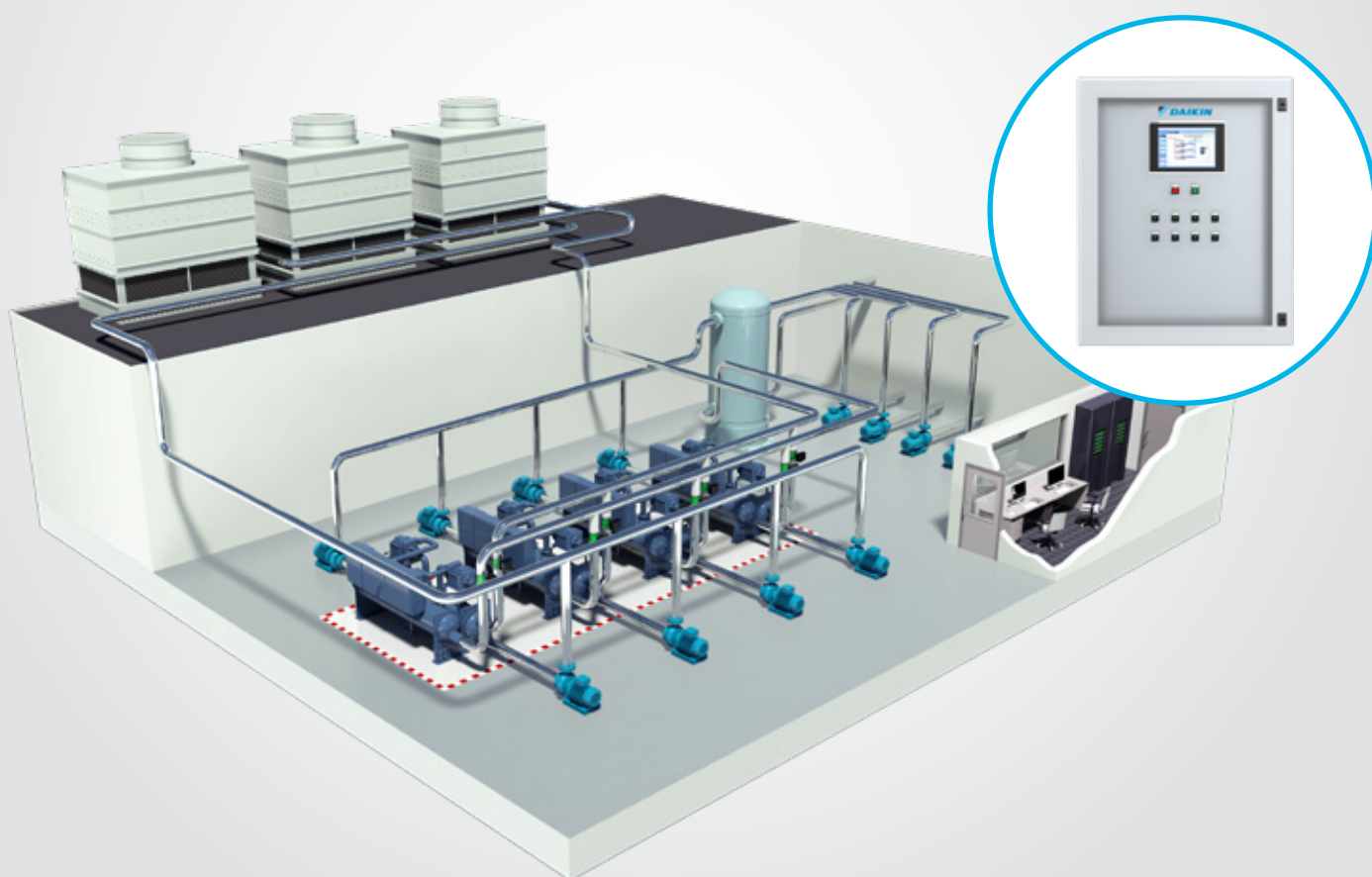


iCM intelligent chiller manager

for chiller plant rooms



What is iCM, the intelligent chiller 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

