

SPLIT TYPE
SPLIT DHW INTEGRATED TYPE
MONOBLOC TYPE



FUJITSU GENERAL LIMITED

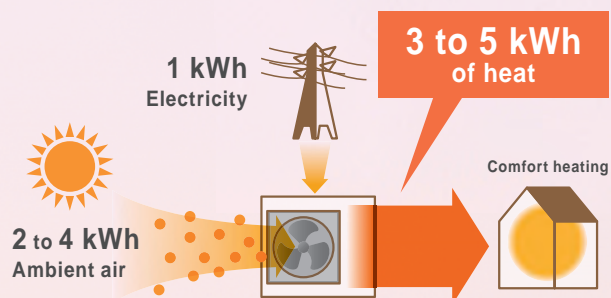
WATERSTAGE™

Fujitsu General ***WATERSTAGE™*** realizes considerable energy saving operations by the Heat pump heating system using the ambient air energy



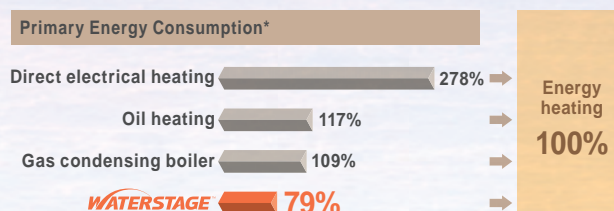
applying heat pump technology that collects heat from the outdoor air

Absorbing the free energy from atmosphere. Heat pump system requires only 1 kW of electricity to generate 3 to 5 kW thermal energy.



The diagram illustrates the heat pump cycle. On the left, the **Outdoor unit** (blue background) contains a fan and a compressor. Three orange arrows labeled "Heat" point into the fan, representing heat absorption from the outdoor air. A green pipe leads from the fan to an **Expansion valve** at the top. From the valve, a blue pipe leads into the **Indoor unit** (orange background). Inside the indoor unit, the pipe forms a coil around a glowing orange circle, with three orange arrows labeled "Heat" pointing outwards, representing heat emission into the room. The pipe then leads to a vertical **Emitter** (a radiator-like structure) on the right, which also has three orange arrows labeled "Heat" pointing outwards. The pipe returns from the emitter to the compressor in the outdoor unit, completing the cycle. A red arrow points from the compressor back to the fan, indicating the flow of the refrigerant.

Proportion of primary energy into heating energy of 100%



*Electricity loss is different due to power plant. Example efficiency of power plant : 36%

WATERSTAGE™ makes an Economical and
Clean hot water heating system by Heat Pump



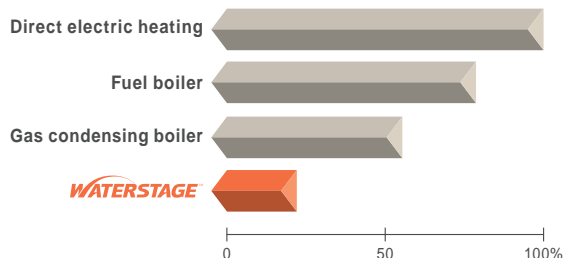
Advantages of **WATERSTAGE™**

LESS CO₂ EMISSIONS

This environmentally-friendly system substantially reduces CO₂ emissions compared to conventional gas and hydro carbons combustion.

Advantages

Average annual CO₂ emissions



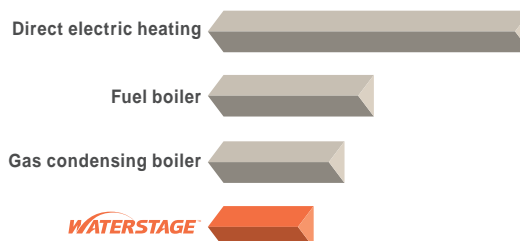
Calculations based on data provided by European Program-2001 for EU27 Fuel boiler efficiency: 89%, Gas boiler efficiency: 93%

LOW RUNNING COST

Running cost is low and economical by high efficiency heat pump technology.

Advantages

Average annual running cost



*The values may vary depending on installation, location, and operating conditions.

CLEAN AND HEALTHY

Since burners are unnecessary, NO_x and other harmful substances are not generated.

Advantages



Environmentally friendly heating system



EASY INSTALLATION AND MAINTENANCE

All components are built into compact outdoor unit or hydraulic unit.



Advantages

Well structured Hydraulic unit.

Sophisticated arrangement of hydraulic units, allows easy piping and maintenance

No chimney sweep

No pollution

Low maintenance cost

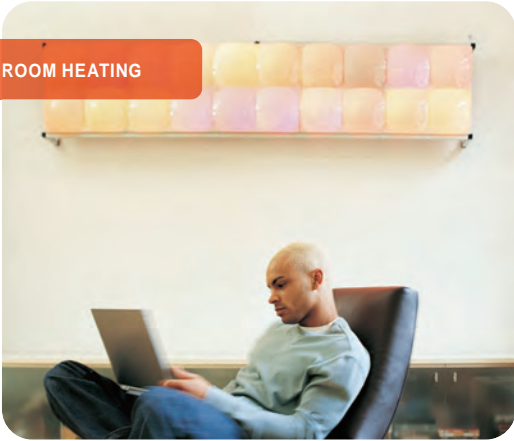
Complete Solution meets various needs

Wide Comfort

The clean energy produced by **WATERSTAGE** reliably delivers "comfort" to all spaces in the home up to the living room, bedrooms, bath and swimming pool.

FLOOR HEATING

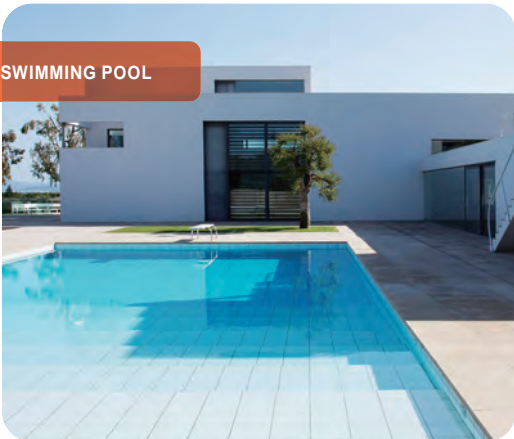
ROOM HEATING



COOLING



SWIMMING POOL



DOMESTIC HOT WATER



Product lineup for various needs

Type		SPLIT TYPE			
Series		High power series		Comfort series	
		Usable outdoor temperature: -25°C		Usable outdoor temperature: -20°C	
		Hydraulic unit 		NEW Hydraulic unit 	
		Outdoor unit 		Outdoor unit 	
Capacity range :		11 / 14 kW 11 / 14 / 16 kW		Capacity range : 5 / 6 / 8 kW 10 kW	
Features		<ul style="list-style-type: none">• 60°C hot water supply even at -20°C outdoor temperature• Powerful heating capacity supplied even at low outdoor temperature• Different heating system can be used. Like floor heating, radiators and others*• Heating and DHW in one system.*• Outdoor low noise function*• Energy saving peak cut function*• Additional electric heater for backup provided• Up to two independent control circuits*		<ul style="list-style-type: none">• 55°C hot water supply even at -7°C outdoor temperature• Floor heating and radiators can be used together.• Heating and DHW in one system.*• Additional electric heater for backup provided• Up to two independent control circuits*	
Power source		1Ø 230V / 50Hz		3Ø 400V / 50Hz	
Capacity range		5 kW			
		6 kW			
		8 kW			
		10 kW			
		11 kW			
		14 kW			
		16 kW			

