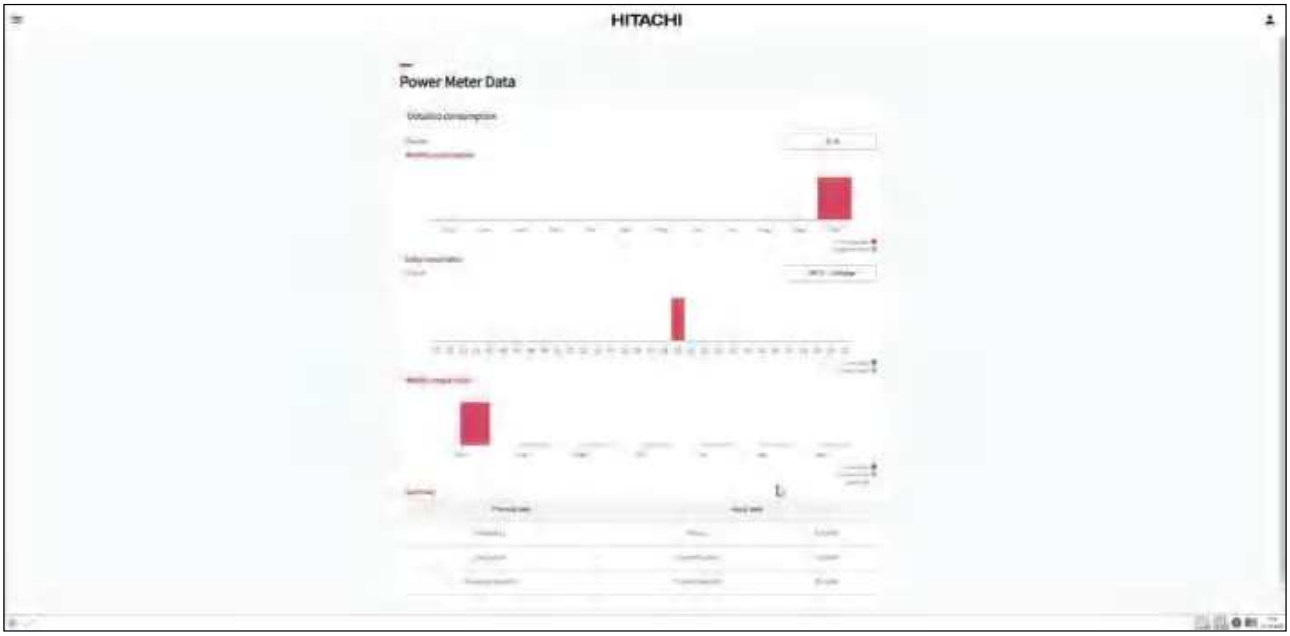
❺ **Results (tenant):** the table gives information about the consumption percentages grouped by tenants.

To obtain results by tenant is necessary to configure previously the tenant at the Tenants menu (see chapter *"8.1 tenants"*).

❻ **Graphic (tenant):** the pie chart gives information about the consumption percentages for tenant.

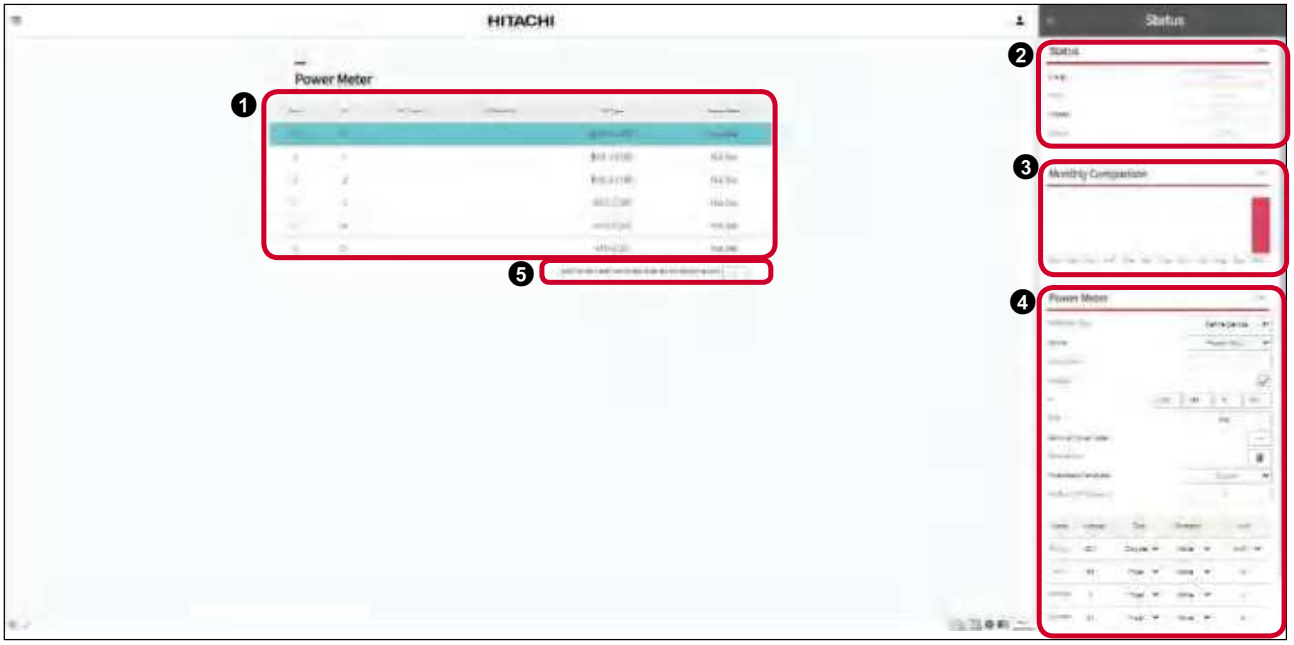
9.2 POWER METER DATA

Power meter data menu retrieves the power meter data of the device. CSNET Manager 2 stores 2 years and CSNET Lite stores 1 year of power meter data.



9.3 POWER METER

Power Meter tab lets the user configure a TCP-MODBUS power meter for each outdoor unit. On modular systems, one power meter per each address of refrigerant cycle.



❶ **Units list:** select the outdoor unit to modify the power meter settings.

❷ **Status:** display current values read on the power meter for the configured registers.

❸ **Monthly Comparison:** charts of the consumed energy displayed by months.

❹ **Power Meter:**

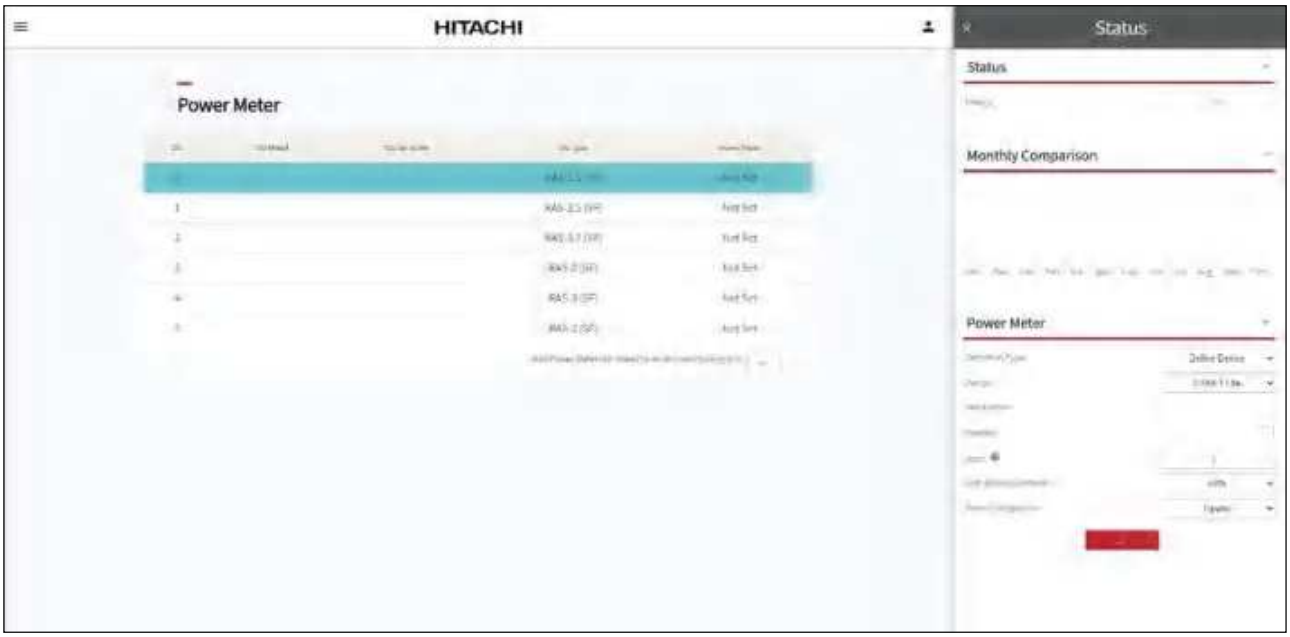
Definition Type:

- Define Device: (Configure a new power meter)
  - Description: create a name for power meter device.
  - Enabled: activate the power meter reading.
  - IP: address of the power meter.
  - Port: connection Port of the device.
  - Remove Power Meter: erase a configured power meter.
  - Clear history: clean the recorded monthly energy history.
  - Parameters Template:
    - Select an existing configuration for one of the homologated power meters (Siemens 7KM 3200 or Socomec Countis E27/E28).
    - Custom: in case of using a different power meter, configure the registers and format of the used parameters.
  - Modbus TCP Device ID: configure the Modbus ID of the device.
  - Parameters used by Power Meter function:
    - Energy: used for power consumption calculations.
    - Input, Voltage & Current: only displayed on system status and power meter status view.
- Share Existing: (If you want to configure a power meter for more than 1 outdoor unit)
  - Select Existing Device: Specify which power meter already configured is being shared by this outdoor unit.

❺ **Add Power Meter not linked to an air conditioning unit:** this function lets add a power meter not linked to any air conditioning unit. It can be used for power consumption of lights, blinds, etc. All configuration is shared like any other power meter but it is required to add a description name to identify that power meter.

9.3.1 Pulse Power Meter with CSNET Lite

When using CSNET Lite directly or from a CSNET Manager controlling a CSNET Lite, it can be configure the CSNET Lite with a pulse power meter.

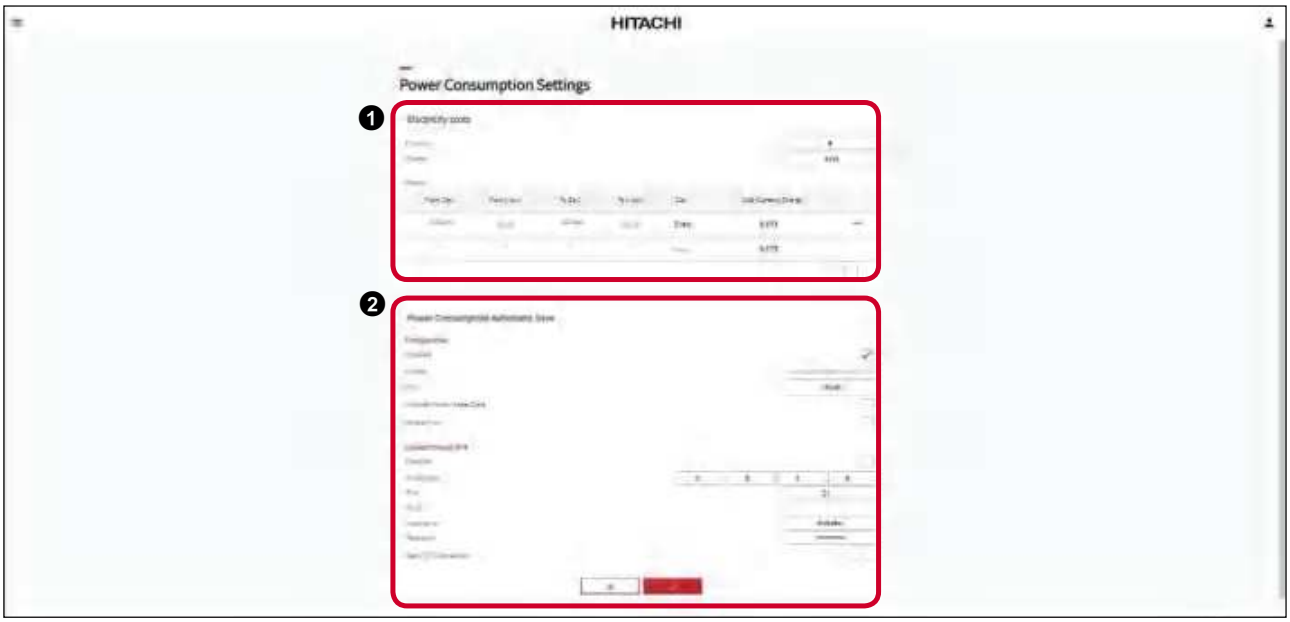


The pulse power meter is connected to one of the 3 inputs of the CSNET Lite. Those inputs should not be used on the input/output function.

