Control Systems

All Seasons
CLIMATE COMFORT

- Heating
- **Air Conditioning**
- Applied Systems
- Refrigeration

Daikin Europe N.V.

ABOUT DAIKIN

Daikin has a worldwide reputation based on 85 years' experience in the successful manufacture of high quality air conditioning equipment for industrial, commercial and residential use.

Daikin quality

Daikin's much envied quality quite simply stems from the close attention paid to design, production and testing as well as aftersales support. To this end, every component is carefully selected and rigorously tested to verify its contribution to product quality and reliability.

ENVIRONMENTAL AWARENESS

Air Conditioning and the Environment

Air conditioning systems provide a significant level of indoor comfort, making **optimum working and living conditions** possible in the most extreme climates.

In recent years, motivated by a global awareness of the need to reduce the burdens on the environment, Daikin has invested enormous efforts in limiting the negative effects associated with the production and the operation of air conditioners.

Hence, models with **energy saving** features and improved **eco-production** techniques have seen the light of day, making a significant contribution to limiting the impact on the environment.

This sign highlights features where Daikin has invested into technologies to reduce the impact of air conditioning on the environment.
This sign can be found on pages: p16, 17, 18, 28, 29

TABLE OF CONTENTS

USER FRIENDLY CONTROL SYSTEMS

An air conditioning system will only operate as efficiently as its control system allows. The importance of precise, user friendly equipment is as relevant to simple residential room temperature controls as it is to full remote monitoring and regulation of large scale commercial buildings.

Daikin invests heavily in the research and production of advanced and comprehensive methods of control, in order to keep pace with the technical advances inherent in modern air conditioning plus the urgent need to achieve higher energy efficiencies and manageable fuel costs.

In buildings with multiple air conditioning units that operate for long hours, system efficiency plays a paramount role in the pursuit of reduced energy consumption. MAXIMUM EFFICIENCY demands that maximum control of all aspects of system operation must be in harmony with important allied considerations such as round the clock monitoring, preventive maintenance, fault predictive analysis and rapid response in the event of malfunctions. Daikin manufactures and markets an extensive portfolio of STATE OF THE ART computerised control systems that offer building owners, landlords and tenants comprehensive system cover backed up by vital data on operational performance and running costs on air conditioning systems of any size and complexity.

Daikin commercial air conditioning systems can also be linked to third party BMS and LonWorks controls networks via its BACnet interface or LonWorks interface integrated control. Finally the Daikin Intelligent Touch Controller has an http option to link to third party controllers via an open interface.

WHICH SYSTEM OFFERS ME THE BEST SOLUTION?

I WANT DAIKIN TO MONITOR MY AIR CONDITIONING SYSTEM TO GUARANTEE THE HIGHEST EFFICIENCY

Air Conditioning Network Service System (ACNSS):

- Keep your air conditioning system in top condition and trouble free
- Automatically select the optimum energy saving settings for your AC system

I WANT FULL CONTROL OF MY DAIKIN AIR CONDITIONING SYSTEM VIA DAIKIN CONTROL SOLUTIONS, WITH THE OPTION TO INTEGRATE OTHER THIRD PARTY BUILDING FACILITIES

intelligent Manager

- Full control and management of air conditioning systems (maximum 200 groups)
- Integration of basic building control functions possible (for example fire alarm, …)

intelligent touch Controller

- Detailed and easy monitoring and operation of air conditioning systems (maximum 2 x 64 groups)
- Integration of basic building control functions possible (for example fire alarm, …)

DS-net

- Basic solution for control of air conditioning systems

Multi-zone control via centralised control:

- Access to daily used functions for multiple indoor unit groups/zones
- Functions range from ON/OFF control to the setting of weekly schedules

Individual zone control:

- Access to daily used functions for one indoor unit (group)
- Units range from easy to use infrared controls to specially developed built-in hotel controls.

I WANT TO INTEGRATE THE CONTROL OF MY DAIKIN AIR CONDITIONING IN A THIRD PARTY CONTROL SYSTEM (OPEN PROTOCOL INTERFACES)

BACnet Interface:

- Integrated control system for seamless connection between your Daikin air conditioning and BMS system

LonWorks Interface:

- Open network integration of Daikin air conditioning monitoring and control functions into LonWorks networks

Http interface:

- Integrate monitoring and operation of Daikin air conditioning systems in a third party controller (Intelligent Touch Controller needed)

Alternative integration devices: › Daikin's adapter PCB's, simple solutions for unique requirements

* For more information on how to combine the best of the different control systems, contact your local dealer

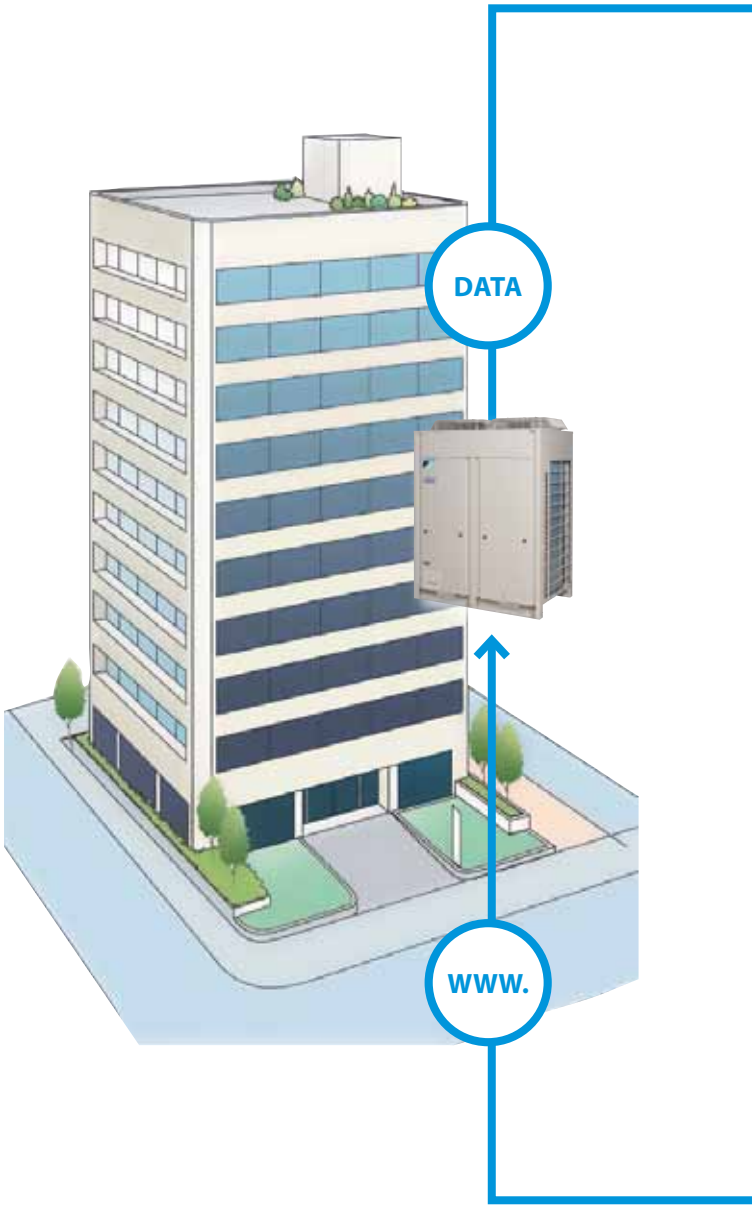
AIR CONDITIONING NETWORK SERVICE SYSTEM (ACNSS)

The challenge of your technical management is safeguarding in the long term optimal operation of your air conditioning system without incurring huge costs along the way. Daikin's Air Conditioning Network Service System improves the effectiveness of your management.

The network service system is a link via the internet, between the air conditioning system and Daikin's Remote Monitoring Centre. In so doing, expert service engineers monitor the operating status of the entire system nonstop all through the year. The 'ACNSS monitoring service' prevents troubles and prolongs the life of your equipment.

Thanks to the prediction of malfunctions and the technical advise following from data analysis, you not only maximise equipment availability, but also control cost without sacrificing comfort levels.

Daikin's ACNSS is also supported by the optional 'ACNSS energy saving service' as energy use is one of the largest operating expenses of any business. This service enables you to optimise on power consumption without failing to keep the customer's amenity.



ACNSS MONITORING SERVICE + ACNSS ENERGY SAVING SERVICE

COMFORT MAINTAINED

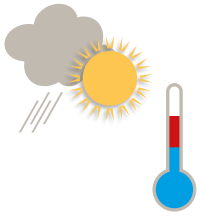
1 DATA TRANSMISSION

Air conditioners's running information and other necessary data are collected and compiled, and sent to the centre. Advance failure forecasts and monitoring data for accidental problems are transmitted.

OPTION:

ENERGY-SAVING CONTROL DETERMINATION

Operating information is analyzed, and the optimum energy-saving control settings are calculated according to weather data for the region.



WEATHER INFORMATION

2 DAIKIN REMOTE MONITORING CENTRE

Daikin's control implemented

intelligent touch Controller

intelligent Manager III

Information to customers, service company

3 DATA ANALYSIS & SYSTEM MONITORING

Reporting data is reviewed and system is monitored 24/7 for any occurances.

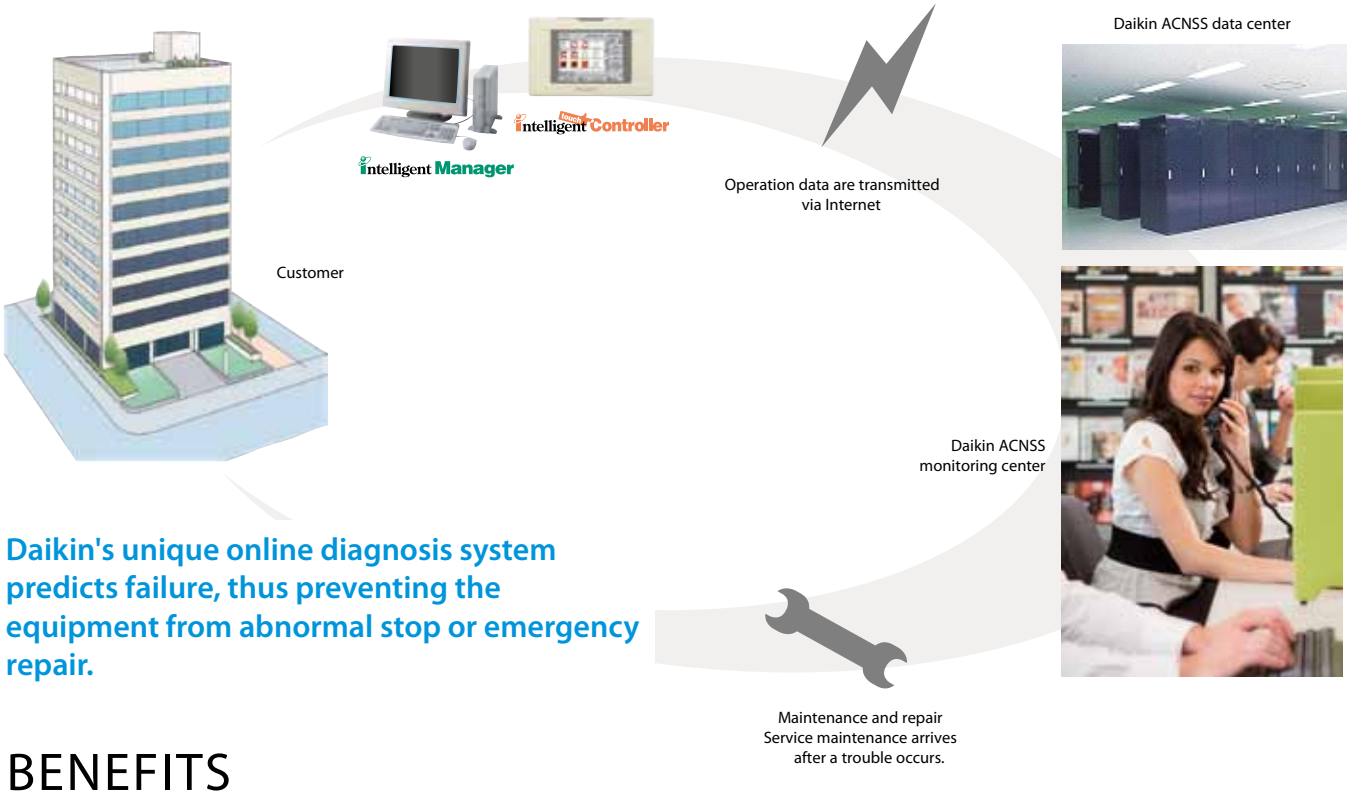
Energy-saving Report
Maintenance Report
Malfunction and prediction call

* A contract with Daikin is necessary for applying Energy-saving Air conditioning Network Service System. If you would like an estimation, please contact us.

ACNSS MONITORING FUNCTION

Keep your air conditioning system in TOP CONDITION and TROUBLE FREE.

The operation of your Daikin air conditioning installation is monitored 24/7 and with Daikin's Air Conditioning Network Service System most of the technical part is taken out of your hands. Operation data are carefully collected, analysed and handled at Daikin. These detailed records come with recommendations from trained Daikin technicians so the building owner or service company can act before malfuntions can occur. And in case of a problem the maintenance service provider and the building owner are immediately alerted via e-mail.
The result of constant follow-up is an air conditioning installation that is better looked after, therefore more durable and reliable.



Daikin's unique online diagnosis system predicts failure, thus preventing the equipment from abnormal stop or emergency repair.

BENEFITS

YOUR EQUIPMENT IS MORE DURABLE AND LASTS LONGER

› Future fault prediction, act before real breakdown occurs, prevent abnormal stops > maximise user comfort
› Equipment runs always in the best conditions, no uneeded stress on the system, longer lifetime

FASTER RESPONSE TIME

› In case a breakdown does occur, faster response time as the service company is immediately alerted and a detailed record of the installation is sent with it.

