

# CONTROL SYSTEM

## User Friendly Management Control Solution

### Integrated Management

Convenient and efficient, Haier controllers realize the co-management of Super match and MRV in one system, providing you more combination choices for better managing large or middle-sized buildings

### Building Management

The excellent building management system provides a professional and reliable service for a better management of your air conditioning units

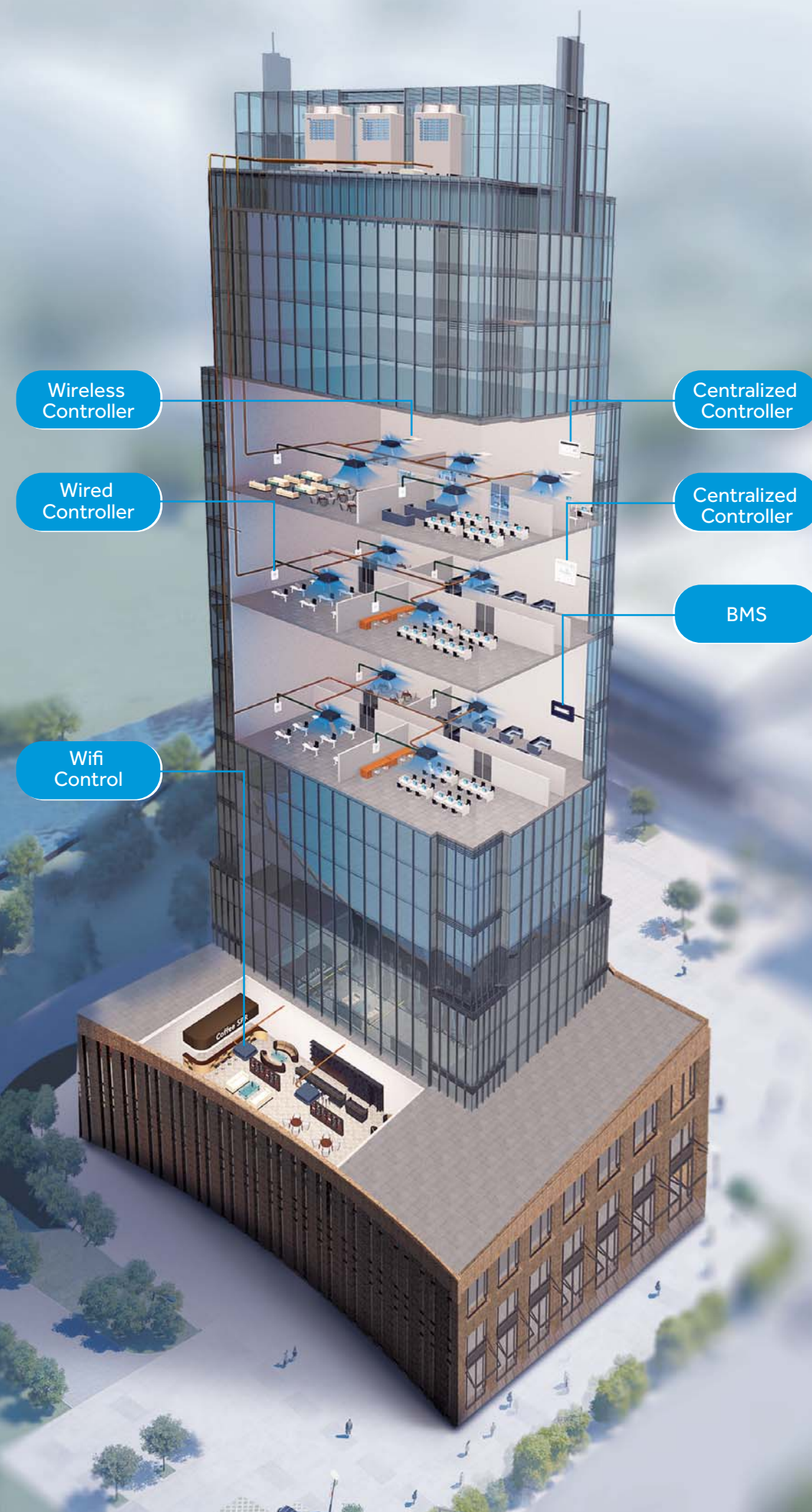
### Intelligent Management

"Haier Smart AC" provides an intelligent and personalized experience for your smart life

### Applications

Haier control products are designed to provide you a perfect solution for the small, medium or large commercial projects

- 209 Individual Controller
- 211 Centralized Controller
- 215 BMS
- 219 Adapter



# CONTROL SYSTEM

## Individual Controller

The individual control system has a variety of wired and wireless controllers which enable you easy and intelligent control of your air conditioners. You can choose the one which best suits for your air conditioning management.



- YR-HBS01**
- On/off, mode, fan speed, temperature setting, swing
  - Turbo,quiet
  - Individual blade control for smart power cassette
  - Clock & timer
  - Follow/evade function
  - Celsius to fahrenheit



- YR-HD**
- On/off, mode, fan speed, temperature setting, swing
  - One button solution: cool, heat, dry, quiet
  - Simple timer control

## Individual Controller



- YL-HE**
- Cooling only
  - Turbo, Quiet



- YR-E17**
- On/off, mode, fan speed, temperature setting, swing
  - Individual & group control (max.16 indoor units)
  - Simple and smart design, 86\*86\*13.05mm
  - Touch button with back light
  - Timer/ clock
  - Easy installation
  - Indicidual blade control for round way cassette.