When configuring the function, it should be specified when the pulses happen, for example after 1kWh. With that, CSNET software process the information and calculate the consumption just like using the Modbus/TCP Power meters used frequently.

9.4 POWER CONSUMPTION SETTINGS

Settings menu lets specify the electricity costs within year periods.



❶ **Electricity costs:** write the currency type and select the energy units from de drop-down list (Wh/ kWh / MWh).

Press + to create a range of dates, hours intervals, days of the week and the electricity cost for each period and then press ✓ to accept. The cost for the row full of "*" is the default cost for the undefined periods.

❷ **Power consumption automatic save:** the power consumption function allows to generate automatically a detailed report of the consumption of the installation.

- **Configuration**

  Enabled: mark the selection box to activate the automatic save.

  Folder: indicate the folder to save the file.

  Type: select the type of power consumption.

  - Month: each day stores on a monthly file the values accumulated for the units since the first day of the month.
  - Day: each day stores on a monthly file the values of the power consumption of the current day.

  Include Power Meter Data: to add a column with energy values.

  Single File: creates a unique file with the power consumption. This file has the power consumption of each day registered. For the single file, the name is power_log.txt.

- **Upload through FTP**

  Enabled: mark the selection box to activate the upload through FTP.

  IP Address: insert the IP Address of the FTP.

  Port: insert the port of the FTP.

  Folder: insert the folder of the FTP.

  Username: insert the user name of the FTP.

  Password: insert the password of the FTP.

  Test FTP Connection: to check the connectivity of the FTP.

NOTE

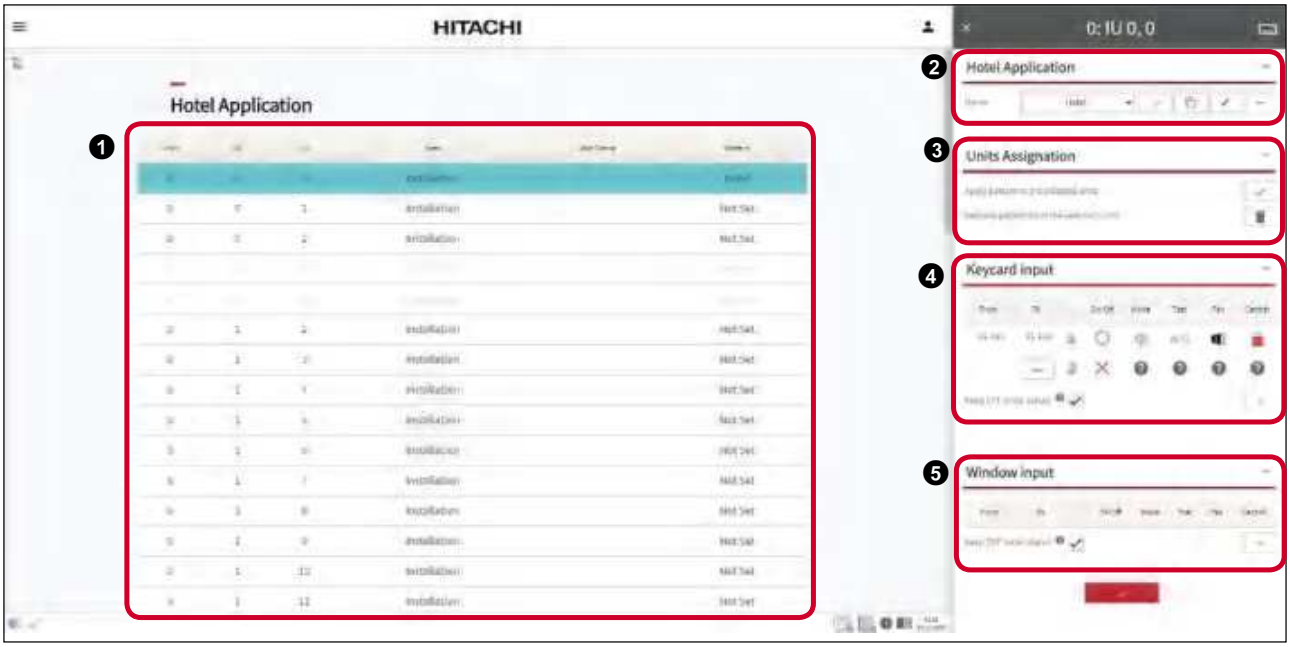
- *File name is m1_YYYYMM.txt. YYYY means the year and MM the month.*
- *The auto save file is created everyday at 00:00. It stores a monthly file with the monthly accumulated or the daily power consumption. It could be automatically upload through FTP to some computer. FTP upload is done at 1:00 AM.*

10 SYSTEM FUNCTIONS

10.1 HOTEL APPLICATION (ONLY FOR CSNET MANAGER 2)

Hotel Application links the CN3 Inputs with an order to be sent to the indoor units.

This function is only compatible with the units that give this information on H-LINK, and from the second generation of HC-A64NET.



❶ **Units list:** select the unit to create a new hotel application.

❷ **Hotel Application:** press + to create a new name and then press ✓ to accept. It is possible to edit, delete or copy the hotel application name.

Hotel application sends orders to the affected indoor units when there is a change in the status of any of the inputs.

To avoid undesired states, such as switch on of the indoor units when windows are open, Hotel application always gives priority to switch off orders.

❸ **Units assignation:** apply or remove the pattern to the selected unit.

❹ **Keycard input:** press + to create a new pattern when for the keycard input and output. Select the range of dates, on/off status, mode, temperature, fan speed and central restrictions.

When the "Keep OFF order status" checkbox is marked, orders are resent even if the status of the unit has been changed from the remote controller or from any other function of CSNET Manager 2.

❺ **Window input:** press + to create a new pattern when the window is opened and closed. Select the range of dates, on/off status, mode, temperature, fan speed and central restrictions.

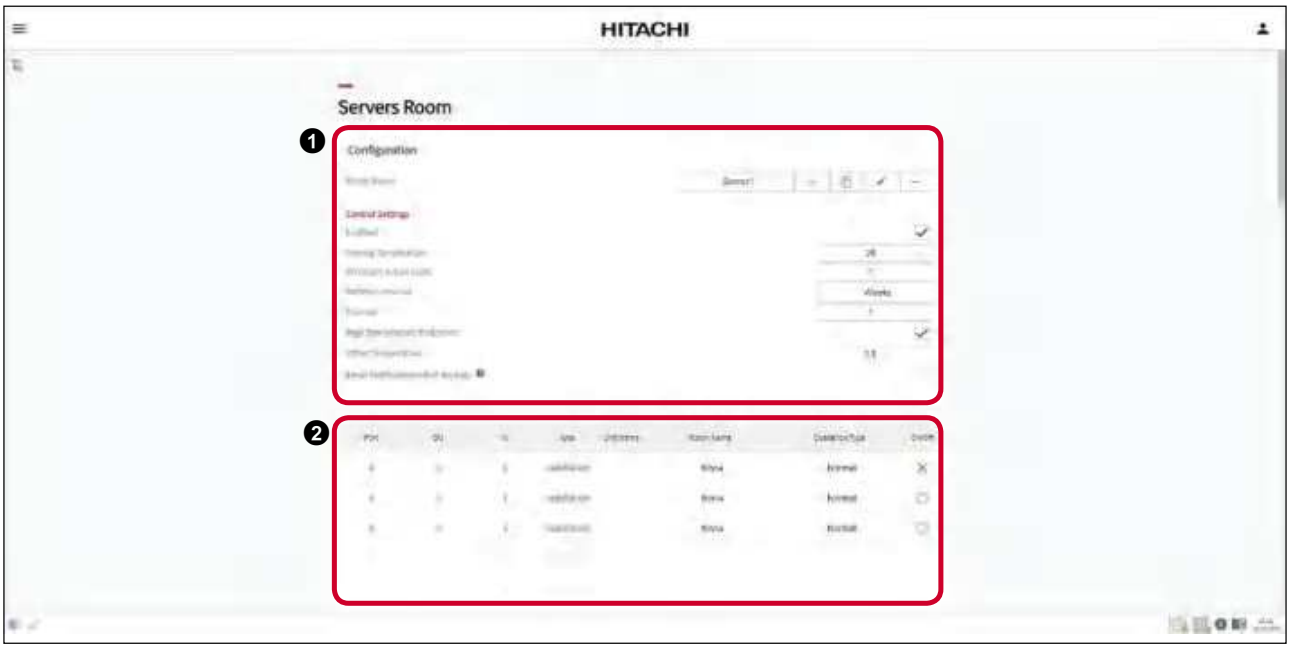
"Keep OFF order status" checkbox will resend the order if someone has changed the status of the unit from the remote controller or from any other function of CSNET Manager 2.

Then press ✓ to save the settings.

10.2 SERVERS ROOM

Servers room function is designed to fit the desired control for a complex computers room, which needs to be important to keep always cold.

Servers Room function let create different rooms where units can be assigned to them.



1 Configuration:

Press + to create a new server room.

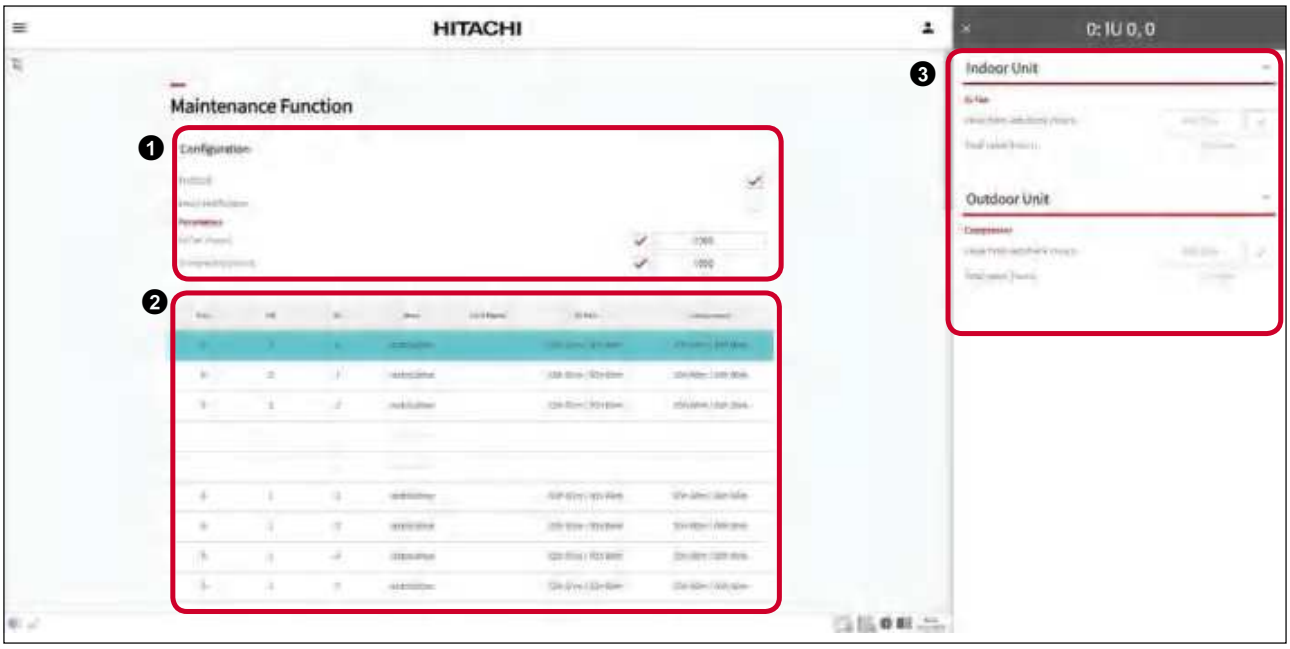
- Control settings: The following parameters can be configured:
  - Enabled: activate function in this room
  - Setting temperature: setting of the units on the room.
  - Minimum Active units: it is used to define the minimum units to operate at same time on a room to ensure a minimum capacity of operation.
  - Rotation Interval: define if the interval will be in hours, weeks or days.
  - Interval: number of repetitions of the element selected in Rotation interval before rotate the operating units.
  - High Temperature protection: this function increase the number of operating units if the temperature of the room is higher than the defined offset temperature.
  - If the temperature is not achieved with an interval of 5 minutes, additional units will be added each 5 minutes. After achieve the temperature, the units will be stopped each 5 minutes if the desired temperature remains achieved.
  - Offset temperature: temperature from “high temperature protection” starts operating
  - Email notification when backup: it warns with an email when backup units has been activated due to some incident.

2 Room name and operation type configuration:

- Room Name: Select the server room.
- Operation type: Units can be selected to operate as “normal” unit or as “backup” unit. Normal units operates inside the defined rotation. Backup units supply extra capacity in case of not enough, or alarm on the normal units.

10.3 MAINTENANCE FUNCTION

On maintenance function it can be configured a notification to inform installer that units should be revised after some time of indoor unit fan or compressor operation.



The number of hours to get this notification could be configured or disabled.

An extra email could be send to inform the installers.