SPLIT DHW INTEGRATED TYPE			MONOBLOC TYPE
High power series		Comfort series	Compact series
<div>Usable outdoor temperature: -25°C</div> <div>NEW</div> <div>Hydraulic unit</div> <div>Outdoor unit</div> <div>Capacity range : 11 / 14 kW 11 / 14 / 16 kW</div>		<div>Usable outdoor temperature: -20°C</div> <div>NEW</div> <div>Hydraulic unit</div> <div>Outdoor unit</div> <div>Capacity range : 5 / 6 / 8 kW 10 kW</div>	<div>Usable outdoor temperature: -20°C</div> <div>Control box</div> <div>Monobloc unit</div> <div>Capacity range : 8 / 10 kW</div>
<ul style="list-style-type: none"> • 60°C hot water supply even at -20°C outdoor temperature • Powerful heating capacity supplied even at low outdoor temperature • Different heating system can be used. Like floor heating, radiators and others* • Heating and DHW space saving in one hydraulic unit. • Outdoor low noise function* • Energy saving peak cut function* • Additional electric heater for backup provided • Up to two independent control circuits* 		<ul style="list-style-type: none"> • 55°C hot water supply even at -7°C outdoor temperature • Floor heating and radiators can be used together. • Heating and DHW space saving in one hydraulic unit. • Additional electric heater for backup provided • Up to two independent control circuits* 	<ul style="list-style-type: none"> • 55°C hot water supply even at -20°C outdoor temperature • Heating and DHW in one system* • Antifreeze function
1Ø 230V / 50Hz	3Ø 400V / 50Hz	1Ø 230V / 50Hz	1Ø 230V / 50Hz

*Optional parts are required.

High Power series

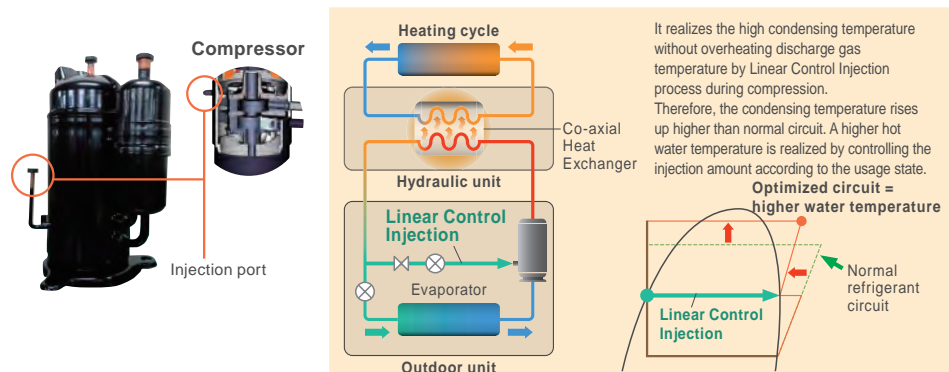
<p>Single Phase power supply</p> <p>11kW 14kW</p> <p>Hydraulic unit WSYG140DC6</p>  <p>Outdoor unit WOYG112LCT WOYG140LCT</p> 	<p>3 Phase power supply</p> <p>11kW 14kW 16kW</p> <p>Hydraulic unit WSYK160DC9</p>  <p>Outdoor unit WOYK112LCT WOYK140LCT WOYK160LCT</p> 
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High Power & High Efficiency Outdoor unit technology

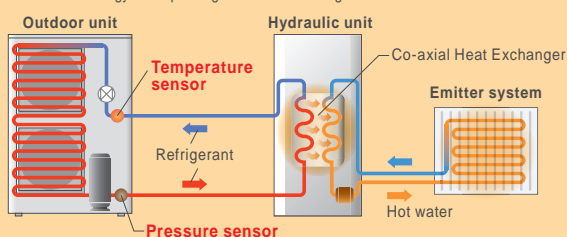


TWIN ROTARY COMPRESSOR with Linear Control Injection port

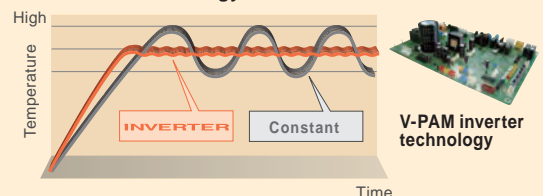


Optimization of refrigerant cycle operation

High power model realizes high performance and high efficiency by adopting twin sensors and control technology corresponding to hot water heating.



Accurate temperature control by DC inverter technology

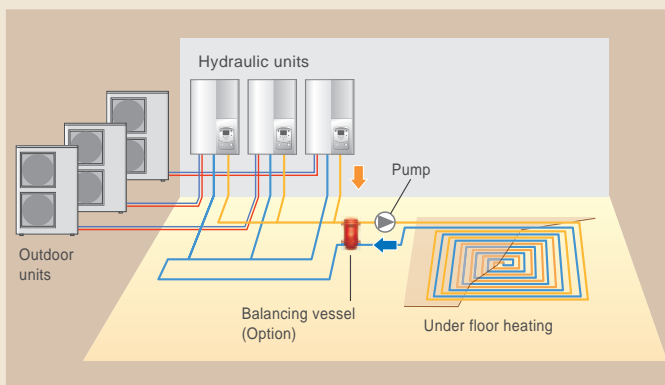


High power models realizes high heating capacity and high efficiency by newly developed "Linear Control Injection Technology" and "Co-axial Heat Exchanger".

These properties are the key for a reliable heating operation throughout the whole year—even in a strong winter.

Cascade connection

Large capacities can be realized by combining up to three systems into one control circuit.



Renewed Hydraulic unit design

The redesigned coaxial compact heat exchanger and the new High efficiency pump lead to excellent energy values.



New designed Hydraulic unit allows significant space saving.



High Power series

Powerful Heating

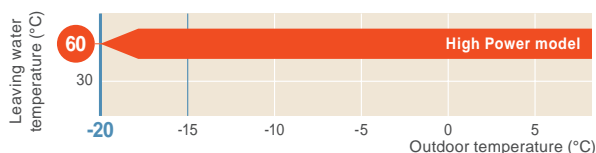
High power models realize high leaving water temperature and high heating capacity even at low ambient temperature by newly developed "Linear Control Injection Technology". It is possible to provide high water temperature and warm rooms in cold regions.

HIGH LEAVING WATER TEMPERATURE

No
backup
heater*

High leaving water temperature
60°C kept down to -20°C
outdoor temperature without
using backup heater.

At -20°C
outdoor temperature
60°C
Hot water

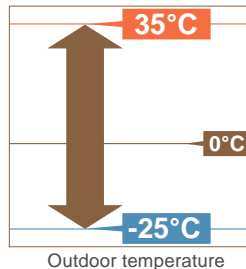


* If you want to raise the hot water supply temperature, backup heater can be used for the auxiliary operation.

EXTENDED OPERATION RANGE DOWN TO -25°C

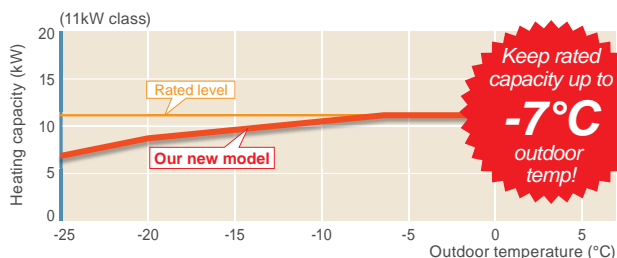
Improved operation range down to
-25°C outdoor temperature

Down to
-25°C
Outdoor
temperature



STRONG & POWERFUL HEATING CAPACITY

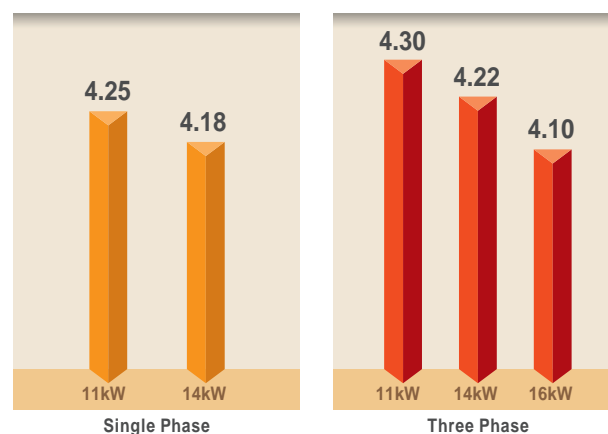
Keeping the rated heating capacity up to -7°C outdoor temperature



