For internal use only

Daikin On Site, Quick Guide

Daikin On Site, Quick Guide :
On the following pages you find a first level of information required from Daikin affiliates to set the connections. As Daikin On Site is currently in fieldtest phase, new functions will be added regularly and screens might change layout.

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1. Applied Remote Servicing

HVAC units equipped with MT3 controllers can connect to the remote servicing platform.
It supports the service organization in reducing maintenance costs by providing all
the information remotely, anywhere, at any time.

1.1 Key benefits

The Cloud web application provides remote access and control of onsite devices and systems
24/7 from anywhere in the world. A site owner or manager can examine current conditions,
view historical trends, and edit schedules and settings, affecting onsite equipment.
Access to real time *energy consumption* or HVAC process data helps customers
quickly identify consumption outliers that may represent early warning signs of HVAC
mechanical issues (preventive maintenance).
Remote view Web is designed for ease of use at all user levels thanks to the intuitive user
interface.

1.1.1 Remote maintenance – at any time from any location

Remote Servicing facilitates diagnostics, optimized settings or system upgrades from any
location – with no need for a service engineer on site.
When necessary to visit the chiller plant, the available data and remote controller access
enables service engineers to work efficiently by combined effort of on-site and back-office
competences.

1.1.2 Connection – straightforward and effective

MT3 controllers are equipped with a built-in IP interface. The chiller connects automatically to
the Cloud via this interface.
Remote Servicing System – after downloading the Cloud-ready controller software, no special
programming or settings are required.

1.1.3 Web-based – always up to date

Daikin-on-site Cloud operates with standard web browsers and is suited for use with all
types of web-compatible devices. The service engineer logs in to www.daikinonsite.com via a
laptop or tablet, allowing him to access the plant directly. There is no need to use special
cables or to install extra software.

1.2 Key functions

A cloud based service application to remotely maintain, efficiently operate your chillers.
- Collects alarms and routes them to the responsible service organization.
- Enables future upgrades to your installed base with application enhancement,
  firmware improvements, or language sets at scheduled times.
- Transfers all relevant process data from connected units to enhance the efficiency of the
  HVAC plant.
- Application can be used by any PC, tablet or small devices with no software
  installation required.

2. System requirements

MT3 controllers are loaded with 'DoS-ready' chiller software and are basically preconfigured to connect automatically to the cloud, whenever connected to the Internet.
The future chiller software will be 'cloud-ready' when delivered on site.
Existing installed chiller base must be reprogrammed with a valid cloud server chiller software.

2.1   MT3 unit controller software

MT3 unit controller should have a minimum required software version:
This based on the unit model:

Minimum required software version:
- EWAD-C   : 3.10.A
- EWAD- TZ   :

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2.2   MT3 controller BSP

MT3 controller should have a minimum required version of the BSP.
This based on the MT3 model:

- POL63x: 10.30 or higher
- POL68x: 10.26 or higher

2.3   Internet access

- The Ethernet cable must be connected to the controller's IP connection (T_{IP}).
- The controller requires a direct connection to the Internet, i.e. without proxy.
- Port 80 (https) must be open.
- Broadband Internet is recommended for the controller due to the program size.
- It is further important that the Internet connection is stable.

2.4   Portal login

The user needs to log in at: www.daikinonsite.com
The tenant administrator provides the user with user credentials.

2.5   Web browser

Development uses Mozilla Firefox for its regression testing; IE 10 or other modern web browser can also be used.

The browser must support HTML5.

- The latest versions (as of the date of publication for this document) of Google Chrome and Mozilla Firefox have been tested.
- Internet Explorer is no longer recommended

3. Controller IP settings

Different IT infrastructures and variations exist in the field when connecting the MT3 controller via internet to Cloud. MT3 controllers do not require a fixed IP address. However certain settings may be requested or require verification for proper Internet connectivity(depending on the local infrastructure). Internet connection can be with LAN connection or via 3G/4G modem.

The Dynamic Host Configuration Protocol (DHCP) is a standardized network protocol used on IP networks for dynamically distributing network configuration parameters, such as IP addresses for interfaces and services.

3.1   DHCP active: Dynamic IP

With **DHCP** set to **On**: The MT3 controller request IP address and networking parameters like gateway address and DNS server settings automatically from a DHCP server, reducing the need for a network administrator or a user to configure these settings manually.
This is also the most common (and recommended) configuration.