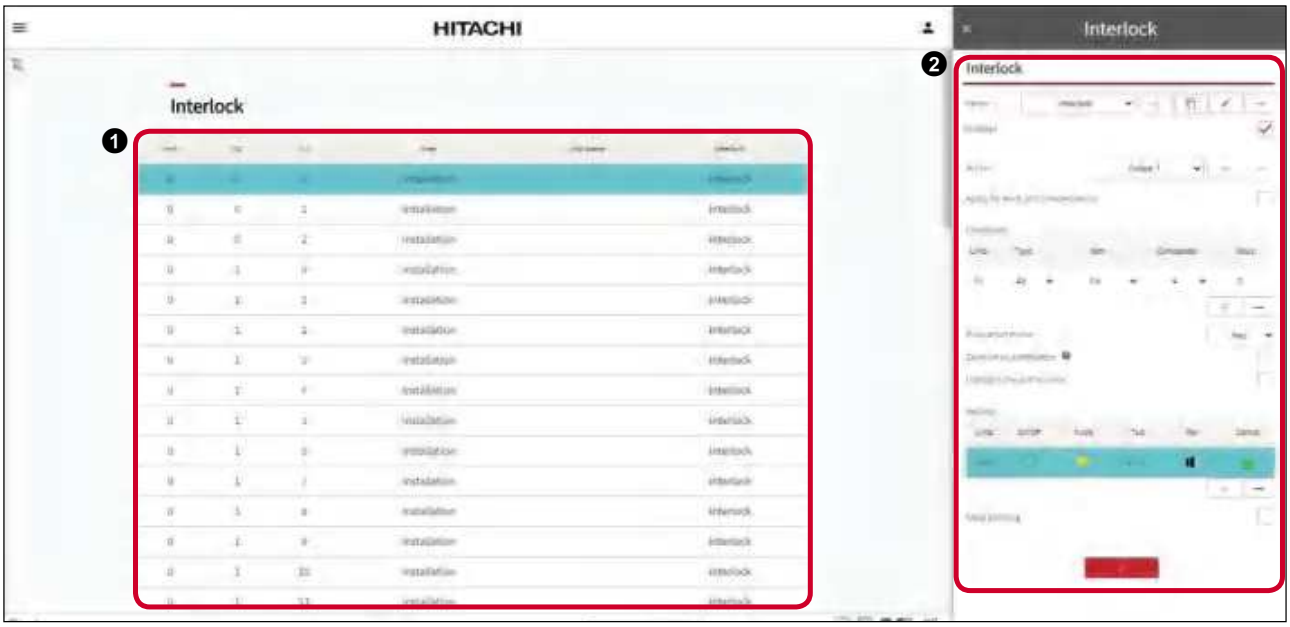
❶ **Configuration:**

- Enabled: activate alarm notification to inform that indoor or outdoor unit must be revised.
- Email notification: activates email notification to inform that indoor or outdoor unit must be revised.
- Parameters:
  - IU Fan (hours): indicates the number of working hours of the indoor unit fan before sending the alert.
  - Compressor (hours): indicates the number of working hours of the compressor before sending the alert.

❷ **Working hours list:** Summary of the working hours from the last check and the total working hours.

10.4 INTERLOCK

Interlock function checks the status of an indoor unit parameter, and sends an order if the value of the parameter reaches a specified condition.



1. **Units list:** select the unit to create a new interlock condition.
2. **Interlock:** press + to create a new name and then press ✓ to accept. It is possible to edit, delete or copy the interlock name.

   Interlock elements could be easily enabled/disabled.

   Press + to create a new interlock action. An action is a pair of:

   - **Conditions**: parameters to be checked on a unit or group of units.
   - **Setting**: order to be send to a single or group of units.

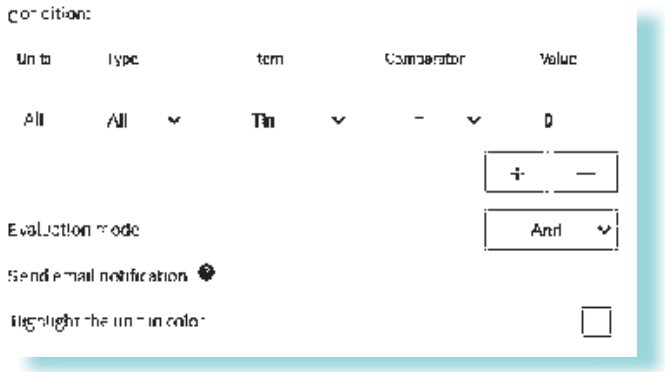
   There are 2 ways to notify when conditions are reached on a group of indoor units:

   - By highlighting the units with a specified colour on the main units list.
   - By email notification. Mail server shall be set up on the panel of the email notification function.

   Conditions table let configure:

   - **Units:** units were the condition will be checked
     - All: all existing units.
     - Specific: single or group of units specified.
     - CSNET Lite: select CSNET Lite to use the inputs or outputs as a condition.
   - **Type:** condition type:
     - All: all the selected units should achieve the condition.
     - Any: some of the selected units should achieve the condition.
     - None: none of the selected units should achieve the condition.
     - Average: the average of all the selected units should achieve the condition.

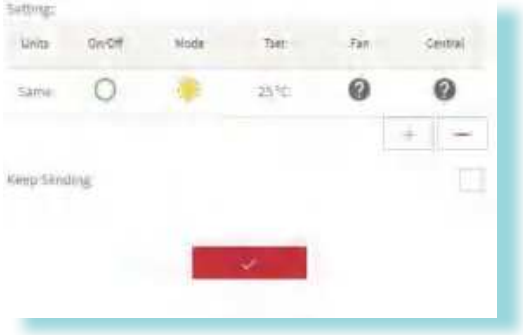
- **Item**: parameter to be checked
  - Tin
  - THM4
  - RCS Sensor
  - Outdoor temperature
  - Alarm
  - On/Off
  - Tset
  - Mode
  - Fan
  - Louver
  - Central
  - Hour
  - Date (Day of the year)
  - CN3 – Input 1 (for compatible units and HC-A64NET second generation)
  - CN3 – Input 2 (for compatible units and HC-A64NET second generation).
  - CSNET Lite Input 1
  - CSNET Lite Input 2
  - CSNET Lite Input 3
  - CSNET Lite Output 1
  - CSNET Lite Output 2
  - CSNET Lite Output 3
  - C1: On/Off
  - C2: On/Off
  - DHW: On/Off
  - SWP: On/Off
  - Z1: TSet
  - Z1: Room Temperature
  - Z2: TSet
  - Z2: Room Temperature
  - DHW: Tset
  - DHW: Water Temperature
  - SWP: Tset
  - SWP: Water Temperature
  - Heating unit Operation:
    - Off
    - Cool Demand-OFF
    - Cool Thermo-OFF
    - Cool Thermo-ON
    - Heat Demand-OFF
    - Heat Thermo-OFF
    - Heat Thermo-ON
    - DHW Off
    - DHW On
    - SWP Off
    - SWP On
    - Alarm
- **Comparator**: Boolean comparator type (>, >=, <, <=, =, !=)
- **Value**: value to compare.



Inter-conditions operation specifies if the conditions should be achieved all (AND case) or minimum 1 (OR case).

Setting table let configure:

- Affected units:
  - Same: same units selected on condition table
  - Specific: single or group of units.
  - CSNET Lite: selection of the CSNET Lite output.
- Order to be sent:
  - On/off, mode, Tset (setting temperature), fan and/or central.



Keep sending: In case keep sending is not checked, Application sends the specific order to the unit once at the moment specified conditions are fulfilled. In case keep sending is checked, software ensures to keep the orders defined for that unit as long as condition is fulfilled.

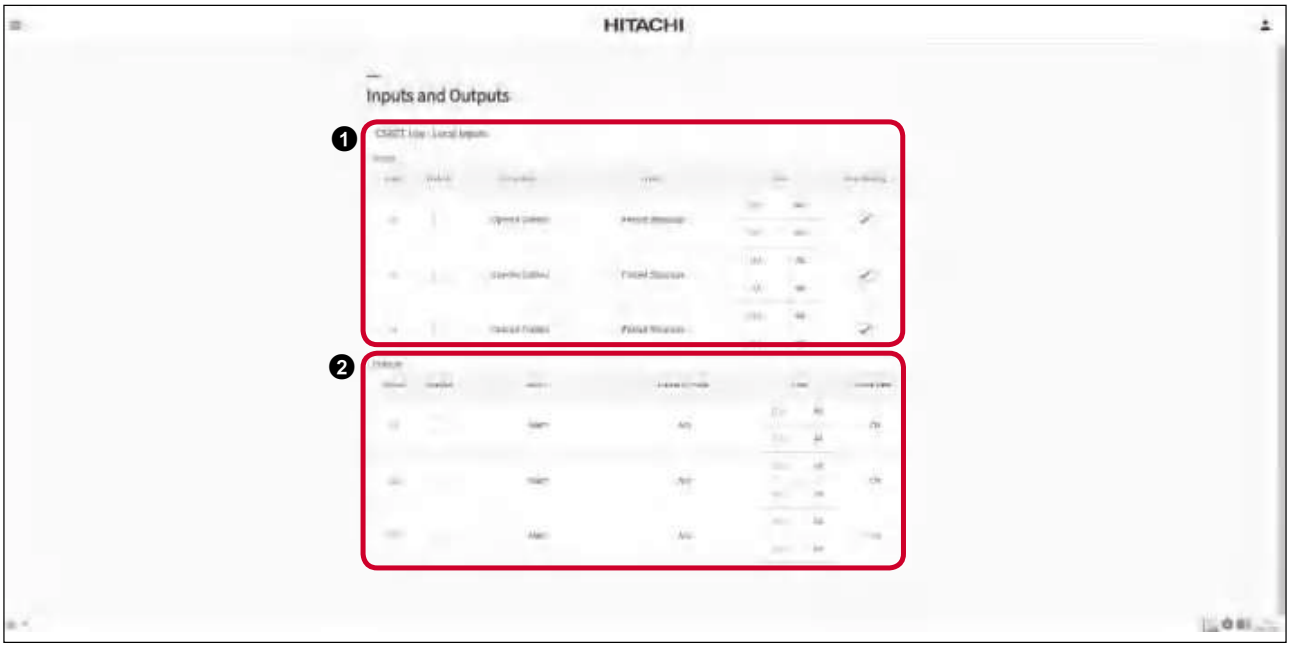
NOTE

An action can ticked the option “apply for each unit independently” had. This option makes that for each specified unit, if the condition is happening, it sends the order only to that unit.

10.5 INPUTS & OUTPUTS

This function allows user to configure Inputs and Outputs located at CSNET Lite device.

CSNET Lite device is equipped with a set of 3 inputs and 3 outputs which can be configured in many different options.



1 **Inputs:** CSNET Lite is equipped with a set of 3 inputs. This functionality allows user to trigger an event at the moment there is input signal.

Following variables shall be configured for each input:

- Enabled: to enable or disable selected input.
- Active State: to determine the nature of the input signal to trigger the action.
  - Close: action is triggered in case input is closed.
  - Open: action is triggered in case input is opened.
- Action: to define the action CSNET Lite triggers when there is an input signal.
  - Forced Stoppage: CSNET Lite sets selected unit in OFF state.
  - Forced Switch-On: CSNET Lite sets selected unit in ON state.
  - Operation: CSNET Lite sets selected unit in ON/OFF state in case input is in active/not active state respectively.
  - Heating: CSNET Lite sets selected unit in Heating operation.
  - Cooling: CSNET Lite sets selected unit in Cooling operation.
  - Night Mode: CSNET Lite enables night mode in *"10.6 Outdoor Control"*. Night mode is applied according to configuration in *"10.6 Outdoor Control"*.
  - Power Control: CSNET Lite enables Power control in *"10.6 Outdoor Control"*. Power control is applied according to configuration in *"10.6 Outdoor Control"*.
- Units: to select units that are affected by “Action”. Note that in case “Action” is “Night Mode” or “Power Control”, it is only possible to select Outdoor unit.
- Keep Sending: in case of enabled, this function allows to keep the desired “Action” meanwhile there is input signal.

Examples:

Input	Enabled	Active state	Action	Units	Keep Sending	Result
I1	Checked	Close	Forced ON	OU: 0	Yes	In case input is closed, CSNET Lite switches units to ON state. In case a unit is switched OFF by means of switch/ Timer/Modbu buttons of the Remote Control, CSNET Lite resends order to keep that Indoor Unit switched ON. In case input is opened, CSNET Lite does not perform any action.
				IU: All	No	In case input is closed, CSNET Lite switches units to ON state. In case a unit is switched OFF by means of switch/ Timer/Modbu buttons of the Remote Control, CSNET Lite does not resend order so that specific unit is switched OFF.
I2	Checked	Open	Operation	OU: 1	Yes	In case input is opened, CSNET Lite switches units to ON state. In case input is closed, CSNET Lite switches units to OFF state. In case a unit is switched OFF by means of switch/Timer/Modbu buttons of the Remote Control, CSNET Lite changes ON/OFF state according to input
				IU: All	No	In case input is opened, CSNET Lite switches units to ON state. In case input is closed, CSNET Lite switches units to OFF state. In case a unit is switched OFF by means of switch/Timer/Modbu buttons of the Remote Control, CSNET Lite does not perform any change.
I3	Checked	Close	Night Mode	OU: 2	Yes	In case input is closed, CSNET Lite enables Night Mode in Outdoor Control. In case input is opened, CSNET Lite disables Night Mode in Outdoor Control. In case user modifies Night mode, CSNET Lite enables or disables Night Mode according to input state.
				IU: All	No	In case input is closed, CSNET Lite enables Night Mode in Outdoor Control. In case input is opened, CSNET Lite disables Night Mode in Outdoor Control. In case user modifies Night Mode, CSNET Lite does not perform any change.