CLEAR SIGHT ON OPERABILITY AND USAGE OF THE AIR CONDITIONING SYSTEM

› Operational history management, history of operation reports

ACNSS ENERGY SAVING SERVICE

OPTIMUM ENERGY SAVING and still holding on to maximum comfort level.

Automatically select the optimum energy saving settings for your air conditioning system. But ACNSS offers more. To help you fully improve the energy efficiency, the system will even intervene. According to the weather forecast analysis Daikin's ACNSS will automatically adjust the operating parameters to minimise running costs.

BENEFITS

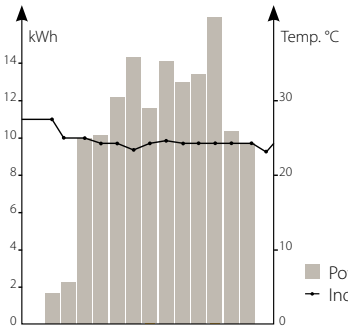
PROVEN SAVINGS OF UP TO 23% ON YOUR ENERGY CONSUMPTION, WITH AUTOMATIC FINETUNING

› ACNSS monitors and controls a wide range of components of the air conditioning system and fine tunes them according to the weather conditions and air conditioning load.

Case study office air conditioning:

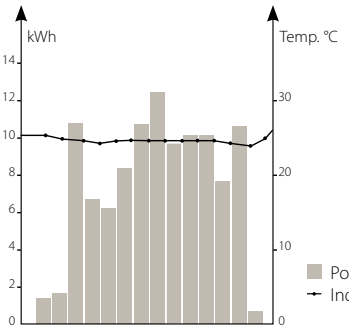
Control OFF

Power consumption: 141.7 kWh
Indoor temperature maintained.
Peak: 36°C Average during operation: 31-32°C



Control ON

Power consumption: 107.9kWh
Indoor temperature maintained.
Peak: 34°C Average during operation: 31-32°C



Power consumption reduced with 23,9%

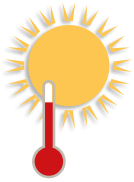
Client:
Rome, Italy, office building
VRV® outdoor unit REYQ28P8
Result:
› System coefficiency of performance is improved from 4.00 to 4.56: 14% up

ENSURE COMFORT, WHILE SAVING ENERGY

› System will modify it's operating conditions based on predicted weather and on site conditions to save energy. Indoor conditions are monitored to ensure comfort is maintained.

Energy saving Control ON

When hot & dry



Energy saving Control OFF

When hot & humid
The sensible temperature feels higher

Comfort attained

INCREASE YOUR ENERGY SAVINGS YEAR AFTER YEAR

› Daikin continuously monitors energy consumption and comfort from a remote location, making periodic reports on results and proposing ways to improve performance. We can monitor your system's operating status continuously, reporting Energy-Saving Air conditioning Network Service System performance and proposing further improved energy effiency based on accumulated data.

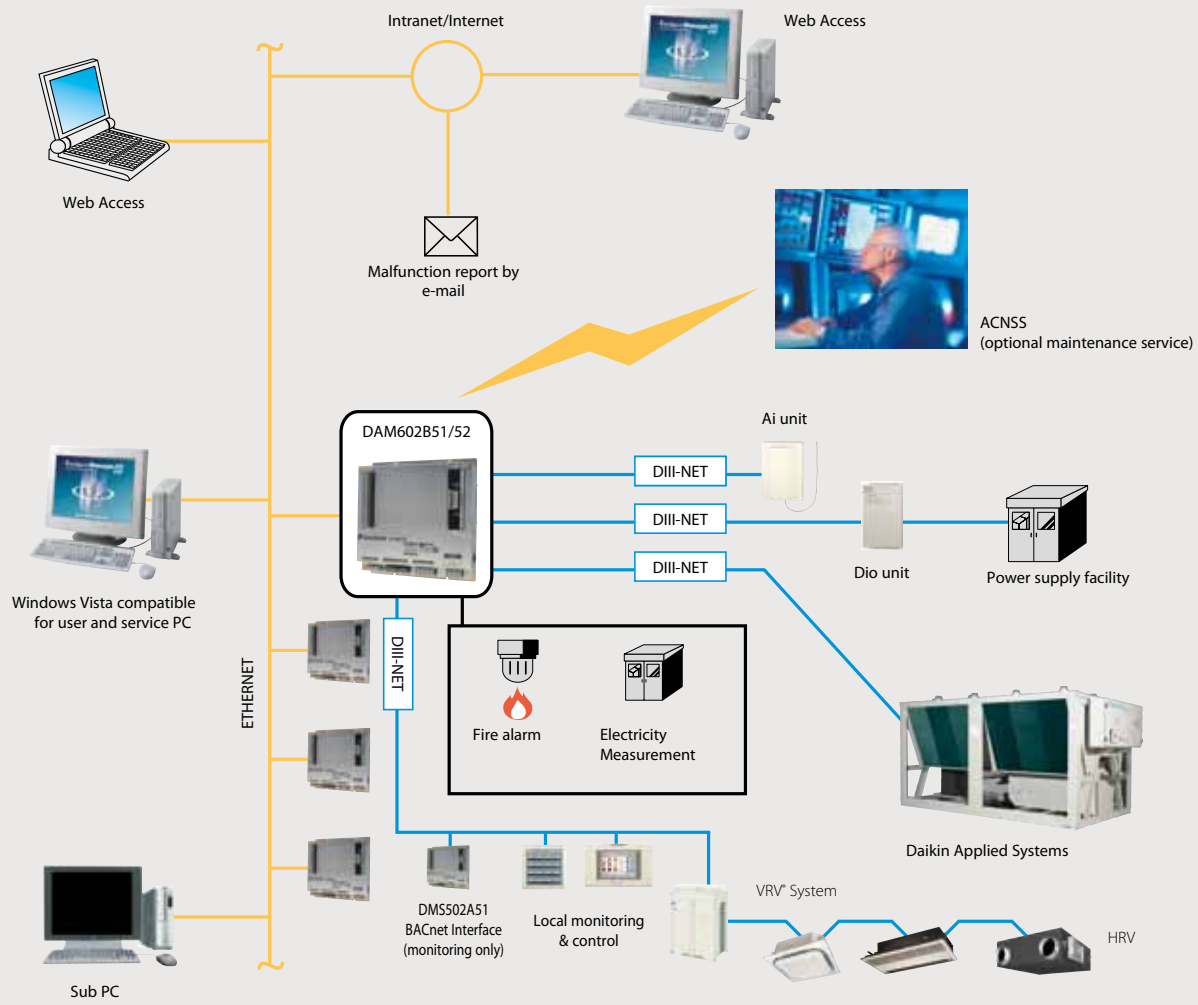
DAIKIN CONTROL SYSTEMS

INTELLIGENT MANAGER

Full control and management of VRV® systems (maximum 200 groups)

intelligent Manager

SYSTEM LAY-OUT



BENEFITS

LANGUAGES

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

ENERGY EFFICIENCY

- Power proportional Distribution (option)
- Peak load shedding
- Sliding temperature
- Eco mode (option)
- Power failure / release control
- Temperature limit (automatic start)

MANAGEMENT

- Web access function (option)
- Operational history management (start / stop, malfunction, operating hours)
- Generation of reports (graphics and tables) (daily, weekly, monthly)
- Advanced tenant management

CONTROL

- Analogue interlock
- Login setting
- Individual control (setpoint, start / stop, fan speed) (max. 1,024 indoor groups on one iManager system with four iPUs)
- Group control (200 groups)
- Centralized air conditioning control
- Schedule control (200 programs)
- Fire emergency stop control (32 programs)
- Interlock with security system
- Setpoint limitation
- Automatic cooling / heating changeover
- Timer extension
- Pre-cooling and pre-heating function *

MEASUREMENTS

- Operation time integration
- Switching number integration
- Meter reading (through Pi port on iPU)
- Power proportional reading

* Contact your local dealer for more information and availability

DATA STORAGE/REPORT

- Print output
- Data storage

MONITORING

- Operating status monitoring
- Air conditioning unit failure prediction (optional)
- Upper limit monitoring of integrated values (per management point)
- Continuous operating period monitoring (per management point)
- Power failure monitoring
- Visualization via graphical user Interface (GUI) featuring free layout
- Operation mode of indoor and outdoor units
- HRV control
- Fault indication
- Indication filter replacement
- Setpoint indication
- Operation time monitoring
- Multi PC
- On line help
- WatchDOG
- Remote intelligent Manager (Remote Operation / remote error monitoring)
- Operation and error history

DISPLAY

- Management point name / icon / list display
- Control group list display
- Screen scroll function
- Operation time display
- Integrated switching number display
- Historical display (malfunctions, alarms, control).

WARNING

- Emergency signal input

SYSTEM LAYOUT

- Up to 1,024 indoor units can be controlled (by 4 iPUs)
- Ethernet TCP/IP (100 Mbit recommended)
- Integrated digital contacts on the intelligent processing unit (iPU)
  - 20 general input ports
  - 2 digital outputs
- Stand alone operation of the iPU for minimum of 48 hours
- Compatible with UPS shutdown software

MANAGEMENT

VISUAL NAVIGATION

Simple navigation

› Information can be shown simply and quickly by clicking the jump button: a list of all available screens will appear. The back button of course, reverses the procedure.

Easy management via optional layout displays

It is possible to display a flexible screen configuration system that increases users' freedom to perform tasks such as decisions on the location of individual air conditioning units with respect to the actual layout of the building.

› Flexible component configuration (background and links)
  3 active types:
  - Icons
  - Buttons
  - Real time info

GRAPHICAL REPORT

Displays minute changes in easily understood terms via graphical expression

Intelligent Manager can provide graphical displays of all operational and measurement data and express changes and comparisons in an easy to understand manner that would be difficult to grasp with mere tables.

Depending on the particular purpose at hand, you can switch between the graphical and table report.

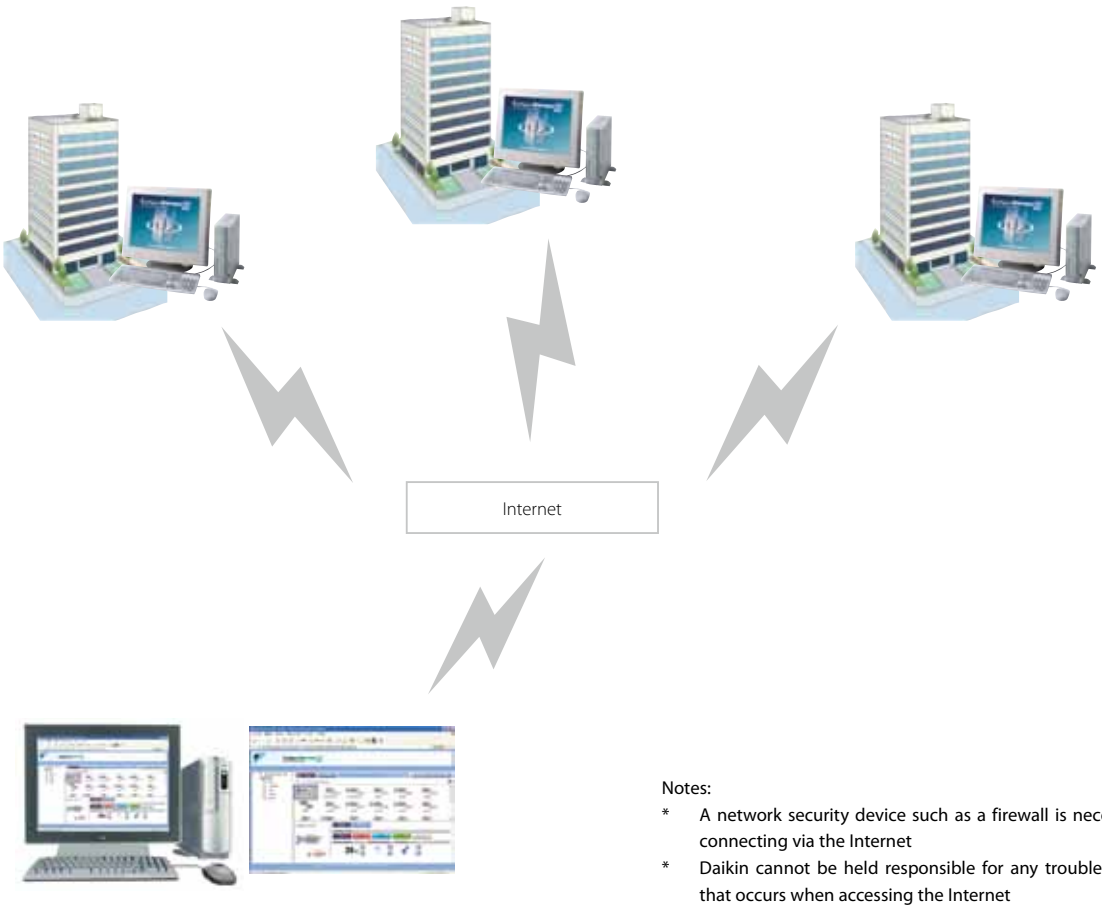
* Temperature and power consumption can be shown in same graph

› Flexible configuration to display:
› Temperature
  - Analog input
› Power consumption
  - Pulse meter
› Operation time
  - Indoor units
  - Digital input
  - Digital output
› Flexible group **configuration**

WEB ACCESS FUNCTION

Remote monitoring and control of more than one building via the Internet

Allows monitoring and control of more than one building via the Internet from a central location.