- YR-E16A**
- On/off, mode, fan speed, temperature setting, swing
  - Individual & group control (max 16 indoor units)
  - Large button
  - Fahrenheit/ celsius selectable; sensitivity  $\pm 0.5^{\circ}\text{C}$  ( $\pm 1^{\circ}\text{F}$ )
  - Weekly timer
  - Individual louver control for smart power cassette
  - Static pressure setting



- YR-E16B**
- Colorful screen
  - On/off, mode, fan speed, temperature setting, swing
  - Individual & group control (max 16 indoor units)
  - Fahrenheit/ celsius selectable; sensitivity  $\pm 0.5^{\circ}\text{C}$  ( $\pm 1^{\circ}\text{F}$ )
  - Weekly timer
  - Indicidual blade control for round way cassette
  - Static pressure setting



- HW-BA116ABK**
- Alternating current
  - Basic fuction: on/off, mode, fan speed, temperature
  - Individual & group control (max 16 indoor units)
  - Simple and smart design, 86\*86\*14.80mm
  - Could receive wireless controller signal



- RE-01/02**
- Infrared signal receiver
  - Realize the remote control of duct type indoor unit
  - Model selection depends on the duct indoor unit



- WIFI Module (KZW-W001)**
- Remote control: on/off, mode, fan speed, Temperature setting, swing
  - Individual control
  - Weekly timer
  - A YCJ-A002 isrequired on some indoor unit



# CONTROL SYSTEM

## Centralized Controller

The centralized control system offers you a smart and convenient experience while managing your air conditioner individually or by groups or by zones. a variety of controllers can be used to perfect your air conditioning management.



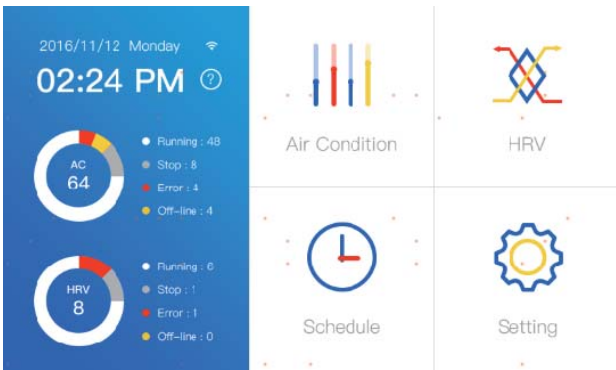
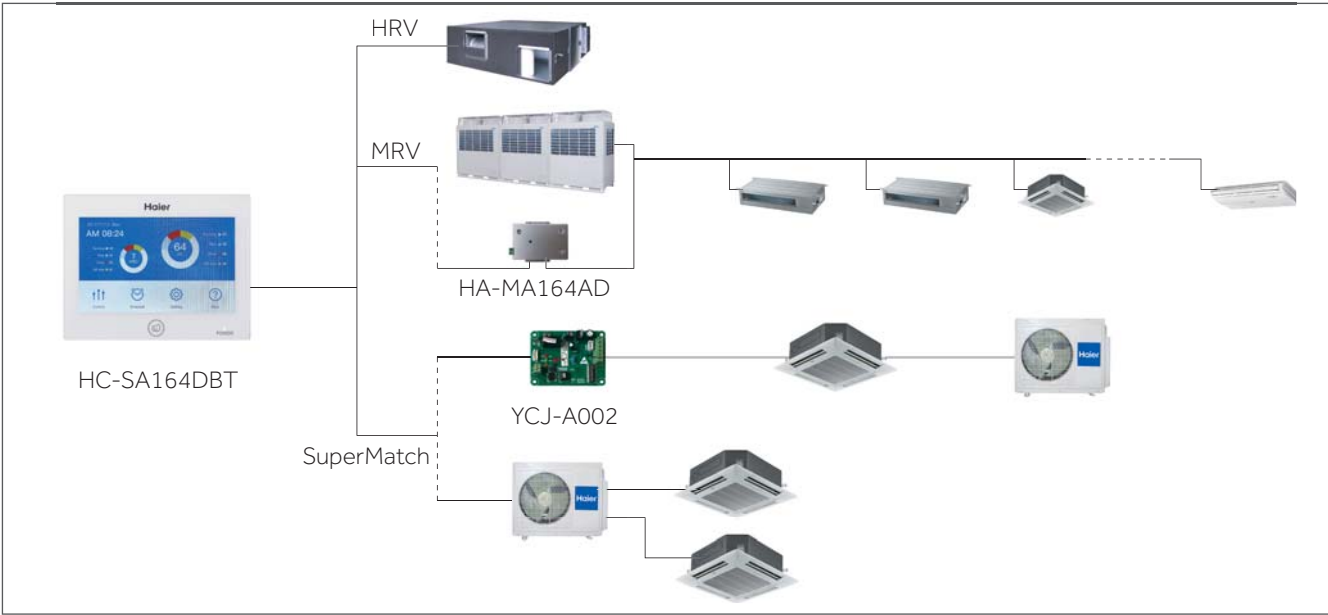
## Centralized Controller