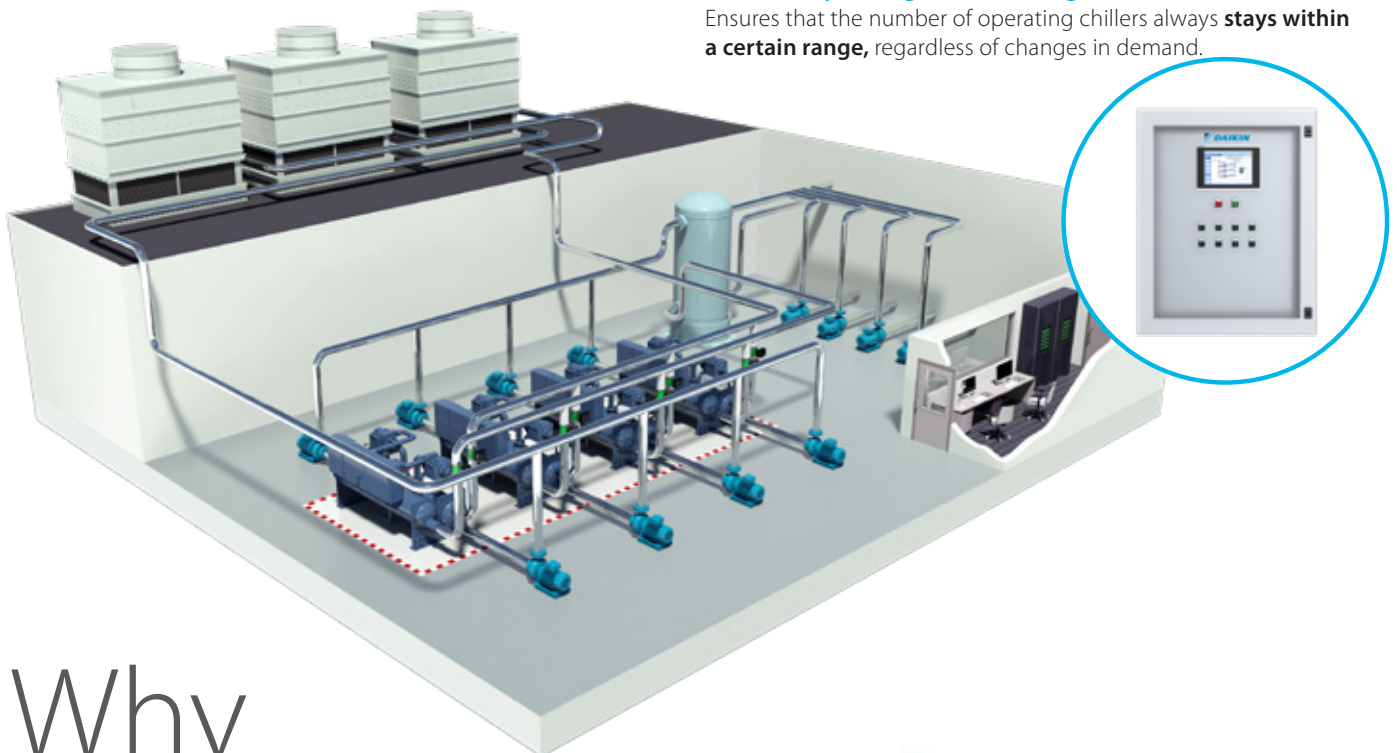
Calculates **energy-optimal stage-up/stage-down** of the chiller by determining the increased capacity demand by capacity control, compensation of temperature and rotation. This function aims at providing the most energy-efficient combination of chillers on a continuous basis.