High Efficiency

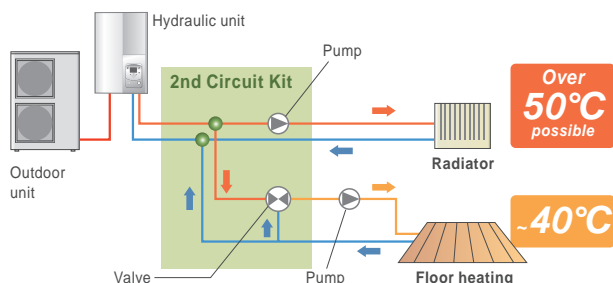
Energy efficiency is improved by the linear Control Injection Technology and the optimization of refrigerant cycle control. High power model realizes high performance and high efficiency by adopting twin sensors and control technology corresponding to hot water heating.

HIGH COP



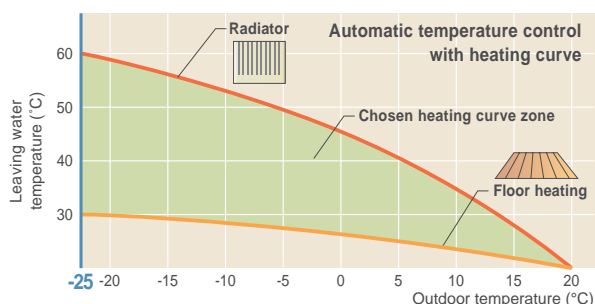
Intelligent Control

2 ZONE INDIVIDUAL CONTROL*



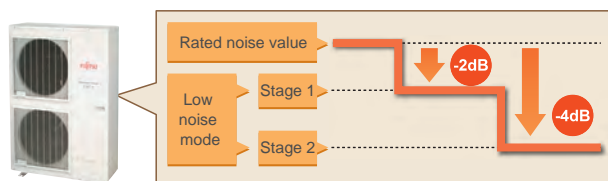
AUTOMATIC HEATING CURVE CONTROL

Automatic temperature regulation in accordance with heating curve (Depends on heating terminal and outdoor temperature)



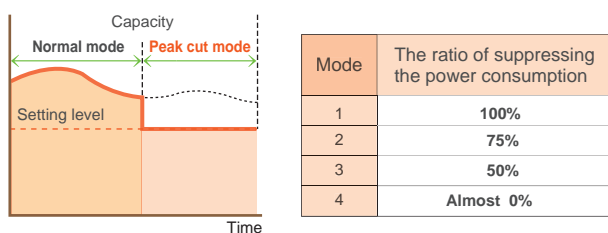
2 STAGE LOW NOISE MODE*

Outdoor unit can be switched to silent mode, depending on the installation environment.



PEAK CUT FUNCTION*

This function performs operation by setting a peak current value and reducing the power consumption.



AND MORE

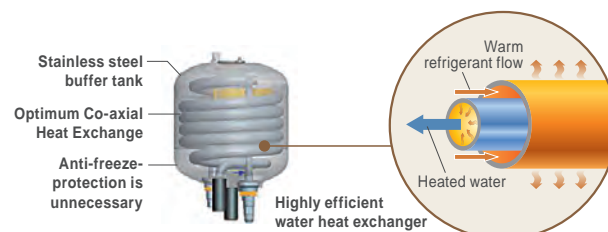
- Cooling operation is possible*
- Anti-Legionella function
- Additional electric heater control for backup
- Cascade connection is possible.* (Future Release)
- Web server can be connected.*

*Optional parts are required.

High Reliability

HIGH DURABILITY

- Corrosion protected
- No flow switch and no filter necessary

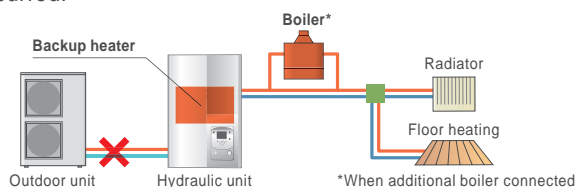


EASY INSTALLATION & MAINTENANCE

- All hydraulic safety & controlling components built in, no additional selection required
- Lifting bars for an installation without any difficulty or risk
- Easy access for maintenance operations
- Refrigerant pump down operation

EMERGENCY OPERATION

System can continuously supply hot water by built in back up heater or boiler, as emergency, even if an error is occurred.



Comfort series

5kW 6kW 8kW

Hydraulic unitWSYA050DD6
WSYA100DD6

10kW

Hydraulic unit

WSYA100DD6

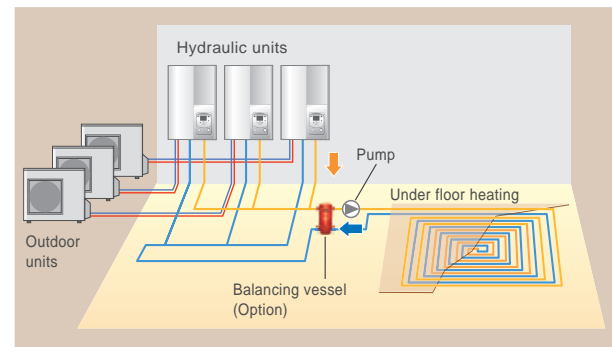
**Outdoor unit**WOYA060LDC
WOYA080LDC**Outdoor unit**

WOYA100LDT

For Comfort series, optimized flow temperature control is realized by DC inverter technology.

Cascade connection

Large capacities can be realized by combining up to three systems into one control circuit.



High Efficiency Technology

DC FAN MOTOR

High performance, high efficiency small DC fan motor mounted.

**DC TWIN ROTARY COMPRESSOR**

High efficient DC twin rotary compressor

**HIGH EFFICIENT CO-AXIAL HEAT EXCHANGER**

Double-pipe water heat exchanger with built-in tank

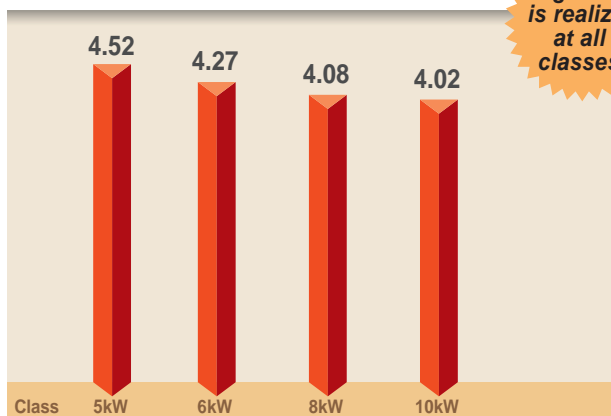
**DC INVERTER**

Smooth water temperature control realized by DC inverter control.



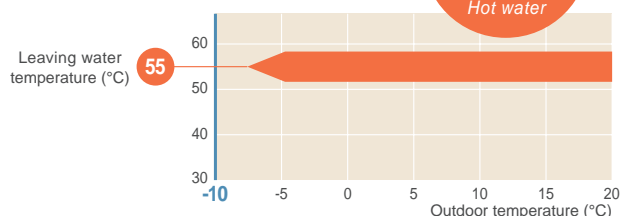
High Efficiency & Comfort

HIGH COP



HIGH LEAVING WATER TEMPERATURE

Maximum leaving water temperature is 55°C without backup heater. Hot water supply temperature can be maintained even at -7°C outdoor temperature.