### HC-SA164DBT

- Individual control, central control (max. 64 indoor units)
- 5-inch tft TFT LCD touch screen with back light
- Weekly timer
- Indoor units' information edit
- Historical error backup
- Must be used in combination with a HA-MA164AD for each MRV system. (max. 32 sets)

### HC-SA164DBT System



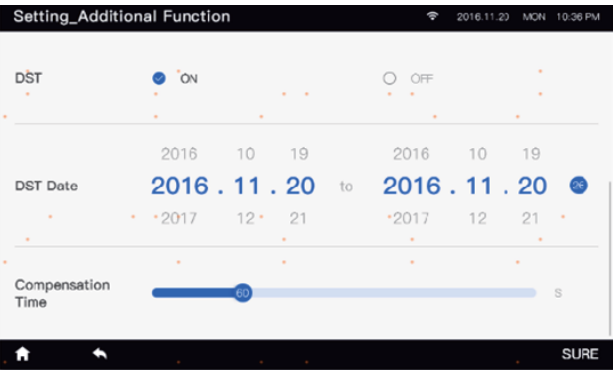
Monitoring up to 64 indoor unit  
could control HRV and monitoring the state of all IDU  
display IDU number,ON/OFF,Fault IDU number



Set schedule for unit,group,all  
time control could be add,change,delete,unit control,  
group control , all ON/OFF

# CONTROL SYSTEM

## Centralized Controller



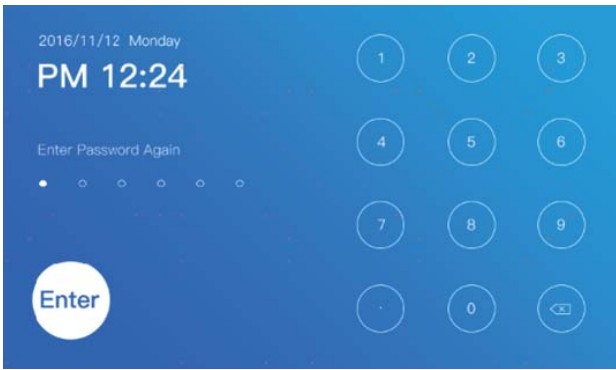
Turn ON/OFF the DST  
DST schedule time setting  
DST compensation setting

Setting_Detail								
No.	User	AC	Temp.	Fans Speed	Trachea Temp.	Liquid pipe Temp.	Running Time	Error
01	User001	AC-001	26°F	High	24°F	24°F	15:36:55	5
02	User001	AC-002	26°F	High	24°F	24°F	15:36:55	2
03	User001	AC-003	26°F	High	24°F	24°F	15:36:55	5
04	User001	AC-004	26°F	High	24°F	24°F	15:36:55	5
05	User001	AC-005	26°F	High	24°F	24°F	15:36:55	3
06	User001	AC-006	26°F	High	24°F	24°F	15:36:55	-
07	User001	AC-007	26°F	High	24°F	24°F	15:36:55	1
08	User001	AC-008	26°F	High	24°F	24°F	15:36:55	2
09	User001	AC-009	26°F	High	24°F	24°F	15:36:55	-

Display the detailed information  
check the name, number, temperature,  
running time and fault code.

All AC-Equipment * 64						
Room	Mode	Temp.	Set Temp.	Fan Speed	Control	Schedule
AC-001	Cooling	56°F	66°F	High	Centralize	Yes
AC-002	Cooling	56°F	66°F	High	Centralize	Yes
AC-003	Heating	56°F	66°F	High	Centralize	No
AC-004	Cooling	56°F	66°F	Low	Ph	
AC-005	Cooling	56°F	66°F	High	C	
AC-006	Heating	56°F	66°F	High	C	
AC-007	Cooling	56°F	66°F	Low	Ph	
AC-008	Auto	56°F	66°F	High	C	
AC-009	Cooling	56°F	66°F	High	C	

Interface display mode choice: list or icon  
All on, all off, control all, control select