3.2   DHCP inactive: Fixed IP

With **DHCP** set to **Off**: The MT3 controller IP address (Fixed IP) and networking parameters like gateway address and DNS server address settings needs to be configured by the user of network administrator manually.

3.3   Proxy server environment

MT3 controllers do **not** support proxy server environment, primarily due to the complexity of set up and a lack of authority by the IT department.
Separate Internet connectivity (3G/4G modem) may be required to access this type of unit.

# 4. MT3 Controller Preparation and set-up :

MT3 controllers are prepared to connect automatically to the Daikin'-on-site' Cloud, whenever they are connected to the Internet. The MT3 controller needs Daikin On Site ready software, see *"2.1 MT3 unit controller software"*. The 'Cloud-ready' controller software is created by DAE software design team and distributed via the "application set" page on the cloud. New produced units will have the DoS compatible software pre-loaded from factory.

4.1 Connect the prepared MT3 controller to the network

If the controller is programmed with Cloud-ready controller software, the controller can now be connected to the Internet, using the inbuilt T_{IP} port of the controller.

Plug in the LAN Cable, 3G/4G modem cable on the T_{IP} connector, shown in the following picture.

ⓘ T_{Hi} connector could be used to access the HMI via Remote Interface.

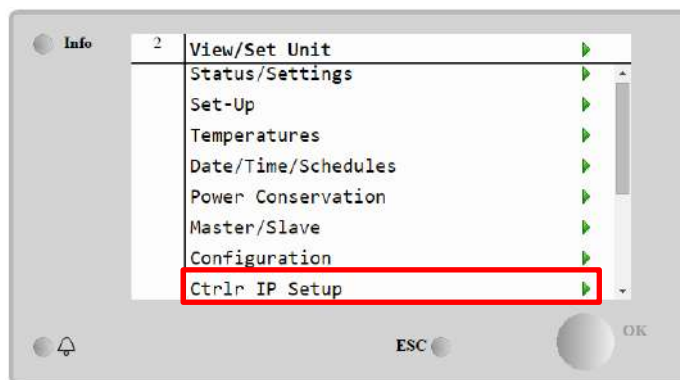ⓘ If the Cloud connection is used, user can't access the controller via Web interface.
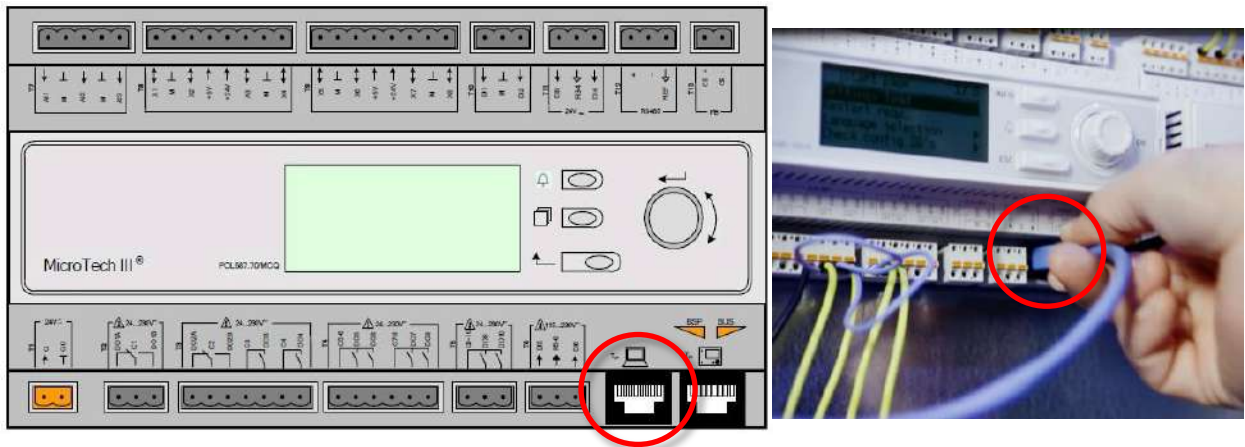
4.1.1 Controller IP setup
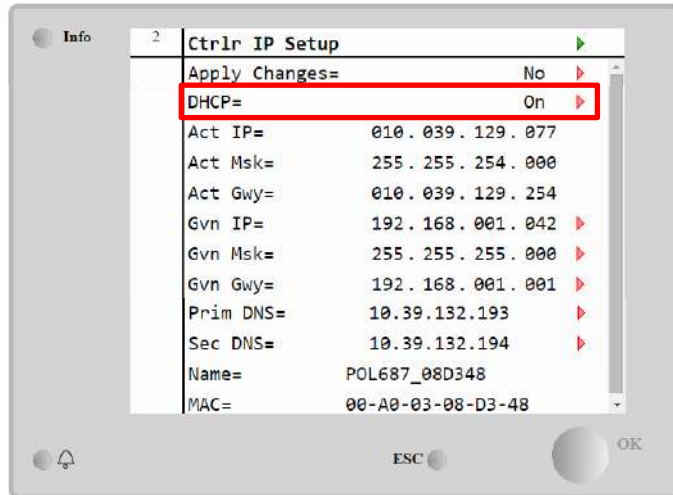
ⓘ "Service" Level Password is required to access the menu.

