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 <u>www.daikinonsite.com</u> 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 :

## 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<sub>IP</sub>).
- 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: <u>www.daikinonsite.com</u> 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.

0 T<sub>Hi</sub> connector could be used to access the HMI via Remote Interface.

*i* If the Cloud connection is used, user can't access the controller via Web interface.



### 4.1.1 Controller IP setup

*i* "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

Info	2	View/Set Unit	Þ
		Status/Settings	A = 1     A
		Set-Up	► 1
		Temperatures	Þ.
		Date/Time/Schedules	<b>P</b> -
		Power Conservation	Þ
		Master/Slave	₩ <sup>3</sup>
		Configuration	Þ
		Ctrlr IP Setup	<b>k</b>
		ESC @	ок

#### 4.1.1.1 Controller settings using DHCP = On

- a) Select DHCP: On
  - In the IP setting is set to DHCP active. This is also the most common (and recommended) configuration.

	 CTFIF IP Set	up	P
	Apply Change	s= No	
	DHCP=	On	Þ
	Act IP=	010.039.129.07	7
	Act Msk=	255.255.254.000	а
	Act Gwy=	010.039.129.254	4
	Gvn IP=	192.168.001.04	2 🕨
	Gvn Msk=	255.255.255.000	a 🕨
	Gvn Gwy=	192.168.001.00	1 🕨
	Prim DNS=	10.39.132.193	•
	Sec DNS=	10.39.132.194	Þ
	Name=	POL687_08D348	
	MAC=	00-A0-03-08-D3-48	
Δ		ESC 🚳	0

- 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:

Info	2	Ctrlr IP Set	up	•
		Apply Change	s= No	
		DHCP=	Off	Þ
		Act IP=	010.039.129.077	
		Act Msk=	255.255.254.000	
		Act Gwy=	010.039.129.254	
		Gvn IP=	192.168.001.042	•
		Gvn Msk=	255.255.255.000	•
		Gvn Gwy=	192.168.001.001	•
		Prim DNS=	10.39.132.193	Þ
		Sec DNS=	10.39.132.1 <mark>9</mark> 4	Þ
		Name=	POL687_08D348	
		MAC=	00-A0-03-08-D3-48	
Ģ			ESC 🌒	

a) Select DHCP: Off

b) Enter the required network parameters

6

- **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

Info	2	Ctrlr IP Setu	p	
	19.0	Apply Changes:	= N	0
		DHCP=	0	n 🕨
		Act IP=	010.039.129.0	77
		Act Msk=	255.255.254.0	88
		Act Gwy=	010.039.129.2	54
		Gvn IP=	192.168.001.0	42 🕨
		Gvn Msk=	255.255.255.0	00 🕨
		Gvn Gwy=	192. <b>1</b> 68. <b>0</b> 01.0	01 🕨
		Prim DNS=	10.39.132.193	
		Sec DNS=	10.39.132.194	Þ
		Name=	POL687_08D348	
		MAC=	00-A0-03-08-D3-48	
Ģ			ESC 🍈	

- 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
  - **1**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.

*i* "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'

Info	2	Main Menu	
	_	Time Until Restart	P -
		Alarms	E.
		Scheduled Maintenance	×.
		Review Operation	×.
		Save and Restore	N _
		Manual Control	×.
		Commission Unit	<b>K</b>
		About Chiller	<b>k</b>
Δ		ESC	0

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

100	About Chiller		•
	Model	AWS	
	Unit S/N=		
	Enter Data		
	BSP Ver=	10.32	
	App Ver=	3.03.E	
$\wedge$		FSC C	0

c) Change or enter the Unit serial number

Enter	Data	 I	
Save		Cancel	

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:

Info	2	Daikin On Site		•
		Comm Start=	Start	•
		Comm State=	Connect	
		Serial Nr=	61128	
		Authorization Key	=	
		D7CPJE-ICKFC-SLFQ	(-TIDD3-HDLK	
		1		
				OK

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.

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.