Setting password according to user demand

## Centralized Controller



### YCZ-G001

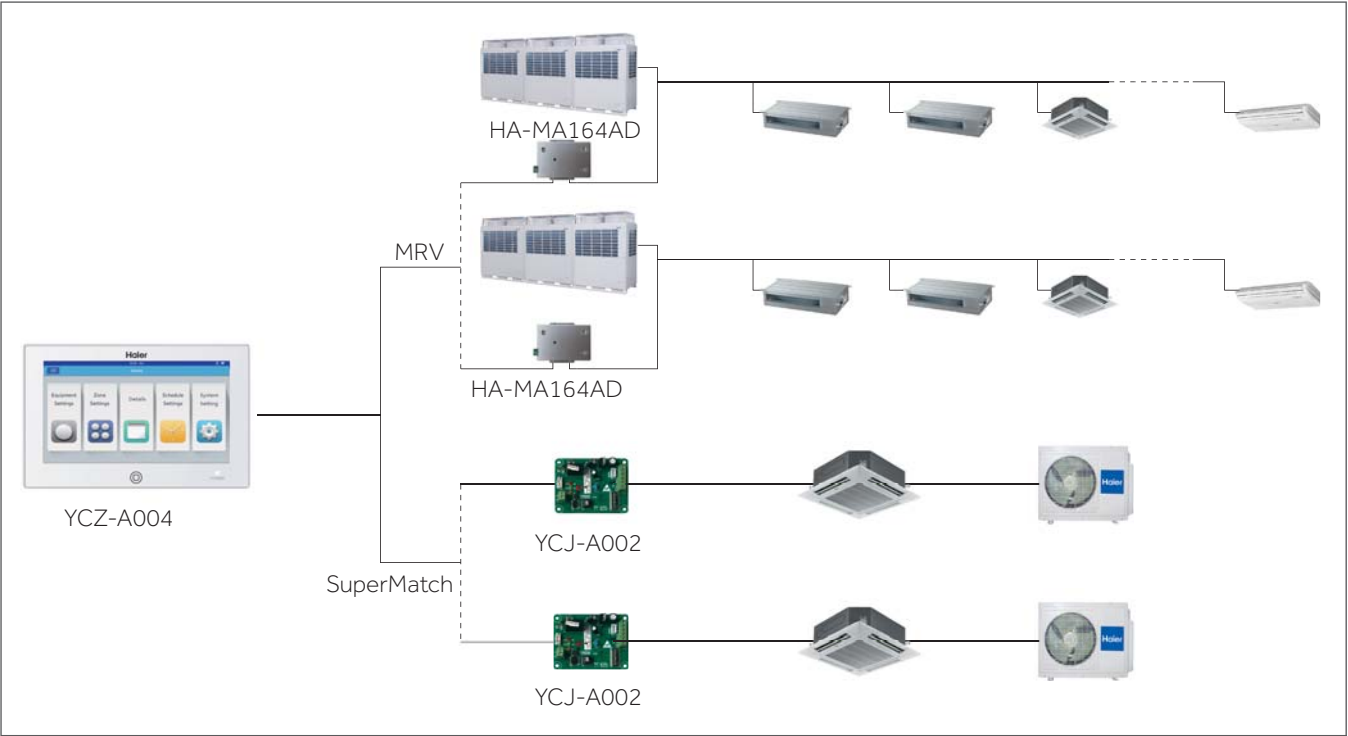
- Individual control, group control & central control (max. 32 indoor units)
- Large touch key
- Weekly timer
- Unit name & group name free setting, four background available (mall, hotel, office, home)
- Error display
- Must be used in combination with a HA-MA164AD for each MRV system (max. 32 sets)



### YCZ-A004

- Individual control, group control & central control (Max. 256 indoor units)
- 7-inch TFT LCD touch screen with back light
- Weekly timer
- Indoor units' information edit
- Error display
- Must be used in combination with a HA-MA164AD for each MRV system. (max. 32 sets)

### YCZ-A004 System



# CONTROL SYSTEM

## BMS

The building management modules could perfectly integrate air conditioners into the building management system, providing an excellent solution for large commercial areas.