The following path is used to access the menu:

HMI Path → Main Page – View/Set Unit - Ctrlr IP Setup

### 4.1.1.1 Controller settings using DHCP = On

a) Select DHCP: On
ⓘ No further settings required when the IP setting is set to DHCP active. This is also the most common (and recommended) configuration.
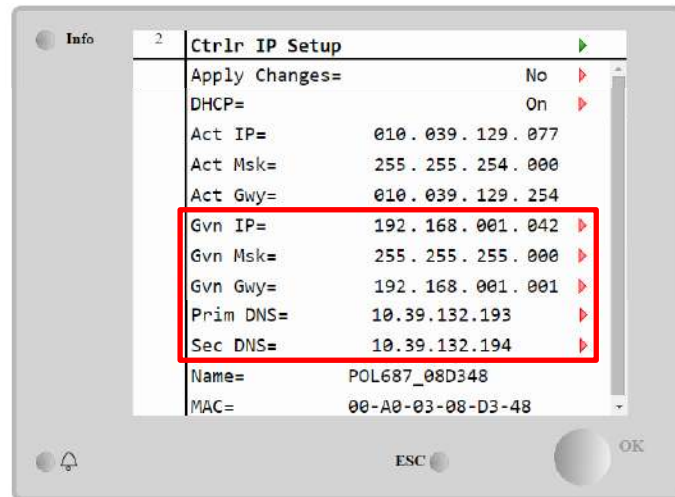

b) Verify received network parameters
- **Act IP:** Active IP address received from the DHCP server

  ⚠️When the IP address starts with 169.xx.xx.xx, the MTIII controller did not receive a valid IP address from the DHCP server.

- **Act Msk:** Active Sub net mask address received from the DHCP server
- **Act Gwy:** Active Gateway received from the DHCP server
- **Prim DNS:** Primary DNS server address received from the DHCP server
- **Sec DNS:** Secondary DNS server address received from the DHCP server

c) **Apply Changes** must be set YES to apply the changes, after previous parameters have been set ON.

4.1.1.2 Controller settings using DHCP = Off:

a) Select DHCP: Off
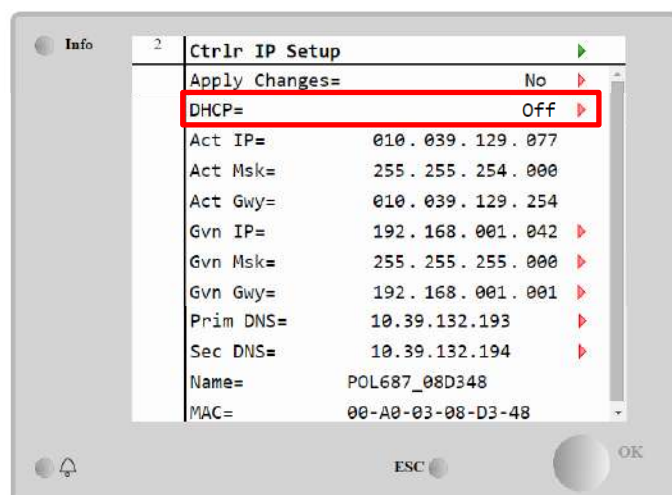
b) Enter the required network parameters
   - **Gvn IP:** Active IP address received from the DHCP server
   - **Gvn Msk:** Active Sub net mask address received from the DHCP server
   - **Gvn Gwy:** Active Gateway received from the DHCP server
   - **Prim DNS:** Primary DNS server address received from the DHCP server
   - **Sec DNS:** Secondary DNS server address received from the DHCP server

c) ***Apply Changes*** must be set YES to apply the changes, after previous parameters have been set.