			Daikin EM	A <b>T</b>	English (United	Kingdom) 🔻	ven	donck.b9daikineurope.co	m 🔻
DAIK	IN		-	-	-	1. Mar -			
DASHBOARDS	OPERATING	APPLICATION SETS	ADMINISTRATIO	N					
	Administration •	- Manta							*
Plants	Assigned	Unastigned							
Users Tenants	Drag a colum	n header here to group by 1	that column				Ð	Q 3453	0
User Roles	🔺 🖟 🔺	Name † Descri	ption Country C	ity Phone	Address	Zip code	App	Application Set	
	ه 🄶	3453-POL687							-
	10 20 5	0						< 1	>

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 :

Name	3453-POL687	
Description		
	-	-Ai
Application set	<no application="" set=""></no>	•
Address		
Zip code		
City		
State		
Country		
Lat/Long		
	Get coordinates	
Phone		
Timezone	<select timezone=""></select>	•
Connection Supervision	<default> (Off)</default>	
Connection Supervision delay (minutes)	5	
IMSI (3G router)		

After data input the controller can be assigned to a particular plant and plant users can be defined. (define the ownership of the site)

DASHBOARDS	OPERATING	APPLICATION SETS	ADMINISTRATION			
	Administration	- Plasts > 3453-POL687 - Plan	# ##tings			,
Plant users	The plant ha	as been assigned.				×
Alarm notifications						
Plant settings			Replacing Plant	Save	Hide	Delete
Operating					and the second sec	
	Basic data					
		figuration				
	Alarm strir	19	<use applicati<="" td=""><td>an siel&gt;</td><td></td><td></td></use>	an siel>		
	Engineeni	ig unit system	<use applicati<="" td=""><td>on set&gt;</td><td>•</td><td></td></use>	on set>	•	
	Language		cuse applicati	on set>		

• Plant users can only see the units which have been assigned to his user profile.

	Administration	<ul> <li>Plants &gt; 3453-POL687 (Zamiyo)</li> </ul>	ordestraet 300,	Ocstende, DENV - Office demo: + Hent users > Add user
Plant users				Save
Alarm notifications				
lant settings	· Basic Data	ti -	_	
Operating	Email			
	User Roles			
	External s	ervice	10	Company w/ close Deli-In relation, doing start-up and/or service tasks (seternal service companies, facility management companies, installers, contractions)
	Operator (	Trained)		Operator with good understanding of equipment. (Sits operator, installer, contractor)
	Daikin ser	vice		Broad data point access for start-up & service of equipment. Incl. Plant Upgrade.
	Operator		0	Read-only data point access & WEB-Access
	Daikin on	Site AFF support engineer		Data point access at service level and full plant access
	Daikin on	Site Smart Center & Factory	0	Full data point and plant access.
	Owner		0	Person with ownership of a plant and assigning users,
				1092 M 181 - 1770 G

• Assigned: Here you see the already connected controllers (sites)

DASHBOARDS	OPERA	TING		APPLICAT	ION	SETS: ADM	INISTRATION							
	Adm	inistrat	ion ⊢	Planes										*
Plants	As	igned		Unassigned										
Users	2											3		
Tenants	Dra	g a co	lumi	n header here	to g	roup by that col	umn				B	Q d	env	0
User Roles	٠	,	►	Name	t	Serial numb	Description	Country	City	Phone	Address	Zip code	Арр.,	Applicat
	٠	<i>"</i>		3453-POL68	1Z	3453	DENV - O	Belgium	O		Zandv	8400	AW5	
	10	20	50	2									<	1 >

## 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 <u>www.daikinonsite.com</u>

- I The browser must be support HTML5.
- I set the language in the top right-hand corner.