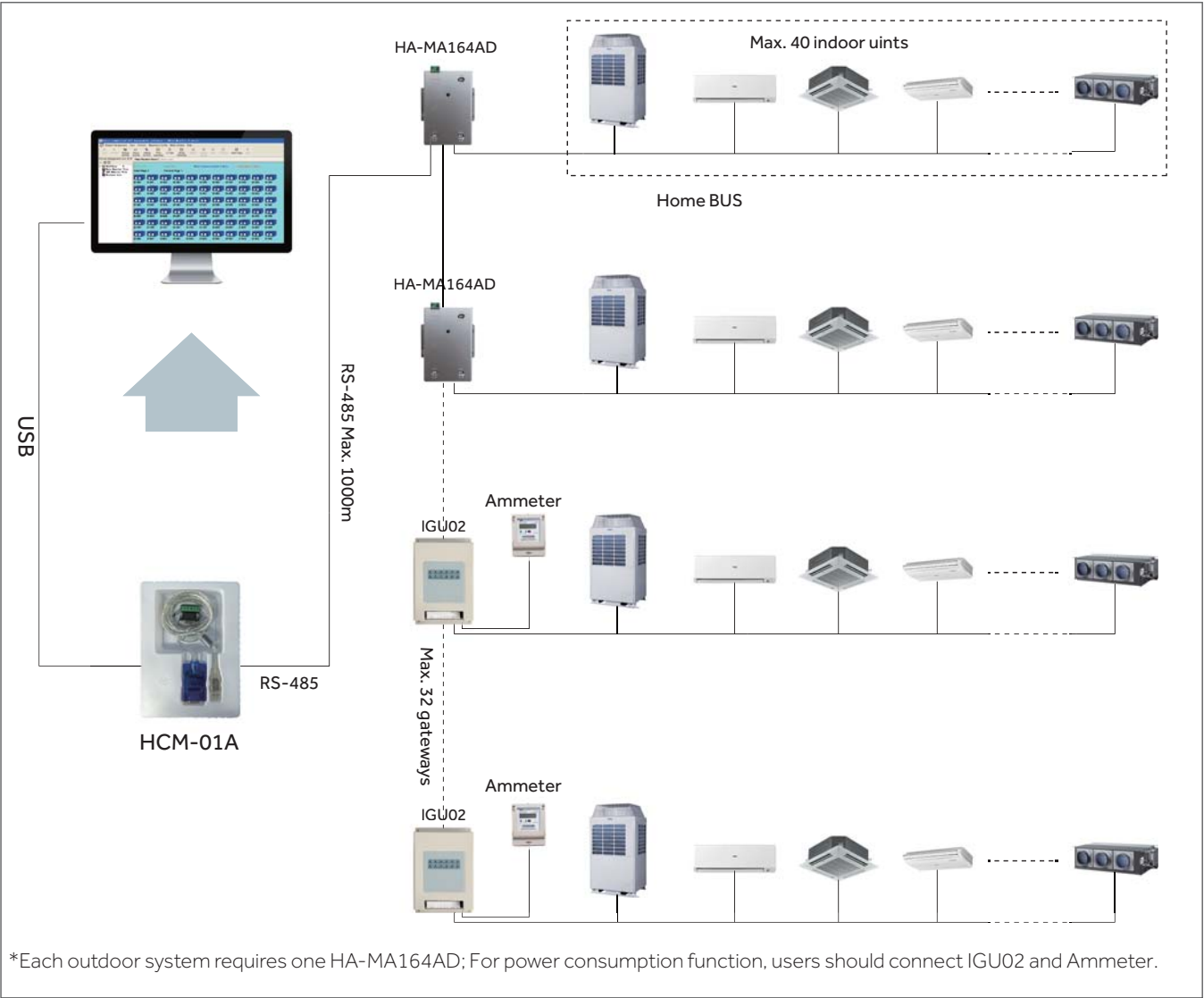


## BMS

### HCM-01A

- Local control version; convert USB to RS-485
- Max. 400 indoor units can be controlled
- Modbus rtu interface
- Brand new interface design
- Win 7 32bits/64bits, Win 8 Pro, Win 10 Pro
- Max. 32 systems / outdoor units, each system unit requires one HA-MA164AD
- Schedule setting
- Electricity charge report (must use IGU-02)

### HCM-01A System



\*Each outdoor system requires one HA-MA164AD; For power consumption function, users should connect IGU02 and Ammeter.



