Madoka guarantees comfort in the most intuitive way imaginable

Available in three attractive colours, Madoka adds style and class to any interior space.
Measuring just 85 x 85 mm, Madoka is extremely compact and will become a fluid part of any background.

Madoka combines refinement and simplicity.
The intuitive touch button control enlarges the display and makes Madoka both easy and enjoyable to use.

The Madoka Assistant app simplifies the advanced settings such as schedule or set point limitation. Your smartphone connects easily with Madoka via Bluetooth®

White
RAL 9003 (glossy)

Silver
RAL 9006 (metallic)

Black
RAL 9005 (matt)

reddot award 2018
winner

DESIGN AWARD 2018

Bluetooth

www.daikin.eu/madoka

Control Systems

Control Systems

New online controller for Sky Air

New premium design wired remote control

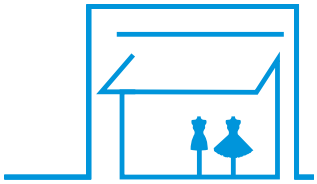
For latest data, please consult my.daikin.eu

Control solutions summary

Daikin offers various control solution adapted to the requirements of even the most demanding commercial application.

› Basic control solutions for those customers with few requirements and limited budget
› Integrating control solutions for those customers that would like to integrate Daikin units into their existing BMS system
› Advanced control solutions for those customers that expect Daikin to deliver a mini BMS solution, including advance energy management

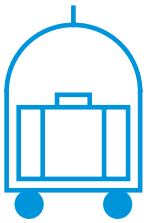
Shop

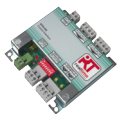


	Unit control			Integrating control			Advanced control	
								
	BRP069* Online controller	BRC1H-519W/S/K	RTD-20	RTD-Net	KLIC-DI	EKMBDXA	DCC601A51	DCM601A51
	Smart phone control for up to 50 indoor units	1 remote controller for 1 indoor unit (group)	1 gateway for 1 indoor unit (group)	1 gateway for 1 indoor unit (group)	1 gateway for 1 indoor unit	1 gateway for max. 64 indoor unit(s) (groups) & 10 outdoors	1 unit for 32 indoor unit(s) (5)	1 iTM for 64 indoor unit(s) (groups) (1)
Automatic control of A/C	●	●	●	●	●	●	●	●
Limit control possibilities for shop staff		●	●	●	●	●	●	●
Create zones within the shop			●				●	●
Interlock with eg. Alarm, PIR sensor			●				● (limited)	●
Integrate Daikin units into existing BMS via Modbus				●		●		
Integrate Daikin units into existing BMS via KNX					●			
Integrate Daikin units into existing BMS via HTTP								●
Monitor energy consumption		● (4)					● (2)	●
Advanced energy management							● (2)	●
Allows free cooling							●	●
Integrate Daikin products cross pillars into Daikin BMS								●
Integrate third party products into Daikin BMS							●	●
Online control	●						● (2)	● (3)
Manage multiple sites							● (2)	● (3)

(1) 7 iTM plus adapters (DCM601A52) can be added to have 512 indoor groups and 80 outdoor (systems) (2) Via Daikin cloud service (3) Through own IT set-up (not Daikin cloud server) (4) Not available on all indoors (5) Up to 10 DCC601A51 can be combined as a single site on Daikin Cloud Service

Hotel



	Unit control	Integrating control		Advanced control	
				PMS Interface	
	BRC1H51W/S/K	RTD-HO	KLIC-DI	DCM010A51	DCM601A51
	1 remote controller for 1 indoor unit (group)	1 gateway for 1 indoor unit (group)	1 gateway for 1 indoor unit	1 interface for up to 2,500 indoor units	1 iTM for 64 indoor unit(s) (groups) (1)
Hotel guest can control & monitor basic functionalities from his room	●	●	● (3)		●
Limit control possibilities for hotel guests	●	●	●	●	●
Interlock with window contact	● (2)	●			●
Interlock with key-card	● (2)	●			●
Integrate Daikin units into existing BMS via Modbus		●			
Integrate Daikin units into existing BMS via KNX			●		
Integrate Daikin units into existing BMS via HTTP					●
Integrate Daikin unit control in hotel booking software				● Oracle Opera PMS	
Monitor energy consumption					●
Advanced energy management					●
Integrate Daikin products cross pillars into Daikin BMS					●
Integrate third party products into Daikin BMS					●
Online control					●

(1) : 7 iTM plus adapters (DCM601A52) can be added to have 512 indoor groups and 80 outdoor (systems) (2) Via BRP7A51 adapter (3) requires KNX compatible controller

Office

	Unit control	Integrating control			Advanced control	
			 LonWorks Interface	 BACnet Interface	 intelligent Controller	 intelligent Manager
	BRC1H519W/S/K	EKMBDXA	DMS504B51	DMS502A51 / DAM412B51	DCC601A51	DCM601A51
	1 remote controller for 1 indoor unit (group)	1 gateway for max. 64 indoor unit(s) (groups) & 10 outdoors	1 gateway for 64 indoor unit(s) (groups)	1 gateway for 128 indoor unit(s) (groups), 20 out-doors (2)	1 unit for 32 indoor unit(s) (groups) (5)	1 iTM for 64 indoor unit(s) (groups) (1)
Automatic control of A/C	●	●	●	●	●	●
Centralised control for management		●	●	●	●	●
Local control for office workers	●	●	●	●	●	●
Limit control possibilities for office workers	●				●	●
Integrate Daikin units into existing BMS via Modbus		●				
Integrate Daikin units into existing BMS via HTTP					●	●
Integrate Daikin units into existing BMS via LonTalk			●			
Integrate Daikin units into existing BMS via BACnet				●		
Energy consumption read out	●					
Monitor energy consumption					● (4)	●
Advanced energy management					● (4)	●
Integrate Daikin cross pillar products into Daikin BMS						●
Integrate third party products into Daikin BMS					●	●
Online control					● (4)	●
Manage multiple sites					● (4)	● (5)

(1) 7 iTM plus adapters (DCM601A52) can be added to have 512 indoor groups and 80 outdoor (systems) (2) extension needed to go to 256 indoor unit(s) (groups), 40 outdoors (3) ON/OFF only
(4) Via Daikin cloud service (5) Through own IT set-up (not Daikin cloud sever)
(5) Up to 10 DCC601A51 can be combined as a single site on Daikin Cloud Service

Infrastructure cooling

	Unit	Integrating		Advanced
				 intelligent Manager
	BRC1H51W/S/K	RTD-10	DTA113B51	DCM601A51
	1 remote controller for 1 indoor unit (group) (2)	1 gateway for 1 indoor unit (group) Up to 8 gateways can be linked together	1 adapter for op to 4 units	1 iTM for 64 indoor unit(s) (groups) (1)
Automatic control of A/C	●	●	●	●
Back-up operation	●	●	●	●
Duty rotation	●	●	●	●
Limit control possibilities in the technical cooling room	●	●		●
If room temperature above max., then show alarm & start standby unit.		●		●
If an error occurs, an alarm will be shown.	●	●		●
If an error occurs, activate an alarm output	Via KRP2/4A option (3)	●		Via WAGO I/O

(1) : 7 iTM plus adapters (DCM601A52) can be added to have 512 indoor groups and 80 outdoor (systems) (2) Infrastructure cooling functions only compatible with indoor units connected to Seasonal Smart outdoor units. (3) See option list of indoor unit

Online controller

BRP069B41/42/45
BRP069A61/62/81/82

Always in control,
no matter where you are

The Daikin Online Controller application can control and monitor the status of your heating system or up to 50 split air conditioning units and allows you to:

Monitor:

› The status of your air conditioner or heating system
› Consult **energy consumption graphs** (1)

Control:

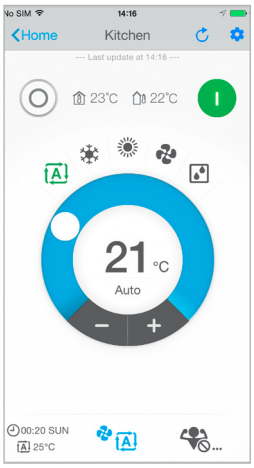
› The **operation mode**, set temperature, fan speed and powerful mode, air direction and filtering (streamer) function (Available functions depending on connected model) (2)
› Remotely control your system and domestic hot water
› **Zone control**: control **multiple** units at once (Split and Daikin Altherma integrated bi-zone only)

Schedule:

› Schedule the set temperature and operation mode with up to **6 actions per day for 7 days**
› Enable **holiday mode**
› View in an intuitive mode
› 3rd party products & services integration via IFTTT (Split and Sky Air only)
› Demand control/power limitation (Split only)

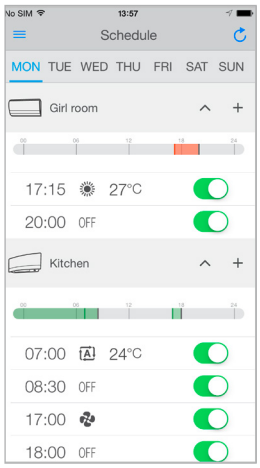
App with intuitive lay-out

Control



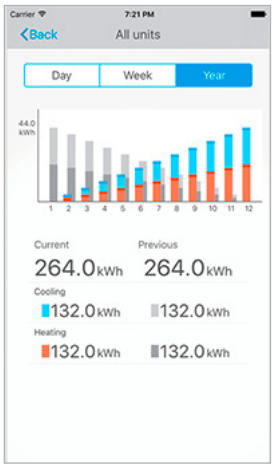
Control operation mode, temperature, air purification, fan speed & direction

Schedule



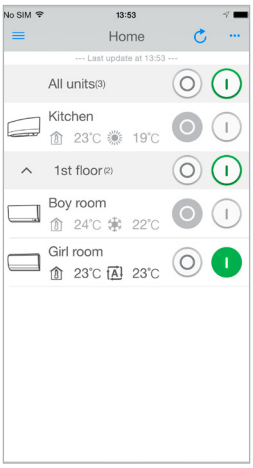
Schedule the set temperature, operation mode and fan speed

Monitor



Monitor your energy consumption, set holiday schedule

Identify



Identify the rooms in your house

Available functions and menus depend on the connected indoor unit
(1) Available for Split and Daikin Altherma 3 models
(2) For heating products Online controller is only compatible with Room Temperature control (and not Leaving Water Temperature control or external control)

Connectable units

Included in PCB
› FTXA-AW/S/T

BRP069B41
› FTXG-LW/S
› FTXJ-MW/S *
› C/FTXM-N
› FTXTM-M
› ATXM-N

BRP069B42
› FTXZ-N
› FVXM-F

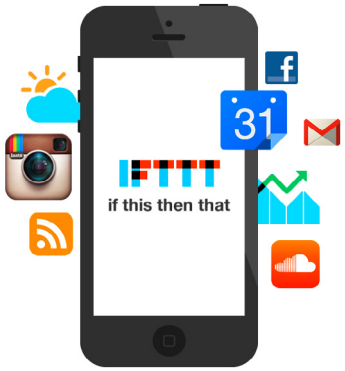
BRP069B45
› FTXP-M
› ATXP-M
› FTXF-A
› FTXTP-K
› ATXTP-K
› FTXC-B
› ATXC-B

BRP069A61/62
Daikin Altherma ground source heat pump
› EGSQH-A9W
Daikin Altherma hybrid heat pump
› EHYHBH(X)-AV3(2)
Daikin Altherma low temperature split
› EHBH(X)-CB/D
› EHV(H/X/Z)-CB/D
Daikin Altherma low temperature monobloc
› EBLQ-CV3
› EDLQ-CV3

BRP069A81 **
Ceiling mounted
› FFA-A9
Concealed ceiling
› FDXM-F9
› FBA-A9
› FDA-A
› ADEA-A
Wall mounted
› FAA-A
Ceiling suspended
› FHA-A9
› FUA-A
Floor standing
› FVA-A
› FNA-A9

BRP069A812 **
Ceiling mounted
› FCAHG-H
› FCAG-B

* controller included with the unit
** Wired remote controller must be connected to the indoor unit to operate online controller

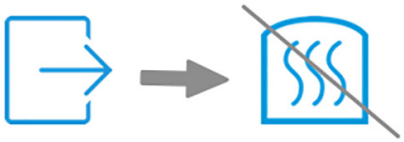


IFTTT: make your work flow

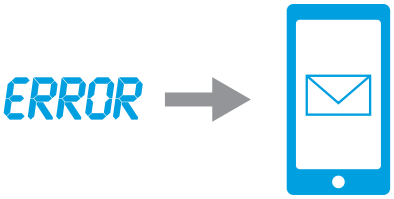
IFTTT is a solution that connects compatible 3rd party products and services (smart meters, lights, thermostats, ...), so they work best for you.
Within IFTTT, 2 operation set-ups can be made:
› DO: it simply executes an action (e.g.: on/off)
› IFTTT stands for If This Then That and allows you to automate actions (Then That) depending on certain triggers (If This)
› Available for split and Sky Air models

Example

IF you exit an area, **THEN** turn off the heating.
The trigger is location, which is determined by your smartphone. If you leave an area, such as your house for example, your heating will turn off automatically.



IF there is an error signal on the unit, **THEN** a text message is sent (to the installer/user/...)



Wireless LAN Connecting Adaptor BRP069 meets all of the following:

A. Generally available to the public by being sold, without restriction, from stock at retail selling points by means of any of the following: 1. Over-the-counter transactions; 2. Mail order transactions; 3. Electronic transactions; or 4. Telephone call transactions;
B. The cryptographic functionality cannot easily be changed by the user;
C. Designed for installation by the user without further substantial support by the supplier.

Madoka

The beauty of simplicity.