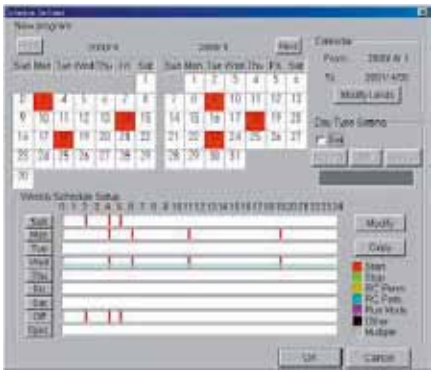
Notes:

* A network security device such as a firewall is necessary when connecting via the Internet
* Daikin cannot be held responsible for any trouble whatsoever that occurs when accessing the Internet

CONTROL

SCHEDULE POSSIBILITIES

Automatically performs facility start/stop control, switching the operating mode, setting temperatures and enabling/disabling the remote control according to the preset time schedule. All that is required is the registration of a single week cycle, program scheduling and the specification of which operations should be performed on each day. Furthermore, holidays or special days throughout any one year (13 months) can be specified along with the method of operation for holidays or special days in the same way as the daily operating schedule when using the schedule program.

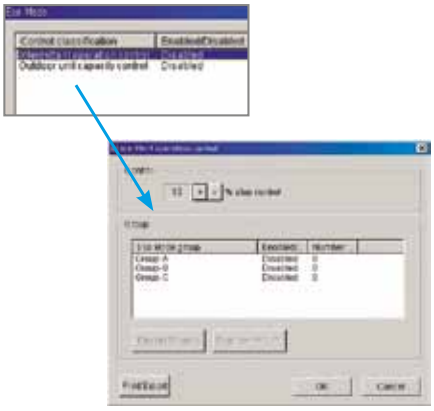


Display of operating shedule setting/status

ECO MODE

Reduces power consumption by 10 to 20%, whilst maintaining room comfort

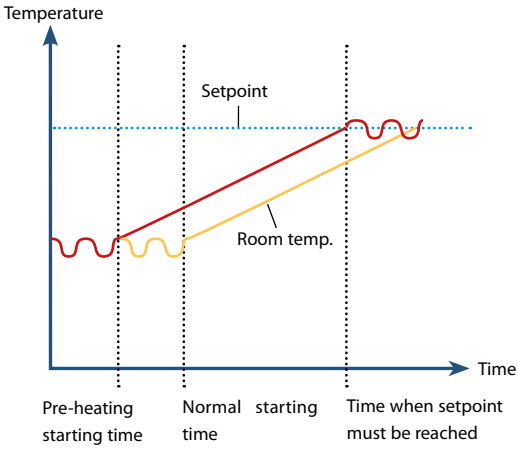
Based on a predetermined schedule, Intelligent Manager executes capacity control and intermittent operation for all air conditioning units in order to maintain room comfort.



- Flexible group configuration
- 2 control types:
  - Alternative stop control
  - Outdoor unit capacity control

PRE-COOLING AND PRE-HEATING FUNCTION

This function varies the starting time of the system depending on actual and predicted heating/cooling loads in the room. This results in a more efficient use of the air conditioning system and improved comfort.

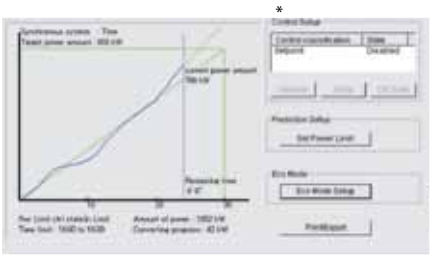


POWER LIMIT CONTROL

Enables systematic management of air conditioning power consumption

Intelligent Manager can predict the air conditioning operating cycle in order to limit power consumption to the set targets. This enables users to systematically manage air conditioning power consumption, which has hitherto been uncertain.

- Flexible group configuration
- Set point
- Real time control
- 30 minutes prediction time



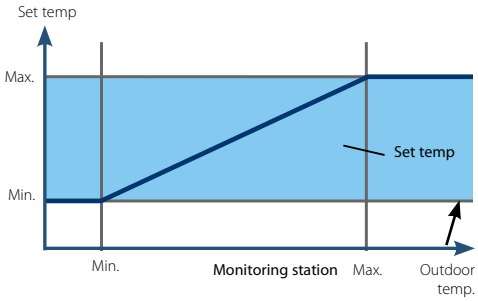
Power consumption prediction based control.
* Real time control

SLIDING TEMPERATURE

Limits overcooling via sensory comfort control

Intelligent Manager can monitor the outdoor temperature and automatically adjust room temperature, minimizing drastic indoor/outdoor temperature differences and promoting maximum energy efficiency.
Intelligent Manager can also eliminate uncomfortable cold shock zones around building entrances etc.

- Flexible group **configuration**



Note: Optional DIII-Ai kit required DAM101A51

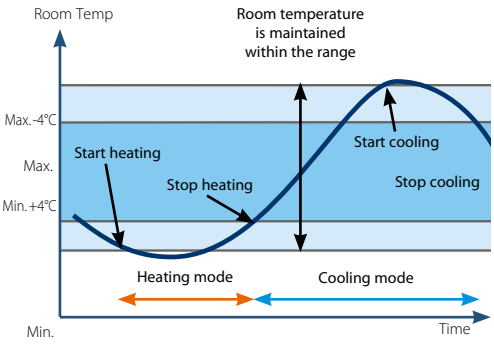
TEMPERATURE LIMIT

Provides the appropriate operation management by limiting maximum and minimum temperatures

Intelligent Manager allows users to limit maximum and minimum temperatures, ensuring the appropriate room temperature via automatic control.

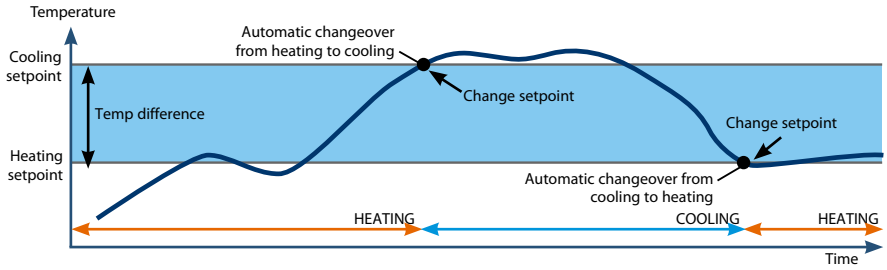
It also eliminates any unnecessary and excessive operation that may result in overcooling or overheating.

- Flexible group configuration



AUTOMATIC COOLING/HEATING CHANGEOVER

Maintains optimum room temperature by automatically selecting cooling or heating mode according to room temperature in locations subject to large temperature differences between night and day.



EASY MANAGEMENT OF ELECTRICITY CONSUMPTION (PPD)

Provides information on power proportional distribution, making it easier to manage electricity consumption

Software to compute electric power proportional distribution enables electricity consumption data (CSV format) for each indoor unit connected to Intelligent manager to be saved. However, grouping of indoor units is not allowed. PPD data can then be displayed on a PC or spreadsheet programme. Consumption rates can be freely calculated relative to the different accounting methods that may be used according to the respective conditions.

PPD data is now available on the internet via combined web access and PPD function

PPD data can be accessed from remote and multiple buildings via the internet. Access can be gained from any location by a PC, through a combination of web access and PPD function.

PPD data originally had to be accessed on each site.

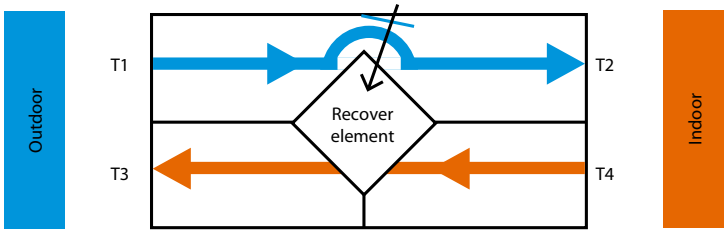
But PPD data can now be accessed remotely via the internet.

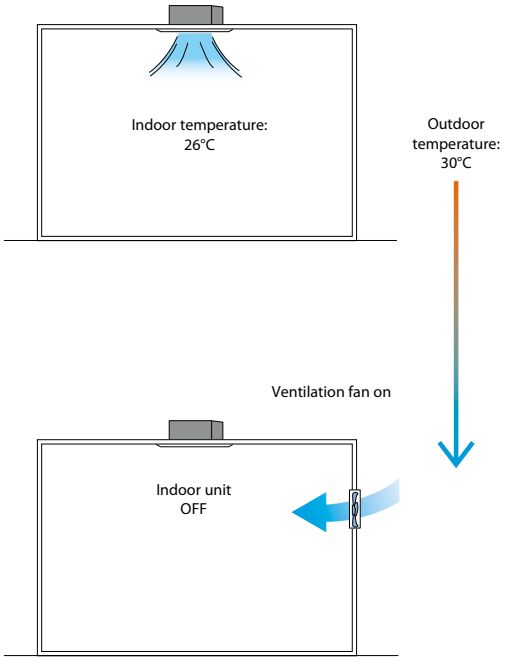
ANALOGUE INTERLOCK

AHU with simple free-cooling function

If the indoor temperature is higher than the outdoor temperature it is not neccessary to cool down the room with the air conditioning system. Simply introducing the fresh outdoor air provides the neccessary cooling.

T1 < T4 in summer activates the "free-cooling" mode





BACnet compatibility

Intelligent Manager can be combined with non-standard BACnet Interface. For further details contact your sales representative.

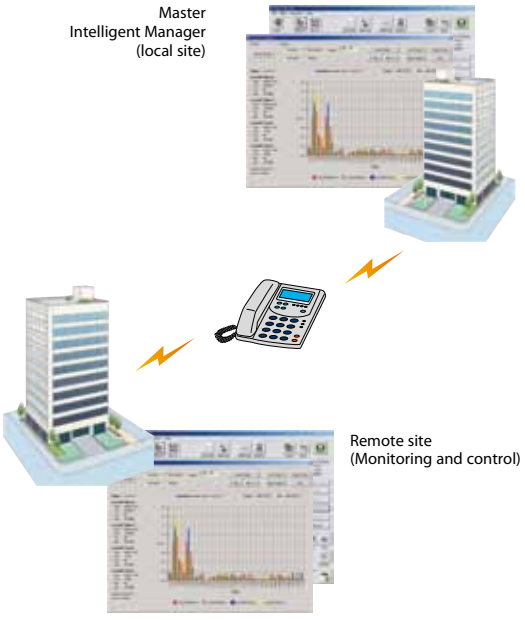
MONITORING

REMOTE INTELLIGENT MANAGER

Flexible management of air conditioning equipment in multiple buildings

Intelligent Manager enables the flexible monitoring and control of remote air conditioning systems via public phone lines. Air conditioning systems in more than one building can be managed from one location, making it easy to reduce system management costs and bring consistency to the system environment.

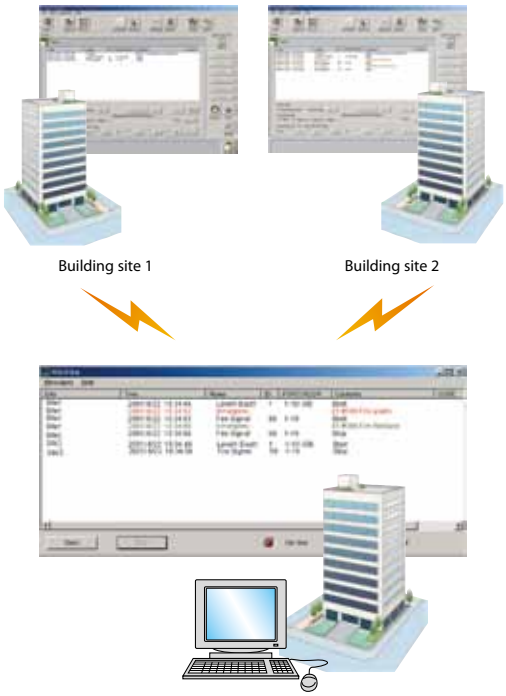
- Remote control and monitoring, data management, etc
- Based on Windows RAS (remote access).



WATCHDOG

Large-scale maintenance systems can be run at low costs

The system can receive error messages from air conditioning units in more than one building or structure via public phone lines. This allows the user to configure an appropriate maintenance system over a broad area at the lowest cost.



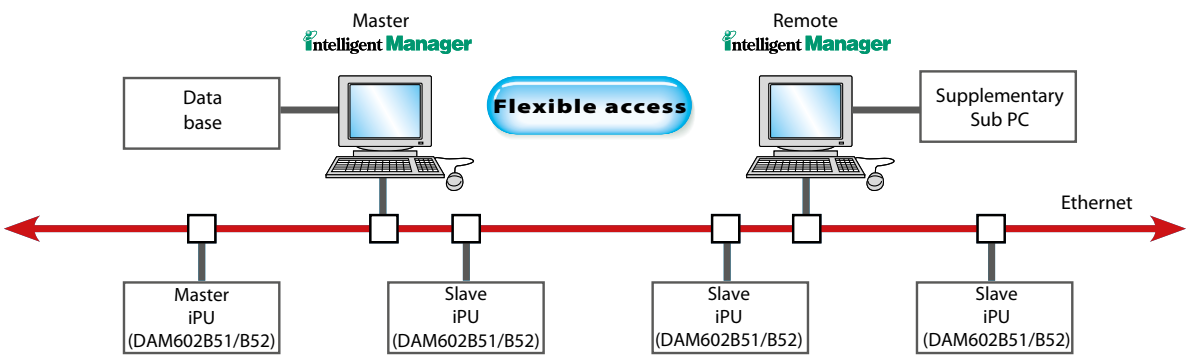
WatchDOG (telephone remote monitoring):

› Transmit malfunctions, etc
  - Configurable dial retry
  - Alternative phone number
› Remote monitoring:
  - Multiple sites
  - Printouts
  - File backup

MULTI-PC

Can be connected to existing LANs, contributing to a reduction in costs.

Intelligent Manager can be easily connected to existing LAN networks, enabling users to reduce installation costs.