❷ Outputs:

CSNET Lite is equipped with a set of 3 outputs. This functionality allows to output a signal in case specific conditions are fulfilled within installation.

Following variables shall be configured for each output:

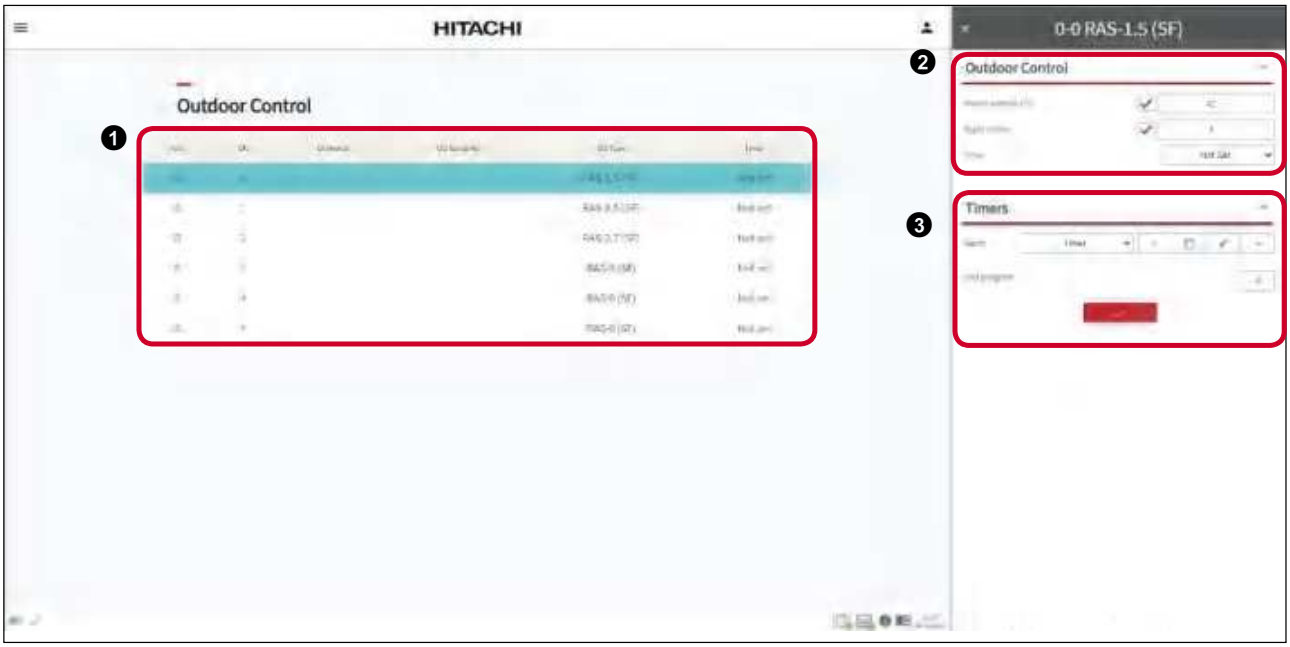
- Enabled: to enable or disable selected output.
- Action: to define the action that triggers the selected output to “Active State”.
  - Alarm: considers units in alarm.
  - Operation: considers units in ON state.
- Evaluation Mode: how CSNET Lite evaluates the condition.
  - Any: condition is true in case any unit selected fulfils action defined.
  - All: condition is true in case all units selected fulfil action defined.
  - None: condition is true in case none of units selected fulfil action defined.
- Units: to select units that have to be considered for CSNET Lite.
- Active state: to select active state of the output in case condition is fulfilled:
  - ON: selected output on CSNET Lite is set to 1 in case condition is fulfilled.
  - OFF: selected output on CSNET Lite is set to 0 in case condition is fulfilled.

Examples:

Output	Action	Evaluation Mode	Units	Active state	Result
O1	Alarm	Any	OU: 0 IU: All	ON	In case any indoor unit from Outdoor Unit 0 is in alarm, CSNET Lite will set Output 1 to active state.
O2	Operation	All	OU: 1 IU: All	OFF	In case all Indoor Units from Outdoor Unit 1 are in ON state, CSNET Lite will set Output 2 to low state. Otherwise, Output 2 will be in active state.
O3	Alarm	None	OU: 2 IU: All	ON	In case no Indoor Units from Outdoor Unit 2 are in alarm state, CSNET Lite shall set Output 3 to active state. At the moment an Indoor unit from Outdoor unit 2 has an alarm, CSNET Lite sets Output 3 in low state.

10.6 OUTDOOR CONTROL

CSNET software allows the user to set up “Night mode” and “power control” options on the outdoor unit. These options can be configured by using an outdoor timer to schedule them.



❶ **Units list:** select the outdoor unit to modify the night mode and the power control.

❷ **Outdoor control:** outdoor control panel let user set up the following outdoor functions:

- Power control: limit the power consumption of the outdoor unit.
- Night mode: when Night mode is not applied the fan rotation ratio is 100%. When it is enabled, the rotation ratio is reduced to the selected value from 1 to 9 (10% to 90% of the fan rotation ratio).

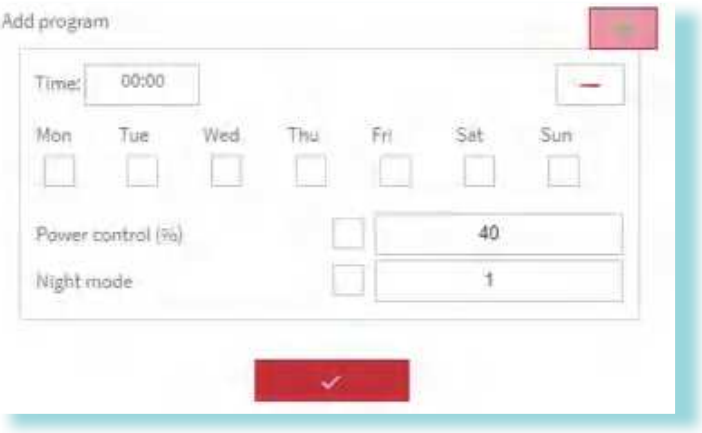
NOTE

The list of outdoor units only shows the outdoor units that supports this type of control.

❸ **Timers:** it can be created multiple timers to Schedule the outdoor control parameters.

Step 1: press + to create a new timer and then press ✓ to accept. It is possible to edit, delete or copy the timer.

Step 2: press + to add a new schedule and then press ✓ to save.



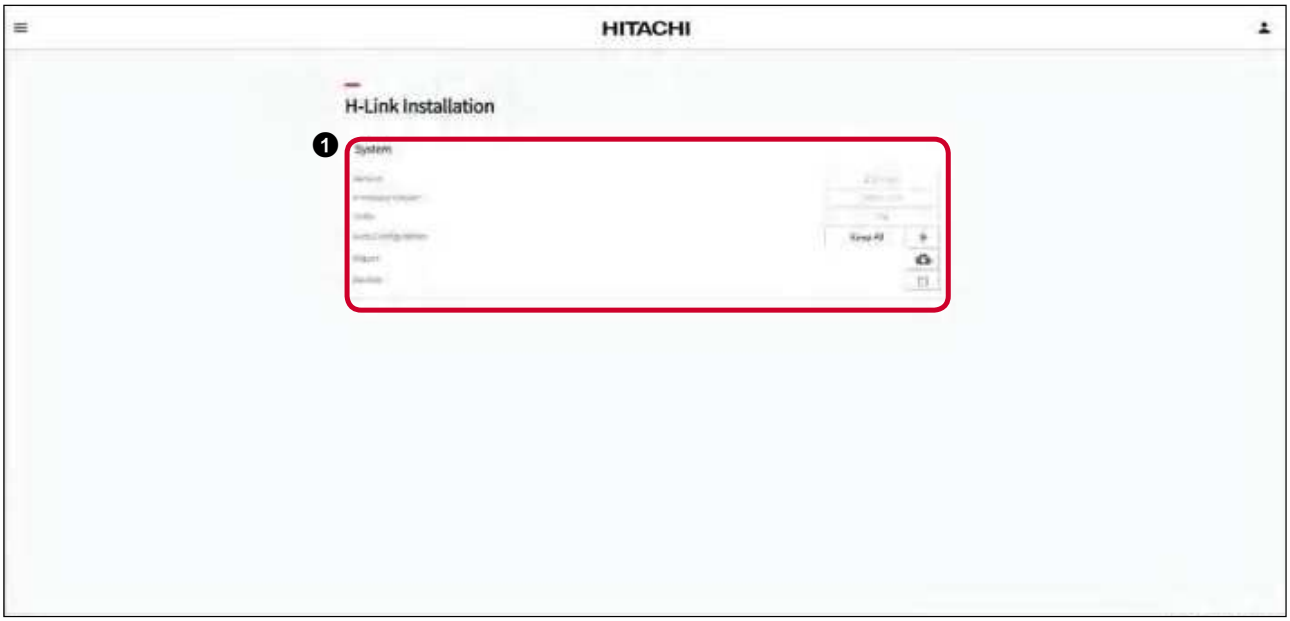
Step 3: press ✓ to apply pattern to the selected units or 🗑 to remove the pattern.

11 SYSTEM SETTINGS

11.1 H-LINK INSTALLATION

H-LINK installation menu allows to manage connected elements and perform auto discovery process.

CSNET Manager 2



CSNET Lite

❶ **System:** press ▶ to force an auto discovery process to all the devices belonging to the CSNET software.

In case Keep All is selected, software shall perform auto discovery process and add new IUs to existing ones for each device.

In case Delete not found is selected, software shall perform auto discovery process, add new units found and delete those units that have not been found for each device.

In case Delete All is selected, software shall delete previous IUs found firstly and then look for new IUs for each device.

- Version: software shall allow to find the device version.
- Units: number of indoor units found for this device.
- Press ☁ to download a report file of this configuration.
- Press 💾 to save a simple or full backup of the system.

❷ **Configuration (for CSNET Manager 2):** when selecting a device from the table, the configuration window is opened.

Press ▶ to force an auto discovery process for the selected device.

In case Keep All is selected, software shall perform auto discovery process and add new IUs to existing ones to the selected device.

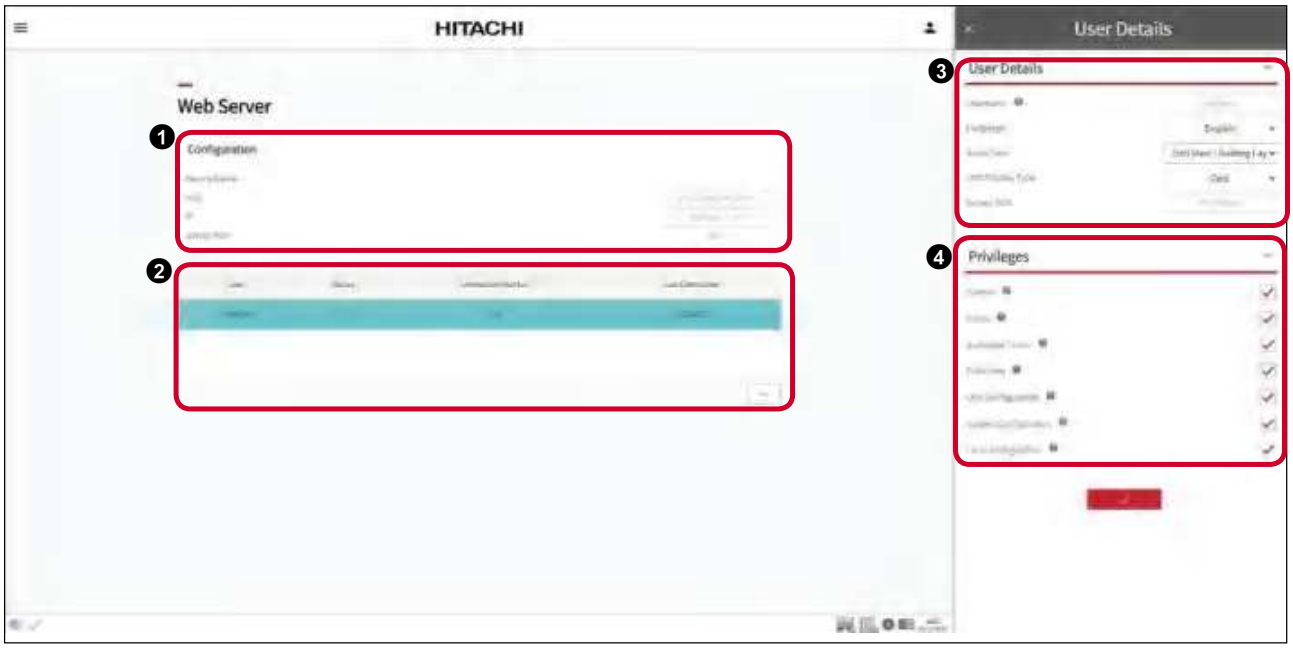
In case Delete not found is selected, software shall perform auto discovery process, add new units found and delete those units that have not been found for the selected device.