Silver
RAL 9006 (metallic)
BRC1H519S

Black
RAL 9005 (matt)
BRC1H519K

White
RAL9003 (glossy)
BRC1H519W

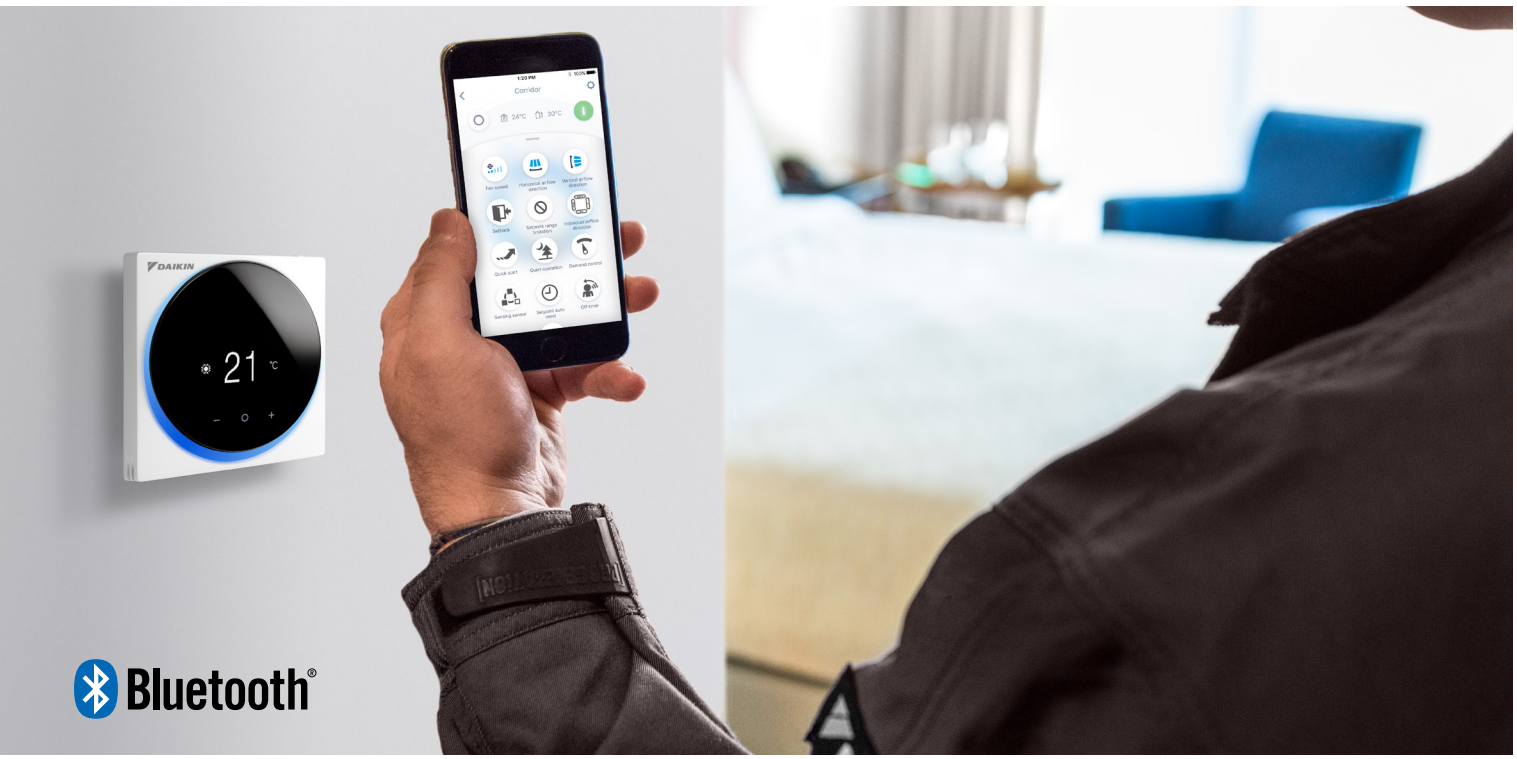
User-friendly wired remote controller with premium design

Madoka combines refinement and simplicity

- Sleek and elegant design
- Intuitive touch-button control
- Two display options: standard and detailed
- Three colours to match any interior
- Compact, measures only 85 x 85 mm
- Advanced settings and commissioning via smartphone

reddot award 2018
winner

DESIGN AWARD 2018



Madoka Assistant

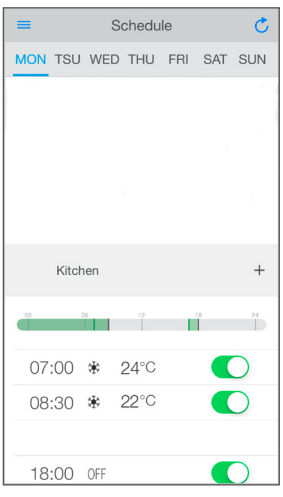
GET IT ON Google Play

Available on the App Store

Simplifies the advanced settings such as schedule or set point limitation

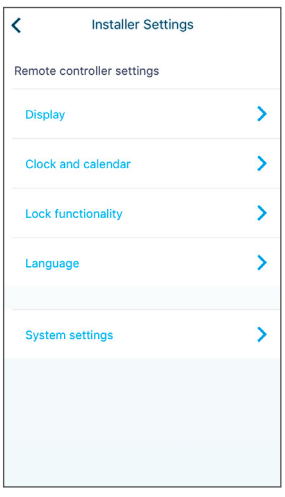
- ☑ Visual interface simplifies advanced settings such as schedule setting, energy saving activation, setting restrictions, etc.
- ☑ Easy and quick commissioning, saves time and cost for installers
- ☑ Featuring Bluetooth® low energy technology

Easy setting of schedules

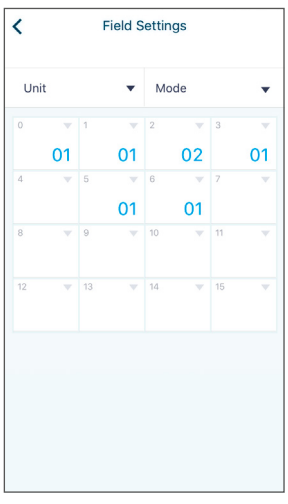


Advanced user settings

Installer settings



Field settings



BRC1H519W / BRC1H519S / BRC1H519K

Madoka wired remote controller for Sky Air and VRV


BRC1H51(9)W


BRC1H51(9)S


BRC1H51(9)K

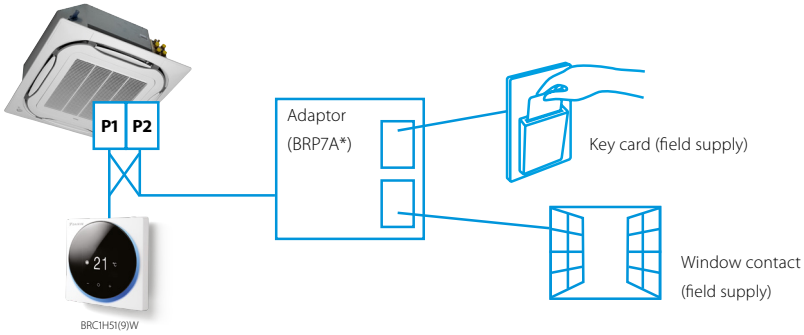
A complete redesigned controller focussed to enhance user experience

› Sleek and elegant design
› Intuitive touch-button control
› Two display options: standard and detailed
› Direct access to basic functions
(on/off, set point, mode, target values, fan speed, louvres, filter icon & reset (4), error & code)
› Three colours to match any interior
› Compact, measures only 85 x 85 mm
› Real time clock with auto update to daylight saving time
› Equipped with a buzzer

Hotel application features

› Energy saving through key card, window contact integration and set point limitation (BRP7A*)
› Flexible setback function ensures room temperature remains within comfortable limits to ensure guest comfort

Key card and window contact integration



Madoka Assistant: Advanced settings can be easily done via your smartphone

A range of energy-saving functions that can be selected individually

› Temperature range restriction
› Setback function
› Adjustable presence detector and floor sensor (available on the Round Flow and Fully Flat Cassettes)
› Automatic temperature reset (4)
› Auto off timer

Temperature range restriction means no excessive heating/cooling

Save on energy by setting the low-temperature limit in cooling mode and
the high-temperature limit in heating mode. (1)

Kilowatt-hour consumption tracking (2)

The kWh indicator displays indicative power consumption for the last day/month/year. (4)

Other functions

› Up to three independent schedules can be programmed, allowing you to switch easily between them throughout the year (e.g. summer/winter/mid-season)
› Menu settings can be individually locked or restricted
› The outdoor unit (3) can be set to quiet mode
› Real-time clock that updates automatically for daylight saving

DUTY ROTATION

Cost-effective solution for infrastructure cooling applications

> Only in combination with RZAG* / RZQG*
> Duty rotation

After a certain period of time, the operating unit will go into standby and the standby unit will take over, extending the system lifetime.

Rotation interval can be set for 6, 12, 24, 72 or 96 hours, as well as weekly.

> Back-up operation: if one unit fails, the other unit will start automatically

(1) Also available in auto cooling/heating changeover mode
(2) For Sky Air FBA, FCAG and FCAHG pair combinations only
(3) Only available on RZAG*, RZASG*, RZQG*, RZQSG*
(4) Feature will become available with future app updates from the second half of 2018 onwards.

BRC1HHDW / BRC1HHDS / BRC1HHDK

Madoka wired remote controller for Daikin Altherma 3

BRC1HHDW

BRC1HHDS

BRC1HHDK

A new generation of user interface, redesigned and intuitive

› Replacing EKRUDAS for the Daikin Altherma 3 wall mounted and floor standing:

Madoka Assistant: Advanced settings can be easily done via your smartphone

www.daikin.eu/madoka

AZCE6BLUEFACECB / AZCE6THINKRB / AZCE6LITERB

Controls for multi zoning kits

3 controller versions are available to choose from: Colour, touch or simplified

AZCE6BLUEFACECB

Blueface - main thermostat

› Intuitive graphical, colour touch screen for controlling multiple zones
› Wired communication
› Optional bus cable (2 x 0.5 mm^2 + 2 x 0.22 mm^2) (10m cable length)

AZCE6THINKRB

Think - zone thermostat

› Graphic touch button with low-energy e-ink screen for controlling single zones
› Low energy radio communication with proprietary protocol (868MHz)

AZCE6LITERB

Lite - zone thermostat

› Simplified thermostat with touch buttons for temperature control
› Low energy radio communication with proprietary protocol (868MHz)

*The wired Daikin BRC1E / BRC1H remote control is needed to control operation and maintenance.

ARCWLA / ARCWB

Siesta individual control systems

ARCWB

Specifications

› Dimensions (length x width x height) ARCWB: 0.15 m x 0.21 m x 0.04 m.
› ARCWB comes standard with a 10 metre cable, which can be extended to maximum cable length of 15 metres. ARCWB can only control one indoor unit at a time; group control is only possible when using option R04084124324.

- Standard
• By dipswitch selection
•• 1, 2 & 4 hours delay

Overview controllers for Siesta Sky Air

Siesta Sky Air indoor units	Controllers
AHQ-C ceiling suspended	• Standard infrared remote control in box of indoor unit ARCWLA • Wired remote control ARCWB • Optional group controller R04084124324
ABQ-C concealed ceiling	• Standard wired remote control (ARCWB) in box of indoor unit • Optional group controller R04084124324

	Feature		ARCWB
			AHQ-C / Standard for ABQ-C
1	ON/OFF switch		-
2	Temperature setting	Default range 16-30°C	-
		Optional range 20-30°C	•
		Switch between °C and °F	-
3	Room temperature sensor on remote control		-
4	Cool / Fan dry / Heat / Auto		-
5	Sleep mode		-
6	Fan Speed selection		-
7	Delay timer		••
8	7-days programmable timer		-
9	Real time clock display		-
10	Air swing selection	ON/OFF swing mode	-
		Change swing option (draft/soil prevention or standard)	-
11	LCD display without backlight		-
12	Key lock		-
13	Error code indication		-
14	IR receiver to enable compatibility with infrared remote control (disabled when lock function is activated)		-
15	Last state memory from indoor PCB		-
16	Silent mode		•
17	Turbo mode		•
18	Compressor test model (compressor force ON)		-
19	Daikin inverter error code		-
20	UART communication port (for Daikin protocol)		-
21	Backup battery		-

EKRUCBL/EKRUCBS/EKRUDAS

Wired remote control for Heating

EKRUCBL

EKRUCBS

- User friendly remote control with contemporary design
- For control of space heating, cooling and domestic hot water with among others reheat, scheduled and booster mode
- Easy to use: all main functions directly accessible
- An additional user interface can be a room thermostat in the space to be heated.
- Several languages possible depending on the model : English, German, Dutch, Spanish, Italian, French, Greek, Russian, etc.
- Easy commissioning: intuitive interface for advanced menu settings
- User friendly simplified remote control with contemporary design
- For control of space heating, cooling and domestic hot water, including booster mode
- Easy to use: all main functions directly accessible
- The simplified user interface can only be used in combination with the main user interface
- Use of universal symbols, no text
- EKRUDAS: Remote control only for Daikin Altherma 3. Features are limited to basic controls such as temperature management.

BRC073

Wired remote control for residential use

BRC073

- User friendly remote control with contemporary design
- Easy to use: all main functions directly accessible
- Easy commissioning: intuitive interface for advanced menu settings
- Optimise your air conditioning system by activating a series of energy saving functions (temperature range limit, setback function, off timer,…)
- Set up to 3 independent schedules, so the user can easily cange the schedule himself throughout the year (e.g. summer, winter, mid-season)
- Real time clock with auto update to daylight saving time
- Supports multiple languages (English, German, French, Italian, Spanish, Portuguese, Dutch, Czech, Croatian, Hungarian, Slovenian, Romanian, Bulgarian, Russian, Greek, Turnish, Polish, Serbian and Slovak) (depending on language package)
- Possibility to individually restrict menu functions
- Possibility to individually restrict each button
- Possibility to individually restrict each operation mode (Cooling, Heating, Auto, etc.)
- When a power failure occurs all settings remain stored and the clock keeps running for up to 48 hours thanks to the built-in backup power
- Setback operation maintains the indoor temperature at your specified comfort level during absence, thus saving energy

Note: Cable for wired remote control BRCW901A03 (3m) or BRCW901A08 (8m) required

ARC4*/BRC4*/BRC7*

Infrared remote control

ARC466A1

BRC4*/BRC7*

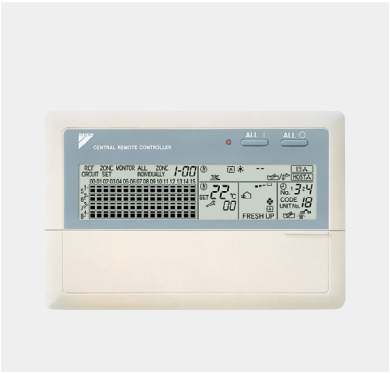
Operation buttons: ON / OFF, timer mode start / stop, timer mode on / off, programme time, temperature setting, air flow direction (1), operating mode, fan speed control, filter sign reset (2), inspection (2)/ test indication (2)
Display: Operating mode, battery change, set temperature, air flow direction (1), programmed time, fan speed, inspection / test operation (2)

1. Not applicable for FXDQ, FXSQ, FXNQ, FBDQ, FDXM, FBA
2. For FX** units only
3. For all features of the remote control, refer to the operation manual

Centralised control of the Sky Air and VRV system can be achieved via 3 user friendly compact remote controllers. These controls may be used independently or in combination with:
1 group = several (up to 16) indoor units in combination
1 zone = several groups in combination.
A centralised remote control is ideal for use in tenanted commercial buildings subject to random occupation, enabling indoor units to be classified in groups per tenant (zoning).
The schedule timer programmes the schedule and operation conditions for each tenant and the control can easily be reset according to varying requirements.

DCS302C51

Centralised remote control

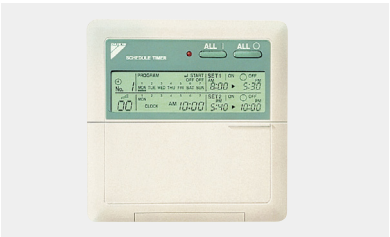


Providing individual control of 64 groups (zones) of indoor units.

› a maximum of 64 groups (128 indoor units, max. 10 outdoor units) can be controlled
› a maximum of 128 groups (128 indoor units, max. 10 outdoor units) can be controlled via 2 centralised remote controls in separate locations
› zone control
› group control
› malfunction code display
› maximum wiring length of 1,000m (total: 2,000m)
› air flow direction and air flow rate of HRV can be controlled
› expanded timer function

DST301B51

Schedule timer

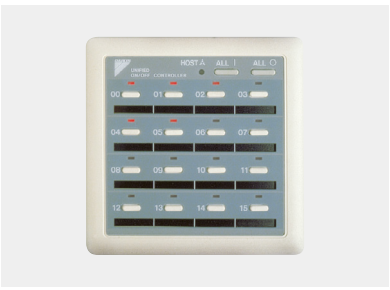


Enabling 64 groups to be programmed.