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

 **Chiller
Intelligent Manager**

**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)



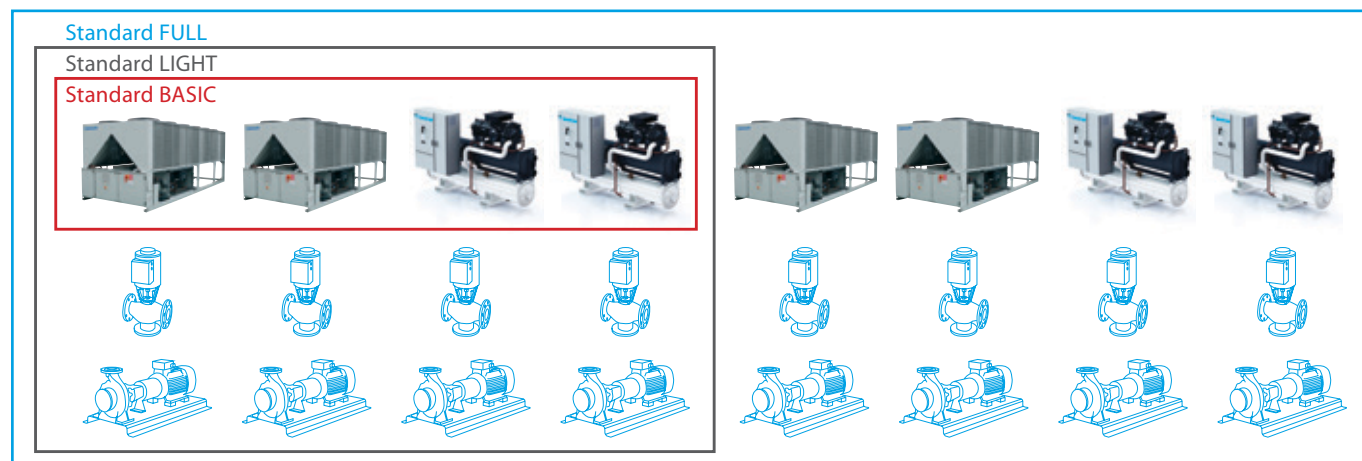
(Customised)

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)
- › Only a primary, or a primary-secondary system
- › Constant or variable primary flow



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

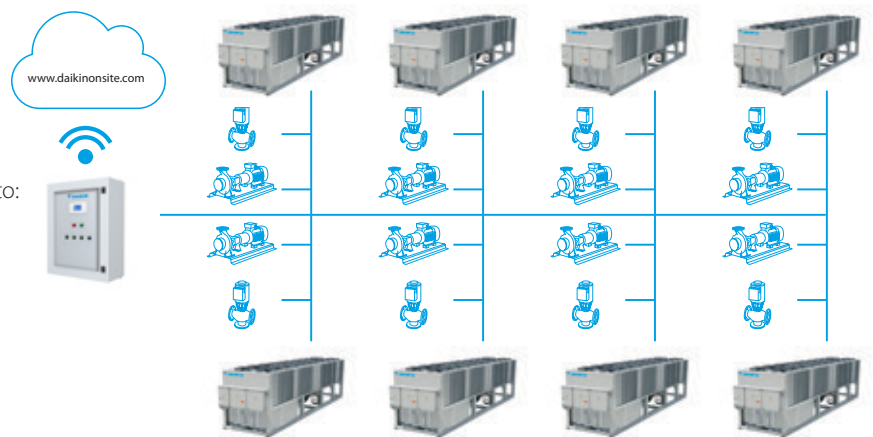
Access

your plant wherever you are
and whenever you want

Daikin's remote monitoring and control 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's remote monitoring has predefined user roles like:

- › Operator
- › Service provider
- › Daikin specialists
- › The features of Daikin's remote monitoring 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



What is in iCM for you?

Peace of mind by:

- › Having remote access to your plant through the Internet anytime and anywhere: know what is going on!
- › Having Daikin expertise to hand: a Daikin technician could connect to your plant if needed (installation & commissioning support, unstable operation, etc.)

Save money, time and effort by:

- › Remotely controlling your plant: you do not need to be present in the plant room
- › Having easy and quick access to necessary data for maintenance, energy management, follow-up and reporting

Show your environmental responsibility by owning the most advanced Daikin solution to optimise the performance of Daikin chillers.

Demonstrate your success by measuring and verifying the energy-efficiency of your plant.

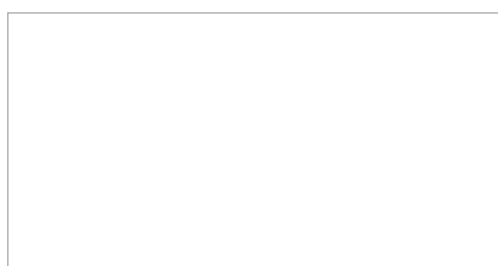
Minimise the risk of an unexpected breakdown by 24/7 alarm monitoring and emailing.

Test it! Standard version includes a one-year connection to www.daikinonsite.com

Save energy by optimising the partialisation of the chillers through the intelligent optimal load control logic.

Maximise the lifetime of your plant room by balancing running hours, and start/stop cycles.

Maximise reliability and lifetime
Control and monitor your plant room remotely



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