In case Delete All is selected, software shall delete previous IUs found firstly and then look for new IUs for the selected device.

- Status: Status of the selected device.
- IP Address of selected device in case device uses static IP. The IP Address is editable.
- Host name of selected device in case device uses DHCP. In this case it is not possible to update IP.
- Version: software shall allow to find the device version.
- Units: number of indoor units found for this device.

11.2 WEB SERVER

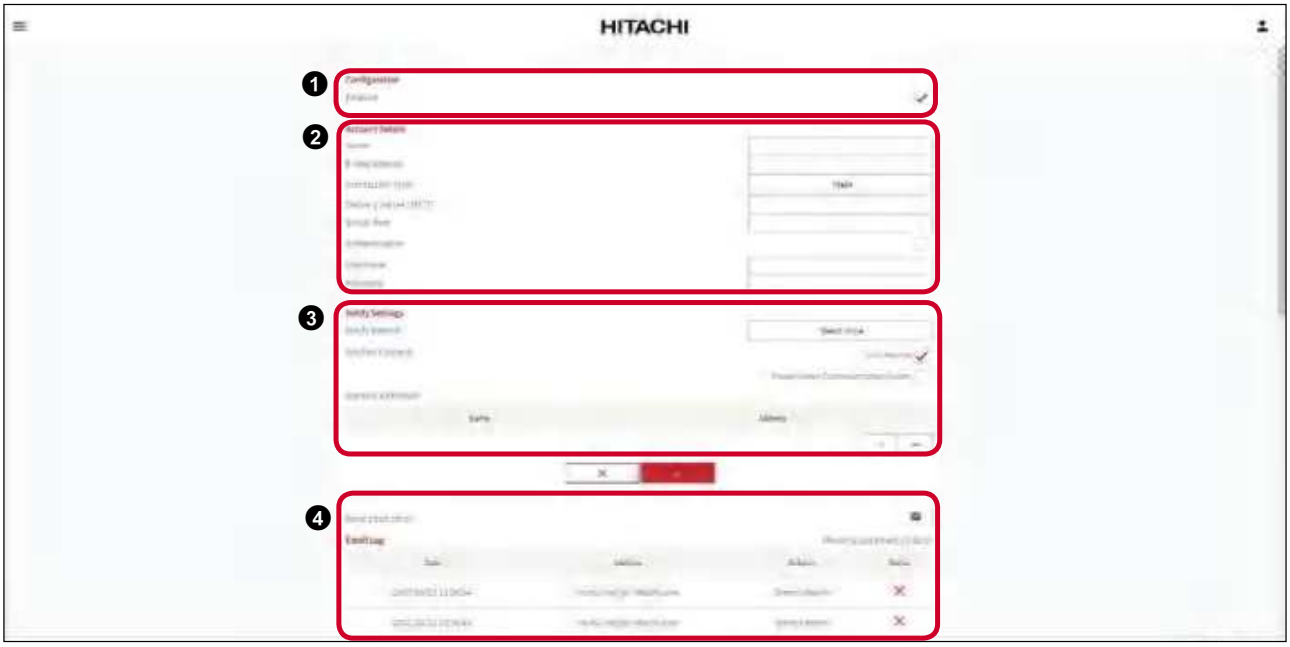
The web server menu gives information about user connections.



1. **Configuration:** information relating the web server (Name, MAC, IP, Server Port).
2. **User list:** list of users created on the installation. Provides information about number of connection and hour of last connection per user. Press + to create a new user. The user details window appears at the right side.
3. **User details:** information / creation of the user.
   - User name: to change User name of user.
   - Password: to create a password for that user.
   - Language: to select default language for that user.
   - Initial view: to change initial view for user after login.
   - Two factor authentication: this field is informative as two factor authentication is configured by each user at *"14.1 My Preferences"*.
4. **Privileges:** to assign privileges for each user
   - Central: to enable central management.
   - Timer: to enable Timer management.
   - Individual timer: to enable individual timer management.
   - Data view: to enable Data View management.
   - Unit Configuration: to enable Unit configuration management.
   - System Configuration: to enable System configuration management. User cannot remove its own System Configuration privilege.
   - Local configuration: to enable local configuration management.

11.3 EMAIL SERVER

CSNET software is ready to notify alarms to the users. These alarms are notified by e-mail. To configure these notifications you must open the Email server panel.



❶ **Configuration:** allows enable or disable Email server function.

Enabled: mark the selection box to activate the Email server.

❷ **Account details:** the account details need to specify the next fields:

Name: installation name.

E-mail: account installation mail.

Connection type: select the security method depending the SMTP server.

Delivery Server (SMTP): mail server address.

Server Port: mail server port.

Authentication: in case that SMTP server requires authentication, this check box must be selected and password and user name filled.

User name: in case that authentication is selected, a user name must be entered.

Password: in case that authentication is selected, a password must be entered.

❸ **Notify settings:** configuration about the receivers and the period of the notifications.

Notify Interval: select the period the email notifications are sent again.

Notified content: select unit alarms or/and power meter communication alarm.

Notified addresses:List of emails and names of the people receiving the notifications.

❹ **Send a test email**: send a test email to test the configuration of the existing email server credentials.

Email log: Table of the latest email sent by the CSNET Software. It is used to check if functions has triggered the email notification.

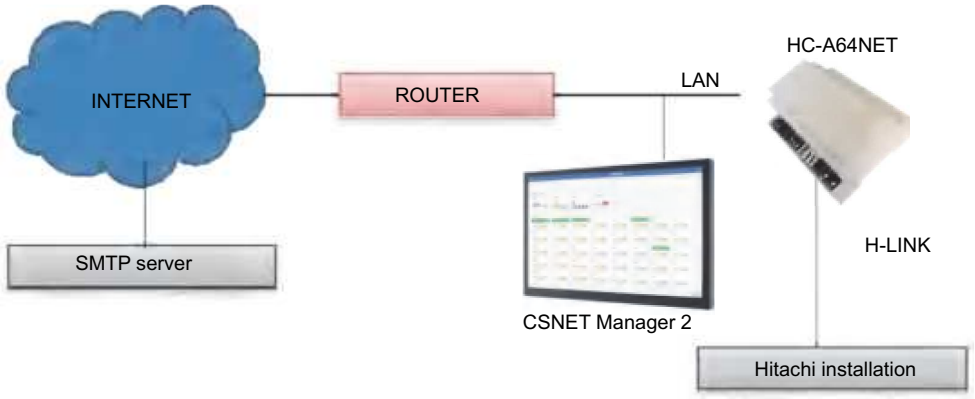
◆ Connection details to a SMTP server

a. Configuring the mail alarms on the CSNET software is used when CSNET Manager 2 / CSNET Lite are on a LAN net that does not pass through a proxy to connect to Internet.

b. The mail alarms are being sent from the CSNET software when CSNET software is running, so that the device cannot be switched-off.

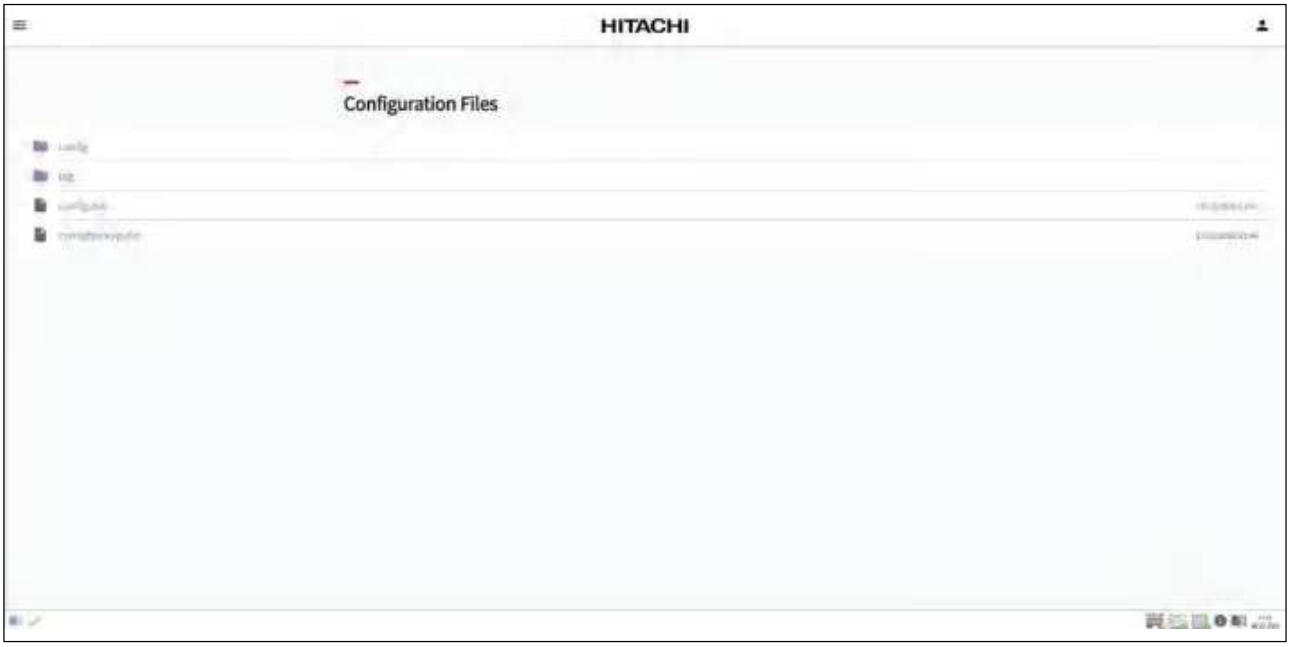
c. That connection allows the use of already existing SMTP servers on the Internet, such as Gmail, Yahoo or others. These are encrypted connections, so they can be used.

d. The e-mail sent has the location information column as it is managed from the computer and it is powerful than CSNET WEB interface.



11.4 CONFIGURATION FILES

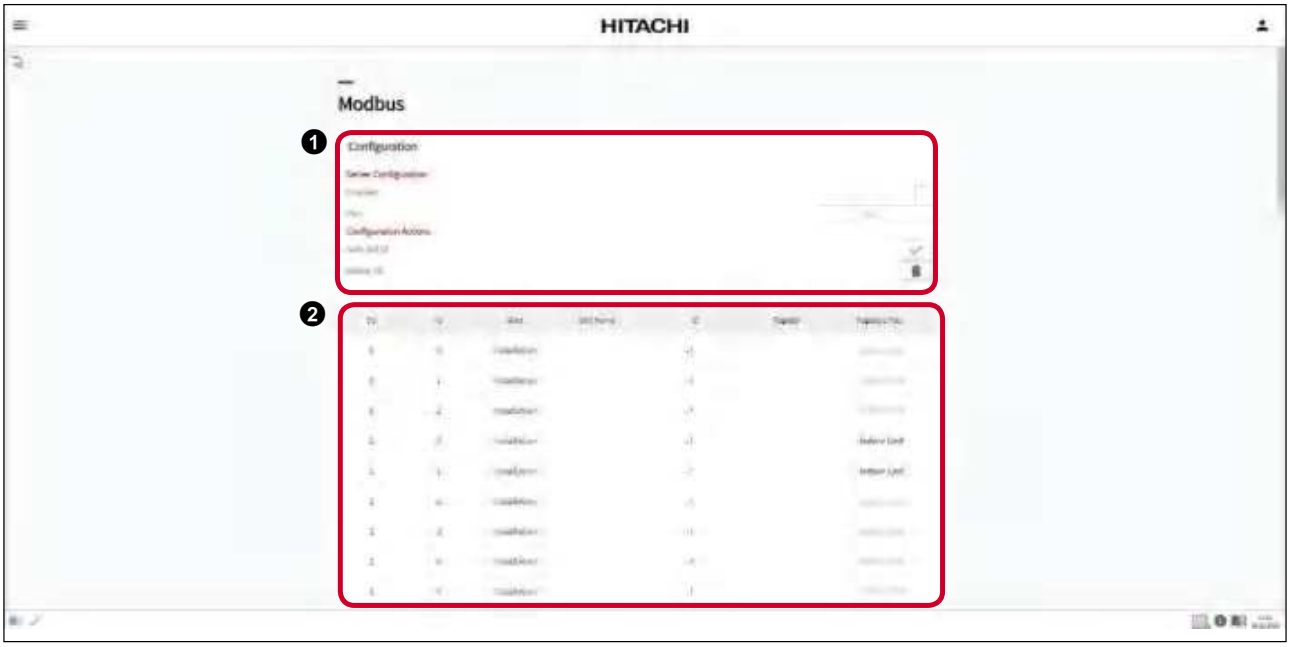
Configuration files menu lets to browse inside the CSNET software configuration folder.