* If you want to raise the hot water supply temperature, backup heater can be used for the auxiliary operation.

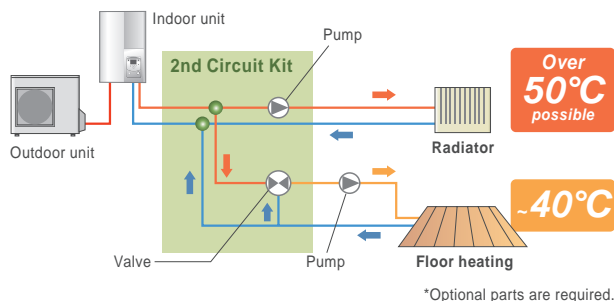
WIDE OPERATION RANGE

Improved operation range down to -20°C outdoor temperature



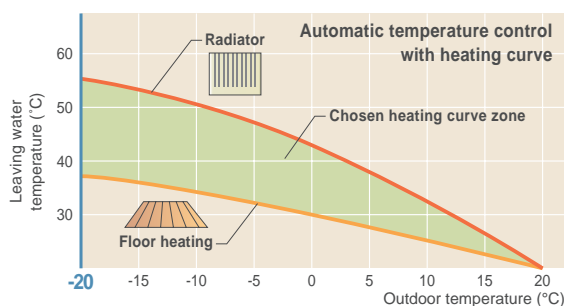
Intelligent Control

2 ZONE INDIVIDUAL CONTROL*



AUTOMATIC HEATING CURVE CONTROL

Automatic temperature regulation in accordance with heating curve (Depends on heating terminal and outdoor temperature)



AND MORE

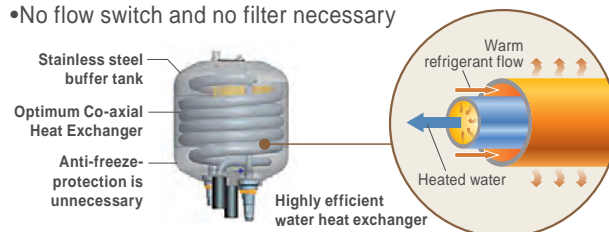
- Cooling operation is possible.*
- Anti-Legionella function
- Possible to docking the boiler (Field supplied)

*Optional parts are required.

High Reliability

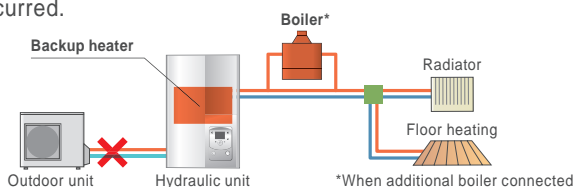
HIGH DURABILITY

- Corrosion protected
- No flow switch and no filter necessary



EMERGENCY OPERATION

System can continuously supply hot water by built in back up heater or boiler, as emergency, even if an error is occurred.



High Power series

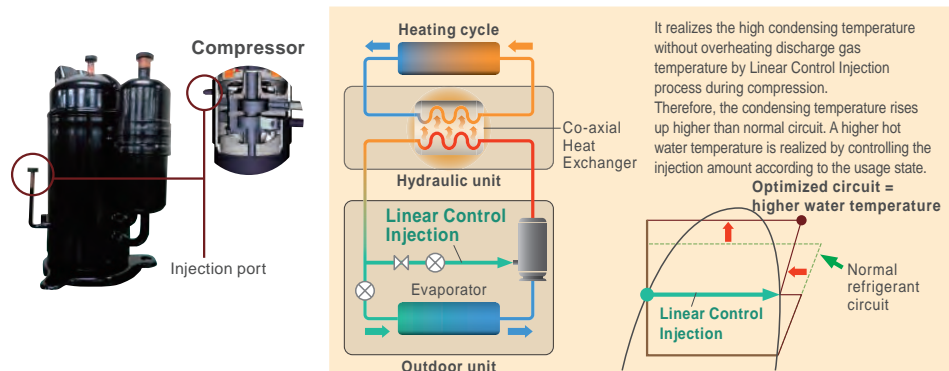


Split DHW integrated type realizes significant space saving because of the integrated DHW tank. Quick hot water supply is possible due to built-in high performance DHW tank. Heating and domestic hot water supply can be selected inside the intelligent controller. High Power models realize very efficient large heating capacities by newly developed "Linear Control Injection Technology" and "Co-axial heat Exchanger".

High Power & High Efficiency Outdoor unit technology

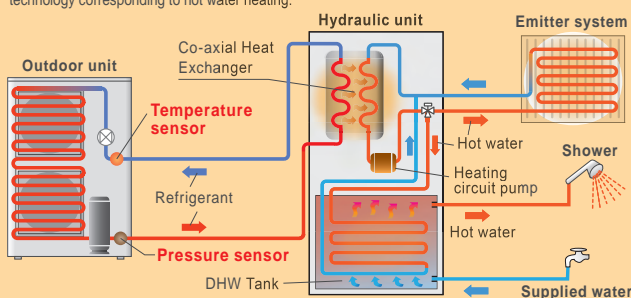


TWIN ROTARY COMPRESSOR with Linear Control Injection port

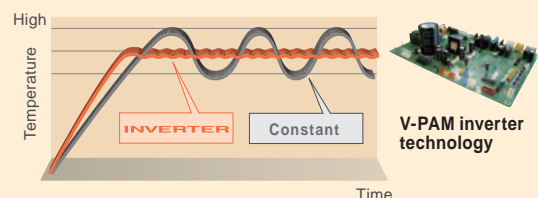


Optimization of refrigerant cycle operation

High power model realizes high performance and high efficiency by adopting twin sensors and control technology corresponding to hot water heating.



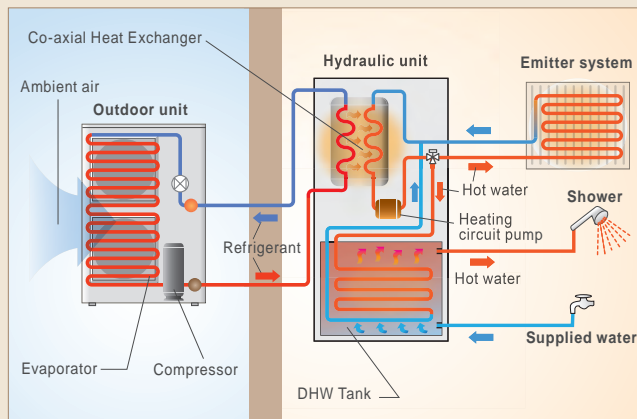
Accurate temperature control by DC inverter technology



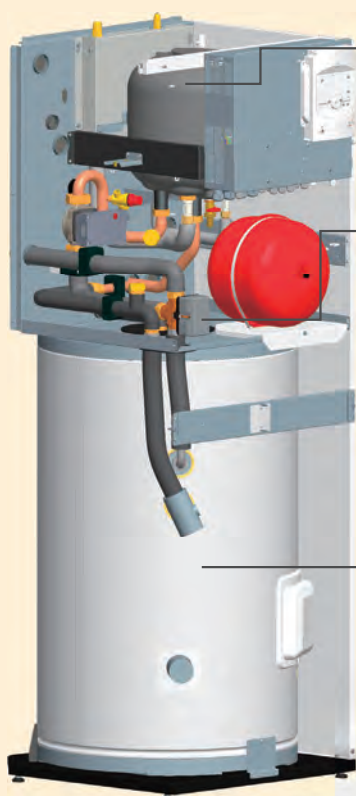


WATERSTAGE™

DHW INTEGRATED type outline



Compact Hydraulic unit design with DHW Tank



HIGH EFFICIENT CO-AXIAL HEAT EXCHANGER



Co-axial Heat Exchanger

HIGH EFFICIENCY CLASS A PUMP



Rank A

Energy saving pump with constant volume or pressure adjustment function.