› a maximum of 128 indoor units can be controlled
› 8 types of weekly schedule
› a maximum of 48 hours back up power supply
› a maximum wiring length of 1,000m (total: 2,000m)

DCS301B51

Unified ON/OFF control



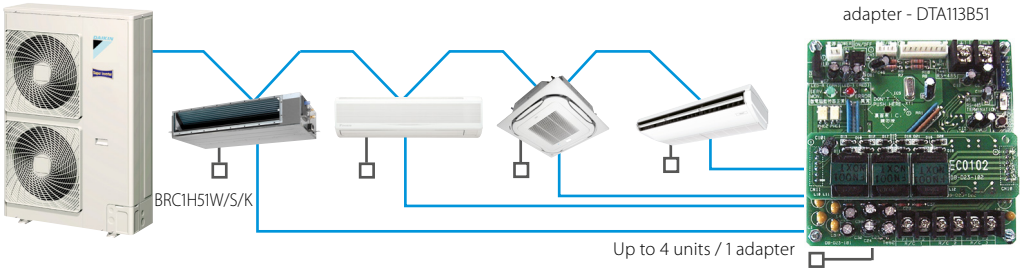
Providing simultaneous and individual control of 16 groups of indoor units.

› a maximum of 16 groups (128 indoor units) can be controlled
› 2 remote controls in separate locations can be used
› operating status indication (normal operation, alarm)
› centralised control indication
› maximum wiring length of 1,000m (total: 2,000m)

DTA113B51

Basic solution for control of Sky Air and VRV

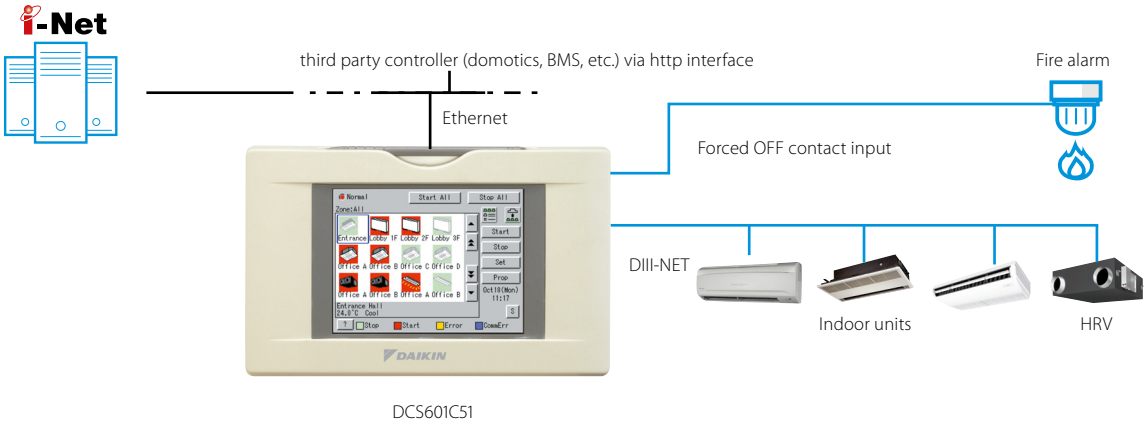
› Rotation function
› Backup operation function.



intelligent touch Controller

DCS601C51

Detailed & easy monitoring and operation of VRV systems (max. 64 indoor units groups).



Languages
› English
› French
› German
› Italian
› Spanish
› Dutch
› Portuguese

System layout
› Up to 64 indoor units can be controlled
› Touch panel (full colour LCD via icon display)

Control
› Individual control (set point, start/stop, fan speed) (max. 64 groups/indoor units)
› Set back shedule
› Enhanced scheduling function (8 schedules, 17 patterns)
› Flexible grouping in zones
› Yearly schedule
› Fire emergency stop control
› Interlocking control
› Increased HRV monitoring and control function
› Automatic cooling / heating change-over
› Heating optimization
› Temperature limit
› Password security: 3 levels (general, administration & service)
› Quick selection and full control
› Simple navigation

Monitoring
› Visualisation via Graphical User Interface (GUI)
› Icon colour display change function
› Indoor units operation mode
› Indication filter replacement

Cost performance
› Free cooling function
› Labour saving
› Easy installation
› Compact design: limited installation space
› Overall energy saving

Open interface
› Communication to any third party controller (domotics, BMS, etc.) is possible via open interface (http option DCS007A51)

Connectable to
› VRV
› HRV
› Sky Air
› Split (via interface adapter)

intelligent Tablet Controller

DCC601A51

Advanced centralised controller with Cloud connection

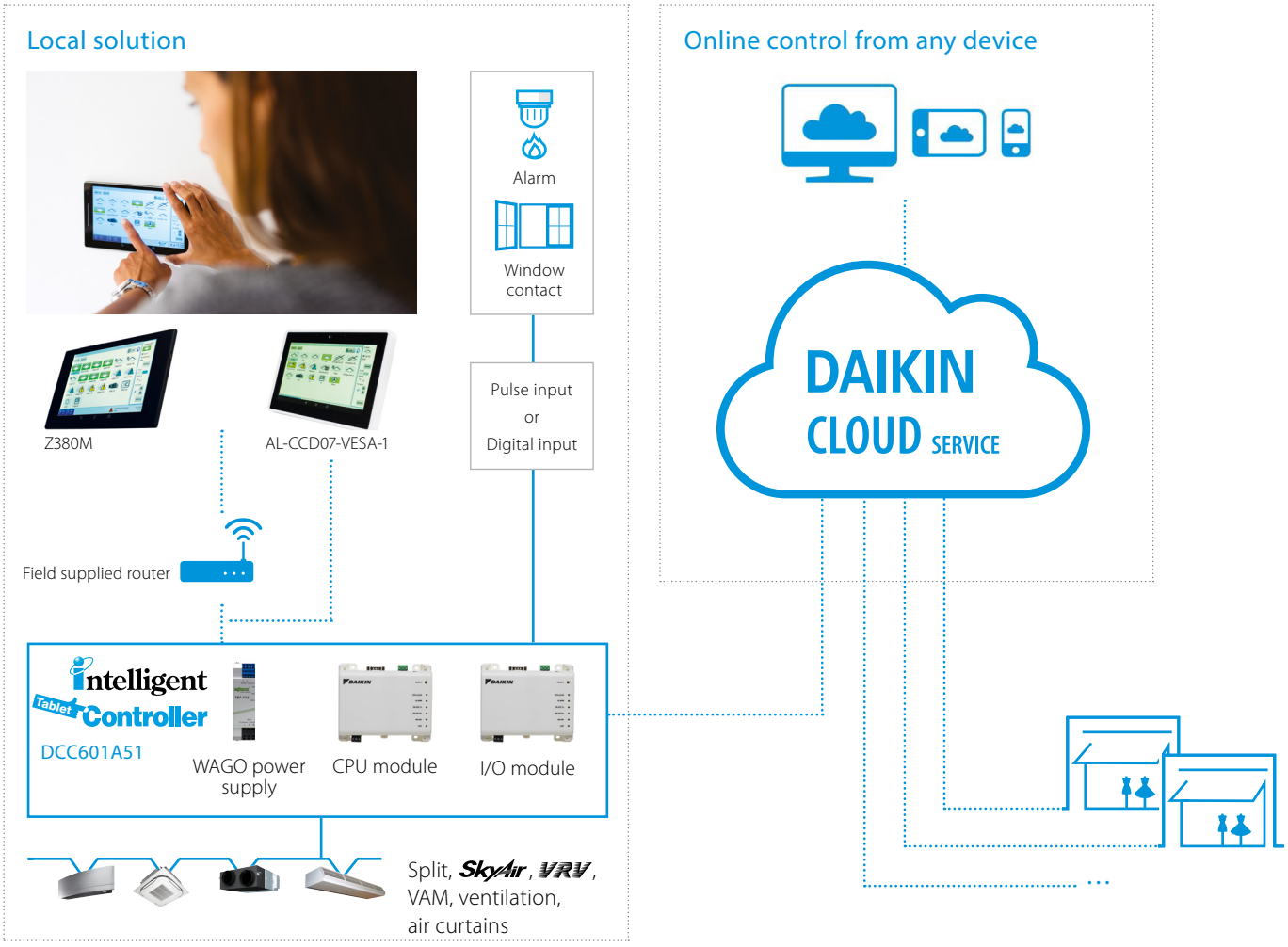
- Intuitive and user-friendly interface
- Flexible concept for stand alone and multi site applications
- Total solution thanks to integration of 3rd party equipment
- Monitor & control your small commercial building, no matter where you are

2 solutions:

Local solution
› Offline centralised control
› Stylish optional screen fits any interior

Cloud solution
› Flexible online control from any device (Laptop, tablet...)
› Monitor & control one or multiple sites
› Benchmark the energy consumption of different installations (1)
› Energy consumption follow-up to comply with local regulations

System layout



(1) For VRV and Sky Air R-32 ranges

Total solution

› Total solution thanks to a large integration of Daikin products and 3rd party equipment
› Connect a wide range of units (Split, Sky Air, VRV, Ventilation, Biddle air curtains)
› Simply control your entire building centrally
› Increased customer shopping experience by better management of your shop comfort level

Daikin Cloud Services

› Control your building no matter where you are
› Monitor and control multiple sites
› Installer or technical manager can remotely login to the cloud for first troubleshooting
› Benchmark the energy consumption of different installations (1)
› Manage & track your energy use

User friendly touch control

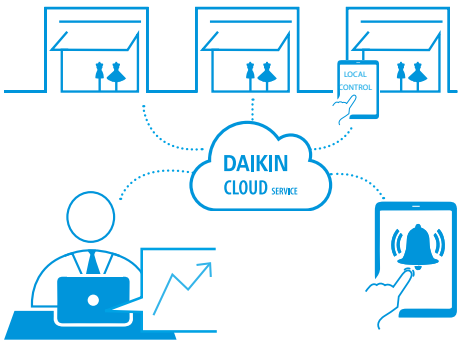
› Stylish Daikin supplied optional screen for local control fits any interior
› Intuitive and user-friendly interface
› Full solution with simple control
› Easy commissioning

Flexible

› Inputs via digital and pulse input for 3rd party equipment such as kWh meters, emergency input, window contact, …
› Modular concept allows your cloud to grow with your business
› Control up to 32 indoor units per controller and 320 units per site

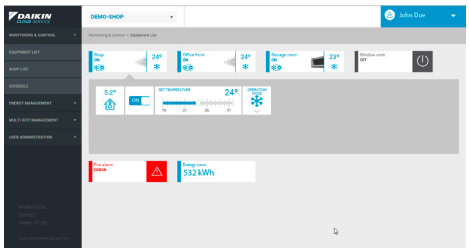
(1) only available in combination with certain indoor units

From one to ∞ sites

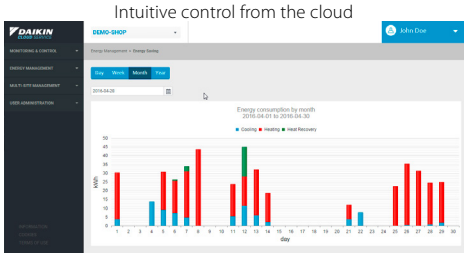


Customer

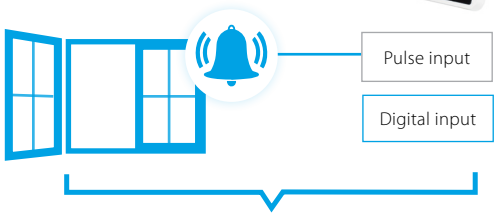
Installer/ technical manager



Intuitive control from the cloud



Easy follow up of energy consumption



Indoor uit

Functions overview

		Local solution	Cloud solution
Languages		Depends on local device	EN, DE, FR, NL, ES, IT, EL, PT, RU, TR, DA, SV, NO, FI, CS, HR, HU, PL, RO, SL, BG, SK
System layout	N° of connectable indoor units	32	32
	Multiple sites control		●
Monitoring & control	Basic control functions (ON/OFF, mode, filter sign, setpoint, fan speed, ventilation mode, room temperature, …)	●	●
	Remote control prohibition	●	●
	All devices ON/OFF	●	●
	Zone control		●
	Group control	●	●
	Weekly schedule	●	●
	Yearly schedule		●
	Interlock control	●	●
	Set point limitation		●
	Visualisation of energy use per operation mode		●
Connectable to	DX split, Sky Air, VRV	●	●
	VAM, VKM ventilation	●	●
	Air curtains	●	●

For available Daikin Cloud Service options refer to the option list

Mini BMS

with full integration across all product pillars

DCM601A51

touch intelligent Manager

- Price competitive mini BMS
- Cross-pillar integration of Daikin products
- Integration of third party equipment

NEW

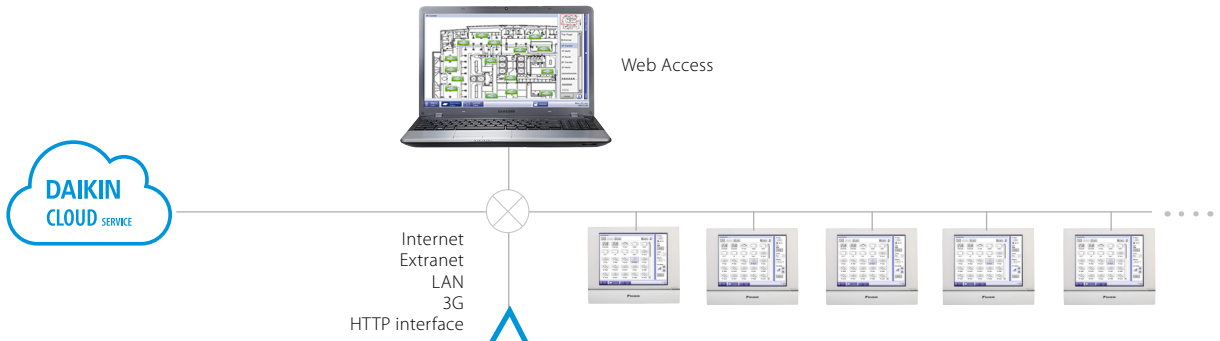
Download the WAGO selection tool from my.daikin.eu

› Easy selection of WAGO materials
› Material list creation
› Time saving
  - Includes wiring schemes
  - Contains commissioning/preset data for iTM

Check on YouTube

https://www.youtube.com/DaikinEurope

System overview



Integration of third party equipment

Fire alarm

kWh meter

Di/Pi line
Max. 200m

touch intelligent Manager
DCM601A51

BACnet/IP protocol

WAGO interface

Analog/digital/pulse objects
- Lighting
- Fan
- Pump
- Sensor

I/O module
I/O module

Multi state objects
- Elevator
- Air handling unit
- Alarm

NEW
DALI Protocol
- Lighting
- Sensor

Full control of Daikin HVAC-R portfolio

ITM plus adaptor line
Max. 7 adapters
DCM601A52
Di/Pi port

Direct plug & play connection!