d) Now Verify displayed network parameters
   - **Act IP:** Active IP address should be the same as Gvn IP
   - ⚠️When the IP address starts with 169.xx.xx.xx, the MTIII controller did not receive a valid IP address from the DHCP server.
   - **Act Msk:** Active Sub net mask address should be the same as Gvn Msk
   - **Act Gwy:** Active Gateway IP address should be the same as Gvn Gwy
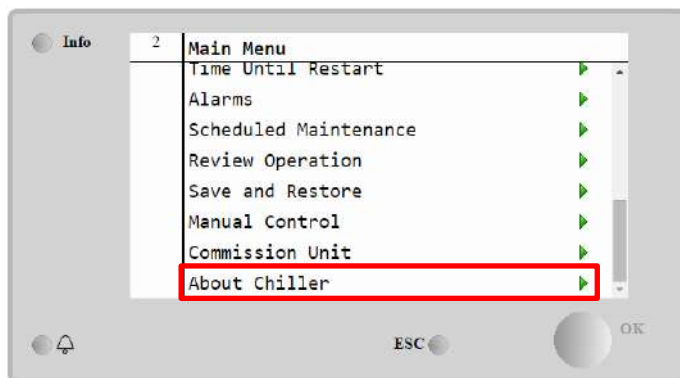
4.2   Enter the Unit serial number

In the MT3, *About chiller Menu* is used to set the Unit Serial number (Unit S/N).
Unit serial number will be visible in the 'Data points / About unit' menu and will be used to identify the connected unit.

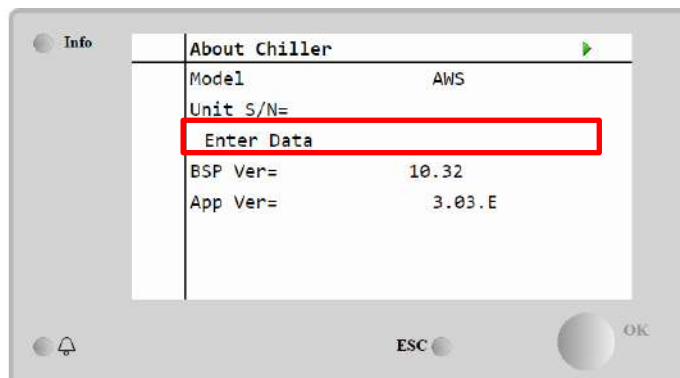ⓘ "Service" Level Password is required to access the menu.

The following path is used to access the menu:
HMI Path → Main Page – About Chiller
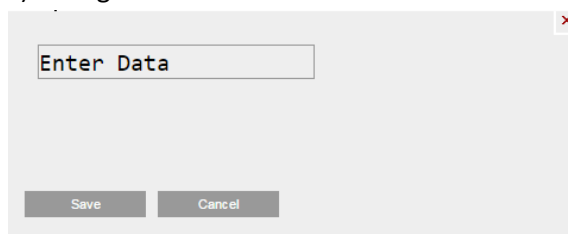
    a)   Select '*About chiller'*

B) Select 'Enter Data' or 'serial number' and confirm to enter the setting.

c) Change or enter the Unit serial number

d) Select Save or confirm setting with the controller button

4.3 Launch Daikin On Site connection :

In the MT3, '*Daikin On Site*' Menu is used to launch the connection and monitoring its status with the Siemens Cloud.

(i) "Factory" Level Password is required to access the menu.