HIGH PERFORMANCE DHW TANK 190L



- DHW Production with coil heat exchanger to optimise the DHW performance
- Quick temperature rise due to a big exchanger surface

Stylish space saving solution with built-in DHW tank



Hydraulic unit



DHW Tank 190L



Installation space area
about **50%**
reduction

1,840 mm

698 mm

648 mm

High Power series

Powerful Heating

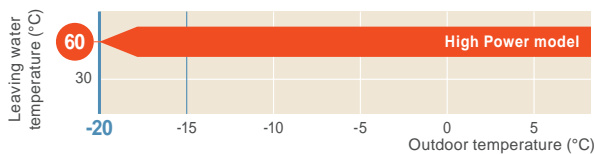
High power models realize high leaving water temperature and high heating capacity even at low ambient temperature by newly developed "Linear Control Injection Technology". It is possible to provide high water temperature and warm rooms in cold regions.

HIGH LEAVING WATER TEMPERATURE

No
backup
heater*

High leaving water temperature
60°C kept down to -20°C
outdoor temperature without
using backup heater.

At -20°C
outdoor temperature
60°C
Hot water

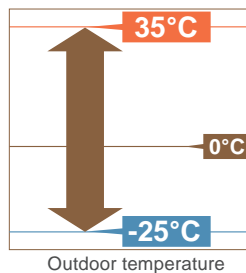


*If you want to raise the hot water supply temperature, backup heater can be used for the auxiliary operation.

EXTENDED OPERATION RANGE DOWN TO -25°C

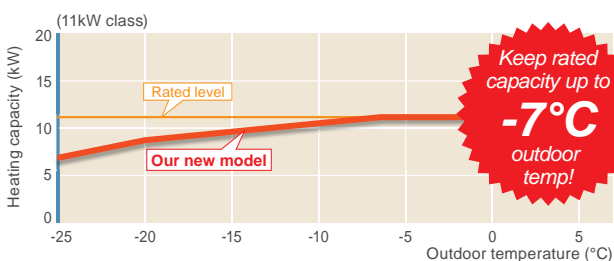
Improved operation range down to
-25°C outdoor temperature

Down to
-25°C
Outdoor
temperature



STRONG & POWERFUL HEATING CAPACITY

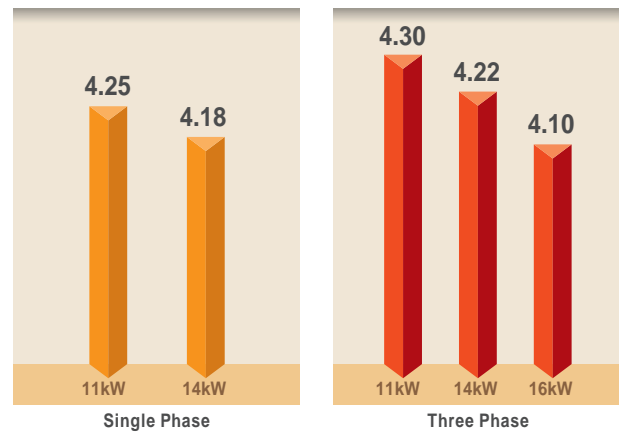
Keeping the rated heating capacity up to -7°C outdoor temperature



High Efficiency

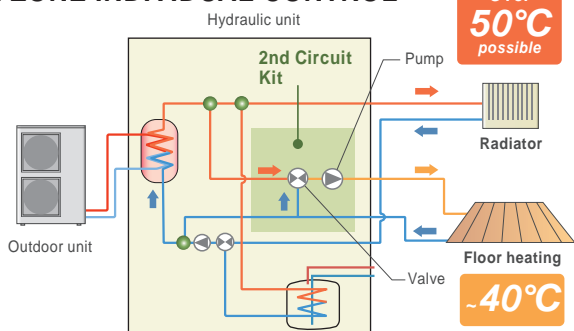
Energy efficiency is improved by the linear Control Injection Technology and the optimization of refrigerant cycle control. High power model realizes high performance and high efficiency by adopting twin sensors and control technology corresponding to hot water heating.

HIGH COP



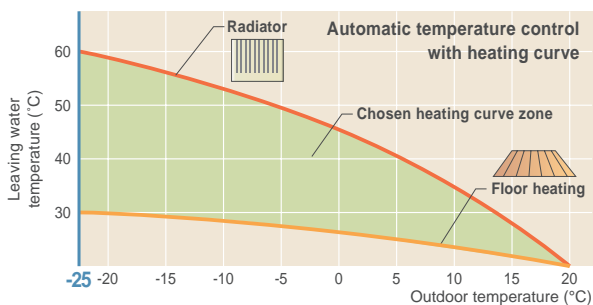
Intelligent Control

2 ZONE INDIVIDUAL CONTROL*



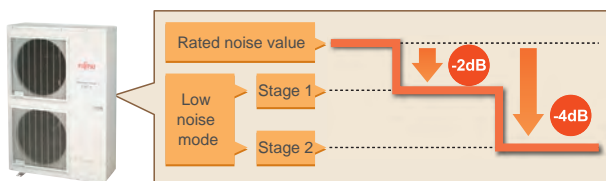
AUTOMATIC HEATING CURVE CONTROL

Automatic temperature regulation in accordance with heating curve (Depends on heating terminal and outdoor temperature)



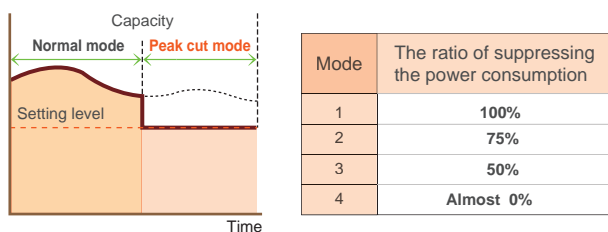
2 STAGE LOW NOISE MODE*

Outdoor unit can be switched to silent mode, depending on the installation environment.



PEAK CUT FUNCTION*

This function performs operation by setting a peak current value and reducing the power consumption.



AND MORE

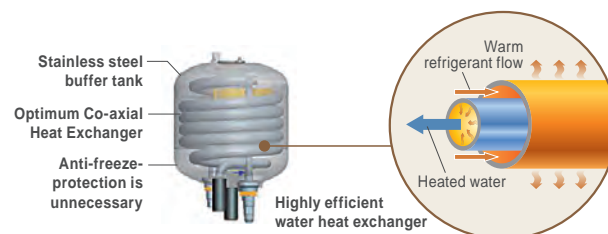
- Cooling operation is possible*
- Anti-Legionella function
- Additional electric heater control for backup
- Web server can be connected.*

*Optional parts are required.