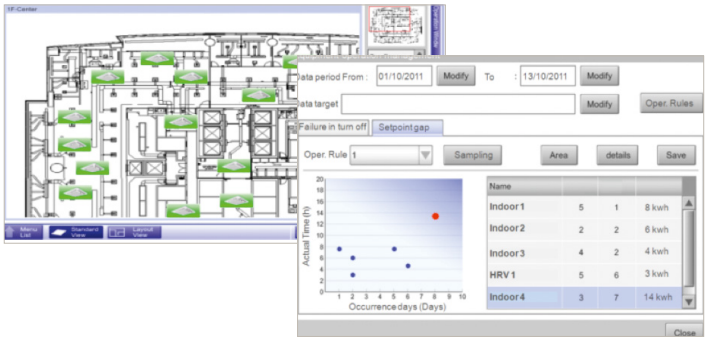
Split
SkyAir
VRV
indoor units,
air curtain,
hydrobox,
air handling units

Fan coil units

Chillers and AHU

Conveni-pack indoor units

touch Intelligent Manager



User friendliness

› Intuitive user interface
› Visual lay out view and direct access to indoor unit main funtions
› All functions direct accessible via touch screen or via web interface

Smart energy management

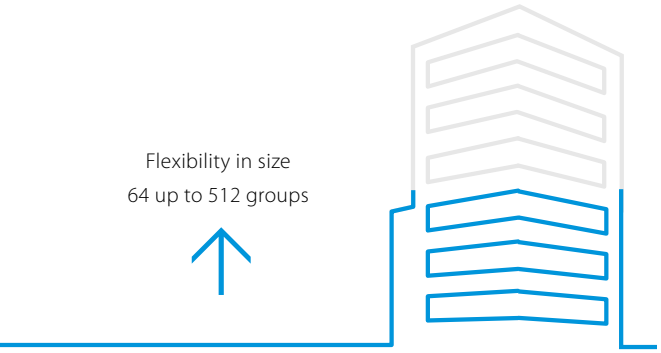
› Monitoring if energy use is according to plan
› Helps to detect origins of energy waste
› Powerful schedules guarantee correct operation throughout the year
› Save energy by interlocking A/C operation with other equipment such as heating

Flexibility

› Cross-pillar integration (heating, air conditioning, applied systems, refrigeration, air handling units)
› BACnet protocol for 3rd party products integration
› I/O for integration of equipment such as lights, pumps… on WAGO modules
› Modular concept for small to large applications
› Control up to 512 indoor unit groups via one ITM and combine multiple ITM via web interface

Easy servicing and commissioning

› Remote refrigerant containment check reducing on site visit
› Simplified troubleshooting
› Save time on commissioning thanks to the pre-commissioning tool
› Auto registration of indoor units



Plug & play


Split


SkyAir


VRV


Fan coils

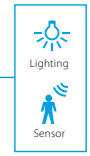

Chillers and AHU

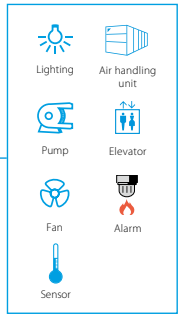

Conveni-pack indoor units


HRV ventilation

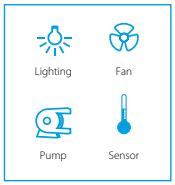
BACnet/IP protocol

DALI Protocol






WAGO I/O



Functions overview

Languages
- English
- French
- German
- Italian
- Spanish
- Dutch
- Portuguese

Management
- Web access
- Power Proportional Distribution (option)
- Operational history (malfunctions, …)
- Smart energy management
  - monitor if energy use is according to plan
  - detect origins of energy waste
- Setback function
- Sliding temperature

WAGO Interface
- Modular integration of 3rd party equipment
  - WAGO coupler (interface between WAGO and iTM)
  - Di module
  - Do module
  - Ai module
  - Ao module
  - Thermistor module
  - Pi module

Open http interface
- Communication to any third party controller (domotics, BMS, etc.) is possible via http open interface (http option DCM007A51)

System layout
- Up to 512 unit groups can be controlled (ITM + 7 iTM Plus adapters)

Control
- Individual control (512 groups)
- Schedule setting (Weekly schedule, yearly calender, seasonal schedule)
- Interlock control
- Setpoint limitation
- Temperature limit

DALI integration
- Control and monitor the lights
- Easier facility management: receive error signal when light or light controller has a malfunction
- Flexible approach and less wiring needed, compared to classic light scheme
- Easier to make groups and control scenes
- Connection between intelligent Touch Manager and DALI through WAGO BACnet IP interface

Connectable to
- DX Split, Sky Air, VRV
- HRV
- Chillers (via MT3-EKCMBACIP controller)
- Daikin AHU (via MT3-EKCMBACIP controller)
- Fan coils
- Daikin Altherma Flex type
- LT and HT hydroboxes
- Biddle Air curtains
- WAGO I/O
- BACnet/IP protocol
- Daikin PMS interface (option DCM010A51)

Chiller intelligent Manager

Factory-engineered system control to manage a chiller plant room

Thus optimising its performance and increasing its reliability by:
› Optimal start-up, sequencing & staging of chillers
› Matching chiller capacity to load demand

iCM's main functionalities:

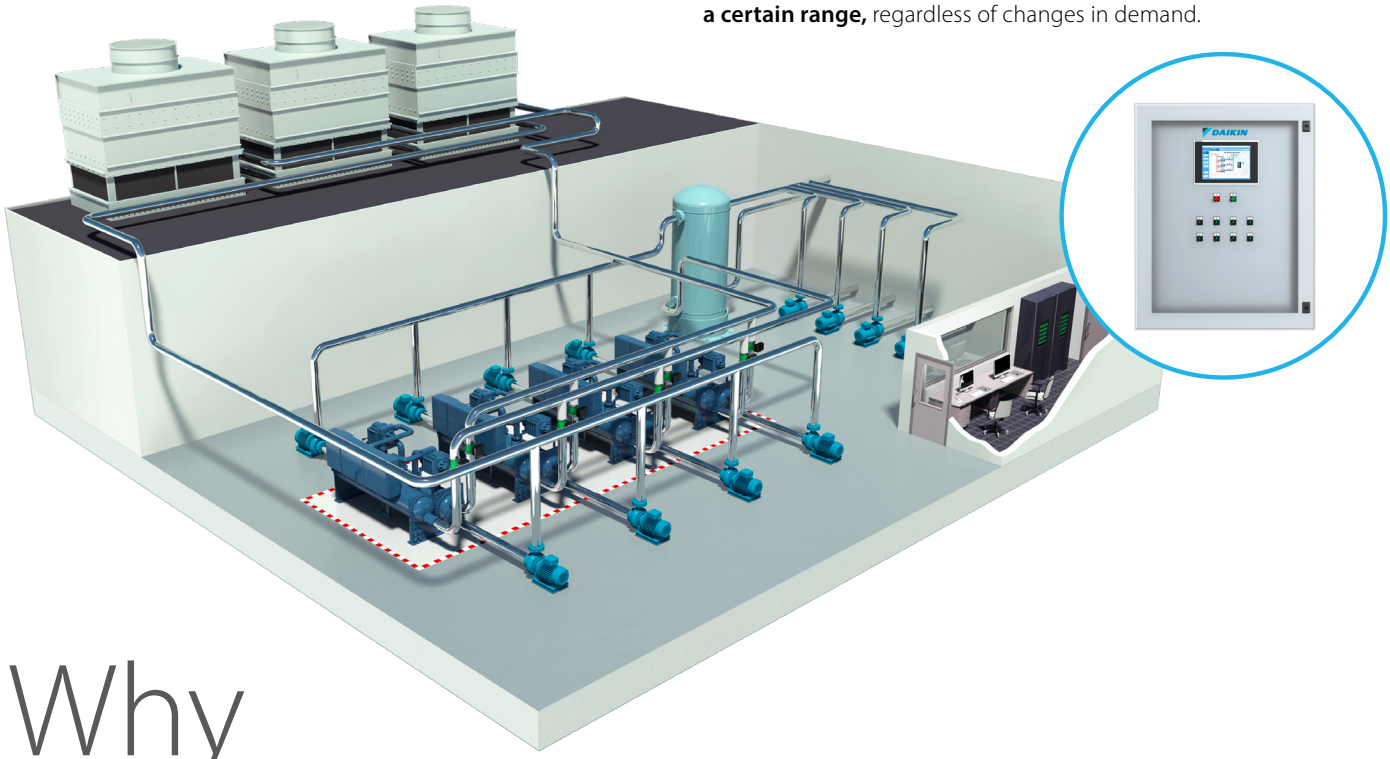
Availability
Determines whether chillers are available or not, based on:
› Inputs from the chiller unit controllers
› Modbus communication status
› Pump status

Sequencing
Optimises the order in which available chillers are turned on and off depending on operating hours, energy efficiency, etc.

Staging
Calculates **energy-optimal stage-up/stage-down** of the chiller by determining the increased capacity demand by capacity control, compensation of temperature and rotation. This function aims at providing the most energy-efficient combination of chillers on a continuous basis.

Stopping Last Chiller/Recycling
Captures a rise in demand when the **last chiller is staged down,** by operating the pump dedicated to the next ON chiller at a minimum VFD frequency.

Min/Max Operating Chiller Setting
Ensures that the number of operating chillers always **stays within a certain range,** regardless of changes in demand.



Why
choose iCM?

› Optimise performance
› Increase reliability
› Reduce energy costs
› Reduce maintenance costs
› Factory-engineered and tested
› Remote control and monitoring. From one-time commissioning to real-time commissioning

Daikin is the best qualified partner to optimise the operation of a Daikin chiller plant room.

Product line-up
and specifications

iCM is available in two versions:

Standard

(Configuration)

(Basic)
(≤4 MT3 chillers)

(Light/Full)
(≤4/≤8 MT3 chillers
& peripherals)

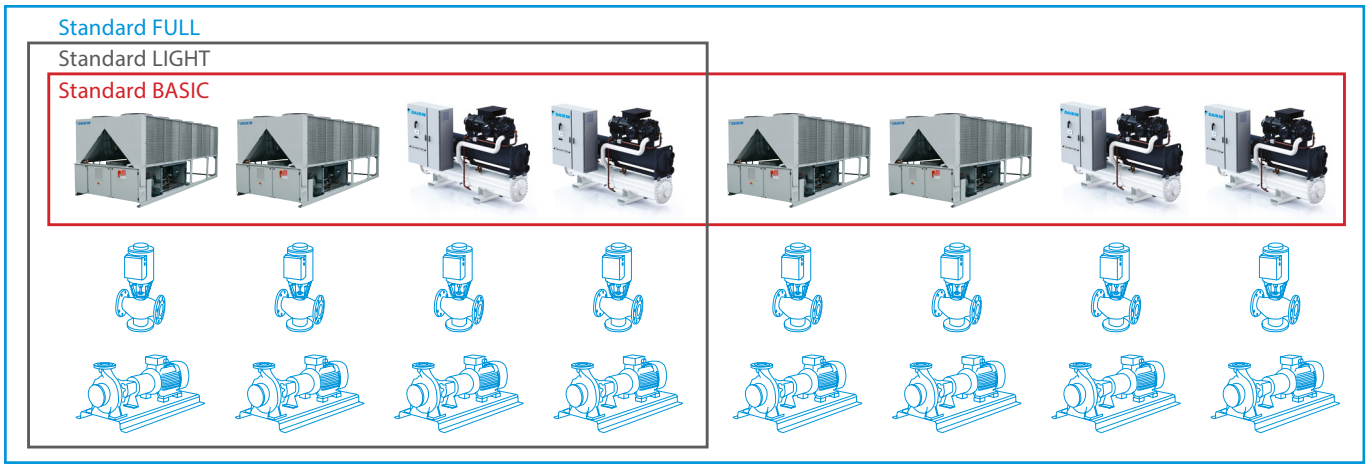
Customised

(Free-programmable)

(Customised)

Standard version
Configurable controller with a pre-set library of applications.
The standard system is divided into three configurations according to how many chillers and peripherals it can manage.

Standard is the right solution for you when you have:
› Up to 8 x (Air cooled/Water Cooled Chillers + Shut-Off valves + Pumps + Cooling Towers)
› Daikin or 3rd party chillers
› A primary only, or a primary-secondary system
› Constant or variable primary (evaporator and condenser) flow
› Dedicated/manifolded layout



Customised version:
Free-programmable controller for those applications not covered by the Standard version.

Remote control and monitoring possibilities
(valid for both Standard and Customised versions)

› **Connectivity to Daikin's remote monitoring and control system (www.daikinonsite.com)** for remote monitoring and service providing Internet connection to the main controller
› **Integration with general BAS/BMS** offered through BACnet or Modbus Modules based on BACnet/IP or Modbus RTU/RS-485 protocols
› **Built-in HMI, Remote HMI, Web HMI and daikinonsite.com** are available for control and configuration

Modbus Interface

RTD

RTD-RA

› Modbus interface for monitoring and control of residential indoor units

RTD-NET

› Modbus interface for monitoring and control of Sky Air, VRV, VAM and VKM

RTD-10

› Advanced integration into BMS of Sky Air, VRV, VAM and VKM through either:
- Modbus
- Voltage (0-10V)
- Resistance

› Duty/standby function for server rooms

RTD-20

› Advanced control of Sky Air, VRV, VAM/VKM and air curtains
› Clone or independent zone control
› Increased comfort with integration of CO_2 sensor for fresh air volume control
› Save on running costs via
- pre/post and trade mode
- set point limitation
- overall shut down
- PIR sensor for adaptive deadband

RTD-HO

› Modbus interface for monitoring and control of Sky Air, VRV, VAM and VKM
› Intelligent hotel room controller

RTD-W

› Modbus interface for monitoring and control of Daikin Altherma Flex Type, VRV HT hydrobox and small inverter chiller

Overview functions





Main functions			RTD-RA	RTD-NET	RTD-10	RTD-20	RTD-HO
Dimensions	H x W x D	mm	80 x 80 x 37,5	100 x100 x 22			
Key card + window contact							✓
Set back function			✓				✓
Prohibit or restrict remote control functions (setpoint limitation, ...)			✓	✓	✓	✓**	✓
Modbus (RS485)			✓	✓	✓	✓	✓
Group control			✓(1)	✓	✓	✓	✓
0 - 10 V control					✓	✓	
Resistance control					✓	✓	
IT application			✓		✓		
Heating interlock					✓	✓	
Output signal (on/defrost, error)					✓	✓****	✓
Retail application						✓	
Partitioned room control						✓	
Air curtain				✓***	✓***	✓	

(1): By combining RTD-RA devices

Control functions	RTD-RA	RTD-NET	RTD-10	RTD-20	RTD-HO
On/Off	M,C	M	M,V,R	M	M*
Set point	M	M	M,V,R	M	M*
Mode	M	M	M,V,R	M	M*
Fan	M	M	M,V,R	M	M*
Louver	M	M	M,V,R	M	M*
HRV Damper control		M	M,V,R	M	
Prohibit/Restrict functions	M	M	M,V,R	M	M*
Forced thermo off	M				