SPECIFICATIONS

Description				Comments
PC	Performance	CPU		Pentium 800MHz or above recommended
		Memory		256Mb or above
		HDD		4GB minimum, 8GB or above recommended
	Network			100 Mbit Ethernet
	Operation			Keyboard, mouse, sound & speaker
	Software			Windows XP (Professional SP2 or later), Windows 2000 (Professional SP4 or later), Windows Vista
				Internet Explorer 7.0
CRT	SVGA			800 x 600, 1,024 x 768, 1,280 x 1,024
Printer				A4 page printer
Network equipment				Multi Port HUB (1 port per iPU and PC required)
IPU	DAM602B51			256 indoor groups per iPU
(intelligent processing unit)	DAM602B52			128 indoor groups per iPU
	Back-up for power failure			Data is filed in non volatile memory
	Transmission			DIII-NET std: 1 line; Max. 4 lines / 1iPU
	Power supply			AC100-240V, ± 10%, 50 / 60Hz, Max. 20W
	Ambient temperature			-10 ~ +50℃
	Ambient humidity			0~98% (condensation is not acceptable)
	Dimensions	H x W x D	mm	281 x 260 x 58.5
	Weight		kg	4
UPS	Capacity			200~250W / 20min
(eg. APC SMART UPS 1,000)	Voltage			As required on the field
	Control signals			Power failure signal (from UPS), UPS shut down signal (to iPU)/Power failure signal from UPS to both iPU and PC
	Relay			I/0 module (AP9610)

ACCESSORIES

Description	Reference	Comments
Interface adapters	KRP928B2S	For connection to Split units
	DTA102A52	For connection to R-407C / R-22 Sky Air units
	DTA112B51	For connection to R-410A Sky Air units
DIII Ai	DAM101A51	• Measurement of outdoor temperature: -10 ~ +50°C • DIII-NET communication to Intelligent Manager • Installation: Outdoors, waterproof case adopted • Power supply: AC 200-240V, 50/60Hz
Digital input	DEC101A51	Input contacts: 8 inputs with additional error feedback
Digital input/output	DEC102A51	Output contacts: 4 points with additional error and ON/OFF teedback

OPTIONAL SOFTWARE

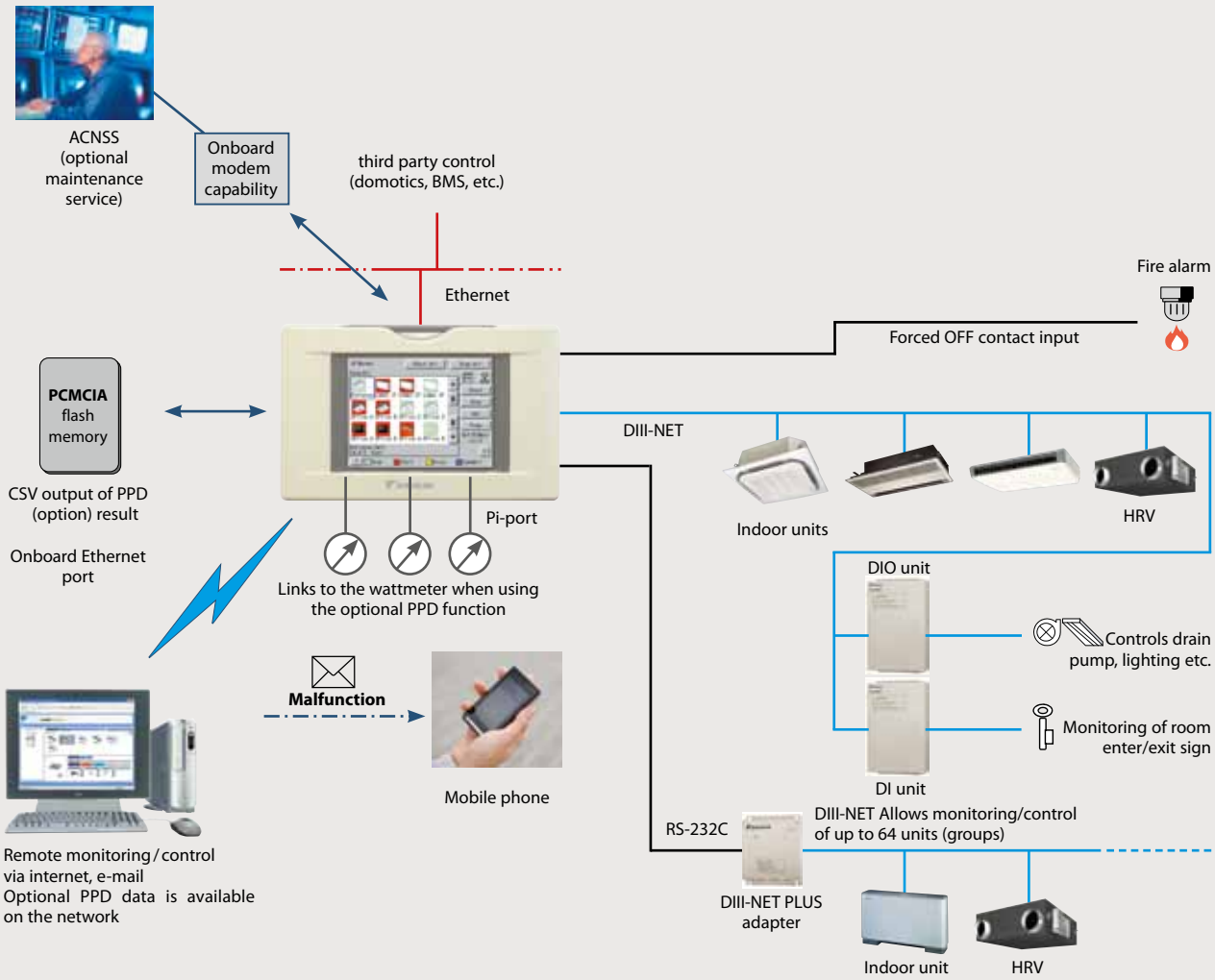
Description	
Power Proportional Distribution	DAM002A51
ECO Mode	DAM003A51
Web Access Function	DAM004A51

intelligent touch Controller

INTELLIGENT TOUCH CONTROLLER

Detailed and easy monitoring and operation of VRV® systems (maximum 2 x 64 groups)

SYSTEM LAY-OUT



BENEFITS

LANGUAGES

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

MANAGEMENT

› Web application & internet compatibility
  - Monitoring & control according to user
  - Remote monitoring & control of more than one building
  - Remote monitoring & control of more than one building via internet
› Easy management of electricity consumption: Power Proportional Distribution (option)
› PPD data is available on the network through Web option
› Enhanced history function
› Http interface option

CONTROL

› Individual control (set point, start/stop, fan speed, etc) (Max. 2 x 64 groups/indoor units)
› Enhanced scheduling function (8 schedules, 17 patterns)
› Yearly schedule
› Flexible grouping in zones
› Free cooling function
› Automatic cooling/heating changeover
› Temperature limit
› Heating optimization
› Fire emergency stop control
› Interlocking control
› Increased HRV monitoring and control function
› Password security: 3 levels (general, administration & service)
› Quick selection & full control
› Simple navigation

MONITORING

› Visualisation via Graphical User Interface (GUI)
› Icon colour display change function
› Indoor units operation mode
› Error messages via e-mail (Web option)
› Indication filter replacement
› Multi PC

COST PERFORMANCE

› Labour saving
› Easy installation
› Compact design: limited installation space
› Overall energy saving

CONNECTABLE TO:

› VRV®
› HRV
› Sky Air® (via interface adapter)
› Split (via interface adapter)

SYSTEM LAYOUT

› Up to 2 x 64 indoor units can be controlled
› Onboard Ethernet port (web + e-mail)
› Digital i/o contacts (option DEC101A51/DEC102A51)
› Touch panel (full colour LCD via icon display)

OPEN INTERFACE

› Communication to a third party controller (domotics, BMS, etc.) is possible via http interface option

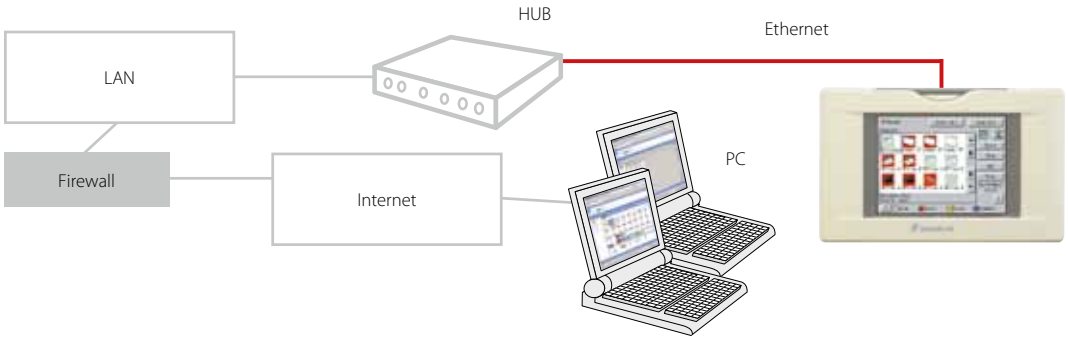
MANAGEMENT

WEB APPLICATION AND INTERNET COMPATIBILITY

Enables monitoring and control via the Internet from any PC worldwide with your standard Microsoft IE browser. You do not need to be on site to control your air conditioning system. There are 3 different options by which control can also be combined.

1. Using a LAN
2. Access via a public phone line and dial-up router
3. Access via an Internet connection

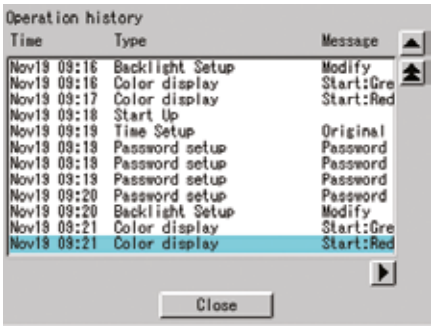
System example when using an Internet connection



Note :
* A network security device such as a firewall is necessary when connecting via the Internet

ENHANCED HISTORY FUNCTION

The error history function keeps a detailed record split up by malfunction item. This is an important feature for maintaining the system and dealing with malfunctions. It helps ensure that appropriate maintenance work is performed.



HTTP INTERFACE OPTION

Communication to a third party controller is possible via http interface option.

PPD DATA AVAILABLE ON THE INTERNET

PPD data can be accessed from remote and multiple buildings via the Internet. Access can be gained from any location by a PC through a combination of web access and PPD function, thereby simplifying electrical consumption management.

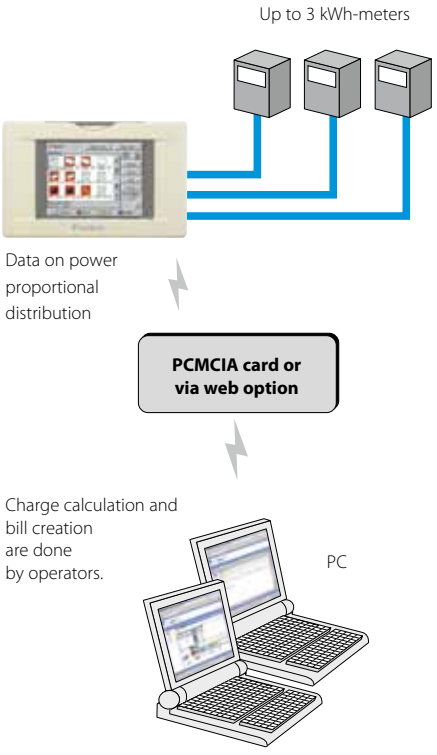
PPD data originally had to be accessed via a PCMCIA card in each building.

But PPD data can now be accessed remotely via the internet.

PPD software (DCS002C51) and Web software (DCS004A51) needed

EASY MANAGEMENT OF ELECTRICITY CONSUMPTION

Intelligent Touch Controller provides information on the proportional distribution of electric power, making it easier to manage electricity consumption. Optional software to compute electric power proportional distribution, (PPD) enables the electric consumption data (CSV format) per hour for each indoor unit (or zone) connected to Intelligent Touch Controller to be saved on a dedicated memory card (13 months data storage possible). It can then be displayed on a PC or spreadsheet programme. Consumption rates can then be calculated relative to the different accounting methods that may be used according to the respective conditions. Once your calculations are complete, the bill can be printed.



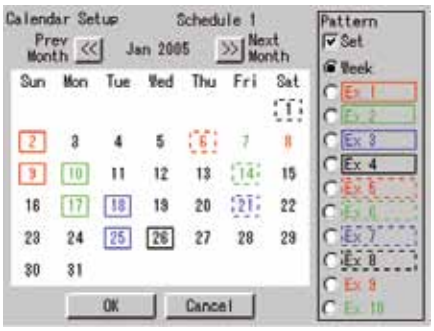
CONTROL

ENHANCED SCHEDULING FUNCTION

The enhanced scheduling function fully automates the daily management of the system in place on a yearly basis. This efficient automation allows the user to save on electricity bills.

Efficient automation through:

- Calendar based schedule execution: mark holidays and special occasions (such as open days, company events …) up to one year on beforehand
- Weekly schedule makes scheduling easy: prepared schedule is repeated automatically every week, except for special days
- Each week days' schedule allows up to 16 events; one event can include various actions at once: start/stop, set point change, operation mode, fan speed, swing flap setting, remote controller restrictions (possible actions depend on type of A/C unit)
- Up to 8 schedules can be activated, simultaneously, to allow more actions in total or to make different schedules according to season
- Up to 10 special day schedules can be preset



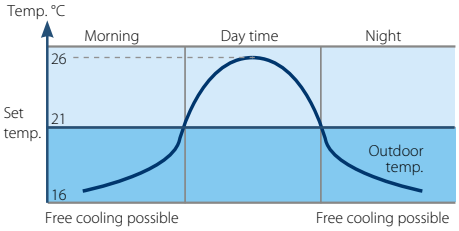
Calendar screen

HRV INTERLOCK

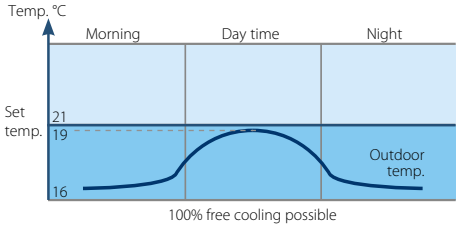
Centralised operation of HRV (heat reclaim ventilation) via the iTouch Controller enables VRV® air conditioning and HRV units to be interlocked. Automatic switching into ventilation mode simplifies overall system control and greatly enhances energy conservation.