High Reliability

HIGH DURABILITY

- Corrosion protected
- No flow switch and no filter necessary

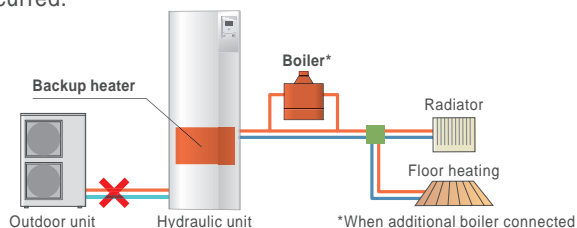


EASY INSTALLATION & MAINTENANCE

- All hydraulic safety & controlling components built in, no additional selection required
- Easy access for maintenance operations
- Refrigerant pump down operation

EMERGENCY OPERATION

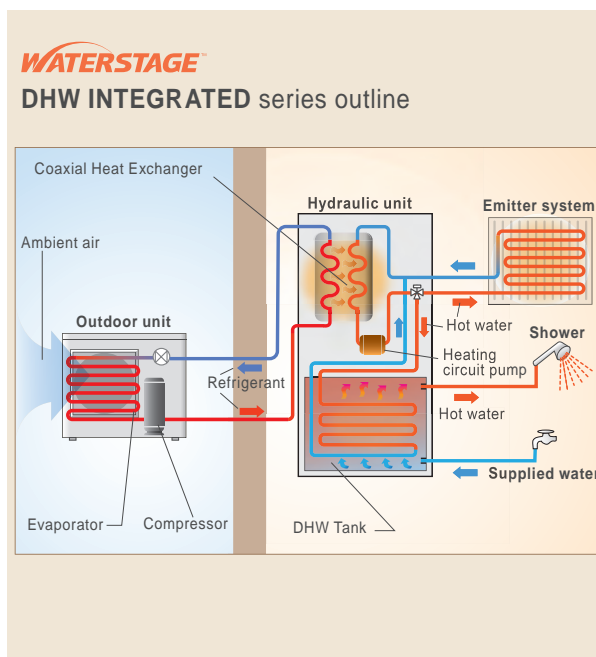
System can continuously supply hot water by built in back up heater or boiler, as emergency, even if an error is occurred.



Comfort series

5kW	6kW	8kW	10kW
Hydraulic unit WGYA050DD6 WGYA100DD6			Hydraulic unit WGYA100DD6
			
			
Outdoor unit WOYA060LDC WOYA080LDC			Outdoor unit WOYA100LDT

For Comfort series, optimized flow temperature control is realized by DC inverter technology.



High Efficiency Technology

DC FAN MOTOR

High performance, high efficiency small DC fan motor mounted.



DC TWIN ROTARY COMPRESSOR

High efficient DC twin rotary compressor



DC INVERTER

Smooth water temperature control realized by DC inverter control.



HIGH EFFICIENT CO-AXIAL HEAT EXCHANGER



HIGH EFFICIENCY CLASS A PUMP



Energy saving pump with constant volume or pressure adjustment function.

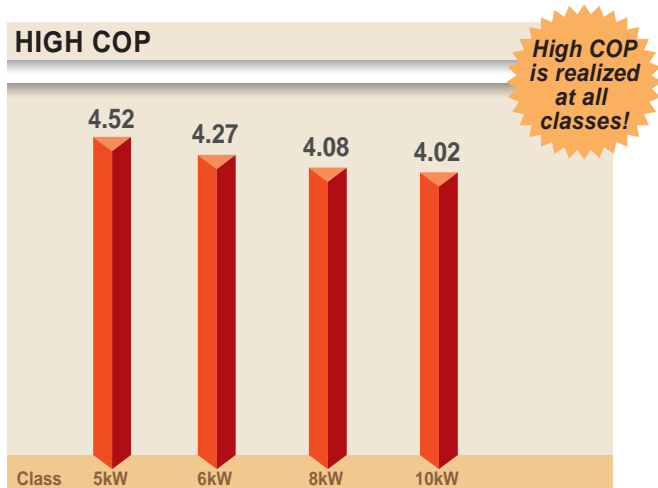
HIGH PERFORMANCE DHW TANK 190L



High heat-insulated structure minimizes the heat loss.

High Efficiency & Comfort

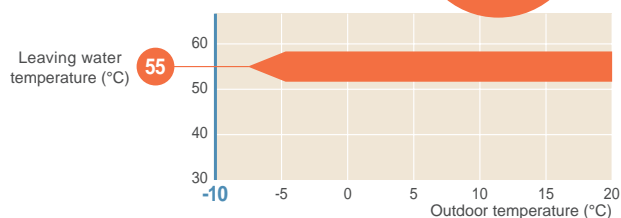
HIGH COP



HIGH LEAVING WATER TEMPERATURE

Maximum leaving water temperature is 55° C without backup heater. Hot water supply temperature can be maintained even at -7°C outdoor temperature.

No backup heater*
At -7°C outdoor temperature
55°C Hot water

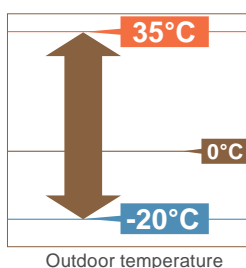


* If you want to raise the hot water supply temperature, backup heater can be used for the auxiliary operation.

WIDE OPERATION RANGE

Improved operation range down to -20°C outdoor temperature

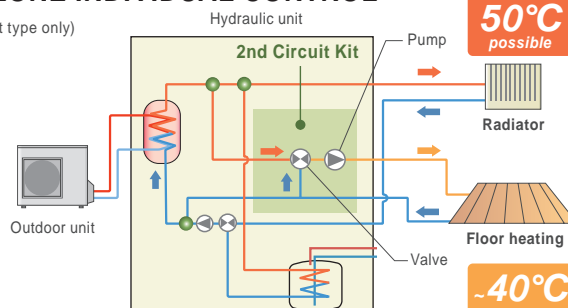
Down to -20°C
Outdoor temperature



Intelligent Control

2 ZONE INDIVIDUAL CONTROL*

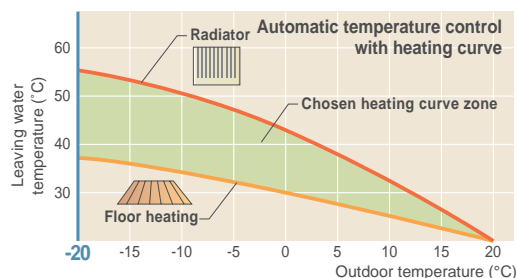
(Split type only)



*Optional parts are required.

AUTOMATIC HEATING CURVE CONTROL

Automatic temperature regulation in accordance with heating curve (Depends on heating terminal and outdoor temperature)



AND MORE

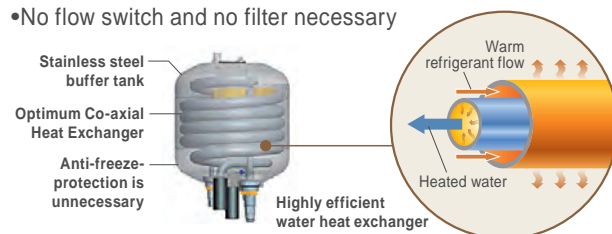
- Cooling operation is possible.*
- Anti-Legionella function
- Possible to docking the boiler (Field supplied)

*Optional parts are required.

High Reliability

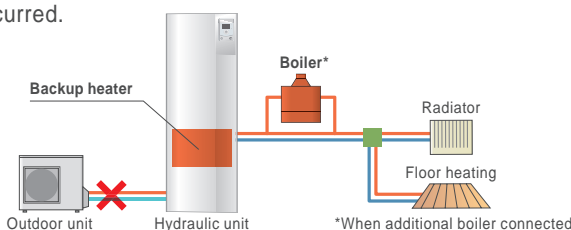
HIGH DURABILITY

- Corrosion protected
- No flow switch and no filter necessary



EMERGENCY OPERATION

System can continuously supply hot water by built in back up heater or boiler, as emergency, even if an error is occurred.



Compact series

8kW 10kW **NEW**

Comfort and energy saving realized by world's top class compact design



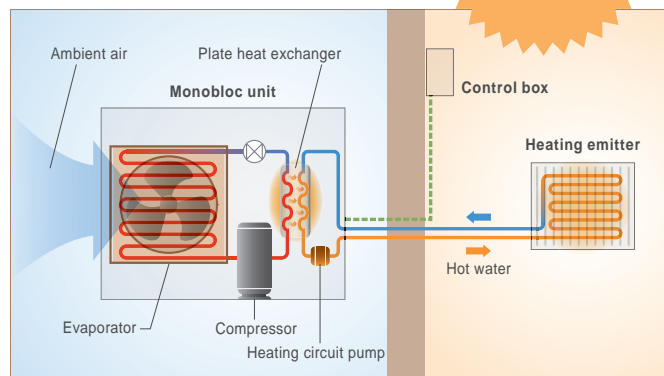
WPYA080LE
WPYA100LE

Control box
UTW-SCBYA

All-in-One Model

Compact designed heat pump.
Refrigerant pipe work is unnecessary.
Only hydraulic connecting work is to be done. Circulation pump, safety valve and automatic vent valve are included.
Easy installation and maintenance is feasible.