12 BMS CONTROL

12.1 MODBUS

CSNET software can work as a Modbus server. This configuration is done on the “Modbus” panel.



1 Configuration:

Server Configuration

Enabled: mark the selection box to activate the modbus server.

Port: standard modbus port is fixed to 502.

Configuration actions

Auto Set Id: to put correlative ids to the different units.

Delete all: to delete all registers and ID previously set.

2 Units ID and register: the table displays the different units, where it can be modified the Modbus ID. This Modbus ID modifies the register address for read the data of this unit. It will automatically displayed on the column “register” the number of the register where the unit begin.

Register Map: Register map lets configure in case of heating units if it is desired to display information by following the heating table.

◆ Register list

The following table shows the data shared on modbus for each indoor unit.

Address (note 1)	Name	Description	R/W
0	EXIST	0: Not exist 1: Exist	R
1	SYSTEM_ADDRESS	H-LINK 1: 0~15	R
2	UNIT_ADDRESS	H-LINK 2: 0~63	R
3	SET_ONOFF	ON/OFF setting order: 0: Stop 1: Run	R/W
4	SET_MODE	Mode setting order: 0: Cool 1: Dry 2: Fan 3: Heat 4: (Not used) 5: Auto RCS	R/W
5	SET_FAN	Fan setting order: 0: Low 1: Medium 2: High 3: High H (Hi 2) 4: Fan Auto	R/W
6	SET_TSET	Setting temperature 17ºC ~ 30ºC	R/W
7	SET_LOUVER	Louver setting 0 ~ 7 (7 is Auto)	R/W
8	SET_CENTRAL	Central Setting: Bit 1: Mode Bit 2: Setting temperature Bit 3: Fan	R/W
9	READ_ONOFF	ON/OFF read: 0: OFF 1: ON	R
10	READ_MODE	Mode read: 0: Cool 1: Dry 2: Fan 3: Heat 4: Auto	R
11	READ_FAN	Fan read: 0: Low 1: Medium 2: High 3: High H (Hi 2) 4: Fan Auto	R

Address (note 1)	Name	Description	R/W
12	READ_TSET	Setting temperature read: (17ºC to 30ºC)	R
13	READ_LOUVER	Louver read: 0 ~ 7 (7 is Auto)	R
14	RCS_GROUP	Remote controller group: 0 ~ 255	R
15	TIN	Inlet temperature (Note 2)	R
16	TOUT	Outlet temperature (Note 2)	R
17	TGAS	Gas pipe temperature (Note 2)	R
18	TLIQUID	Liquid pipe temperature (Note 2)	R
19 (Note 6)	ERROR_CODE	Alarm code	R
20 (Note 6)	STOP_CAUSE	Compressor stop cause	R
21	VALVE_OPEN	Indoor unit expansion valve opening	R
22	OPER_CONDITION	Unit operation condition 0: OFF 1: Thermo-OFF 2: Thermo-ON 3: Alarm	R
23	DEFROS	Defrost	R
24	AMBIENT_TEM	Ambient temperature (Note 2)	R
25	RCS_TEMP	Remote control switch temperature (Only when available in unit) (Note 2)	R
26	TIMER_DISABLED	Timer disabled 0: Enabled 1: Disabled	R/W
27	OPTIONS	Options setting (Note 4)	R
28	POWER	Calculated power consumption (Note 5)	R
29	COMP_QTY	Running compressor quantity (Note 3)	R
30	COMP_FREQ	Inverter compressor frequency	R
31	REM_TEMP	Remote sensor temperature (Only when accessory is installed) (Note 2)	R

NOTE

1 *Offset position is: 20000 + N*32 + Address as shown in table, where N is unit address. Unit address as set in CSNET Manager 2 BMS configuration dialogue. Be careful because we are using address 0 as first register and in Modbus could be used number 1 as first value. In that case, it will be necessary to add 1 to the address calculation.*

2 *These numbers refer to signed 16-bit value using 2-complement format for negative values.*

3 *Running compressor quantity is only valid for units with more than one compressor. In case of inverter, value showed is 0.*

4 *CN3 Input data through Modbus:*
The status of Input 1 & 2 of CN3 can be read through Modbus. This is read from register n° 27 where bit 0 corresponds to Input1 and bit 1 corresponds to Input 2.

Register 27							
Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Not used	Not used	Not used	Not used	Not used	Not used	CN3 Input 2 0 = Disabled (and/or not available) 1 = Enabled	CN3 Input 1 0 = Disabled (and/or not available) 1 = Enabled

5 *Only for CSNET Manager 2: Daily indoor unit percentage in relation to the total power consumption of the installation. The percentage is calculated based on the accumulated capacity of each indoor unit, and dividing the individual value of each indoor unit by the sum of the values of all the units in the system. The value is restarted every day at midnight.*

6 *Modbus registers are integers, to know the code to be checked on the unit documentation, the value should be translated to hexadecimal.*

◆ Modbus heating compatibility

Offset	Item	Comment	R/W
0	Exist		READ
1	IU		READ
2	OU		READ
3	Control Unit Mode	0: Cool	READ/WRITE
		1: Heat	
4	Control Circuit 1 Run/Stop	0: Stop	READ/WRITE
		1: Run	
5	Control Circuit 1: Eco mode	0: ECO	READ/WRITE
		1: Comfort	
6	Control Zone 1: Thermostat Setting	0~65535	READ/WRITE
7	Control Circuit 2 Run/Stop	0: Stop	READ/WRITE
		1: Run	
8	Control Circuit 2: Eco mode	0: ECO	READ/WRITE
		1: Comfort	
9	Control Zone 2: Thermostat Setting	0~65535	READ/WRITE
10	Control DHWT Run/Stop	0: Stop	READ/WRITE
		1: Run	
11	Control DHWT Setting Temperature	0~80	READ/WRITE
12	Control Swiming Pool Run/Stop	0: Stop	READ/WRITE
		1: Run	
13	Control Swiming Pool Setting Temperature		READ/WRITE
14	Control Block menu		READ/WRITE
15	Status DHWT Setting Temperature		READ
16	Status Swiming Pool Temperature		READ
17	System Configuration	b0: Zone 1 Heating Available	READ
		b1: Zone 2 Heating Available	
		b2: Zone 1 Cooling Available	
		b3: Zone 2 Cooling Available	
		b4: DHWT Available	
		b5: SWP Available	
		b6: Room thermostat available Zone 1	
		b7: Room thermsotat available Zone 2	
		b8: Wireless Setting C1	
		b9: Wireless Setting C2	
		b10: Wireless Room Temperature C1	
		b11: Wireless Room Temperature C2	
18	Operation State	0: OFF	READ
		1: Cool Demand –OFF (*2)	
		2: Cool Thermo-OFF (*2)	
		3: Cool Thermo-ON (*2)	
		4: Heat Demand-OFF	
		5: Heat Thermo-OFF	
		6: Heat Thermo-ON	
		7: DHW-OFF	
		8: DHW-ON	
		9: SWP-OFF	
		10: SWP-ON	
		11: Alarm	
19	Outdoor Ambient T° (Outdoor ambient temperature)	-80~100 (*1)	READ

Offset	Item	Comment	R/W
20	Water Inlet Tº (Water Inlet unit temperature)	-80~100 (*1)	READ
21	Water outlet Tº (Water outlet unit temperature)	-80~100 (*1)	READ
22	Unit Capacity		READ
23	Unit Power Consumption		READ
24	O2: Water outlet Temp 2 (Two2)	-80~100 (*1)	READ
25	O3: Water outlet Temp 3 (Two3)	-80~100 (*1)	READ
26	Water Outler HP (TwoHP)	0~100 Only for Yutaki S & S Combi	READ
27	Tg: Gas Temperature (THMg) / YCC: Enabled Units	-80~100 (*1) / YCC: 0~8	READ
28	Tl: Liquid Temperature (THMl) / YCC Working Units	-80~100 (*1) / YCC: 0~8	READ
29	EVI: Indoor expansion valve openning / YCC: Required Units	0~100 / YCC: 0~8	READ
30	System status 2	Bit 0: Defrost	READ
		Bit 1: Solar	
		Bit 2: Water Pump 1	
		Bit 3: Water Pump 2	
		Bit 4: Water Pump 3	
		Bit 5: Compressor ON	
		Bit 6: Boiler ON	
		Bit 7: DHW Heater	
		Bit 8: Space Heater	
		Bit 9: Smart function input enable	
		Bit10: Forced OFF	
		Bit11: DHW recirculation Pump State	
		Bit12: Solar Pump Output State	
31	Alarm number	0: Alarm	READ
		XXX: Alarm number	

12.2 FIDELIO (ONLY FOR CSNET MANAGER 2)

CSNET Manager 2 is compatible with a TCP/FIDELIO Gateway.

Each unit can be linked to a Fidelio register to know if there is a check in or check out condition on that room.

For each unit can be assigned a pattern similar to the timer one that describes a condition for check in and another for check out. It also can be specified the data period where that patterns applies.

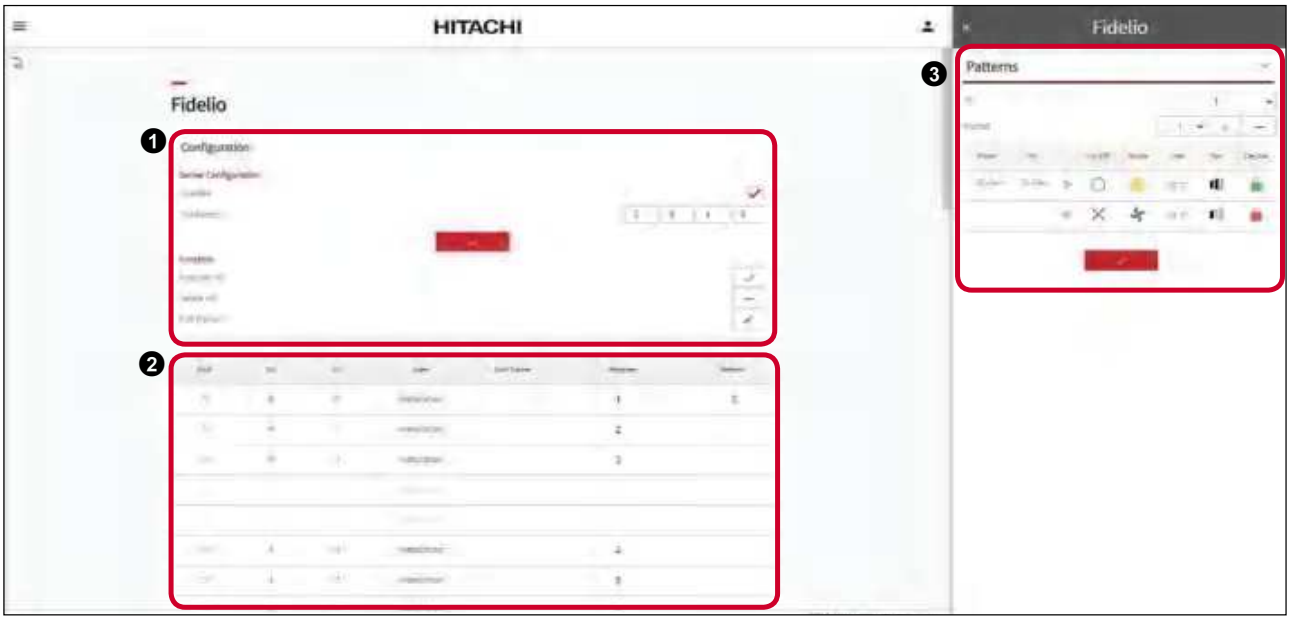
To activate the Fidelio compatibility it must be selected the check box and specified an accessible IP for the Hitachi Fidelio gateway.

CAUTION

Actions configured on the Fidelio dialogue are managed from the CSNET Manager 2 client software, so it is necessary to have the device program running to use the Fidelio compatibility.

NOTE

The compatibility with Fidelio protocol was tested with IBOX-MBS-FIDELIO_IP of INTESIS. Hitachi ensures the compatibility with this and others devices working exactly as the same. To use others devices please contact Hitachi to ensure compatibility.



❶ **Configuration:**

Server Configuration

Enabled: mark the selection box to activate the Fidelio function.

IP Address: IP Address for the Fidelio gateway

Function:

Auto Set Id: to put correlative ids to the different units.

Delete all: to delete all registers and ID previously set.

❷ **Units list:** select the unit to create a new Fidelio configuration.

❸ **Patterns:** press + to create a new period for the check in and check out. Select the range of dates, on/off status, mode, temperature, fan speed and central restrictions.

13 LOCAL CONFIGURATION

The Local Configuration menu is accessible from the main screen.

First enter the username and the password, and then press .