FREE COOLING

The free cooling option reduces the air conditioning energy consumption and uses energy in a more efficient way by actively introducing fresh air into rooms. Free cooling maintains indoor comfort through the introduction of low temperature outdoor air into rooms.



Example of free cooling during summer



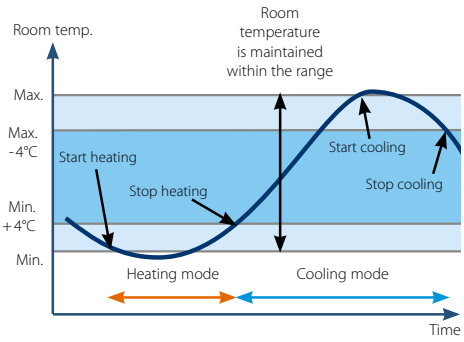
100% free cooling possible

Example of free cooling during intermediate season

TEMPERATURE LIMIT

Automatically starts and stops the air conditioner to prevent temperatures from rising or falling too far, e.g. in unoccupied rooms.

- prevents overheating of equipment and formation of condensation in temperature controlled equipment in unoccupied rooms
- also assists in preserving heat in entire buildings by preventing unoccupied rooms from reaching extreme night time temperatures.



HEATING OPTIMIZATION

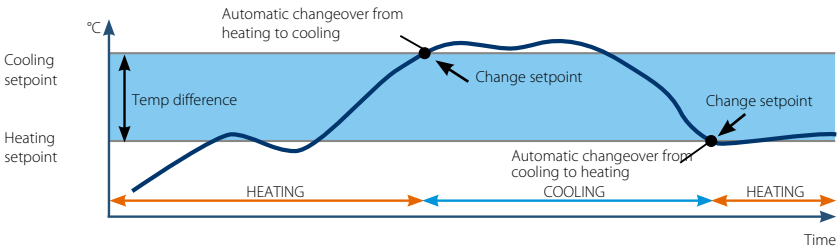
Controls the air conditioner's fan during heating mode, depending on room and set temperatures to prevent the temperature from rising.

INTERLOCKING CONTROL

The iTC function automatically shuts down the air conditioner whenever a window is opened in the same room. A wide variety of control functions can be configured. For example, the controller can be linked with a fire alarm device to terminate operation in the event of an emergency. In fact, any "if ….then…." functions can be activated via digital input/output accessories or iTC.

AUTOMATIC COOLING/HEATING CHANGEOVER

Maintains optimum room temperature by automatically selecting cooling or heating mode according to room temperature in locations subject to large temperature differences between night and day.



PASSWORD SECURITY

3 different password levels can be registered separately, permitting access to different levels of control functions:

- General
- Administration
- Service

QUICK SELECTION AND CONTROL

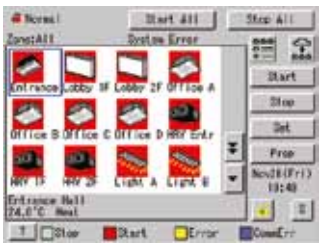
Just two or three simple operations enable an individual air conditioning unit to be quickly selected and controlled.
The operator can scroll search and then specify the air conditioning unit required merely by touching the icon. Icons display the operating status of the air conditioning unit(s) in question and the menu allows a variety of settings to be made without any problem.

FULL CONTROL

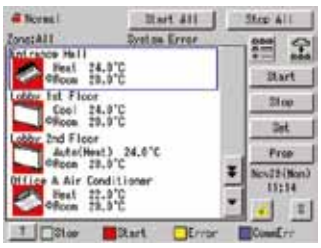
It allows easy operation of a variety of functions including the setting of operation mode and temperature.
Touching upon "Operation/Details" brings the operator to the screen used on a daily basis and input simply requires a touch of a pen.

SIMPLE NAVIGATION

Changes from icon to detailed icon or even list display and vice versa can be made according to operator preference.
Intelligent Touch Controller enables icon, detailed icon and list displays to be changed according to management and monitoring requirements, irrespective whether individual indoor unit information is being confirmed or room temperatures compared.



Icon display



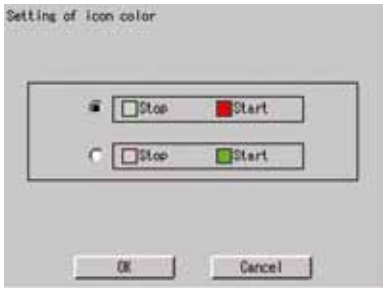
Detailed icon display

List display

MONITORING

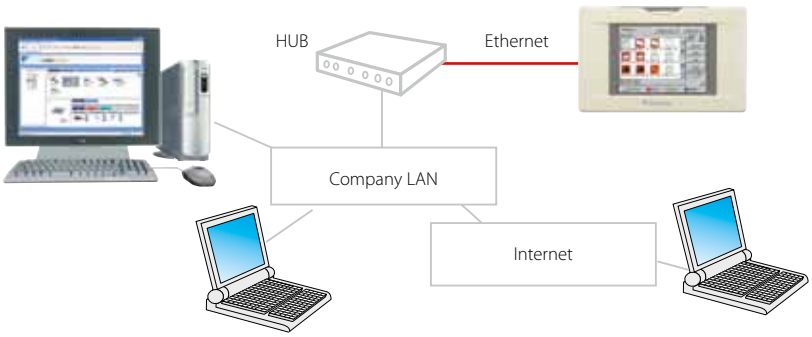
ICON COLOUR DISPLAY CHANGE FUNCTION

The colour of the icons, indicating running and stopped status can be changed. This makes it easy to customize the display to match administrator preferences or match the display of other control devices.



ERROR MESSAGES VIA E-MAIL (OPTION)

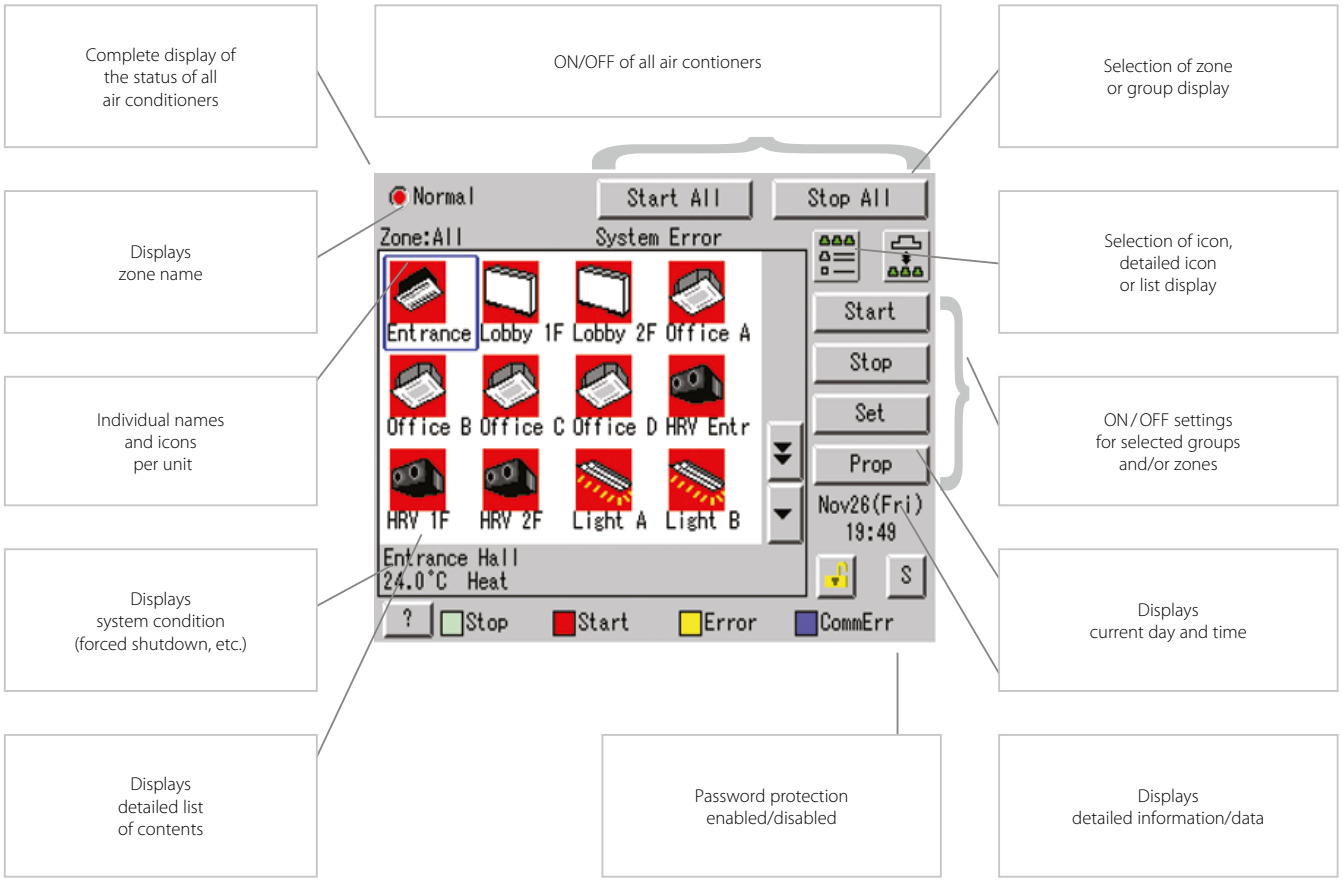
If an error should occur, you will receive a malfunction report via e-mail.



Set up is necessary to receive malfunction notifications via e-mail. Also, the location to be accessed must have an SMTP server. Consult the administrator of your company's LAN for detailed information on the required settings.

DETAILED AND EASY MONITORING AND OPERATION

Detailed and easy monitoring and operation of systems with up to 2 x 64 groups of indoor units (with maximum 2x 128 actual indoor units).
Just a touch on the screen brings up icons that make it easy to grasp any information regarding system control. The Intelligent Touch Controller enables an operator to carry out a variety of quick and easy operations, establish numerous settings and bring up screens to confirm the details.



SPECIFICATIONS

				Intelligent Touch Controller	DIII-NET Plus adapter
Reference				DCS601C51	DCS601A52
Power supply				externally supplied AC100V-240V, 50/60Hz	externally supplied AC100V-240V, 50/60Hz
Condition of installation method for use				JIS4 switchbox embedded in indoor wall	-
Operating condition	Surrounding temperature			0°C to 40°C	-10°C to 40°C
	Humidity			less than 85 % RH (if no condensation)	less than 90 % RH
Dimensions	HxWxD		mm	147x230x107	190x157x42
LCD panel	Size / n° of dots / n° of colours			5.7 inches / QVGA 320x240 / 4,096 colours	-
Maximum number of indoor groups				1 x 64 (2 x 64: combined with DCS601A52)	1 x 64
Maximum number of outdoor systems				1 x 10 (2 x 10: combined with DCS601A52)	10
PC & display				built-in	-
Input	Touch panel			10 bit encoded analog input	-
Communication functions	DIII-NET x 1			air conditioning equipment communication line	air conditioning equipment communication line
	Ethernet			port for Web access and e-mail function	-
	RS-232C			DIII-NET Plus adapter	-
	10BASE-T			Web option	-
	Modem	999121A		onboard modem capability	-
	PCMCIA slot			flash memory card	-
Input terminals	Digital input Di x 1			forced shutdown	-
	Pulse input Pi x 3			power measuring pulse	power measuring pulse
Overseas certification	Safety of information - Technology Equipment			IEC60730 (including IEC60335)	IEC60730 (including IEC60335)
	Interference (EMC)			EN55022 Class A, EN55024	EN55022 Class A, EN55024
Project data & Engineering				Configuration and engineering for each project are necessary. For further details, please consult with Daikin distributors and dealers.	

ACCESSORIES

Description	Reference	Comments
Hardware	DCS601A52	DIII NET-Plus adapter
DIII-Ai	DAM101A51	Outdoor temperature sensor, required for free cooling changeover
Touch-Pen	1264009	Spare part n° of Touch-Pen for Intelligent Touch Controller
Interface adapters	KRP928B2S	For connection to Split units
	DTA102A52	For connection to R-22 / R-407C Sky Air units
	DTA112B51	For connection to R-410A Sky Air units
Digital input	DEC101A51	Input contacts: 8 inputs with additional error feedback
Digital input/output	DEC102A51	Output contacts: 4 points with additional error and on/off feedback

OPTIONAL SOFTWARE

Power Proportional Distribution (PPD) Software	DCS002C51
E-mail / Web software	DCS004A51
Http interface option	DCS007A51

DS-NET

Basic solution for control of Sky Air® and VRV®.

ALWAYS IN CONTROL NO MATTER WHERE YOU ARE

Up to 4 Daikin air conditioning units (Sky Air® or VRV®) can be connected to a DS-NET adapter and a third party GSM modem to allow operation and control via your mobile phone.