Monitoring functions	RTD-RA	RTD-NET	RTD-10	RTD-20	RTD-HO
On/Off	M	M	M	M	M
Set point	M	M	M	M	M
Mode	M	M	M	M	M
Fan	M	M	M	M	M
Louver	M	M	M	M	M
RC temperature		M	M	M	M
RC mode		M	M	M	M
N° of units		M	M	M	M
Fault	M	M	M	M	M
Fault code	M	M	M	M	M
Return air temperature (Average /Min/Max)	M	M	M	M	M
Filter alarm		M	M	M	M
Termo on	M	M	M	M	M
Defrost		M	M	M	M
Coil In/Out temperature	M	M	M	M	M

Main functions			RTD-W
Dimensions	H x W x D	mm	100x100x22
On/off prohibition			✓
Modbus RS485			✓
Dry contact control			✓
Output signal (operation error)			✓
Space heating / cooling operation			✓
Domestic hot water control			✓
Smart Grid control			

Control functions	
On/Off Space heating/cooling	M,C
Set point leaving water temperature (heating / cooling)	M,V
Room temperature setpoint	M
Operation mode	M
Domestic Hot water ON	
Domestic Hot Water reheat	M,C
Domestic Hot Water reheat setpoint	
Domestic Hot Water storage	M
Domestic Hot Water Booster setpoint	
Quiet mode	M,C
Weather dependent setpoint enable	M
Weather dependent curve shift	M
Fault/pump info relay choice	
Control source prohibition	M

Smart grid mode control	
Prohibit Space heating/cooling	
Prohibit DHW	
Prohibit Electric heaters	
Prohibit All operation	
PV available for storage	
Powerful boost	

Monitoring functions	
On/Off Space heating/cooling	M,C
Set point leaving water temperature (H/C)	M
Room temperature setpoint	M
Operation mode	M
Domestic Hot Water reheat	M
Domestic Hot Water storage	M
Number of units in the group	M
Average leaving water temperature	M
Remocon room temperature	M
Fault	M,C
Fault code	M
Circulation pump operation	M
Flow rate	
Solar pump operation	
Compressor status	M
Desinfection operation	M
Setback operation	M
Defrost/ start up	M
Hot start	
Booster Heater operation	
3-Way valve status	
Pump running hours accumulated	M
Compressor running hours accumulated	
Actual leaving water temperature	M
Actual return water temperature	M
Actual DHW tank temperature (*)	M
Actual refrigerant temperature	
Actual outdoor temperature	M

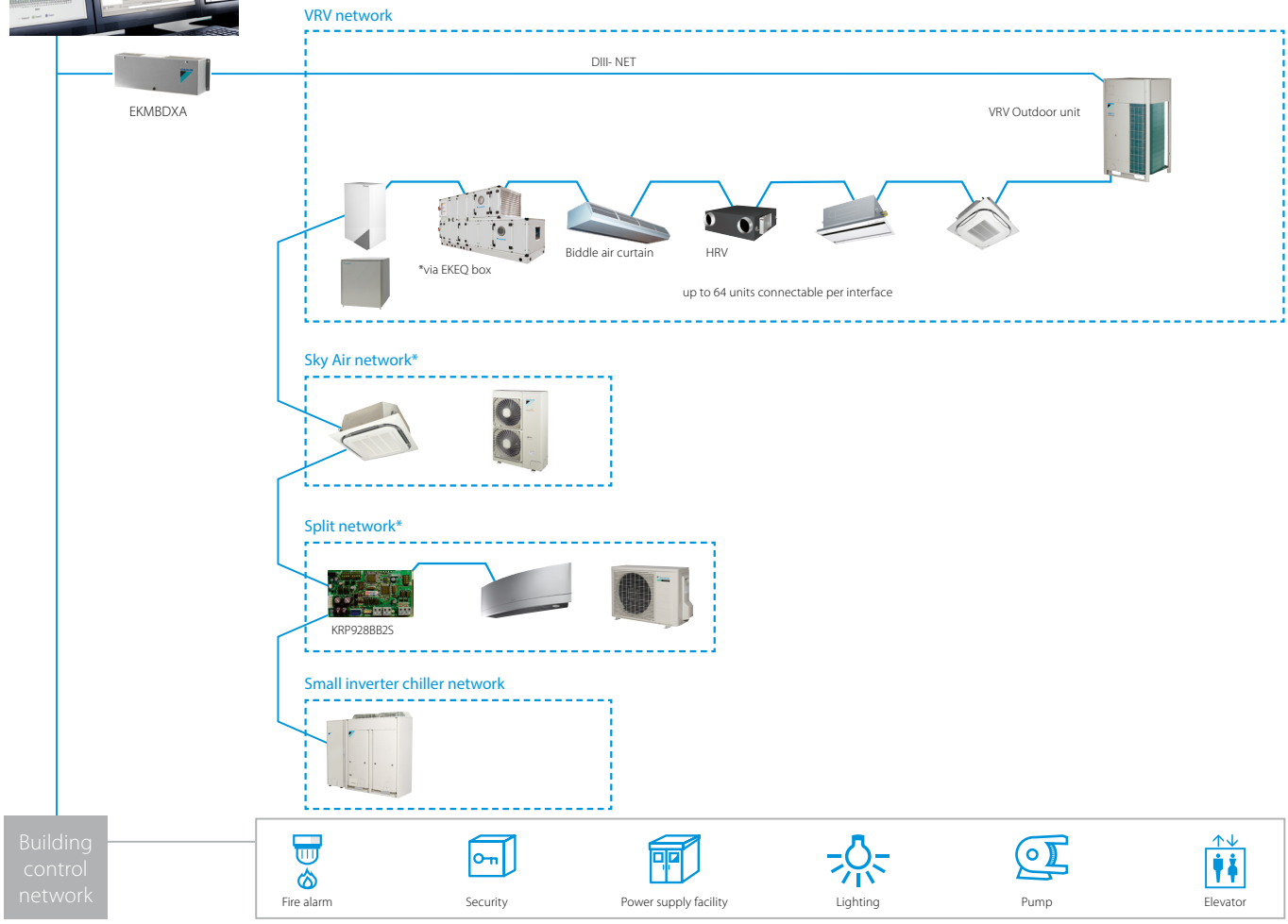
M : Modbus / R : Resistance / V : Voltage / C: control
* : only when room is occupied / ** : setpoint limitation / (*) if available
*** : no fan speed control on the CYV air curtain / **** : run & fault

DIII-net Modbus interface

EKMBDXA

Integrated control system for seamless connection between Split, Sky Air, VRV and small inverter chillers and BMS systems

› Communication via Modbus RS485 protocol
› Detailed monitoring and control of the VRV total solution
› Easy and fast installation via DIII-net protocol
› As the Daikin DIII-net protocol is being used, only one modbus interface is needed for a group of Daikin systems (up to 10 outdoor units systems).

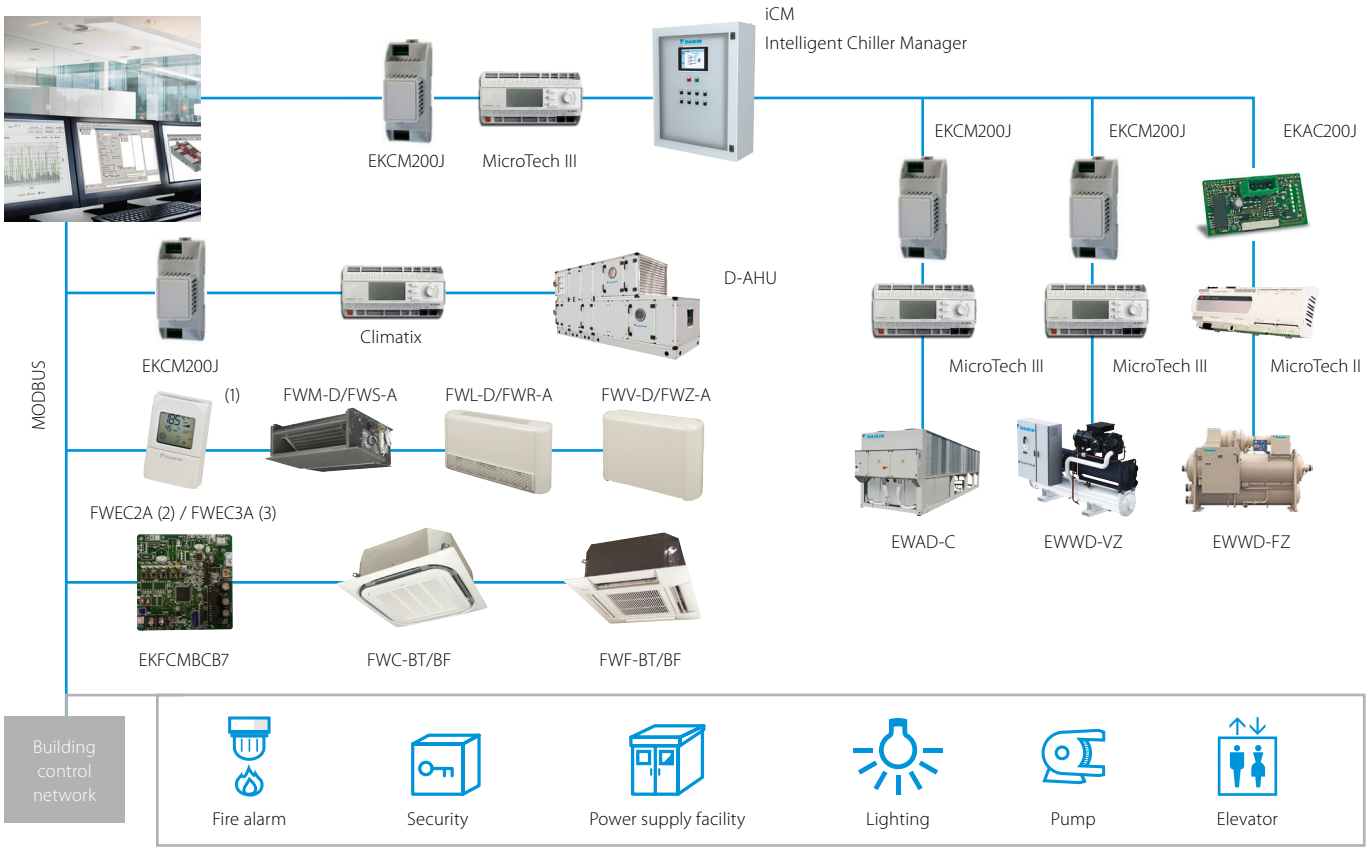


* Additional centralized controller might be required. For more information contact your local dealer.

			EKMBDXA7V1
Maximum number of connectable indoor units			64
Maximum number of connectable outdoor units			10
Communication	DIII-NET - Remark		DIII-NET (F1F2)
	Protocol - Remark		2 wire; communication speed: 9600 bps or 19200 bps
	Protocol - Type		RS485 (modbus)
	Protocol - Max. Wiring length	m	500
Dimensions	HeightxWidthxDepth	mm	124x379x87
Weight		kg	2.1
Ambient temperature - operation	Max.	°C	60
	Min.	°C	0
Installation			Indoor installation
Power supply	Frequency	Hz	50
	Voltage	V	220-240

Modbus interface

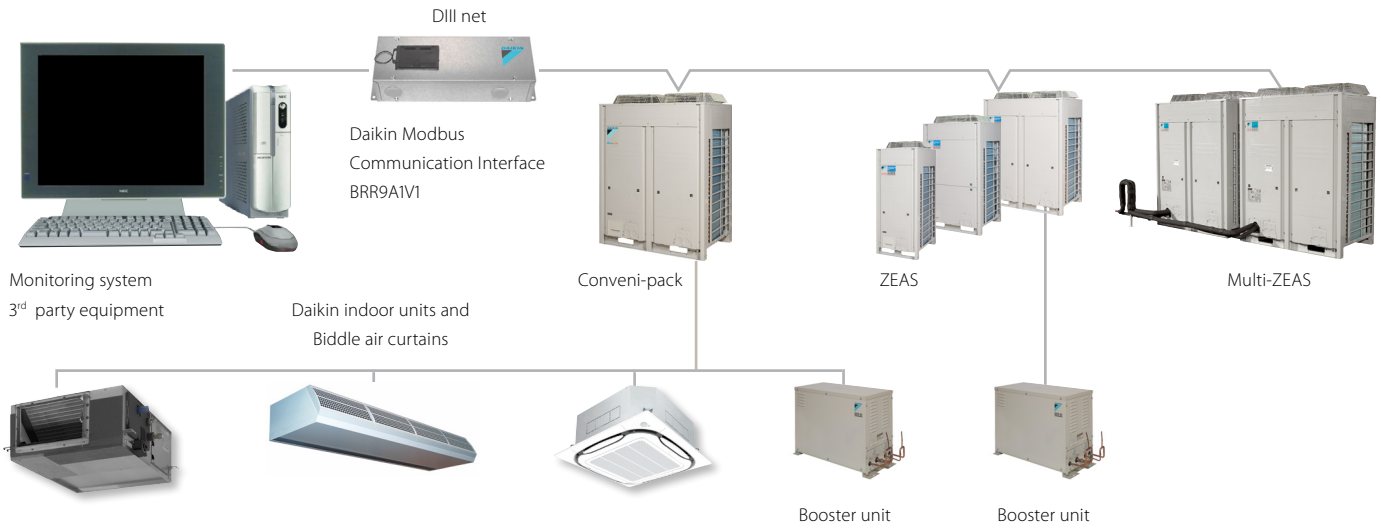
Integrate chillers, fan coil units and air handling units in BMS systems via modbus protocol



(1) The communication module is integrated in the controller (2) Connection to FWV-D, FWL-D & FWM-D (3) Connection to FWV-D, FWL-D, FWM-D and to FWZ-A, FWR-A, FWS-A

Integrate Refrigeration units in BMS systems via modbus protocol

BRR9A1V1



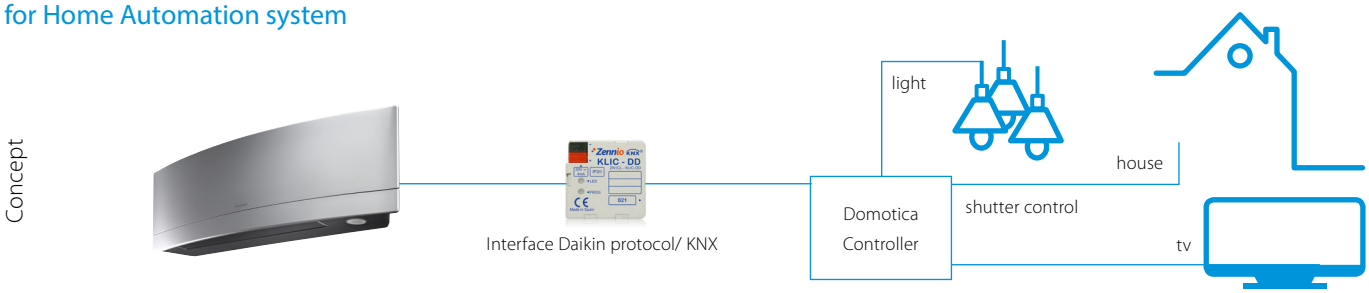
* For all connectable indoor units and Biddle air curtains please refer to the Conveni-pack pages in this catalogue

KNX interface

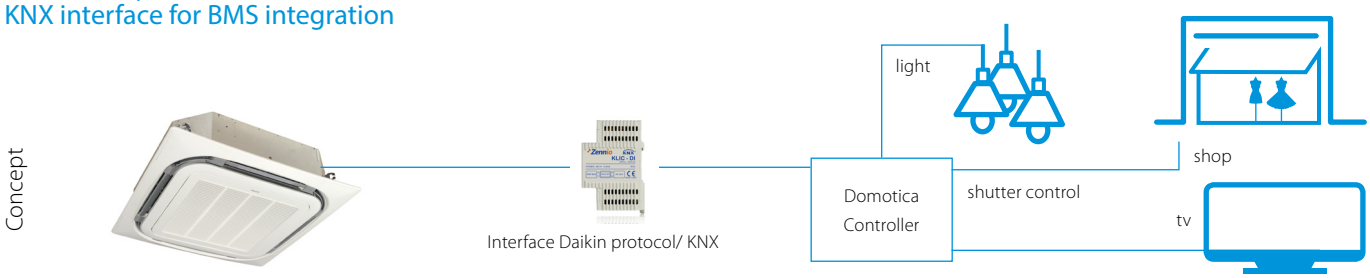
KLIC-DD
KLIC-DI

Integration of Split, Sky Air and VRV in HA/BMS systems

Connect split indoor units to KNX interface for Home Automation system



Connect Sky Air / VRV indoor units to KNX interface for BMS integration



KNX interface line-up

The integration of Daikin indoor units through the KNX interface allows monitoring and control of several devices, such as lights and shutters, from one central controller. One particularly important feature is the ability to programme a 'scene' - such as "Home leave" - in which the end-user selects a range of commands to be executed simultaneously once the scenario is selected. For instance in "Home leave", the air conditioner is off, the lights are turned off, the shutters are closed and the alarm is on.