# CONTROL SYSTEM

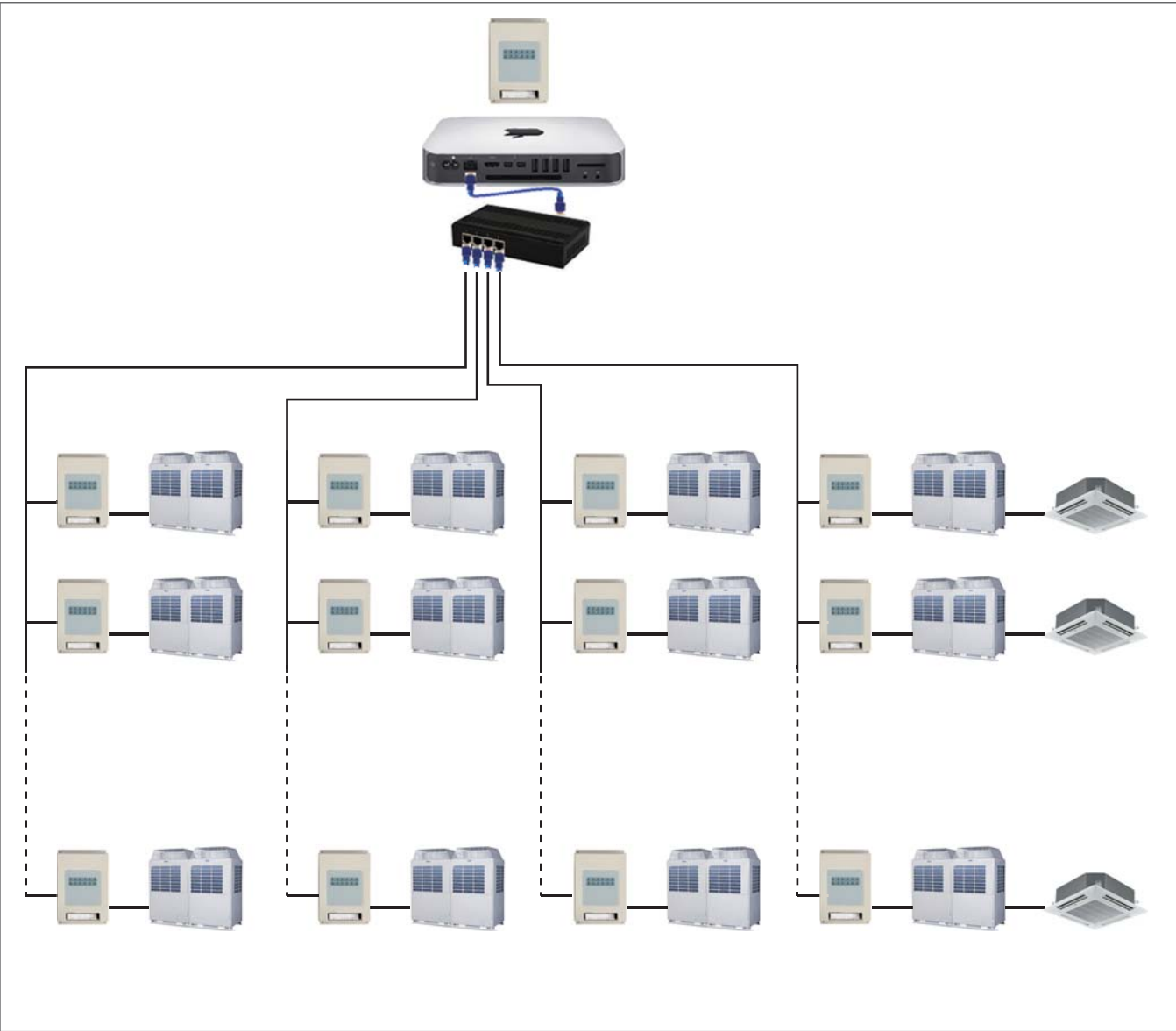
## BMS



### HCM-03A

- Remote monitoring version; third party interface: BACnet ip/ Modbus ip
- Max. 1500 indoor units can be controlled
- Max. 4 groups. each group can connect 20 systems. Each system requires one IGU02 /HA-MA164AD
- Operation status setting & monitoring.
- Schedule setting
- Multi user management with different authorized levels
- Operation and error history log
- Electricity charge report

HCM-03A System



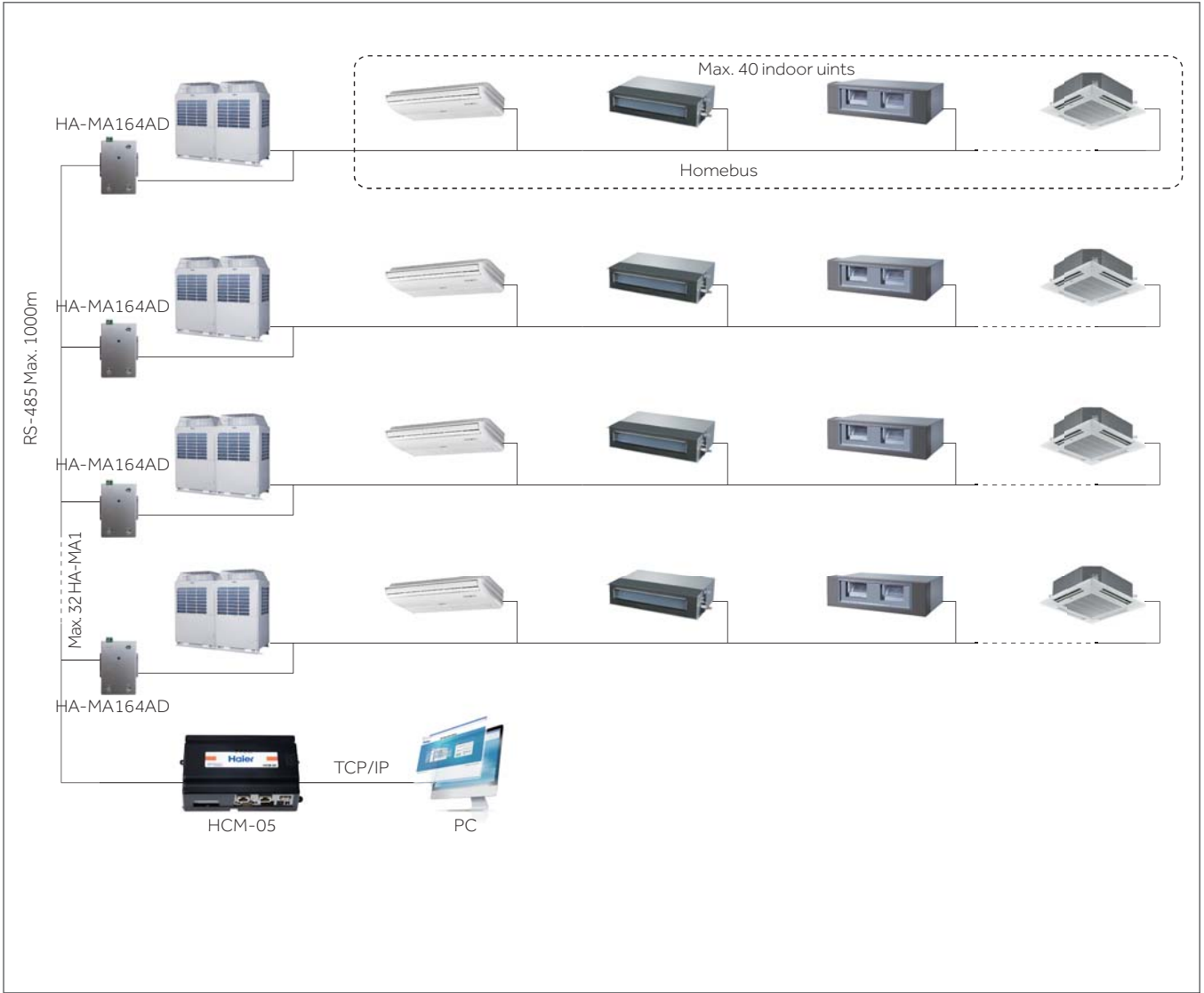
## BMS



### HCM-05/HCM-05A

- Remote monitoring version
- Third party interface: BACnet ip
- Max. 250 indoor units can be controlled for f HCM-05; and 500 indoor units for HCM-05A
- Max. 32 systems. each system requires one IGU02/HA-MA164AD
- Max. 64 systems for HCM-05A. Each system requires one IGU02/HA-MA164AD
- Operation status setting & monitoring.
- Schedule setting
- Multi user management with different authorized levels
- Electricity charge report (must use IGU-02)
- Operation and error history log
- Cooperated technology with honeywell

HCM-05 System




# CONTROL SYSTEM

## Adapter

The adapters offer you an easy and convenient way to integrate air conditioners into various building management system; perfect for large commercial projects.