MONITORING FUNCTIONS

You can monitor your air conditioning units by simply sending a text message with your mobile phone with the word "Report":

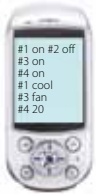
- Start/stop
- Operation mode (fan/cool/heat)
- Temperature setting
- Error code

CONTROL FUNCTIONS

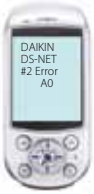
You can control your air conditioning units by simply sending a text message via your mobile phone:

- Start/stop
- Operation mode (fan/cool/heat)
- Temperature setting

Sending Screen



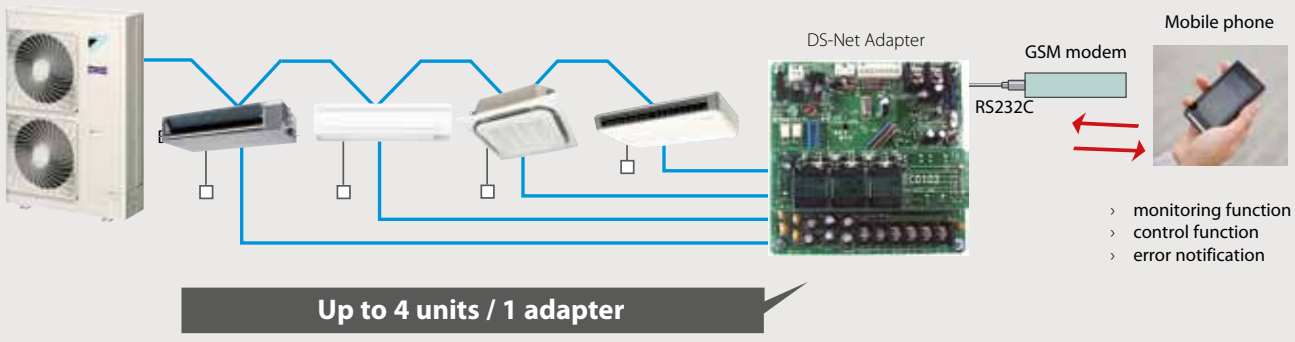
Response Screen



ERROR NOTIFICATION

When an error occurs, a text message will be sent automatically to your mobile phone (error notification).

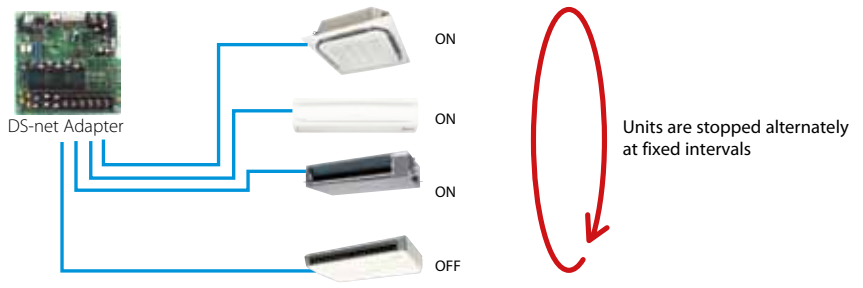
SYSTEM LAY-OUT



For compatible contact your dealer

ROTATION FUNCTION

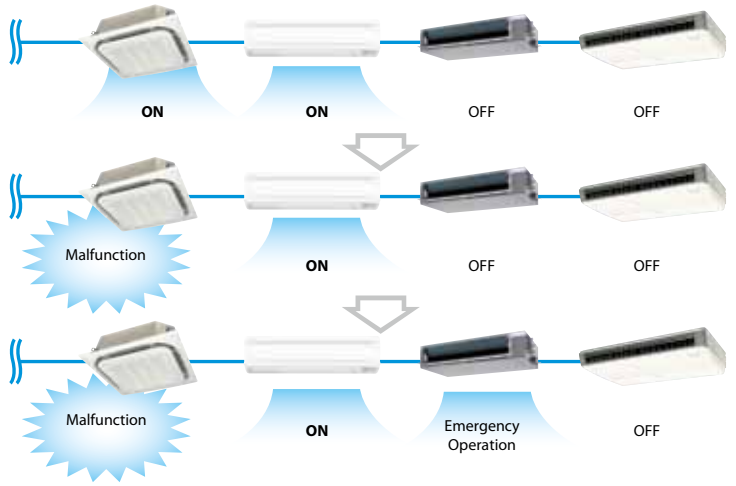
Units are stopped alternately at fixed intervals. This lowers the operating load on each unit, extends service life and reduces the rate at which breakdowns occur.



Sequential rest periods help to extend the service life of the system overall.

BACK-UP OPERATION FUNCTION

The back-up operation function automatically switches indoor units to emergency operation mode if one of the indoor units in a group malfunctions. This prevents the entire air conditioning system from shutting down at once and ensures that the indoor temperature does not rise suddenly before repairs can be completed.



SPECIFICATIONS

		DTA113B51
Supply - Voltage		DC 16V supplied from R/C line
Maximum number of connectable indoor units		4 units per adapter PCB (via GSM)
Forced ON/OFF input		Non-voltage (normal) 'a' contact x each point
Dimensions (mm)		100x100x35
Installation method		Built into the indoor unit or placed inside a box especially built for it
Communication functions	via GSM	RS232C, GSM modem
Ambient temperature/humidity conditions for operation		-10 ~ 50°C, max. of 95% RH
Control functions	via GSM	Start/stop, operation mode (fan/cool/heat), temperature setting
Monitoring functions	via GSM	Start/stop, operation mode (fan/cool/heat), temperature setting, error code
Malfunction monitoring functions		Malfunction reporting function
Automatic alternating operation functions	via GSM	Yes
Back-up operation functions	via GSM	Yes

1. A remote control is required for each indoor unit connected to this adapter.
2. If this adapter is attached, dual remote control operation is not possible. Also, combined use with an infrared remote control is not possible.
3. Combined use with centralized remote controls, Intelligent Touch controller, BACnet® Gateway and a group distance control adapter is not possible.
4. This adapter is compatible with a wide range of indoor units equipped with remote control wiring. However, in certain cases an installation box or installation board will be required. (4 power cables with different lengths are included in the package.)
5. Network equipment, an Internet service provider contract, an AT modem as specified above etc., are in order to connect to the Internet. Note that it may not be possible to install the system due to the condition of the telephone line.

MULTI-ZONE CONTROL VIA CENTRALISED CONTROL

Access to daily used functions for multiple indoor unit groups/zones, going from simple ON/OFF control to the advanced setting of weekly schedules.

Daikin offers a wide range of control systems for limited multi-zone control. They provide access to daily used functions for multiple indoor unit groups/zones, going from simple ON/OFF control to the advanced setting of weekly schedules.

These controls may be used independently or in combination with 1 group (= several up to 16 indoor units) or in combination with 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.

MAIN FUNCTIONS

	 DCS302C51 Centralised remote control	 DCS301B51 Unified ON/OFF control	 DST301B51 Schedule timer
Communications	2Wire / DIII-Net	2Wire / DIII-Net	2Wire / DIII-Net
Indoor unit capacity	64 groups / 128 indoor units	16 groups / 128 indoor units	64 zones/ 128 indoor units
Offers scheduling capabilities	-	-	✓
Restricts remote control functions	✓	-	-
Create zones from groups	✓	-	-
Power Proportional Distribution	-	-	-
Remote access capabilities	-	-	-
Batch forced off operation	✓	✓	-
Indicates system malfunctions	✓	✓	-

BENEFITS

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

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)

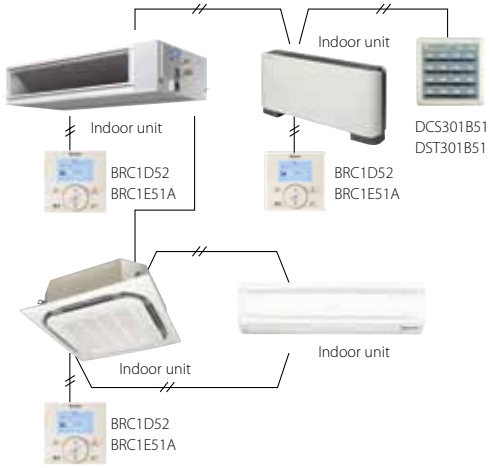
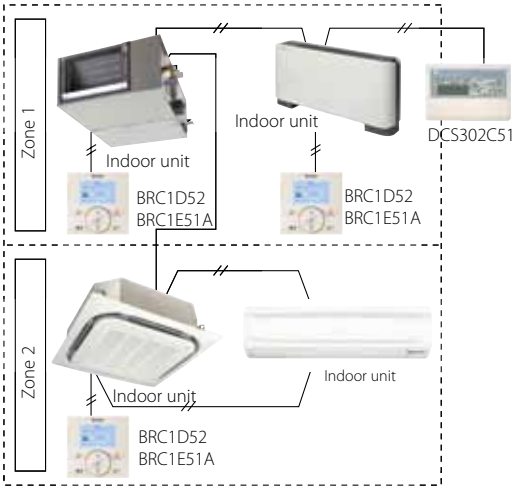
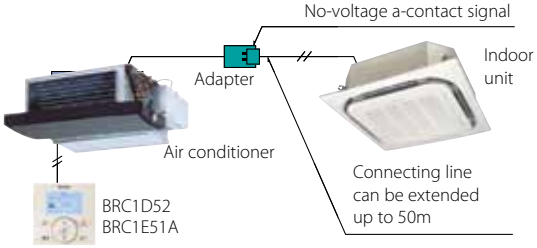
DST301B51

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)

SYSTEM CONSTRUCTION

		System Characteristics	Necessary Accessories
Batch / Individual Control System		**Unified ON/OFF control - DCS301B51** › One controller can control the on/ off operation of 16 groups of units collectively or individually › Up to 8 controllers can be installed in one centralised transmission line (in one system), which enables control of up to 128 groups. (16 groups x 8 = 128 groups) **Schedule timer - DST301B51** › One schedule timer can control the weekly sche-dule of up to 128 units › wired remote control can set the individual operation of each indoor unit › Control system can be expanded depending on its purposes by combining a variety of centralised control equipment	DCS301B51 or DST301B51, BRC1D52 or BRC1E51A If necessary: DCS302C51
Zone Control System		**Centralised remote control - DCS302C51** › The centralised remote control provides settings and monitoring functions and can control up to 128 indoor units. A special adapter is required to connect Sky Air® to the centralised line. › Control is possible in 3 different patterns: individual, batch or zone › Multiple groups can be controlled within the same zone › Multiple indoor units can be operated independently › Control system can be expanded depending on requirements by combining a variety of centralised control systems	DCS302C51, BRC1D52 or BRC1E51A If necessary: DSC301B51 or DST301B51
Combination with other types of air conditioners		› Simultaneous operation of Daikin indoor units and other air conditioners is possible via BRC1D52/ BRC1E51A	Connection adapter (no-voltage-a-contact-signal)

INDIVIDUAL ZONE CONTROL

Access to daily functions for one indoor unit (group) going from easy to use infrared controls to specially developed built-in total remote controls.

Individual control systems give occupants control of their own individual environment. The control systems provide the necessary flexibility towards building owners/facility managers through different security levels. This to allow more or less control to the actual end user to prevent misuse and ensure an energy efficient operation.

› One setpoint for multiple indoor units allows effective zoning
› 7 day schedule with up to 5 actions per day
› Occupant is in control of their individual environment
› Exploits heat recovery technology to its full potential

MAIN FUNCTIONS



	Wired Remote Control BRC1E51A / BRC1D51	"Simplified" (built-in) Wired Remote BRC2C51 / BRC3A61	Wireless Remote Control BRC4*/BRC7*
Multilingual display	✓[1]	-	-
Guide on display	✓[1]	-	-
Backlight	✓[1]	-	-
Contrast adjustment	✓[1]	-	-
Keylock	✓	-	-
Built-in backup power	✓[1]	-	-
Schedule and setback capabilities	✓	-	-
User restriction options	✓	-	-
Louver position adjustment	✓	-	✓
Reports system malfunctions	✓	✓	✓[2]
Space temperature sensor	✓	-	-
Simultaneous operation with Daikin multi-zone controllers	✓	✓	✓
Simultaneous operation with BACnet® and LonWorks®	✓	✓	✓
Group control capacity	Up to 16 indoor units	Up to 16 indoor units	Up to 16 indoor units
Communicatons	2-Wire / P1-P2	2-Wire / P1-P2	Infrared

[1] BRC1E51A only
[2] Audible tones from the indoor unit indicate existing malfunction details.

BENEFITS

BRC1E51A

BRC1D52

BRC4*/BRC7*

BRC3A61

BRC2C51

BRC1E51A

WIRED REMOTE CONTROL

User-friendly remote control with contemporary design.

- **Easy to use**: all main functions directly accessible
- **Easy setup**: improved graphical user interface for advanced menu settings
- **Real time clock** with auto update to daylight saving time
- **Schedule timer** with holiday setting, improved
- Weekly timer and home leave operation
- **Supports multiple languages** (English, German, Dutch, Spanish, Italian, Portuguese, French, Greek, Russian, Turkish)
- **Built-in backup power**: when a power failure occurs
- All settings remain stored up to 48 hours
- Including all BRC1D52 features

BRC1D52

WIRED REMOTE CONTROL

- Schedule timer:
- Five day actions can be set as follows:
  - set point: unit is switched ON and normal operation is maintained
  - OFF: unit is switched OFF
  - limits: unit is switched ON and min./max. control (cf. limit operation for more details)
- Home leave (frost protection): during absence, the indoor temperature can be maintained at a certain level.
- This function can also switch the unit ON/OFF
- User friendly HRV function, thanks to the introduction of a button for ventilation mode and fan speed
- Constantly monitoring of the system for malfunctions in a total of 80 components
- Immediate display of fault location and condition
- Reduction of maintenance time and costs

DISPLAY

- Operating mode
- Heat Recovery Ventilation (HRV) in operation
- Cool / heat changeover control
- Centralised control indication
- Group control indication
- Set temperature
- Air flow direction
- Programmed time
- Inspection test / operation
- Fan speed
- Clean air filter
- Defrost / hot start
- Malfunction

BRC4*/BRC7*

INFRARED REMOTE CONTROL

Operation buttons: ON/OFF, timer mode start/ stop, timer mode on/off, programme time, temperature setting, air flow direction (FXHQ, FXFQ, FXCQ and FXAQ models only), operating mode, fan speed control, filter sign reset, inspection / test indication
Display: Operating mode, battery change, set temperature, air flow direction (FXHQ, FXFQ, FXCQ and FXAQ models only), programmed time, inspection/test operation, fan speed.