KNX interface for

	 KLIC-DD Size 45x45x15mm	 KLIC-DI Size 90x60x35mm	
	Split	Sky Air	VRV
Basic control			
On/Off	●	●	●
Mode	Auto, heat, dry, fan, cool	Auto, heat, dry, fan, cool	Auto, heat, dry, fan, cool
Temperature	●	●	●
Fan speed levels	3 or 5 + auto	2 or 3	2 or 3
Swing	Stop or movement	Stop or movement	Swing or fixed positions (5)
Advanced functionalities			
Error management	Communication errors, Daikin unit errors		
Scenes	●	●	●
Auto switch off	●	●	●
Temperature limitation	●	●	●
Initial configuration	●	●	●
Master and slave configuration		●	●

PMS Interface

DCM010A51

Hotel interface connecting

Daikin HVAC with Oracle

Property Management Systems

Room view showing room status: check-in, check-out, pre-heating / cooling status, room temperature and A/C status

HVAC settings can be easily observed and changed by the reception desk

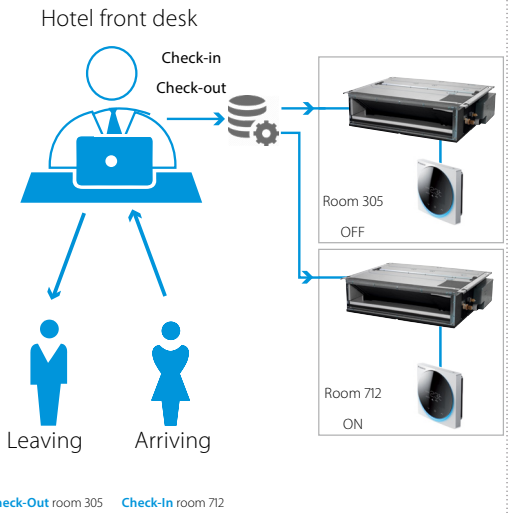
Multiple room types (bed-room, meeting room, …) can be defined with customized A/C settings for each type

Features

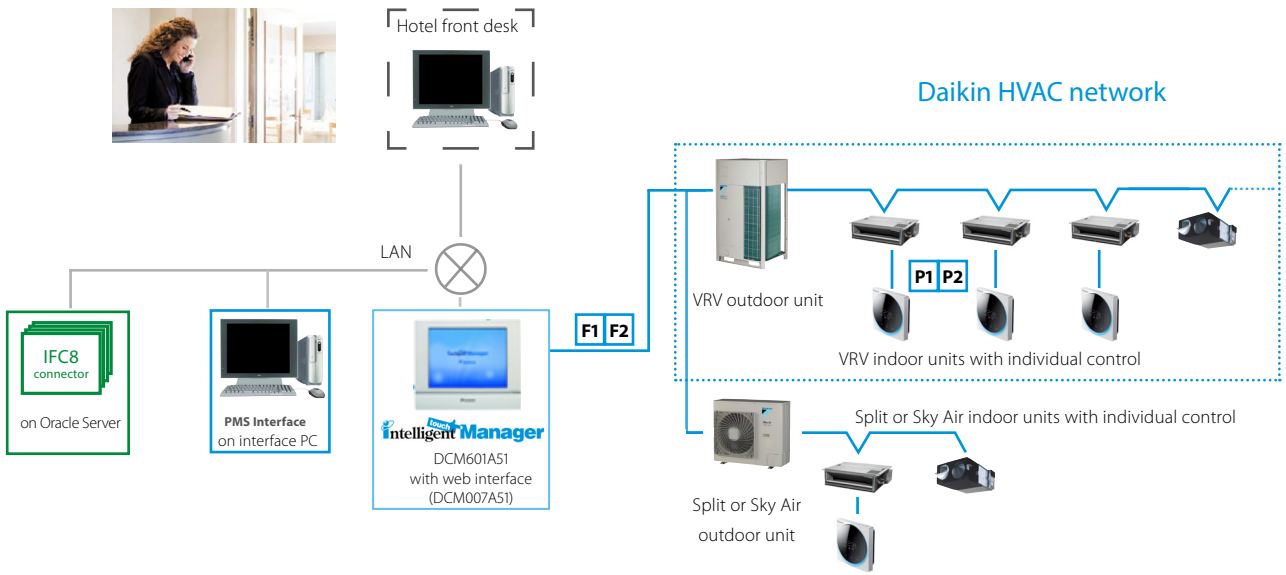
- User-friendly interface for easy front desk support in hotels, conference centers, …
- Compatible with Oracle Opera PMS (formerly known as Micros Fidelio)
- Automated push of indoor unit settings based on the Opera PMS Check-In and Check-Out commands
- Energy saving thanks to the possibility to limit temperature setpoint
- Up to 5 customized operation profiles based on weather conditions
- Available in 23 languages
- Up to 2,500 units / rooms can be managed

Hotel case example:

› On check-in the HVAC for the room is automatically switched on
› On check-out the HVAC for the room is automatically switched off.
› Increased hotel customer experience by pre-heating / cooling of booked rooms



Simplified configuration of Daikin PMS interface

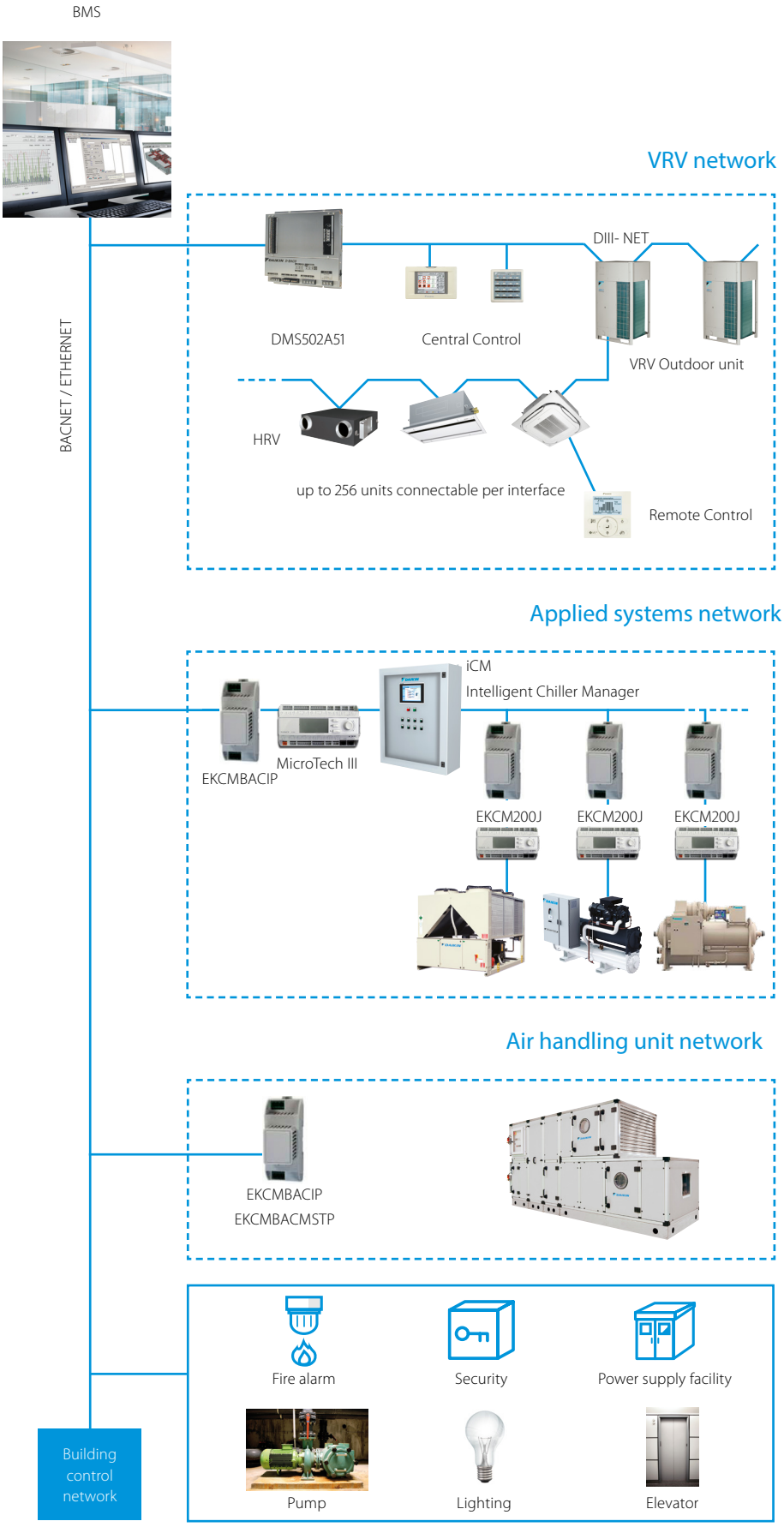


BACnet Interface

DMS502A51 / EKACBACMSTP / EKCMBACIP / EKCMBACMSTP

Integrated control system for seamless connection between VRV, applied systems, air handling units and BMS systems

- Interface for BMS system
- Communication via BACnet protocol (connection via Ethernet)
- Unlimited site size
- Easy and fast installation
- PPD data is available on BMS system (only for VRV)

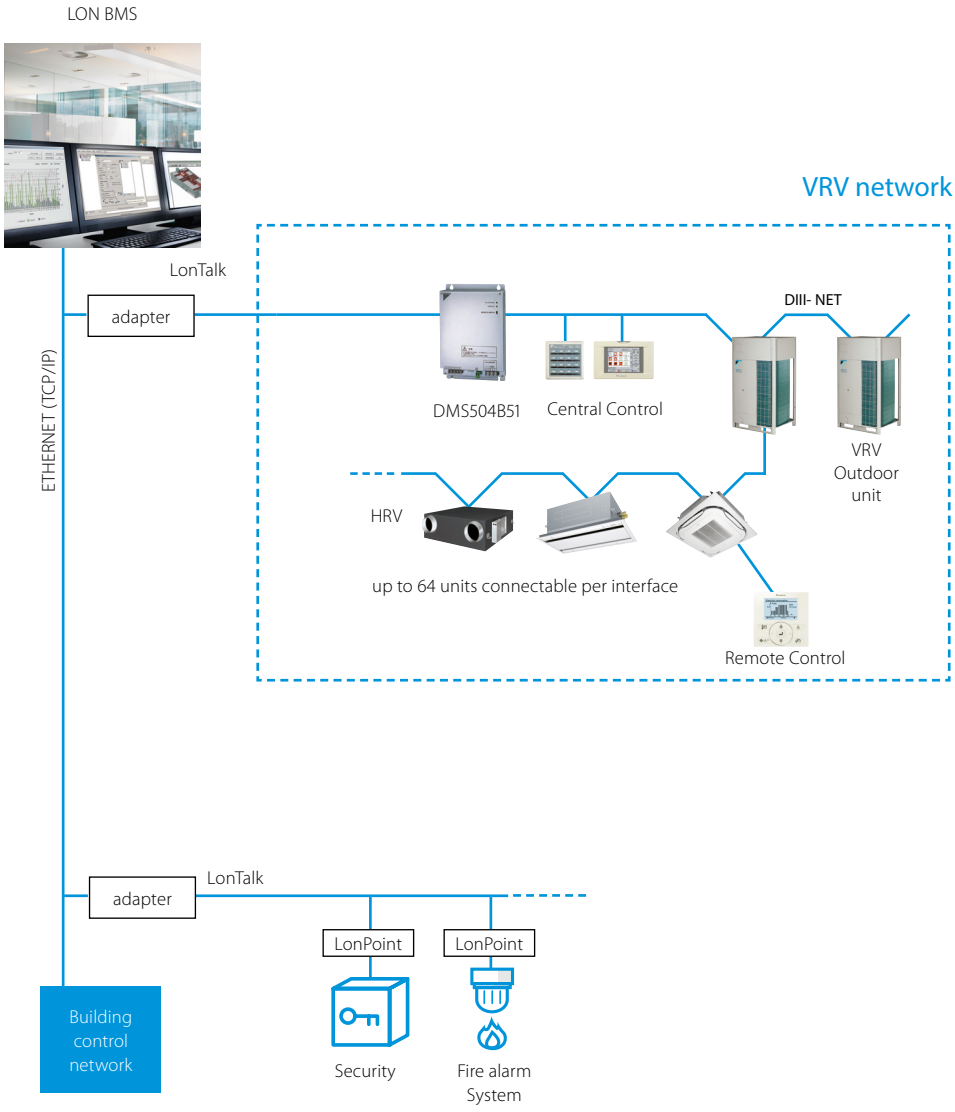


LonWorks Interface

DMS504B51

Open network integration of VRV monitoring and control functions into LonWorks networks

- Interface for Lon connection to LonWorks networks
- Communication via Lon protocol (twisted pair wire)
- Unlimited sitesize
- Quick and easy installation



Daikin Cloud Service

to achieve optimal operation

Daikin Cloud Service is a cloud-based remote control and monitoring solution for DX systems. Using enhanced control, monitoring and predictive logic, Daikin Cloud Service provides real-time data and support from Daikin experts to help you identify cost-saving opportunities, increase the lifetime of your equipment and reduce the risk of unexpected issues.