The following path is used to access the menu:

HMI Path → *Main Page - View/Set Unit – Status/Settings – Daikin On Site Menu*
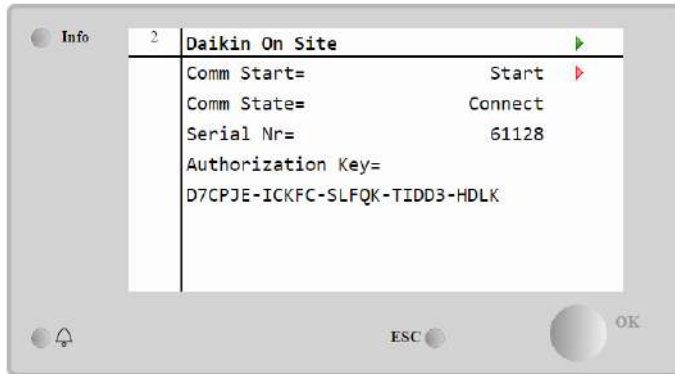
⚠ Parameters to check (on site) before launching the connection :
- Unit serial number has been set.
- MT3 controller has full internet access
(fast internet connection with Port 80 open)

a) **Comm Start** must be set ON to enable the connection with the Cloud.

b) **Comm Status** detects the actual connection status.
Possible values are:
- None:
- IPErr: IP Error
- Init: Initialization
- InitReg: Initializing Registration
- Reg: Registration to the Cloud
- RegErr: Registration Error
- Descr: Description
- Connected: Connection established

c) Make note of the 'controller serial number' while on site (typical xxxxx-POL687), to allow renaming and assigning of the chillers in the Daikin On Site afterwards.

(i) When users access the controller again, they could see the actual connection status with the Cloud in *Daikin On Site Menu.*

4.4   Contact your Tenant Admin

The Cloud Administrator shall create users profiles and link the controller, site and users. During first sales launce, the back-office admin role will be done by DENV service back-office :

- Bart Verdonck - DENV
- Tom Helsen -DENV
- Massimiliano Amadei - DAE

4.4.1   Unassigned sites :

1. Here the new connected controllers are ready to be assigned to a certain responsible user (Site owner). The connected controller will be identified based on the controller serial number.
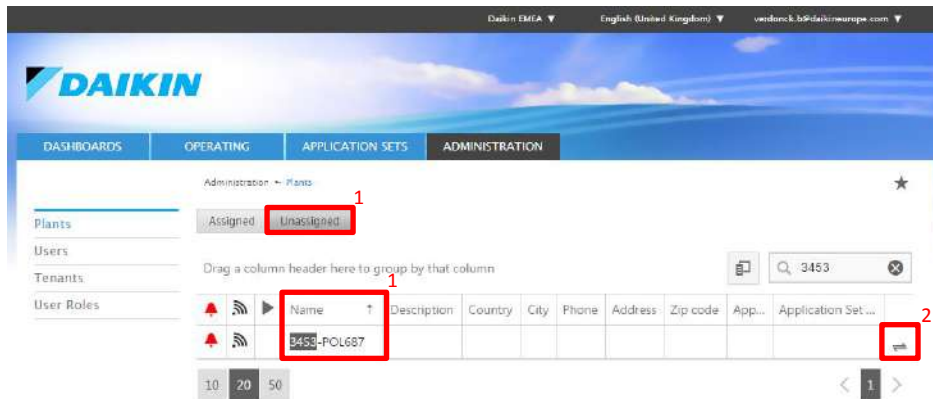

2. Press the assign logo, and confirm assigning request


4.4.2   Assign site

During first sales launce, the back-office admin role will be done by DENV service back-office. Specific user level is required to assign controllers. Please provide the required site information to be filled out into Daikin on Site portal by DAE or DENV back office :