BRC3A61

SIMPLIFIED BUILT-IN REMOTE CONTROL FOR HOTEL APPLICATIONS

Compact, user friendly unit, ideal for use in hotel bedrooms
Operation buttons: ON/OFF, fan speed control, temperature setting
Display: Heat Recovery Ventilation (HRV) in operation, set temperature, operating mode, centralised control indication, fan speed, defrost/ hot start, malfunction

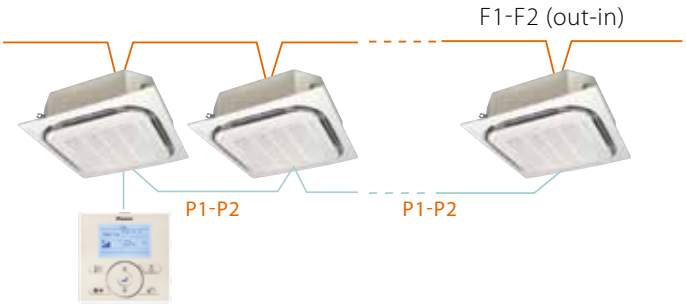
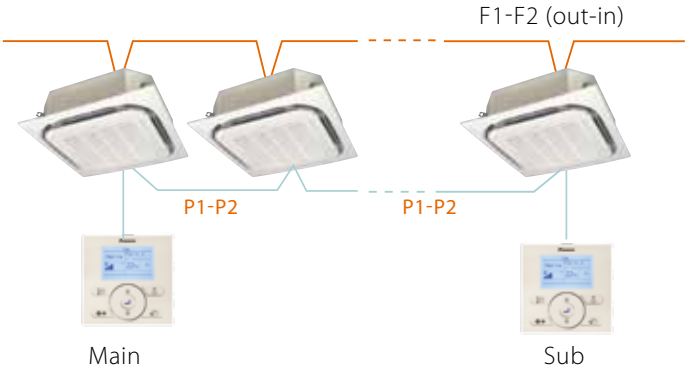
BRC2C51

SIMPLIFIED REMOTE CONTROL

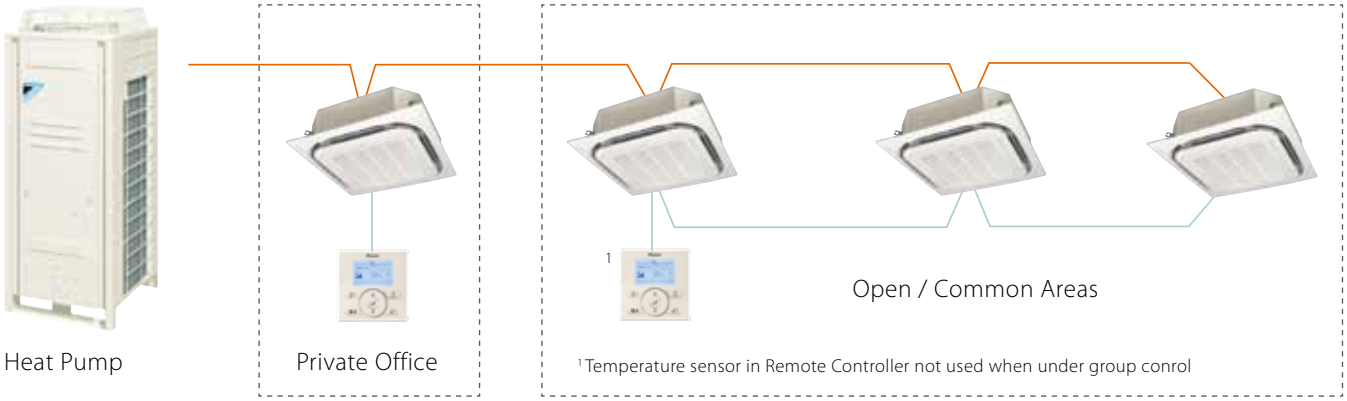
Simple, compact and easy to operate unit, suitable for use in hotel bedrooms.
Operation buttons: ON/OFF, operating mode selection, fan speed control, temperature setting
Display: Cool/heat changeover control, Heat Recovery Ventilation (HRV) in operation, set temperature, operating mode, centralised control indication, fan speed, defrost/hot start, malfunction adjustment, operating mode selection, fan speed control, filter sign reset, inspection test/operation

VRV® CONTROL CONCEPTS

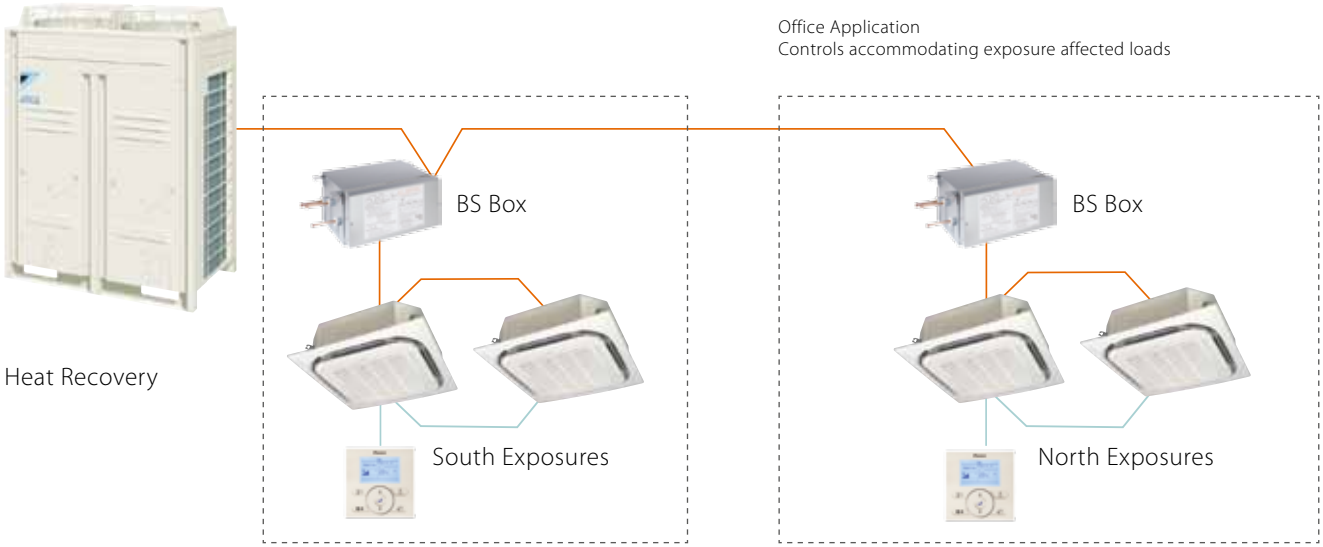
UNDERSTANDING INDOOR UNIT GROUPS AND INDOOR UNITS

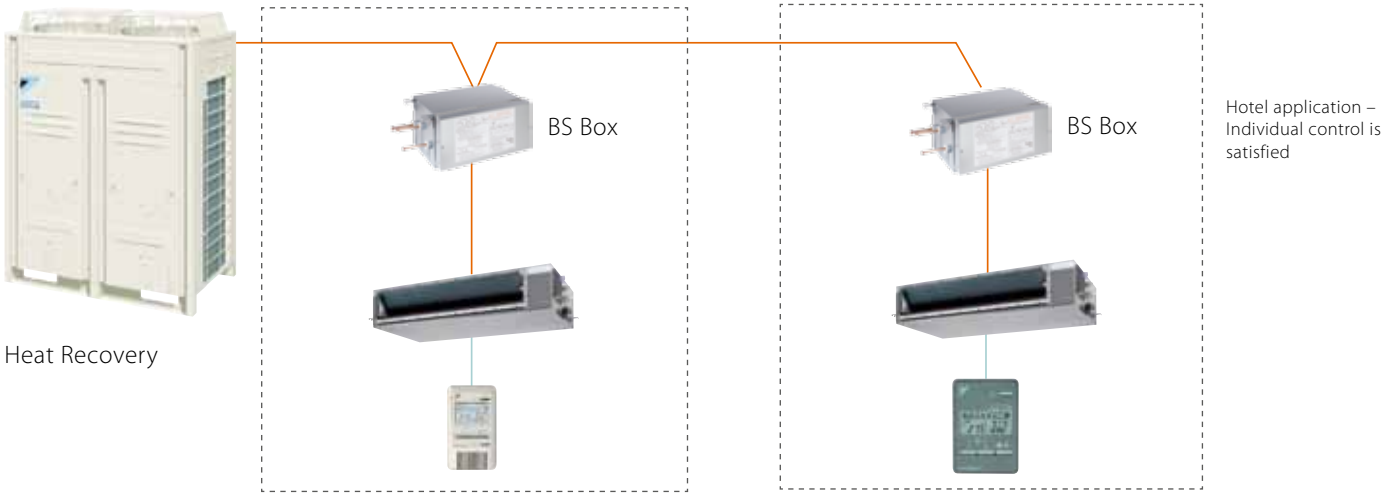
Indoor unit group	with 1 indoor unit	with up to 16 indoor units
with 1 remote control		
with 2 remote controllers		
without remote control	 * Install P1-P2 pigtail	Not Applicable

HEAT PUMP SYSTEM APPLICATIONS – REMOTE CONTROL GROUPS



HEAT RECOVERY SYSTEM APPLICATIONS – ZONING PRINCIPALS





OPEN PROTOCAL INTERFACES 46

OPEN PROTOCAL INTERFACES

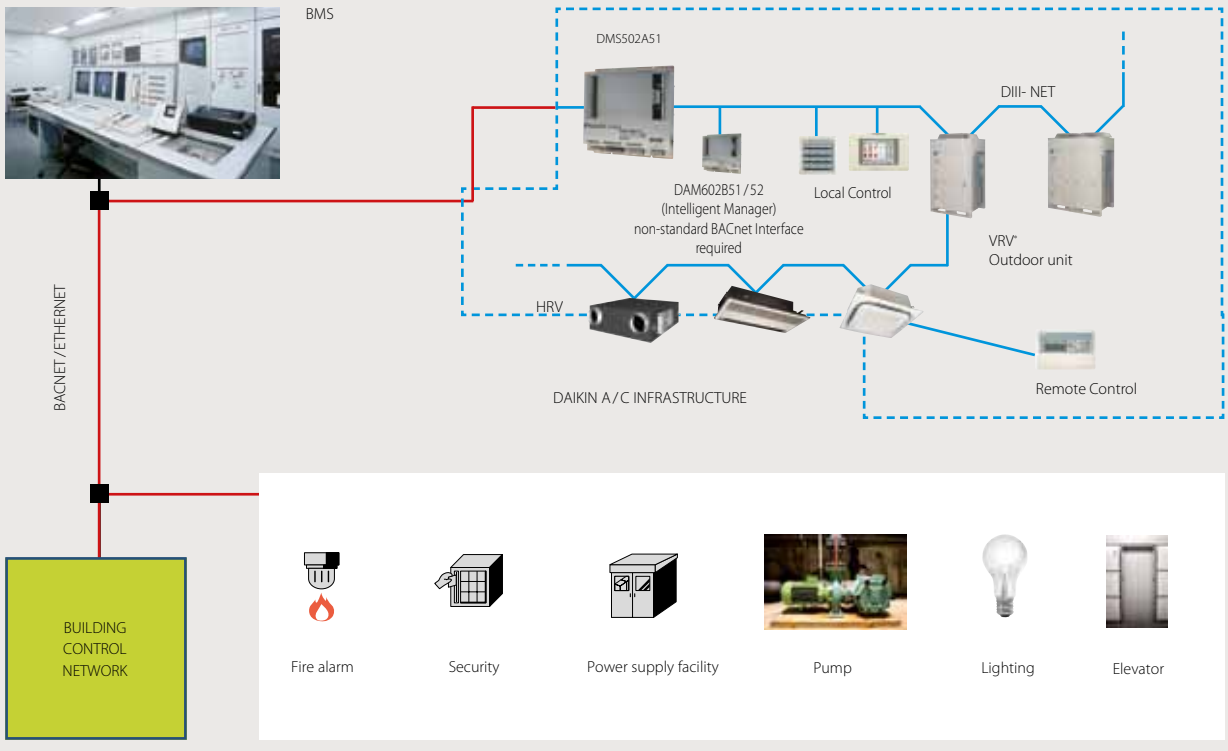
BACNET INTERFACE

Integrated Control System
for Seamless Connection
between VRV® and BMS Systems

BACnet Interface

- Precise and efficient monitoring and control of VRV® and HRV systems. Also Split and Sky Air units can be connected via an optional interface adapter
- Flexible, multi purpose system
- Control mechanism is BACnet
- Provides easy integration into building manage-ment systems (BMS) including management of all building installations in remote control or interlocked control.

SYSTEM LAY-OUT



BENEFITS

OPEN NETWORK INTEGRATION

The Daikin BACnet adapter requires no additional interfaces for connection to BACnet networks equipment and building control systems. BACnet networks are recognised worldwide as the standard within the building controls industry. BACnet data communication protocol makes it possible to control access, energy management, fire / life / safety, HVAC and lighting etc.

QUICK AND EASY INSTALLATION

The open protocol specification gives local system integrators complete design freedom. Moreover, the ability to combine individual items of equipment into BACnet networks reduces the time and costs required for wiring work.

UNLIMITED SITE SIZE

The network adapter can be connected to 128 groups (256 with optional accessory). Maximum value of BACnet Interface is set by BACnet BMS.

ROHS COMPLIANCE

- Restriction of Hazardous Substances in electrical and electronic equipment (2002 / 95 / EC).
- Hazardous substances include Lead (Pb), Cadmium (Cd), Hexavalent Chromium (Cr6+), Mercury (Hg), Polybrominated biphenyls (PBB), Polybrominated diphenylether (PBDE).
- Although RoHS regulations are only applicable to small and large household equipment, Daikin's environmental policy nevertheless ensures that VRV®III will be totally in line with RoHS.