Monitor & control* your system no matter where you are while teaming up with Daikin experts

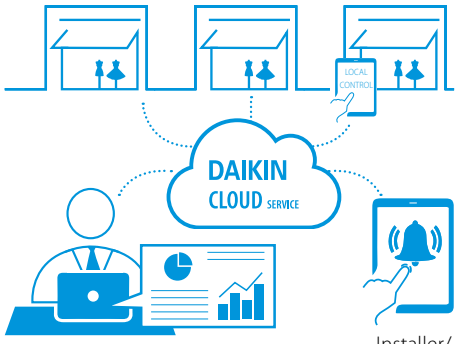
Remote control and energy visualisation

Puts you in the driving seat of your energy management

- ☑ Control and monitor your premises, wherever you are
- ☑ Centralised control and monitoring of all your premises
- ☑ Check errors remotely without having to go on site
- ☑ Visualise energy consumption and reduce energy waste by comparing different premises

Multi-site monitoring

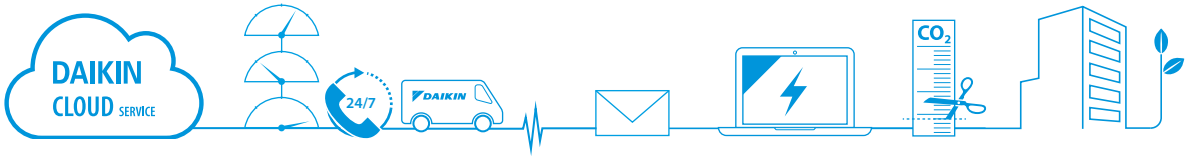
From one to an ∞ number of sites



Remote support and diagnostics

Daikin specialist supervision, so you can focus on your core business

- ☑ Early warning of system deviations to maximise system uptime and avoid emergency repairs**
- ☑ Service providers have access to operational data so they arrive on site prepared
- ☑ Remote expert assistance in case of errors



Advice and optimisation

Get the best out of your system through expert advice

- ☑ Periodical analysis and optimisation report by experts
- ☑ Personalised actions to maximise energy efficiency and comfort
- ☑ Increased system lifetime as the system runs as it should

Daikin Cloud Service requires a subscription. Contact your local sales representative for more information.

* Remote Control function via Daikin Cloud Service only available for sites with an Intelligent Tablet controller

** Only available for VRV systems

Daikin Cloud Service packages

	Control and monitoring	Remote support and diagnostics	Advice and optimisation
Remote control, scheduling and interlocking	✓ (DCC601A51 only)	✓ (DCC601A51 only)	✓ (DCC601A51 only)
Energy monitoring	✓	✓	✓
Multi-site benchmark	✓	✓	✓
Alarm history and e-mail notifications**	✓	✓	✓
Predictions and e-mail notifications**	✗	✓	✓
Operational data access	✗	✓	✓
Indoor use analysis	✗	✓	✓
Outdoor use analysis	✗	✓	✓
Remote diagnostic and support from Daikin	✗	✓	✓
Periodical analysis and optimisation advice from Daikin	✗	✗	✓
Can be combined with maintenance programmes: - Technical inspection - Preventive Maintenance Plan - Comprehensive Maintenance Plan	✗	✗	✓

Packages subject to local availability
Daikin Cloud Service replaces VRV Cloud and i-Net services.

Flexible solution

Manage your premises according to your needs, using a local control or remotely via Daikin Cloud Service, or a combination of both.

Control*, no matter where you are

Daikin Cloud Service gives you full control of one or more premises wherever you are, using your PC, tablet or smartphone.

Predictive logic for VRV to prevent breakdowns

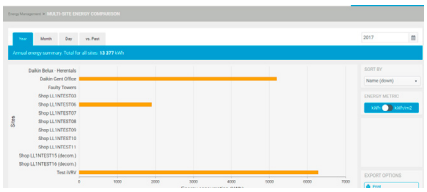
The operational data is continuously analysed by Daikin algorithms to predict potential failures and avoid unexpected costs.

Compatible with:

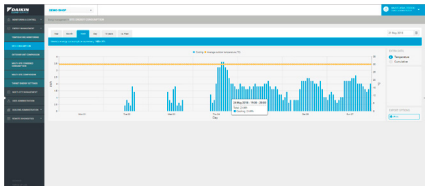
› Intelligent Tablet Controller (DCC601A51)
› Intelligent Touch Manager (DCM601A51) + IoT gateway
› LC8 + IoT gateway

1. Monitor and control your system

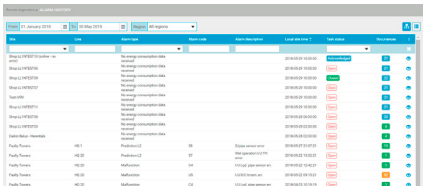
2. Compare energy use with target



3. Compare energy use from multiple sites



4. Detailed energy consumption follow up



5. Follow up of alarm and fault prediction

* Remote Control function via Daikin Cloud Service only available for sites with an Intelligent Tablet controller

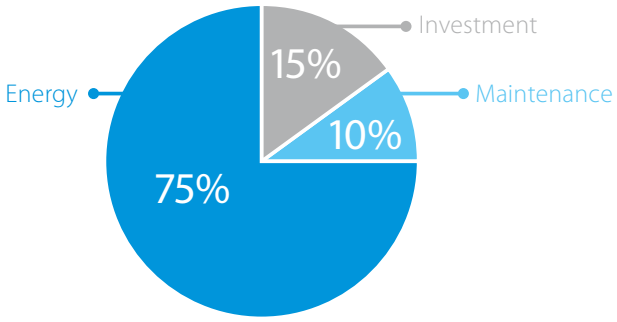
** Only available for VRV systems

Why
Daikin on Site?

Operating costs like energy and maintenance typically account for 85% of the system's total lifetime cost. Undiscovered energy waste and incorrect operation will increase costs and can even lead to unscheduled interruptions.

Using Daikin on Site monitoring results in optimum use and costs over the system's entire lifetime:

› Enhanced control and measuring
› Monitors the system
› Reduces risks at the earliest possible moment
› Keeps the system running as it was intended to



Typical Life cycle Cost of a chiller (15 years)

What
is Daikin on Site?

A solution for customer specific needs

The Daikin on Site cloud server collects operational data from the control system of a Daikin chiller or air handling unit plant.
Daikin's Smartcentre then turns this data into useful information on a web user interface.
Daikin on Site has predefined user roles like:
› **operator**
› **service provider**
› **Daikin specialists**

The Daikin on Site platform's features are designed to:
› Increase uptime, reduce unscheduled interruptions
› Optimise efficiency and reduce energy waste
› Increase lifetime and avoid wear by misuse
› Give insight into the optimum use of equipment, including advice from a Daikin expert

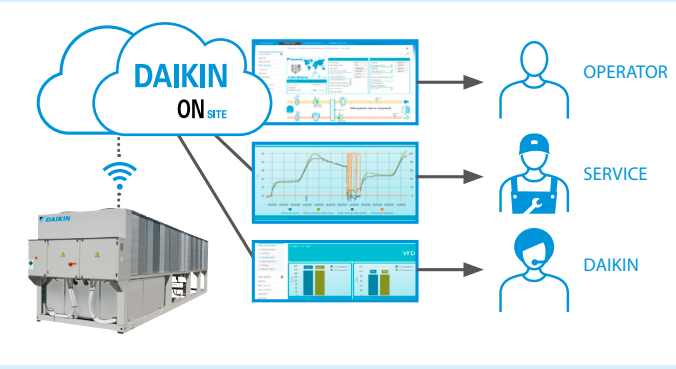
We will combine Daikin on Site remote monitoring with the complementary service programme best suited to your needs.

How does Daikin on Site deliver?

1 **Insight wherever and whenever required, full visibility and traceability of the HVAC installation.**
- Real-time information and trend insights
- No local software required
- Personal access to the web-based user interface
- Reports

2 **With Daikin on Site, we team up operators and specialists.**
- User-friendly operator information
- State-of-the art tool providing best-in-class service
- Remote solutions when possible, avoiding on site interventions

3 **Converting all expertise to maintain highest energy efficiency and uptime.**



Alerts & web application
- 24/7 year-round alarm and event monitoring
- Automated alarm system
- Receive service updates or notifications via email
- Access to Daikin on Site web application

Active monitoring
- Remote alarm analysis and diagnostics provided by Daikin Experts
- Fast and reliable on site service

Connected Service Plan
- Remote alarm analysis and diagnostics provided by Daikin Experts
- Fast and reliable on site service
- All initiatives are combined with the most suitable Daikin Service Plan

ACTION TAKEN

You can hand it to us

SMARTCENTRE
Turns data into actions

CLOUD DATA WAREHOUSE

Encrypted data transfer

Daikin Configurator Software

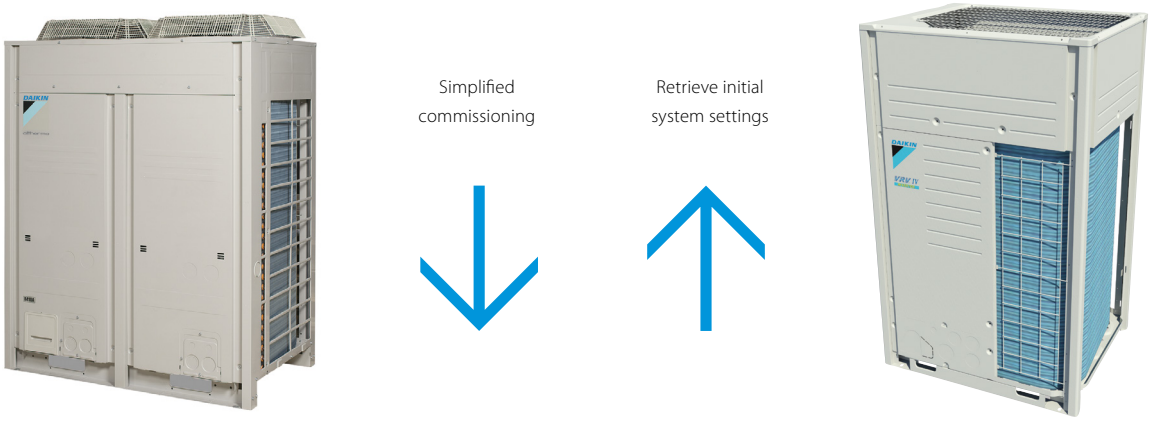
EKPCCAB3

Simplified commissioning: graphical interface to configure, commission and upload system settings

Simplified commissioning

The Daikin configurator for Daikin Altherma and VRV is an advanced software solution that allows for easy system configuration and commissioning:

- Less time is required on the roof configuring the outdoor unit
- Multiple systems at different sites can be managed in exactly the same way, thus offering simplified commissioning for key accounts
- Initial settings on the outdoor unit can be easily retrieved



Wireless room temperature sensor

K.RSS

Flexible and easy installation

› Accurate temperature measurement thanks to flexible placement of the sensor
› No need for wiring
› No need to drill holes
› Ideal for refurbishment

Connection diagram Daikin indoor unit PCB (FXSQ example)

Specifications

			Wireless room temperature sensor kit (K.RSS)	
			Wireless room temperature receiver	Wireless room temperature sensor
Dimensions		mm	50 x 50	ø 75
Weight		g	40	60
Power supply			16VDC, max. 20 mA	N/A
Battery life			N/A	+/- 3 years
Battery type			N/A	3 Volt Lithium battery
Maximum range		m	10	
Operation range		°C	0~50	
Communication	Type		RF	
	Frequency	MHz	868.3	

› Room temperature is sent to the indoor unit every 90 seconds or if the temperature difference is 0.2°C or larger.

Wired room temperature sensor

KRCS01-1B
KRCS01-4B

› Accurate temperature measurement, thanks to flexible placement of the sensor

Specifications

Dimensions (HxW)	mm	60 x 50
Weight	g	300
Length of branch wiring	m	12

ADAPTER PCBs

Simple solutions for unique requirements

Concept and benefits

› Low cost option to satisfy simple control requirements
› Deployed on single or multiple units

			Connectable to:		
			Split	Sky Air	VRV
	**(E)KRP1B*** adapter for wiring	• Facilitates integration of auxiliary heating apparatus, humidifiers, fans, damper • Powered by and installed at the indoor unit		●	●
	**KRP2A*/KRP4A*** Wiring adapter for electrical appendices	• Remotely start and stop up to 16 indoor units (1 group) (KRP4A* via P1 P2) • Remotely start and stop up to 128 indoor units (64 groups) (KRP2A* via F1 F2) • Alarm indication/ fire shut down • Remote temperature setpoint adjustment • Cannot be used in combination with a central controller		●	●
	**KRP58M3**	• Low noise and demand control option for RZQ200/250C		●	
	**SB.KRP58M51**	• Low noise and demand control option for RZQG and RZQSG single phase • Includes mounting plate EKMKSA1		●	
	**KRP58M51**	• Low noise and demand control option for RZQG1 and RZQSG 3 phase		●	
	**DTA104A*** Outdoor Unit External Control Adapter	• Individual or simultaneous control of VRV system operating mode • Demand control of individual or multiple systems • Low noise option for individual or multiple systems			●
	**DCS302A52** Unification adapter for computerized control	• Enables unified display (operation/malfunction) and unified control (ON/OFF) from BMS system • Must be used together with Intelligent Touch Controller or intelligent Touch Manager • Cannot be combined with KRP2/4* • Can be used for all VRV indoor models			●
	**KRP928*** Interface adapter for DIII-net	• Allows integration of split units to Daikin central controls	●		
	**KRP413*** Wiring adapter normal open contact / normal open pulse contact	• Switch off auto restart after power failure • Indication of operation mode / error • Remotely start /stop • Remotely change operation mode • Remotely change fan speed	●		
	**KRP980*** Adapter for split units without an S21 port	• Connect a wired remote control • Connect to Daikin central controls • Allow external contact	●		

Some adapters require an installation box, refer to the option lists for more information

Accessories

EKRORO		• External ON/OFF or forced off • Example: door or window contact
EKRORO 3		• External ON/OFF or forced off • F1/F2 contact • Example: door or window contact
KRC19-26A		• Mechanical cool/heat selector • Allows switching over an entire system between cooling/heating/fan only • Connects to the A/B/C terminals of the unit
BRP2A81		• Cool/heat selector PCB • Required to connect KRC19-26A to a VRV IV outdoor unit

Individual and centralised controls

	BRC1D*	BRC1E*	BRC1H*	DCS301B51	DST301B51	DCS302C51	DCS601C51
Madoka Assistant app for advanced settings			●				
Electical box KJB111A	●	●	●				
Electical box KJB212A(A) (1)	●	●		●	●		
Electical box KJB311A(A)						●	
Electical box KJB411AA							●

(1) recommended as wider (more stable mounting)

Intelligent Tablet Controller - DCC601A51

		intelligent Touch Controller		
		Options for local control	**Cloud options**	**Software**
Wired screen for local control	AL-CCD07-VESA-1	●	–	–
Zenpad 8" Tablet for local control	Z380M	●	–	–
Control and monitoring package		–	●	–
Remote support and diagnostics package		–	●	–
Advise and optimisation package		–	●	–
App for tablet - download for Android (Play store) only (In case of AL-CCD07-VESA-1 app is pre-installed)		–	–	●
Commissioning tool		–	–	●
Software update tool		–	–	●

Daikin Cloud Service requires a subscription. Contact your local sales representative for more information

Intelligent Touch Manager - DCM601A51

		intelligent Touch Manager	**Cloud options**
iTM plus adapter – Allows connection of an additional 64 indoor units/groups. Up to 7 adapters can be connected	DCM601A52	●	
iTM PPD software – Allows distribution of used kWh by indoor units connected to the iTM	DCM002A51	●	
iTM HTTP interface - Allows communication to any third party controller via http interface	DCM007A51	●	
iTM Energy navigator – Energy management option	DCM008A51	●	
iTM BACnet Client option – Enables integration of third party devices to the iTM via the BACnet/IP protocol. (This is not a gateway and cannot replace DMS502A51)	DCM009A51	●	
Property Management System (PMS) interface option - Enables to connect to third party PMS systems	DCM010A51	● Oracle Opera PMS	
Control and monitoring package			●
Remote support and diagnostics package			●
Advise and optimisation package			●

Standard protocol interfaces - DMS502A51

		BACnet Interface
DIII-net expansion board (2 ports), connects up to 128 additional indoor units	DAM411B51	●
Digital pulse inputs (12) for PPD functionality	DAM412B51	●

Intelligent Chiller Manager

		intelligent Touch Manager
Differential Pressure Sensor 4-20 mA 0-160 kPa	EKQDP2M016	●
Differential Pressure Sensor 4-20 mA 0-250 kPa	EKQDP2M020	●
Differential Pressure Sensor 4-20 mA 0-400 kPa	EKQDP2M040	●
Differential Pressure Sensor 4-20 mA 0-600 kPa	EKQDP2M060	●
ModBus RTU communication module	EKCM200J	●
BACnet IP communication module	EKCMBACIP	●

Power supply

T1 = 3~, 220V, 50Hz
V1 = 1~, 220-240V, 50Hz
VE = 1~, 220-240V/220V, 50Hz/60Hz*
V3 = 1~, 230V, 50Hz
VM = 1~, 220~240V/220~230V, 50Hz/60Hz
W1 = 3N~, 400V, 50Hz
Y1 = 3~, 400V, 50Hz

* For VE power supply only 1~, 220-240V, 50Hz data is displayed in this catalogue.