WATERSTAGE outline (Monobloc type)



Easy
installation &
maintenance!

High Efficiency Technology

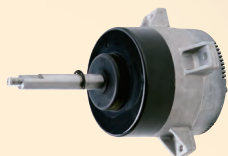
DC INVERTER

Smooth water temperature control realized by DC inverter control.



DC FAN MOTOR

High performance, high efficiency small DC fan motor mounted.



HIGH EFFICIENT PLATE HEAT EXCHANGER

Very compact size achieved by a thin high-efficiency heat exchanger



DC TWIN ROTARY COMPRESSOR

High efficient DC twin rotary compressor



Compact & High Performance

HIGH COP

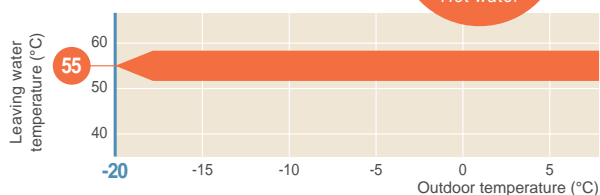
High COP is realized by using a DC twin rotary compressor, inverter technology, and high efficient water heat exchanger.



*Condition : Outdoor Temp. 7°C Heating Temp. 35°C.

HIGH LEAVING WATER TEMPERATURE

High leaving water temperature of 55°C keeps to -20°C outdoor temperature without additional heater.



COMPACT & LIGHT WEIGHT DESIGN



WIDE OPERATION RANGE

Improved operation range down to -20°C outdoor temperature



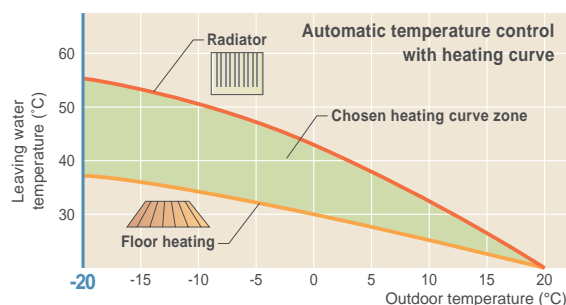
Intelligent Control

WIRED REMOTE CONTROLLER (CONTROL BOX) IS ADOPTED STANDARD.



AUTOMATIC HEATING CURVE CONTROL

Automatic temperature regulation in accordance with heating curve (Depends on heating terminal and outdoor temperature)



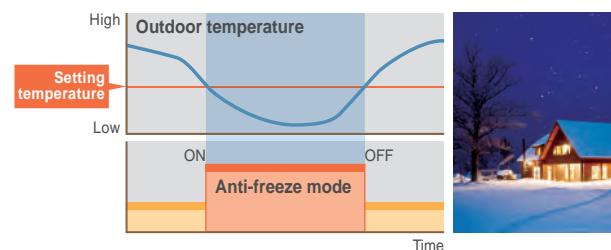
AND MORE

- Cooling operation is possible.
- Anti-Legionella function
- Possible to docking the boiler or electric heater for backup (Field supplied)

High Reliability

ANTI-FREEZE FUNCTION

Water circulation and compressor can be automatically performed at low outdoor temperature. Freezing of circulated water can be prevented.



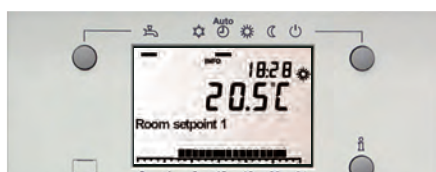
EASY INSTALLATION & MAINTENANCE

- No installation of refrigerant circuit connections.
- Easy access for maintenance operations

Smart & Comfort Control

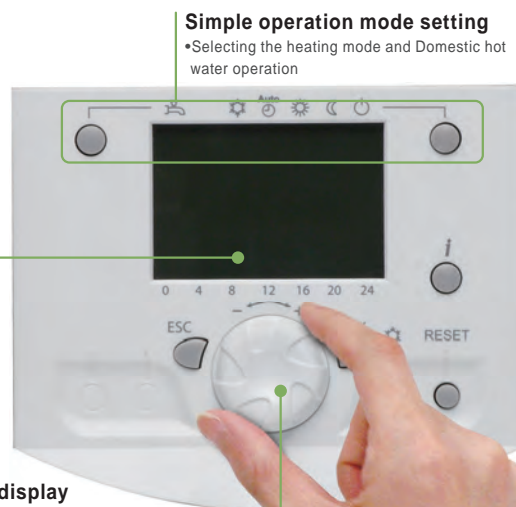
The heating water temperature is controlled automatically depending on outdoor temperature. The place for the sensor can be chosen freely.

The room temperature and operation mode can be easily set. Options appear automatically by "plug & play".



Large LCD display

- Operation status display
- Error display
- plain text



Simple operation mode setting

- Selecting the heating mode and Domestic hot water operation

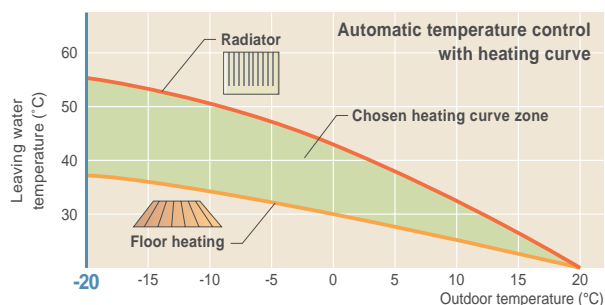
Navigation and setting

- Selecting the heating menu
- Setting program timer

Comfort Control

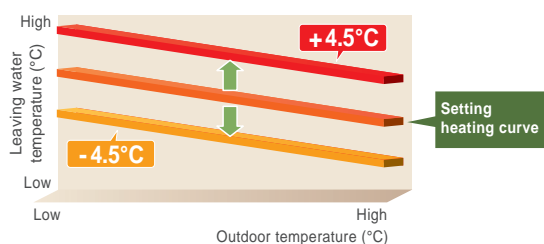
Automatic heating curve operation

Automatic heating curve control based on outdoor temp and setting room temperature.



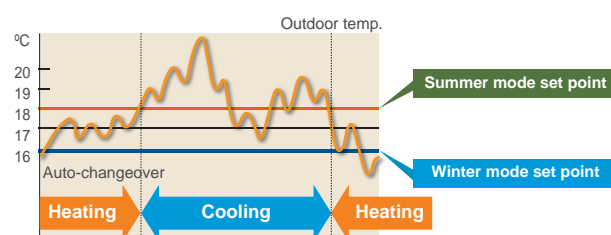
Heating curve off-set Adjust setting room temp.

This can be fine adjusted when too warm or too cold.



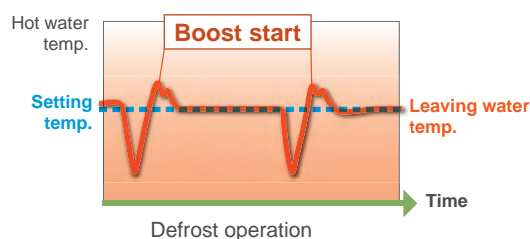
Auto-changeover

If the cooling operation function is set, the system can automatically switch to cooling or heating, depending on the outdoor temperature to provide all-season comfortable air conditioning.