DAIKIN	and the second s
Welcome to Daikin On-Site	Sign In
The web portal for remote monitoring of Daikin HVAC Systems.	Username
Access to Daikin On-Site Service is on invitation only. Please contact fgs.servicebusiness@daikineurope.com for further information.	You must enter your user name to log in.
For more information about Daikin Products please visit www.daikineurope.com/industrial/products	Password
	You must enter your password to log in.
Deikie Applied Europe S.p.A. Via Paul di Santa Maria. 72 - 00049 Ariccia. Roma	Sign In 🔲 Keep signed in
T + 43 96,937311   F + 39 96,9374014 P. We 01318801006	Cannot access your account?
© Daikin Applied 2014 - 2016 All Rights Reserved	OSS Corporate Information

#### 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.
- 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". \_

(4)

(3)

			2 Deikin EMEA ▼ En	aglish (United Kingdom) 🔻	verdonck.b@daikineurope.c	) 7
<b>V</b> DAIK	IN		-		-	
DASHBOARDS	OPERATING	APPLICATION SETS	ADMINISTRATION			
	Operating > 3453	POL587 (Zandvoordestraat 300	. Oostende, DENY - Office demo) = Plant	t dashboard 🖛 Unit overview	C	*
Plant dashboard	Unit model		Unit serial number			
4 Unit overview		AVAIC			ntor Do	
<ul> <li>Circuits</li> <li>Compressors</li> </ul>		AWS		, e	nter Dai	a
6 Heat recovery	Software name		Dailon on Site – Remotely yours!			
H Energy Master/Slave	Service supp	orthreference		Next ma	iintenance month	
H mester, sure		99	99-999-99	99	1.00	0
Data points	M Your link to a co	mpetent service affering!		Keeping yo	ur equipment efficienti	
Alarms	<b>.</b>		TTT	LII	T T .	
Web graphic	50					
Upgrade	0					
History	-50					
	1	Portal naviga	ation ribbon		8	)(9
	2	Switch tenar	nt			
	3	Change lang	juage			
	4	Account deta	ails and log out			
	5	Primary navi	gation			
	6	Secondary n	avigation			
	7	Desktop				
	8	Refresh view	v			
	9	Add to the da	ashboard (here: The	e entire menu)		
	10	Menu path (e	enabled)			
			/			

#### Primary navigation tabs:

<u>Operating</u>: 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.

Oper	ating								*
Dra	g a co	alumi	hea	der here to group by that col	umn		Ð	Q denv	8
۲	٠	3	►	Name	Description	Country	С	îty	Phone
		3		3453-POL687	DENV - Office demo	Belgium	C	ostende	

#### <u>Application sets</u>

(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.

DASHBOARDS	OPERATING	APPLICATION SETS	ADMINISTRATION		
	Application sets				*
					Create new application set
	Drag a colum	in header here to group b	y that column	Ð	Q Search
	Name	t	Description	Version	Device IDs
	ATS				1
	<u>AW5</u>			3.10 A	1
	10 20 5	o			< 1 >

- Select Plant Files to see the unit software files.
- Press the symbol to save the file to the PC

DASHBOARDS	OPERATING A	PPLICATION SETS	ADMINISTRATION		
	Application sets > AWS	+ Plant Files			*
Administration			Upload new Cloud file	Upload new Specific file	Upload new UCF file
Plant Files	·				
Miscellaneous Files	<ul> <li>Application files</li> </ul>				
	File type	File name	Description	Version	1
	Objecthandler	mapping AWS_3.1	A_OBH	3 10 A	
	HMI for Web f	file AWS_3.1	D.A_Web	3.10.A	
	Configuration	file for Sci AWS_3.1	D.A_Scop	3 10 A	
	Application file	e AWS_3.1	0.A_Code	3 10 A	
	HMI file	AWS_3.1	A_HMI	3 10.A	
	··· ··· Page 1	of 1 🚥 🐖			
	<ul> <li>BSP files</li> </ul>				
	Cloud files				

## 6. Definitions

#### <u>Tenant</u>

Tenant is equal to company.

#### <u>User</u>

These defined Users are for the Administration of the sites.

## **Tenant Administrator**

See only Tenants, which are assigned to him.

## <u>User</u>

Has no administrative role, only Site Roles with privileges !

#### Site Roles

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