F-gas regulation

For fully/partially charged equipment: contains fluorinated greenhouse gases. Actual refrigerant charge depends on the final unit construction, details can be found on the unit labels.

For non pre-charged equipment (Chillers: split chiller (SEHVX/SERHQ), condensing units and condenserless chillers + refrigeration (LCBKQ-AV1, JEHCCU/JEHSCU and ICU): its functioning relies on fluorinated greenhouse gases.

Conversion table refrigerant piping

inch	mm
1/4″	6.4 mm
3/8″	9.5 mm
1/2″	12.7 mm
5/8″	15.9 mm
3/4″	19.1 mm
7/8″	22.2 mm
1 1/8″	28.5 mm
1 3/8″	34.9 mm
1 5/8″	41.3 mm
1 3/4″	44.5 mm
2″	50.8 mm
2 1/8″	54 mm
2 5/8″	66.7 mm

Measuring conditions

Air conditioning

1) Nominal cooling capacities are based on:	
Indoor temperature	27°CDB/19°CWB
Outdoor temperature	35°CDB
Refrigerant piping length	7.5m - 8/5m VRV
Level difference	0m
2) Nominal heating capacities are based on:	
Indoor temperature	20°CDB
Outdoor temperature	7°CDB/6°CWB
Refrigerant piping length	7.5m - 8/5m VRV
Level difference	0m

Refrigeration

ZEAS	Chilling		Evaporating temp. -10°C; outdoor temp. 32°C; Suction SH10°C
	Freezing		Evaporating temp. -35°C; outdoor temp. 32°C; Suction SH10°C
Conveni-Pack	Mix Air conditioning and refrigeration operating mode		Indoor temp. 27°CDB/19°CWB; outdoor temp. 32°CDB; piping length:7.5m; level difference: 0m; refrigeration side: Evaporating temp. -10°C; outdoor temp. 32°CDB; Suction SH: 10°C
	Mix heating and refrigeration operating mode (Heating recovery 100% mode)		Indoor temp. 20°C; outdoor temp. 7°CDB,6°CWB; refrigeration load 18kW (Evaporating temp. -10°C; Suction SH: 10°C); piping length:7.5m; level difference: 0m
Booster unit			Evaporating temp. -35°C; outdoor temp. 32°C; suction SH 10K; saturated temp. to discharge pressure of booster unit -10°C
CCU/SCU	Medium temperature application		Medium temperature application: Outside ambient temp. 32°C; Evaporating temp. = -10°C and 10K superheat;
	Low temperature application		Low temperature application: Outside ambient temp. 32°C; Evaporating temp. = -35°C and 20°C suction gas temperature
Zanotti	Uni-Block, Bi-Block, Wineblock	High temperature	When normally running : +10°C / +30°C
		Medium temperature	When normally running : 0°C / 30°C
		Low temperature	When normally running : -20°C / +30°C
	CU (one , twin, and more compressor(s))	Medium temperature	Outside ambient temp. 32°C; Evaporating temp. = -10°C and 20°C suction gas temperature
		Low temperature	Outside ambient temp. 32°C; Evaporating temp. = -35°C and 20°C suction gas temperature

Applied systems

Air cooled	Cooling only		Evaporator: 12°C/7°C	Ambient: 35°CDB
	Heat pump		Evaporator: 12°C/7°C	Ambient: 35°C
			Condenser: 40°C/45°C	Ambient: 7°CDB/6°CWB
Water cooled	Cooling only		Evaporator: 12°C/7°C	
			Condenser: 30°C/35°C	
	Heating only		Evaporator: 12°C/7°C	
			Condenser: 40°C/45°C	
Condenserless chiller			Evaporator: 12°C/7°C	
			Condensing temperature: 45°C / liquid temperature: 40°C	
Fan coil units	Cooling		Indoor temperature 27°CDB, 19°CWB; entering water temperature 7°C, water temperature rise 5K	
	Heating	2-pipe	Indoor temperature 20°CDB, 15°CWB; entering water temperature 45°C, water temperature drop 5K	
		4-pipe	Indoor temperature 20°CDB, 15°CWB; entering water temperature 65°C, water temperature drop 10K	
Air Handling Units			Temperature and humidity conditions: Extract air 22°C / 50%; Fresh air -10°C / 90%	

The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment (for measuring conditions: please refer to the technical databooks). The sound power level is an absolute value indicating the "power" which a sound source generates. For more detailed information please consult our technical databooks.

Benefits

We care icons

Seasonal efficiency, smart use of energy
Seasonal efficiency gives a more realistic indication on how efficient air conditioners operate over an entire heating or cooling season.

Auto-cleaning filter
The filter automatically cleans itself. Simplicity of upkeep means optimum energy efficiency and maximum comfort without the need for expensive or time-consuming maintenance.

Inverter technology
Inverter compressors continuously adjust compressor speed to actual demand. Fewer power-consuming starts and stops result in decreased energy consumption (up to 30%) and more stable temperatures.

2 area motion detection sensor
Air flow is sent to a zone other than where the person is located at that moment. Detection is done in 2 directions: left and right. If no people are detected, the unit will automatically switch over to the energy-efficient setting.

3 area motion detection sensor
Air flow is sent to a zone other than where the person is located at that moment. Detection is done in 3 directions : left, front and right. If no people are detected, the unit will automatically switch over to the energy-efficient setting and eventually switch off.

Energy saving during operation standby
Current consumption is reduced by about 80 % when operating on standby.

Night set mode
Saves energy, by preventing overcooling or overheating during night time.

Econo mode
This function decreases the power consumption so that other applicances that need large power consumption can be used. This function is also energy saving.

Movement sensor
Saves power consumption in unoccupied rooms: when the room is empty, the unit switches to economy mode after 20 minutes and restarts when a person enters the room.

Home leave operation
During absence, the indoor temperature can be maintained at your specified comfort level during absence.

Fan only
The air conditioner can be used as fan, blowing air without cooling or heating.

Free cooling
By exploiting the low external air temperatures to cool the water, free cooling reduces the load on the compressors and decreases considerably the annual operating costs during the cold season.

Floor & presence sensor
The presence sensor directs the air away from any person detected in the room, when the air flow control is on. The floor sensor detects the average floor temperature and ensures an even temperature distribution between ceiling and floor.

Solar panel
Take advantage of solar power. Easily connect your hot water storage to solar collectors on your roof.

Comfort

Comfort mode
The unit automatically changes the angle of the air discharge louvre depending on the mode. In cooling operation the air will be directed rather upwards to avoid cold draught, while in heating operation the air will be directed rather downwards to avoid cold feet.

Powerful mode
If the temperature in the room is too high/low, it can be cooled down/heated quickly by selecting the 'powerful mode'. After the powerful mode is turned off, the unit returns to the preset mode.

Impossible to hear
Practically inaudible: the unit runs so quietly, you will almost forget it is there.

Whisper quiet
Daikin indoor units are whisper quiet. Also the outdoor units are guaranteed not to disturb the quiet of the neighbourhood. (with sound levels as low as 19dBA)

Outdoor unit silent operation
To ensure a quiet environment for the neighbourhood the user can lower the operation sound of the outdoor unit by 3 dB(A) via remote control.

Comfortable sleeping mode
Increased comfort function that follows a specific temperature fluctuation rhythm.

Draught prevention
When starting to warm up or when the thermostat is off, the air discharge direction is set horizontally and the fan to low speed, to prevent draught. After warming up, air discharge and fan speed are set as desired.

Auto cooling-heating changeover
Automatically selects cooling or heating mode to achieve the set temperature (heat pump types only).

Indoor unit silent operation
To ensure a quiet environment for studying or sleeping the user can lower the operation sound of the indoor unit by 3 dB(A) via remote control.

Night quiet mode (cooling only)
Lowers the operation sound of the outdoor unit automatically at night.
Installer has to make special setting on outdoor unit or wired remote controller, depending on model.

Radiant heat
The front panel of the indoor unit radiates additional heat to add to your comfort on cold days

Fresh hot water
The structure of thermal store ensures optimal water hygiene and eliminates the risk of bacteria and legionella. Rest assured that your hot water is fresh and safe

Air flow

Ceiling soiling prevention
A special function prevents air blowing out too long in horizontal position, to prevent ceiling stains.

Vertical auto swing
Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution.

Auto fan speed
Automatically selects the necessary fan speed to reach or maintain the set temperature.

Individual flap control
Individual flap control via the wired remote controller enables you to easily fix the position of each flap individually, to suit any new room configuration. Optional closure kits are available as well.

Coanda effect - cooling
The Coanda effect optimises the airflow in cooling mode. By using specially designed flaps, a more focused airflow allows a better temperature distribution throughout the whole room.

Coanda effect - heating
The Coanda effect optimises the airflow in heating mode. By using specially designed flaps, a more focused airflow allows a better temperature distribution throughout the whole room.

3-D Air flow
This function combines Vertical and Horizontal auto-swing to circulate a stream of cool/warm air right to the corners of even large spaces.

Horizontal auto swing
Possibility to select automatic horizontal moving of the air discharge louvre, for uniform air flow and temperature distribution.

Fan speed steps
Allows to select up to the given number of fan speed.

Fireplace logic
When installed close to a heating device (e.g. fireplace or oven) and the set temperature is reached, the fan keeps on running to have an even temperature throughout the whole house

Intelligent thermal sensor
The intelligent thermal sensor determines the current room temperature and distributes air evenly throughout the room before switching to an airflow pattern that directs warm or cool air to areas that need it.

Benefits

Humidity control

Ururu - humidification
Moisture is absorbed from the outdoor air and evenly distributed throughout the indoor areas.

Dry programme
Allows humidity levels to be reduced without variations in room temperature.

Sarara - dehumidification
Reduces indoor humidity, without affecting the room temperature, by mixing cool, dry air with warm air.

Air treatment

Flash streamer
Generates high speed electrons that powerfully breaks down viruses, bacteria, odours and allergens.

Silver allergen removal and air purifying filter
Captures allergens such as pollen and dust mites.
The filter suppresses pollen and mites for 99% or more.

Titanium apatite deodorizing filter
Captures airborne dust particles and harmful organic chemical substances such as bacteria, viruses and allergens and deodorizes the odours of e.g. tobacco and pets.

Air filter
Removes airborne dust particles to ensure a steady supply of clean air.

Remote control & timer

Weekly timer
Timer can be set to start operation anytime on a daily or weekly basis

Timer
Allows to preset the air conditioner to start/stop at a specified time.

Wired remote control
Wired remote control to start, stop and regulate the air conditioner from a distance.

Multi zoning
Allows up to 6 individual climate zones with one indoor unit.

24 Hour timer
Timer can be set to start cooling/heating anytime during a 24-hour period.

Infrared remote control
Infrared remote control with LCD to start, stop and regulate your indoor unit from a distance.

Centralised control
Centralised control to start, stop and regulate several indoor units from one central point.

Online controller via app
Control your indoor unit from any location via app.
(optional WLAN adapter)

Other functions

Auto-restart
The unit restarts automatically at the original settings after power failure.

Twin/triple/double twin application
2, 3 or 4 indoor units can be connected to only 1 outdoor unit. All indoor units operate within the same mode (cooling or heating) from one remote control.

VRV for residential application
Up to 9 indoor units (even different capacities and up to 71 class) can be connected to a single outdoor unit. All indoor units can individually be operated within the same mode.

Multi tenant
The indoor unit's main power supply can be turned off when leaving the hotel or office building.

Scroll compressor
Scroll compressors consist of two scrolls, one is fixed while the other orbits eccentrically without rotating. Designed for small and medium capacities, they provide constant reliability and high efficiency throughout its service life.

Centrifugal compressor
Centrifugal compressors use an impeller and volute section to convert the velocity energy into pressure energy. Centrifugal compressors are designed with either optional variable speed drives (VFD) for superior part-load performance for single or dual compressor units, or with magnetic bearings and totally oil-free operation.

Guaranteed operation down to -20°C
Daikin heat pumps are suitable for all climates, even withstanding severe winter conditions with an operation range down to -20°C

Infrastructure cooling
Remove in a reliable, efficient and flexible way the heat constantly generated by the IT and server equipment to ensure maximum uptime while offering the best return on investment.

Self-diagnosis
Simplifies maintenance by indicating system faults or operating anomalies.

Multi model application
Up to 5 indoor units (even different capacities) can be connected to a single outdoor unit. All indoor units can individually be operated within the same mode.

Drain pump kit
Facilitates condensation draining from the indoor unit.

Swing compressor
Swing type compressors have a unified vane and roller with fewer moving parts producing low vibration and friction, achieve higher reliability and efficiency compared to conventionally rotary compressors.

Screw compressor
Single screw compressors consist of a main single screw and two gate rotors. Optimal performance through step less capacity control, they are designed for high capacities and optimal performances.

Reciprocating compressor
The reciprocating type compressor consists of a cylinder, pistons and valves. The compression is accomplished by reciprocating movements of the piston in the cylinder.

Guaranteed operation down to -25°C
Daikin heat pumps are suitable for all climates, even withstanding severe winter conditions with an operation range down to -25°C