After data input the controller can be assigned to a particular plant and plant users can be defined. (define the ownership of the site)
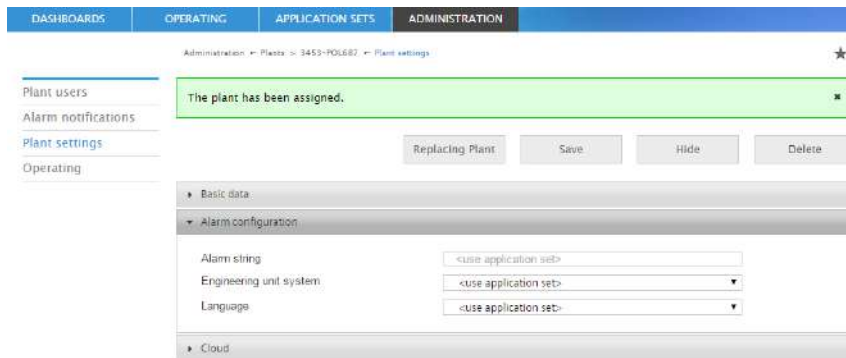
- Plant users can only see the units which have been assigned to his user profile.
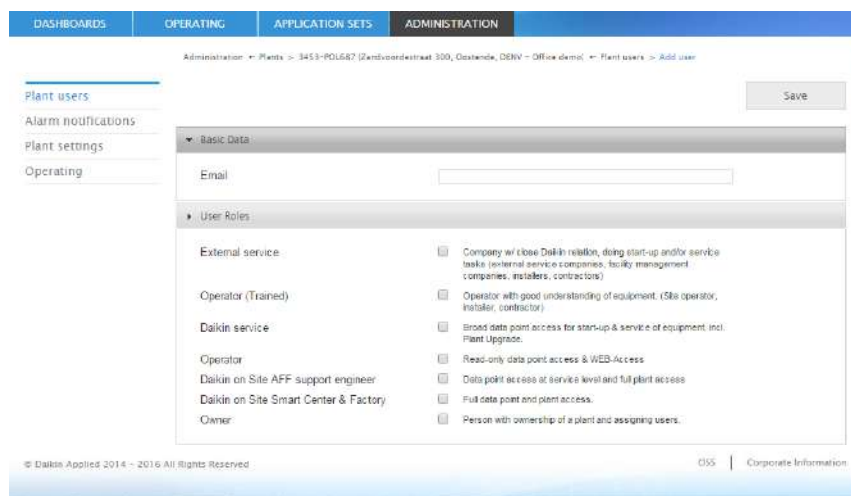
- Assigned: Here you see the already connected controllers (sites)

5. Cloud usage

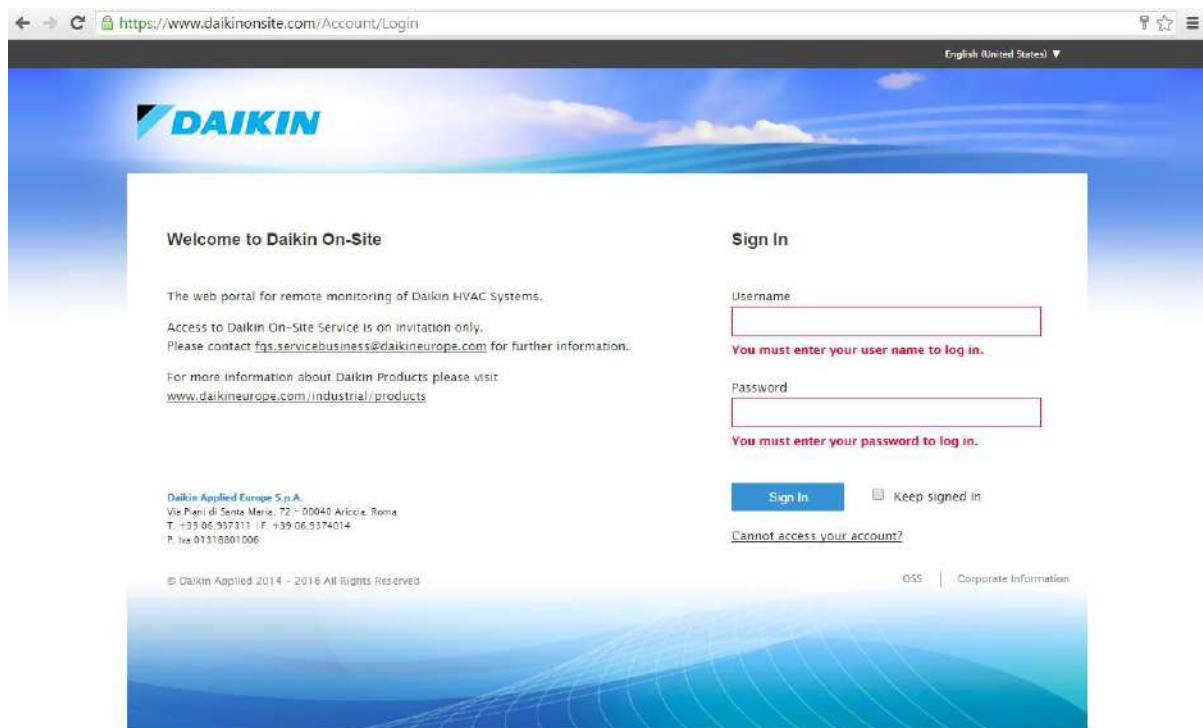The section below provides you a short manual of how to operate Daikin On Site application.