## Adapter



### HA-MA164AD

- Protocol adapter, convert homebus to RS-485
- Gateway: modbus rtu
- Max. 64 indoor units can be connected with one HA-MA164AD
- Each MRV system requires one HA-MA164AD when connecting with centralized controller or BMS system.

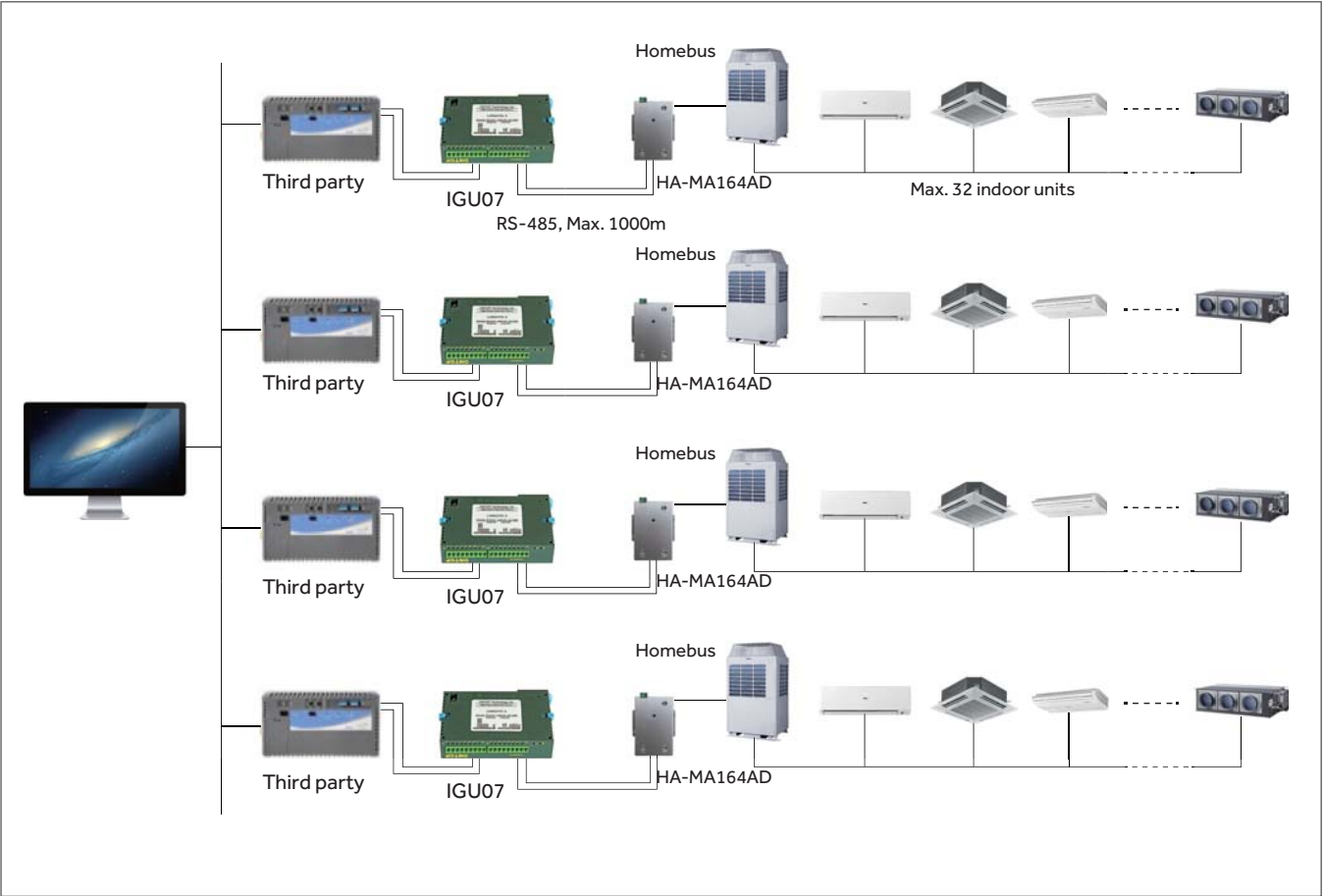
Modbus model No.	No. of I.U. controllable	Installation Method	Compatible O.U. Type
HA-MA164AD	64	Outside the O.U.	Side and Top discharge O.U.
HA-MB164AD	64	Inside the O.U.	Top discharge O.U.