13.1 INSTALLATION

❶ **Hardware configuration (for CSNET Manager 2):** configurable devices list. By clicking on a row the following screen is displayed:

Configuration: select the type of device to be configure and specify the IP and Port to get connect to that device. In case that connecting password has been changed replace it by the new one.

When configuring another CSNET Manager 2 the area tree can be import by selecting the "import tree" check box.

When connecting to a CSNET Lite, it is necessary to enter the security key. This key could be downloaded by a USB on the CSNET Lite Device or requested remotelly from a CSNET Manager by entering user credentials for a user of the CSNET Manager.

Device found on LAN: CSNET Manager 2 automatically searches for a connectable devices on each LAN, those devices can be loaded to speed up the configuration procedure by pressing the button. Copy all devices button will configure all devices found on your installation.

❷ **System configuration:** define the installation name, and the functions used by the system.

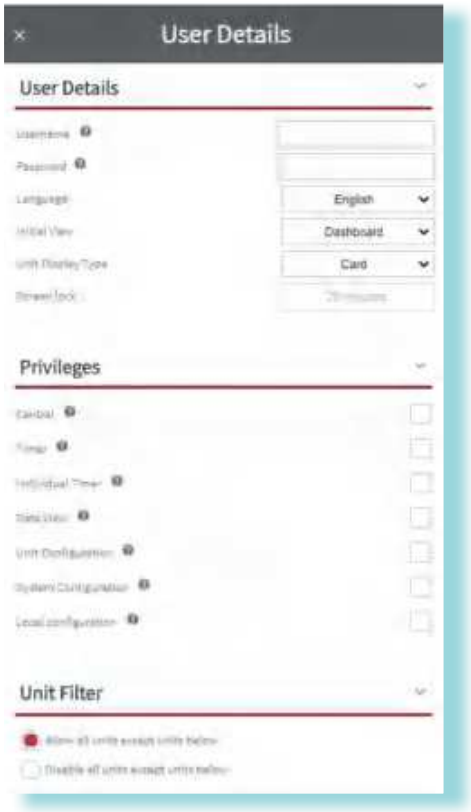
The functions list let show or hide the unused functions inside the software.

In case of Building Layout a file edited by Building Layout editor can be loaded, or let it in blank to work with the Embedded web editor inside CSNET Manager 2.

To activate Weather Forecast it is required Internet access. CSNET software is able to automatically find the location by pressing the button.

❸ **User List:** list of created users and its privileges. Press to create a new user.

By clicking on a user the following screen is displayed:

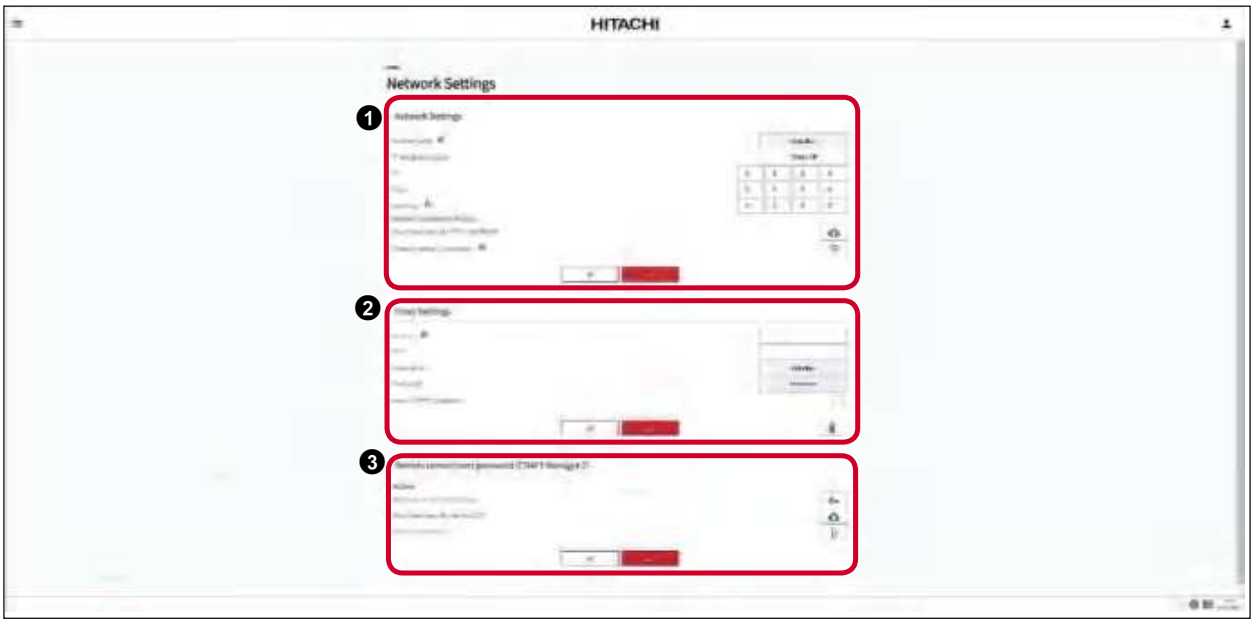


User Details: specify the name, language and initial view. Two factor authentication configuration status can be viewed.

Privileges: define which privileges has the selected user. System configuration privilege cannot be removed if selected user is the same that is making the modifications.

Unit Filter: select which units can be managed by a user. When user has system or local config privileges, it has access to all the units and "unit filter" is not displayed.

13.2 NETWORK SETTINGS



1 **Network Settings:** allows you to configure your LAN settings. Note that in case of directly connecting to HC-A64NET with a crossed Ethernet cable, Gateway IP should be configured with same value that HC-A64NET.

IP assignation type: DHCP method is an automatic IP assignation procedure. The IP will be assigned by the LAN management and could change. Device will be accessible by using the "Device Name". By selecting static IP, a fixed IP can be defined.

Check internet connection: allows to download the secure HTTPS certificate and to check internet connection (internet connection is necessary to keep local time updated and be able to use two factor authentication).

2 **Proxy settings:** the “Proxy Settings” tab lets you configure the connection through a proxy if necessary. If you have any doubts about the data you need consult your network administrator.

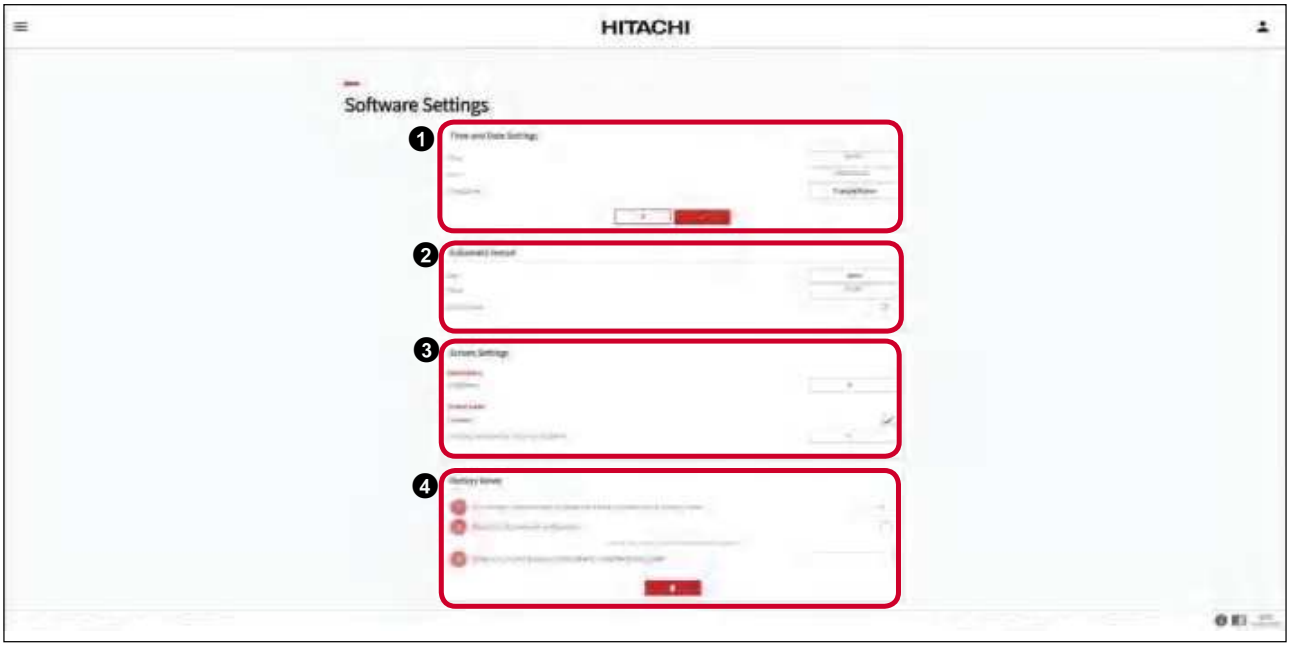
3 **Remote connections password:** remote connections password can be configured to use an specific password to let other CSNET Managers 2 connect to this one. By default password is “Installer” and it can be modified.

For CSNET Lite, remote connections password allows to generate a new security key, to download it into a USB and copy it to a clipboard.

NOTE

This password is used to authenticates who is connecting to a device. The default password can always be changed locally from ‘local configuration’ of the selected device. Changing the default passwords protects from non-desired connections in case of using a network shared with other CSNET devices and to explicitly avoid a malicious usage.

13.3 SOFTWARE SETTINGS

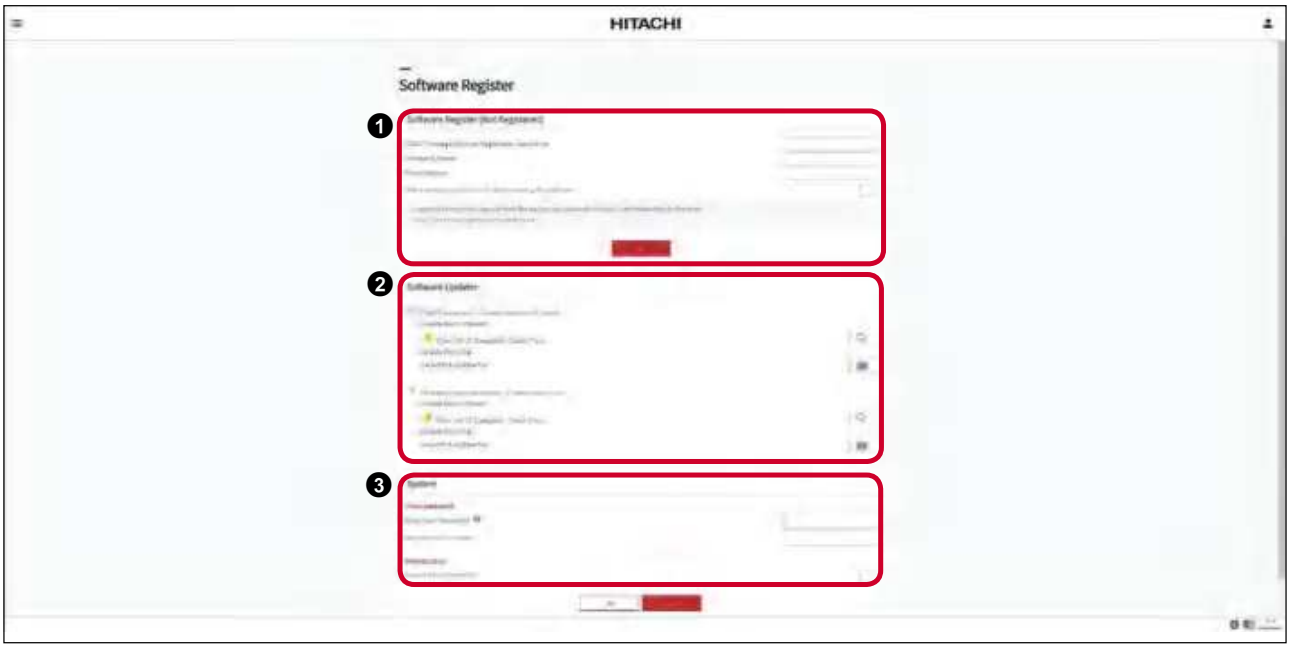


1. **Time and date settings:** configure time, date and time zone.
2. **Automatic restart:** configure the day and time for a restart of the device.
3. **Screen settings (Only for CSNET Manager 2 T15/T10):** configure the brightness, screensaver and capture screenshot.
4. **Factory reset:** it is possible to make a backup of the system before the factory reset by clicking on the button.

   Press the "reset also the network configuration" check box to delete the IP address.

   Enter the current password to make the factory reset and press to start the reset.