5.1 Preconditions:

MT3 controllers is Cloud prepared and connected to Internet

5.2 Log in 'Daikin On Site',

Please open Internet explorer (Firefox, IE10, Opera) and
log in on www.daikinonsite.com

ⓘ - The browser must be support HTML5.
ⓘ - Set the language in the top right-hand corner.

5.2.1 Sign in for the first time.

▷ You have received an email with an invitation and temporary password.

1. Enter the User name and (temporary) password and click "Sign in".

   ⇨ You are requested to change the password.

2. **NOTICE! A secure password consists of at least 8 characters and includes at least one letter and one special character.**
   Create and confirm your secure password.

3. Click "Change password" to confirm the change.

⇨ Your individual password is active and you are now forwarded to an entry mask.

5.2.2 Secure sign in and out

Note the following functions for sign in/out:

- The connection is ended after 30 minutes of inactivity. The web page returns to the sign-in screen.
  NOTICE! Only the activity on the first tab is registered when working in multiple browser tabs.
- The user account is locked after 5 attempts to enter the password. The user is informed of this and referred to the "Forgot password" function. The function sets a new password.
- For security reasons, a new sign in is required after 24 hours of uninterrupted user activity.

5.3 Web page setup

- Please choose your tenant.: DAIKIN EMEA
- Please choose the language.
- Please edit user information's with "Account details".
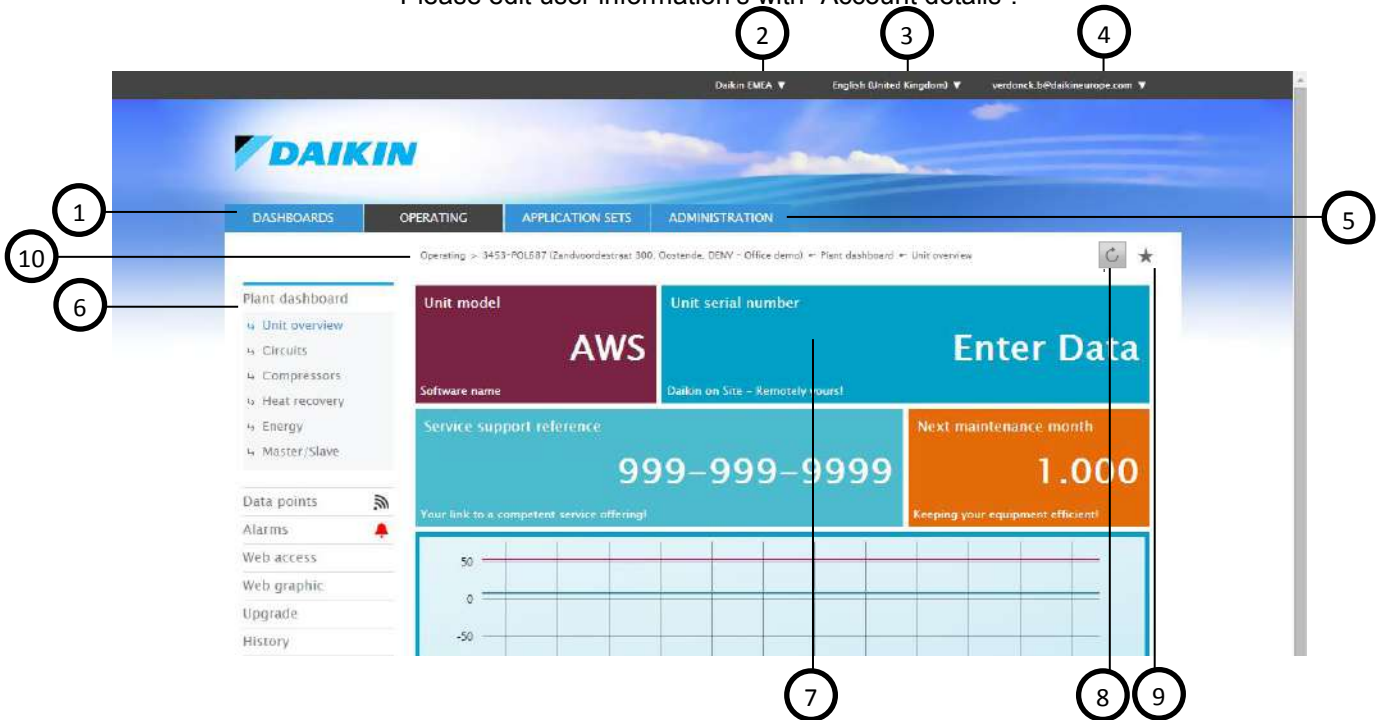
1	Portal navigation ribbon
2	Switch tenant
3	Change language
4	Account details and log out
5	Primary navigation
6	Secondary navigation
7	Desktop
8	Refresh view
9	Add to the dashboard (here: The entire menu)
10	Menu path (enabled)