### IGU07

- Protocol adapter, convert modbus rtu to lonworks
- Each system requires one IGU07+ HA-MA164AD
- Max. 32 indoor units can be connected in one system
- External 24V DC power supply is needed

### LonWorks System



# CONTROL SYSTEM

## Adapter



### HCM-04

- BACnet gateway, convert modbus rtu to BACnet ip
- Max.62 indoor units/2 systems can be controlled, each system can control max. 31 indoor units
- IGU02 is required for each outdoor system



### HA-AC-KNX-8/16/64

- KNX gateway
- Convert modbus to KNX
- Max. 8/ 16/ 64 indoor units can be connected in one system each system requirs one KNX gateway+HA-MA164AD



### IGU02

- Protocol adapter, convert homebus to modbus
- Match with BMS (HCM-01A,03A,05,05A). each system requires one IGU02
- Max.40 indoor units can be connected with one IGU02
- Electricity data collection, calculation, allocation and storage

## Controllers Match Table for MRV Indoor Units




















Outlook	Series	Model						
			YR-HD	YR-HBS01	HW-BA116ABK	YR-E17	YR-E16A	YR-E16B
	1-way Cassette	AB**2MAERA	▲		▲	▲	▲	▲
	2-way Cassette	AB**2MBERA	▲		▲	▲	▲	▲
	Mini 4-way Cassette	AB**2MCERA(M)		▲		▲	▲	▲
	Round Flow 4-way Cassette	AB**2MRERA		▲		▲	▲	▲
	4-way Cassette	AB**2MCERA	▲		▲	▲	▲	▲
	Convertible	AC**2MCERA	▲		▲	▲	▲	▲
	Convertible	AC**2MFERA	▲		▲	▲	▲	▲
	Low ESP Slim Duct (0/15/30Pa)	AD**2MSERA(D)	▲			▲	▲	▲
	Low ESP Slim Duct (0/30Pa)	AD**2MSERA	▲		▲	▲	▲	▲
	Medium ESP Duct (50/96 Pa)	AD**2MMERA	▲		▲	▲	▲	▲
	Medium ESP Duct (50/100 Pa)	AD**2MJERA	▲		▲	▲	▲	▲
	Medium ESP Duct (80/120 Pa)	AD**2MNERA	▲		▲	▲	▲	▲
	High ESP Duct (100/196 Pa)	AD**2MHERA	▲		▲	▲	▲	▲
	High ESP Duct (0-200Pa)	AD**2MQERA	▲		▲	▲	▲	▲
	High Wall (N platfomr)	AS**2MNERA	▲		▲	▲	▲	▲
	High Wall (N platform)	AS**2MFERA	▲		▲	▲	▲	▲
	Console	AF**2MBERA	▲			▲	▲	▲
	Built-in Floor Standing	AE**2MLERA	▲		▲	▲	▲	▲
	Fresh Air Duct	AD**2MPERA			▲	▲	▲	▲
	HRV	ERV***ANN			▲	▲	▲	▲
					Linkage control	Linkage control	Linkage control	Linkage control

▲ Controllers can match with the indoor unit



# ACCESSORIES

## Accessories

Name	Design	Model	Functions	For what units
Gather pipe		HZG-20A	Refrigerant gathering	2 outdoor units
Gather pipe		HZG-30A	Refrigerant gathering	3 outdoor units
Gather pipe		HZG-20B	Refrigerant gathering	MRV IV-C, 2 outdoor units
Gather pipe		HZG-30B	Refrigerant gathering	MRV IV-C, 3 outdoor units
Gather pipe		HZG-R20A	Refrigerant gathering for heat recovery MRV	2 outdoor units
Gather pipe		HZG-R30A	Refrigerant gathering for heat recovery MRV	3 outdoor units
Manifold pipe		FQG-B335A	Refrigerant distribution for heat pump MRV	Total indoor units capacity less than 33,500W
Manifold pipe		FQG-B506A	Refrigerant distribution for heat pump MRV	Total indoor units capacity less than 50,600W, but equal or bigger than 33,500W
Manifold pipe		FQG-B730A	Refrigerant distribution for heat pump MRV	Total indoor units capacity less than 73,000W, but equal or bigger than 50,600W
Manifold pipe		FQG-B1350A	Refrigerant distribution for heat pump MRV	Total indoor units capacity less than 135,000W, but equal or bigger than 73,000W
Manifold pipe		FQG-R335A	Refrigerant distribution for heat recovery MRV	Total indoor units capacity less than 33,500W
Manifold pipe		FQG-R506A	Refrigerant distribution for heat recovery MRV	Total indoor units capacity less than 50,600W, but equal or bigger than 33,500W
Manifold pipe		FQG-R730A	Refrigerant distribution for heat recovery MRV	Total indoor units capacity less than 73,000W, but equal or bigger than 50,600W
Manifold pipe		FQG-R1350A	Refrigerant distribution for heat recovery MRV	Total indoor units capacity less than 135,000W, but equal or bigger than 73,000W
Manifold pipe		FQG-B2040A	Refrigerant distribution for MRV IV-C	Total indoor capacity less than 204,000W but equal or bigger than 135,000W
VP box		VP1-112A, VP1-180A VP1-280A	Vavle pipe box	MRV III-RC(heat recovery)
VP box		VP4-450A	Vavle pipe box	MRV III-RC(heat recovery)
VP box		VP1-112B, VP1-180B VP1-280B	Vavle pipe box	MRV 5-RC(heat recovery)
VP box		VP4-450B	Vavle pipe box	MRV 5-RC(heat recovery)

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