SPECIFICATIONS OF COMMUNICATION

Objects

- Analog input
- Analog value
- Binary input
- Binary output
- Binary value
- Multistate input
- Multistate output

Functionality

- Monitoring
- Commanding
- Alarming

Datalink

- Ethernet (IEEE802.3)
- BACnet / IP

FUNCTIONS

Monitoring

- Air conditioning status monitoring: 128 groups of indoor units and 20 outdoor systems. (Max 256 groups of indoor units and 40 outdoor systems, when optional DIII board is added)[1]
- Indoor unit error monitoring
- Indoor (air inlet) temperature monitoring
- Filter sign monitoring
- Thermostat status
- Compressor operation status
- Indoor fan operation
- Heater operation
- Air direction monitoring
- Air flow rate monitoring
- Forced thermostat off / on monitoring
- Alarm sign
- PPD data2
- The transmission of VRV® PPD,(power proportional distribution) data is possible by BACnet communication for BMS system.

Control, operation and settings

- Start / stop control
- Temperature adjustment mode setting
- Remote control setting
- Temperature setting
- Filter sign reset
- Indoor unit mode setting
- Air direction setting
- Air flow rate setting
- Forced thermostat off / on setting
- Energy efficiency command (setting temperature shift)
- Forced OFF setting
- Subgroup adress control operation rejection
- Gateway LED display for operation and malfunction detection

1 Optional DIII board (DAM411B51)
2 Optional Di board (DAM412B51) is required

COMPATIBILITY WITH LEADING BMS SYSTEMS, A.O.:

MANUFACTURER	TYPE	
Andover Controls	- Continuum ver. 1.6	1.6
Cimetrics Sauter	- OPC Server	
Honeywell	- EBI	V2.0
Iconix Sauter	- OPC Server	
Invensys (Sacthwell) Polar Soft	- System Manager - BACdoor	
Johnson Controls	- Metasys BSI	V9.01c
Johnson Controls	- Metasys N30	
Priva		
Reliable Systems	- Mach	

MANUFACTURER	TYPE	
Siemens	- System 600 Apogee Insight	V3.2
Siemens	- System 600 Apogee Insight	V3.4
Siemens	- Desigo Insight	V1.01
Siemens	- PX Desigo Insight	V2.2
TAC Pacific	- OPC Server	
Trane	- Tracer Summit	
Trend		
Tridium	- Niagara Framework	2.301.321.v1
Trilogy		

Compatibility can be checked with a Joint Matching Test before installation.
For more information contact your sales representative.

SPECIFICATIONS

ITEM			DESCRIPTION
BACnet Interface	DMS502A51		Up to 128 groups
BACnet transmission			ASHRAE135 (IEEE802.3)
			BACnet/IP
			Conformance class3
Power supply			1~ AC, 100 to 240V, ± 10% at 50/60Hz
Power consumption			20W max.
Dimensions (H x W x D)		mm	263x275x81.5
Weight		kg	± 3
Ambient condition			-10°C to 50°C within humidity range between 0% and 98% (no condensation)
Insulation resistance			At least 50M Ω at 500VDC

ACCESSORIES

ITEM		DESCRIPTION
DIII board	DAM411B51	Extension of 2 x DIII lines (2 x 64) indoor groups
Optional Di board	DAM412B51	In case of PPD to provide up to 12 pulse input points
Interface adapters	KRP928B2S	For connection to Split units
	DTA102A52	For connection to R-22/R-407C Sky Air units
	DTA112B51	For connection to R-410A Sky Air units

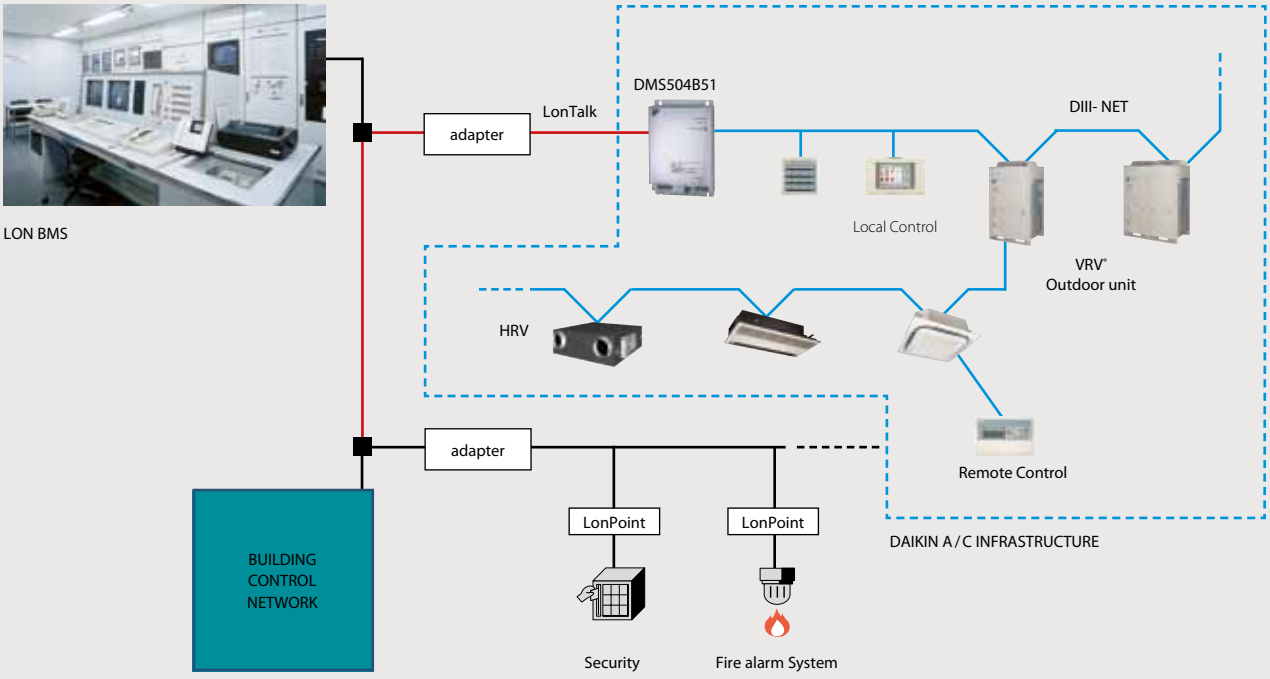
LONWORKS INTERFACE

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

LonWorks Interface

The Daikin LonWorks adapter requires no additional interfaces for connection to LonWorks networks equipment and building control systems. LonWorks networks are recognised worldwide as the de facto standard within the building controls industry. LON BMS makes it possible to control access, energy management, fire / life / safety, HVAC and lighting etc.

SYSTEM LAY-OUT



BENEFITS

QUICK AND EASY INSTALLATION

The open protocol specification gives local system integrators complete design freedom. Moreover, the ability to combine individual items of equipment into a LonWorks networks reduces the time and costs required for wiring work.

UNLIMITED SITE SIZE

The network adapter can be connected to up to 64 groups, depending on the number of control and monitoring functions used :

300 > (number of indoor units) x (number of SNVT)
Maximum value is set by the LON BMS manufacturer: in this case 300
Number of connected indoor units: 1 ~ 64.
SNVT: Number of LON network variables

Please consult your Daikin representative for details.

ROHS COMPLIANCE

- Restriction of Hazardous Substances in electrical and electronic equipment (2002 / 95 / EC)
- Hazardous substances include Lead (Pb), Cadmium (Cd), Hexavalent Chromium (Cr6+), Mercury (Hg), Polybrominated biphenyls (PBB), Polybrominated diphenylether (PBDE).
- Although RoHS regulations are only applicable to small and large household equipment, Daikin's environmental policy nevertheless ensures that VRV®III will be totally in line with RoHS.

CONTROL AND MONITORING FUNCTIONS

Control

- ON / OFF command
- Operation mode setting
- Temperature setting
- Fan air flow setting
- Filter sign reset
- Forced thermostat shut off setting
- Remote ON / OFF control rejection
- Remote operation mode control rejection
- Remote temperature setting control rejection
- Forced OFF setting
- Subgroup address rejection setting

Monitoring

- ON / OFF report
- Operation mode status report
- Temperature setting report
- Room temperature report
- Fan air flow setting report
- Filter sign report
- Error report
- Malfunction code report
- Thermostat status report
- Forced thermostat shut off setting report
- Remote ON / OFF control setting rejection report
- Remote control operation mode setting rejection report
- Remote control temperature setting rejection report
- Forced OFF setting report
- Communication status report

SPECIFICATIONS

ITEM		DESCRIPTION
LonWorks interface		DMS504B51
Power supply (auto ranging)		1~, AC100 ~ 240V, 50Hz
Dimensions (HxWxD)	mm	260x168x50
Weight	kg	1.5
Power consumption		Max. 5W
Operation range		-10 to 50°C
Storage temperature range		-20 to 60°C
Humidity		Up to 95 % (no condensation)
Protocol		LonTalk
Tranmission speed		78kbps
Topology		Free topology
Transmission medium		Twisted pair wire
Installation method		Inside switch boards
Contact input		Forced OFF x 1

ACCESSORIES

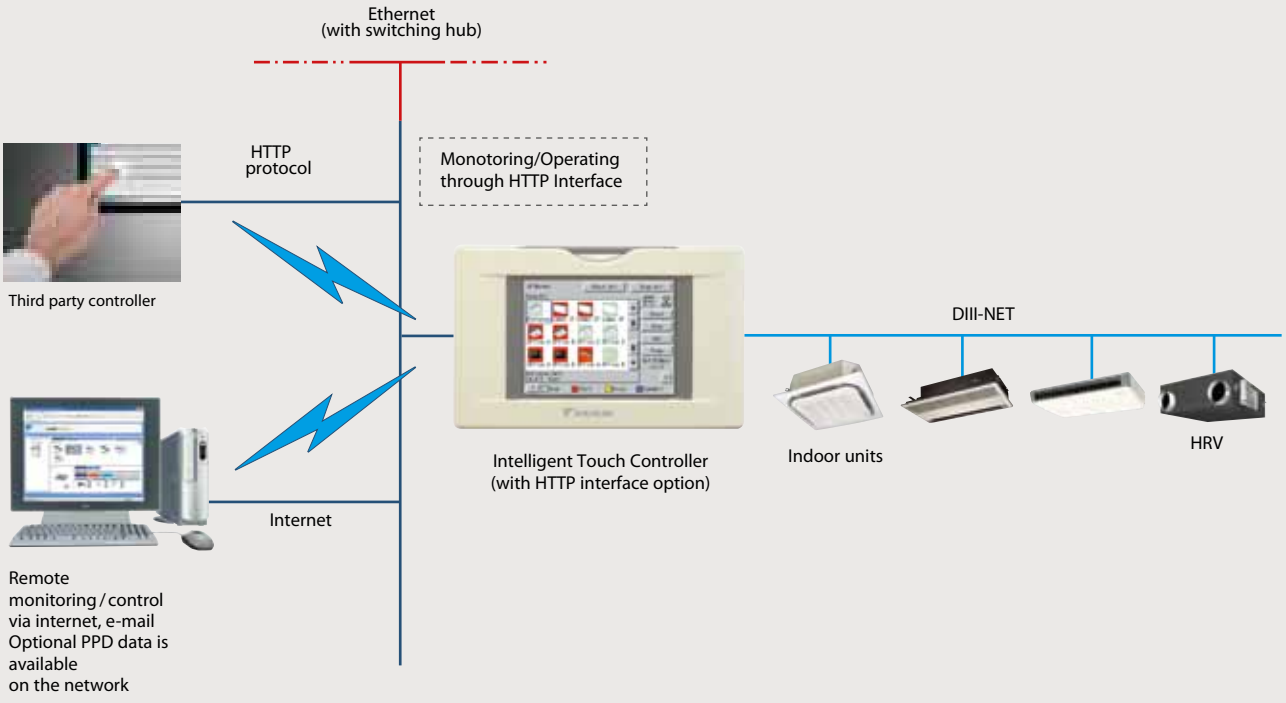
ITEM		DESCRIPTION
Interface adapters	KRP928B2S	For connection to Split units
	DTA102A52	For connection to R-22/R-407C Sky Air units
	DTA112B51	For connection to R-410A Sky Air units

HTTP INTERFACE

Integrate monitoring and operation of Daikin air conditioning systems in a third party controller via Intelligent Touch Controller

- Basic solution for integration
- Intelligent Touch Controller needed
- All basic functions of Intelligent Touch Controller available
- Monitor and control up to 128 indoor units
- HTTP protocol

SYSTEM LAYOUT



ACCESSORIES

Intelligent Touch Controller	DCS601C51
DIII NET-plus adapter (to connect 128 indoor units)	DCS601A52
HTTP interface option	DCS007A51

ALTERNATIVE INTEGRATION DEVICES

Daikin's adapter PCB's provide simple solutions for unique requirements. They are a low cost option to satisfy simple control requirements and can be used on single or multiple units.

ADAPTER PCB'S – SIMPLE SOLUTIONS FOR UNIQUE REQUIREMENTS

	(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 F1 F2) › Remotely start and stop up to 128 indoor units (64 groups) (KRP2A* via P1 P2) › Alarm indication/ fire shut down › Remote temperature setpoint adjustment
	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

CONCEPT AND BENEFITS

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

In all of us, a green heart

Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.

Daikin products are distributed by:

FSC

ECPEN10-300

ECPEN10-300 • XXX • 08/10 • Copyright Daikin
Printed on non-chlorinated paper. Prepared by **La Movida**, Belgium
Resp. Ed.: Daikin Europe N.V., Zandvoordestraat 300, B-8400 Oostende

DAIKIN EUROPE N.V. Naamloze Vennootschap - Zandvoordestraat 300, B-8400 Oostende - Belgium - www.daikin.eu - BE 0412 120 336 - RPR Oostende