Primary navigation tabs:

Operating : Following options are under access control (depending on the access profile). Available plants are displayed in the "Operating" menu. The plants are identified by name, description, Country, City, application set, address, … and alarm and online status.

- *Application sets*
  (The set-up and control of sets is under management of DAE Software team)

  Control selected application sets, to save site files like BSP for controller, BSP for com modules, mapping files, HMI files and miscellaneous files.
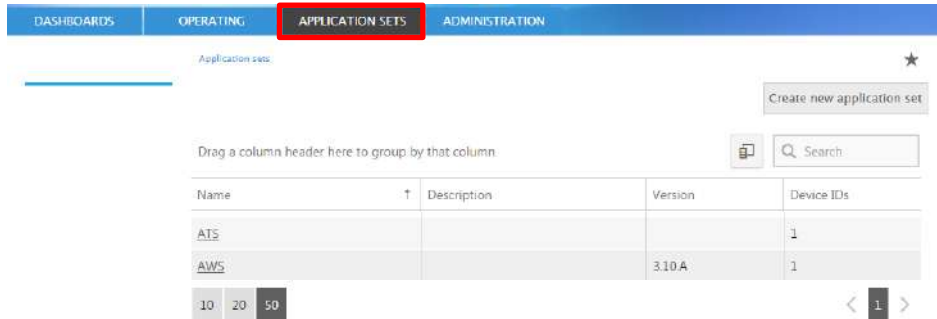
- - Select Plant Files to see the unit software files.
- - Press the 💾 symbol to save the file to the PC
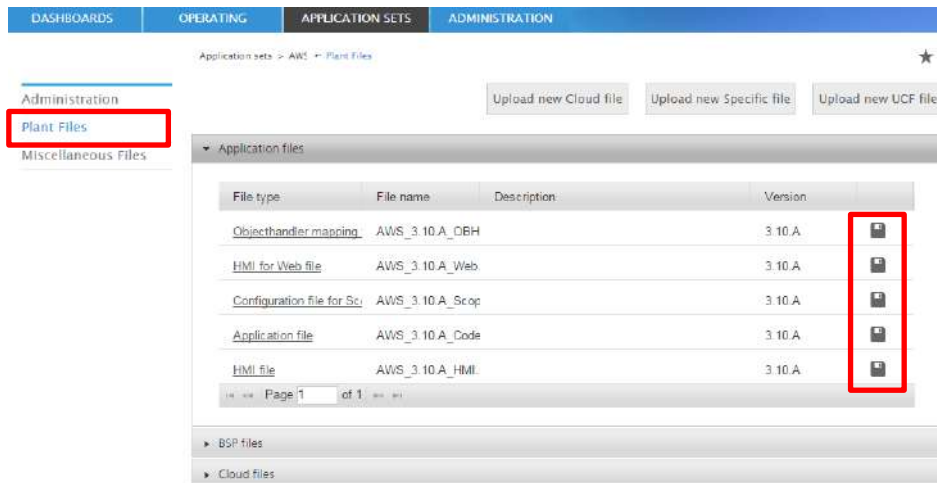
6. Definitions

<u>Tenant</u>
Tenant is equal to company.

<u>User</u>
These defined Users are for the Administration of the sites.

<u>Tenant Administrator</u>
See only Tenants, which are assigned to him.

<u>User</u>
Has no administrative role, only Site Roles with privileges !

<u>Site Roles</u>
(definition of site roles is one of the objectives of the field test)
Site Roles can be defined at *Administration / Site Roles*.