13.4 REGISTER AND UPDATER



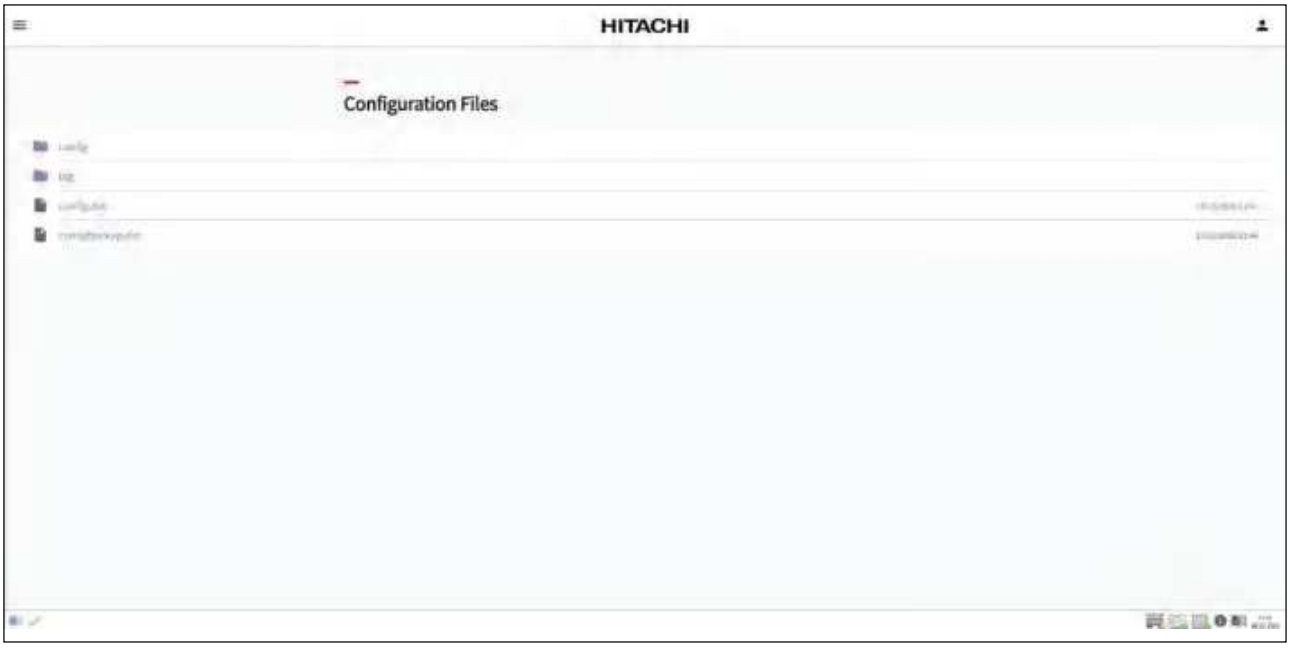
❶ **Software register:** software register tab let the user register its software due to be able of having access to the updates server. It is possible to share anonymous data with Hitachi to help improving the software.

❷ **Software updater:** CSNET software and its documentation can be updated by using an Hitachi update file. To update directly from Hitachi servers, it is necessary to register the software. Then automatic search for updates will work and new updates will be able of being applied just by clicking the check button.

❸ **System:** to have a secure access to the operative system, the default password can be changed. In case of need to interact with the system, SSH can be activated.

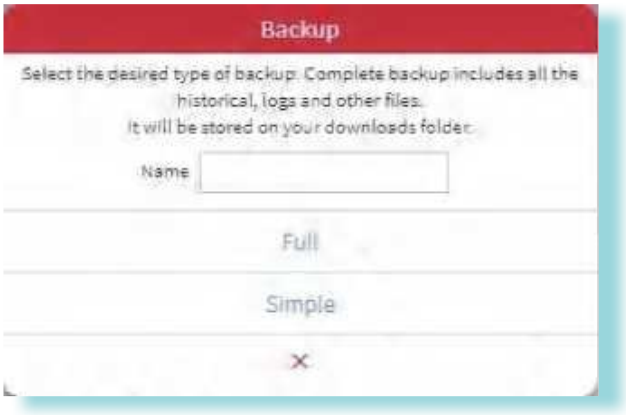
13.5 CONFIGURATION FILES

Configuration files menu lets to browse inside the CSNET software configuration folder. This menu is accessible to from Local configuration menu.



13.6 BACKUP

Backup dialogue allows to make a full or simple backup.

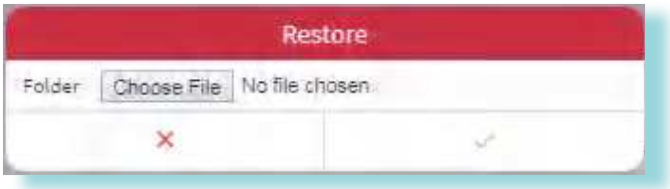


Full backup: Copy all the files including historical data, power consumption, power meter data, logs... File could have big size in case of old or big installations. The full backup is an exact copy of the CSNET Manager 2 status.

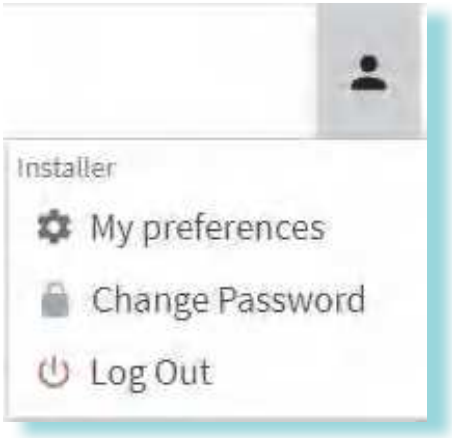
Simple backup: Copy only the configuration files of the CSNET Manager 2.

13.7 RESTORE

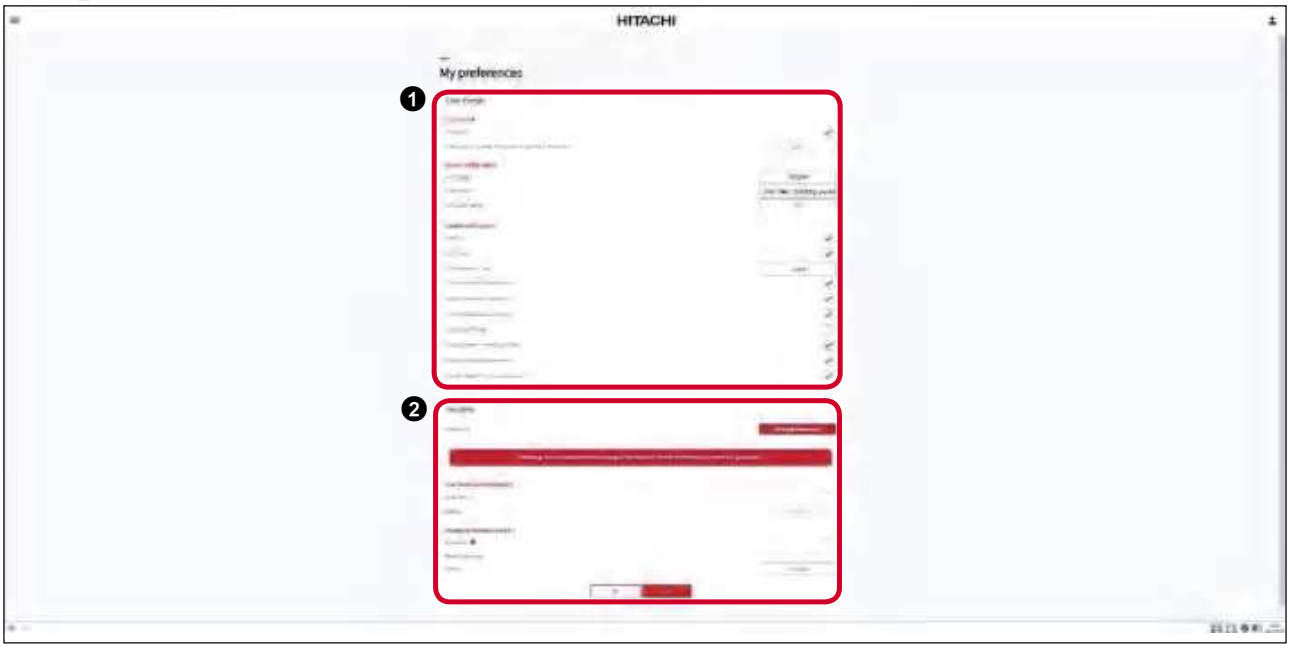
Restore dialogue allows to load a backup file to re-establish the configuration stored in the specified file.



14 USER MENU



14.1 MY PREFERENCES



❶ **User Details:** selection of log out and lock screen time, language, initial view, units per page and dashboard content.

❷ **Security:** to change the password. Enable to use two factor authentication at the login time where a token number will be required.
It requires external mobile application like Google Authenticator, Microsoft Authenticator or Authy (recommended).

Password recovery email:Recovery password has been updated, replacing unsecure “security questions” by the new “Restore factory default” option.

The recommended option to restore a password would be always by using an email, so the email servers should be configured.

As some installations do not configure the email server, a default alternative way has been added to give the installer the chance to recover again their control over the system. This new system require to plug a Service Tools device on the H-LINK line, letting launch a factory reset of the device.

14.2 CHANGE PASSWORD

Change password dialogue allows to change the old password.

14.3 LOGOUT

Log out will return to the login window.

15 SECURITY

⚠ CAUTION

- *CSNET Manager 2 is designed to work in local area network, when connecting through internet, the client is responsible to ensure and apply all necessary security layers.*
- *In case of working on a local area network, the owner has taken all the actions to make its network safe against undesired Access.*

15.1 USER CREDENTIALS

It is recommended to avoid the most typical passwords, and it is recommended to use complex rules to define a password.

It is also recommended to avoid generic user names such as “admin” or “installer”.

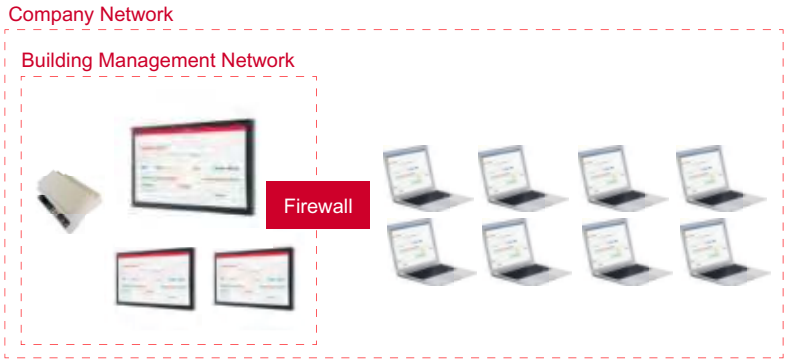
15.2 CSNET MANAGER 2 CREDENTIALS

In order to connect a CSNET Manager 2 to another CSNET Manager 2 a default password is used.

It is recommended to change that password when configuring the installation.

15.3 LOCAL AREA NETWORK CASE

In case that CSNET Manager 2 devices are not connected to Internet, it is recommended to virtually divide the network, creating a dedicated network for building management devices (CSNET Manager 2, HC-A64NET, Power Meters…).

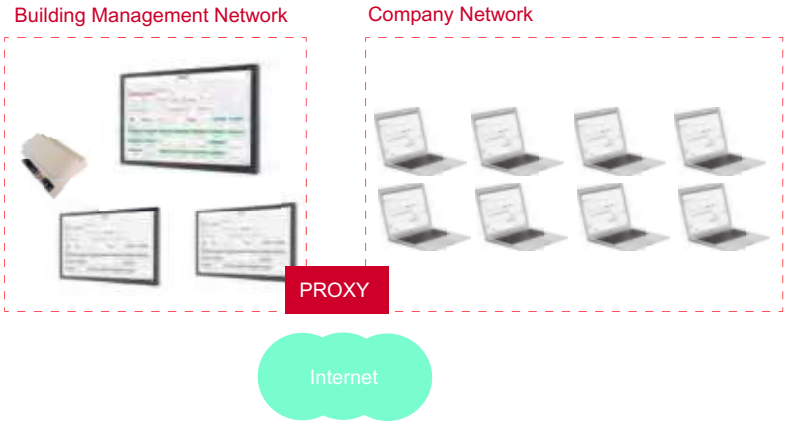


The connection between building management network and the computers connected on the normal network should be done through a firewall or router. To know the necessary ports to be open, check the *"15.5 Used ports"* chapter.

15.4 CONNECTING TO INTERNET

When the network access to Internet, it must be used a reverse proxy.

That proxy must work in HTTPS and use perfect security.



To know the necessary ports to be open, check the *"15.5 Used ports"* chapter.

15.5 USED PORTS

The ports to be opened on a firewall when we want to access from outside (Internet or other local network) are:

- 80 and 443 to connect from outside to CSNET Manager 2.
- 8080 to connect from outside to a CSNET Manager, CSNET Manager 2 or CSNET Lite.
- In case of using a CSNET WEB, the configured port on the device. (By default 8080)
- Depending on function used:
  - 22 for SSH connection if it has been enabled. It is recommended to have it always closed except if maintenance cannot be done from inside the network.
  - 502 for Modbus. It is not recommended to let access Modbus from outside as it is not a protocol with security layer. The correct concept must be having all Modbus communication inside the local network and the port closed.
  - 8000 if another CSNET Manager, CSNET Manager 2 or CSNET Lite needs to access to a local CSNET Manager, CSNET Manager 2 or CSNET Lite from outside the network.