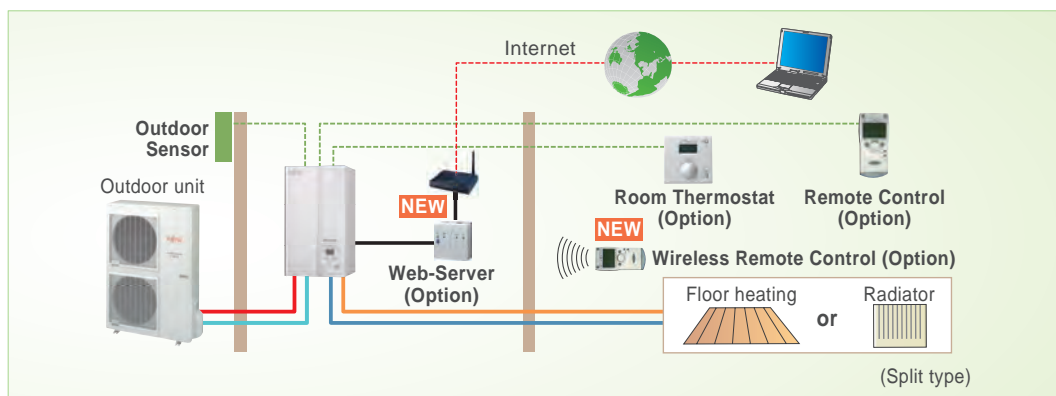
Quick recovery from defrost operation

Maintaining the room temperature during defrost operation by boost start operation



REMOTE CONTROL - EXTENSION

Various remote controls are available on your hand. Remote control is also available via Web. All kinds of life styles are supported.



Energy Saving

Programmable timer

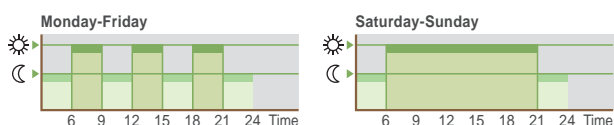
- The setting of timer operation can easily be adjusted.
- Changing the heating mode linked with time is possible.

Heating mode

- | | |
|--|--|
| Auto
Automatic mode
Comfort/Reduce mode switching automatically according to outdoor temperature | Comfort mode
Comfort mode
Constant comfort temperature |
| Reduce mode
Reduce mode
Constant reduce temperature | Protection mode
Protection mode
Stand-by mode with anti-frost protection |

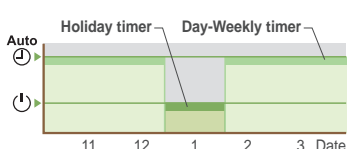
Day-Weekly timer setting

- The day-weekly timer can be set up for up to 3 times per day.
- Allows separate settings for each day of the week.



Holiday timer setting

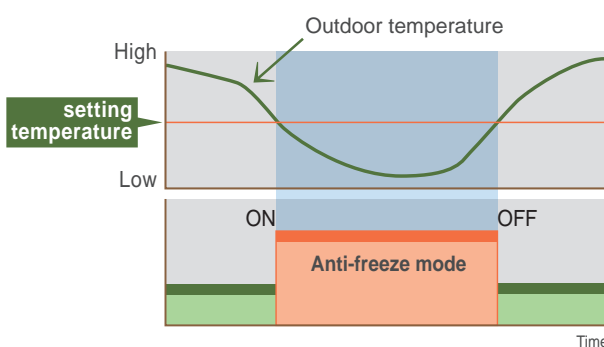
- The holiday timer can be set up for up to 8 periods
- If you are absent for a long time in the winter, freezing of room can be prevented.



Safety Function

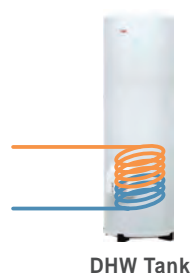
Anti-freeze function

Water circulation and compressor can be automatically performed at low outdoor temperature. Freezing of circulated water can be prevented.



Anti-legionella function

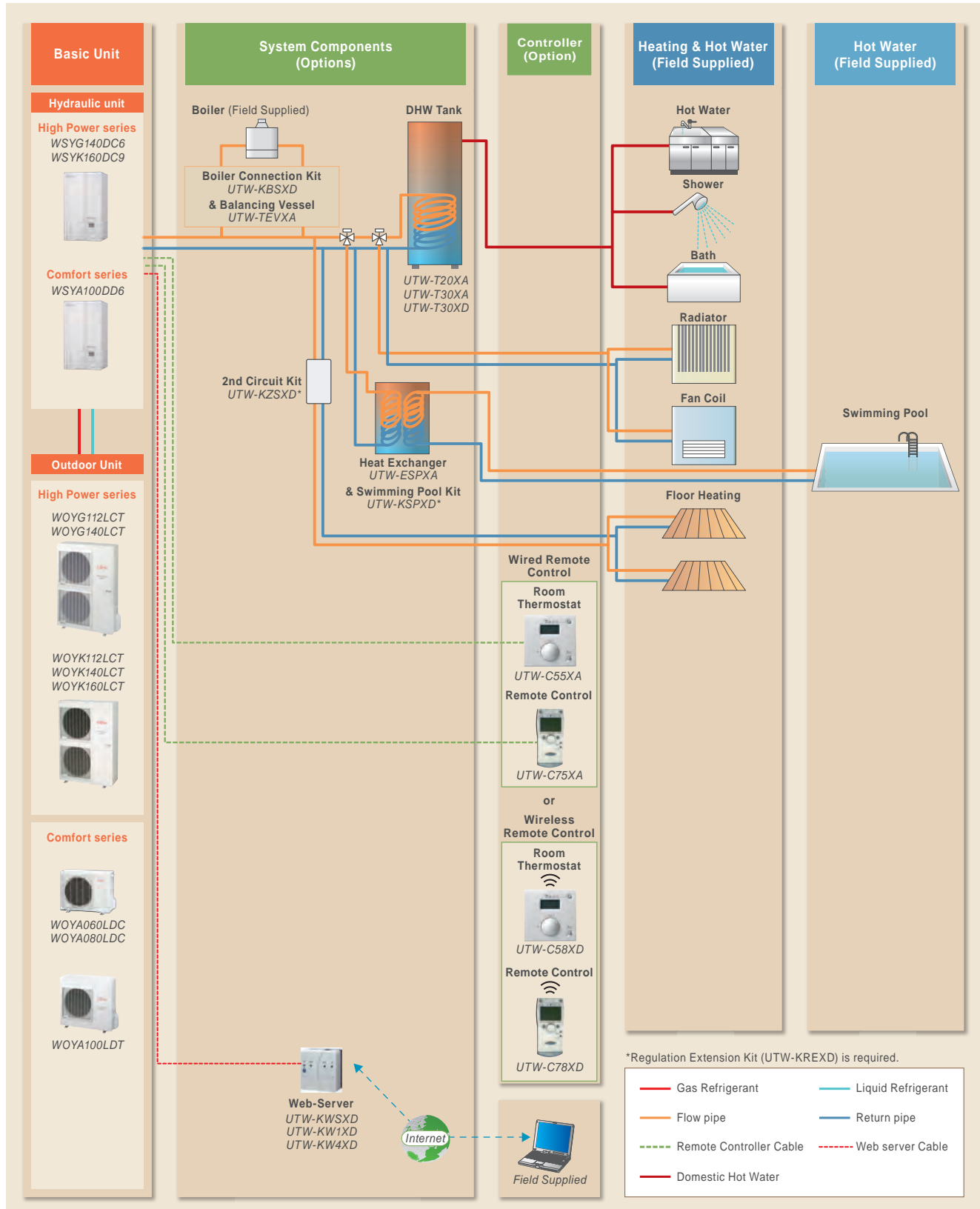
The growth of Legionella in DHW tank is suppressed and safe and clean hot water is supplied at all times.



Total solution concept for comfort inside your home

SPLIT TYPE

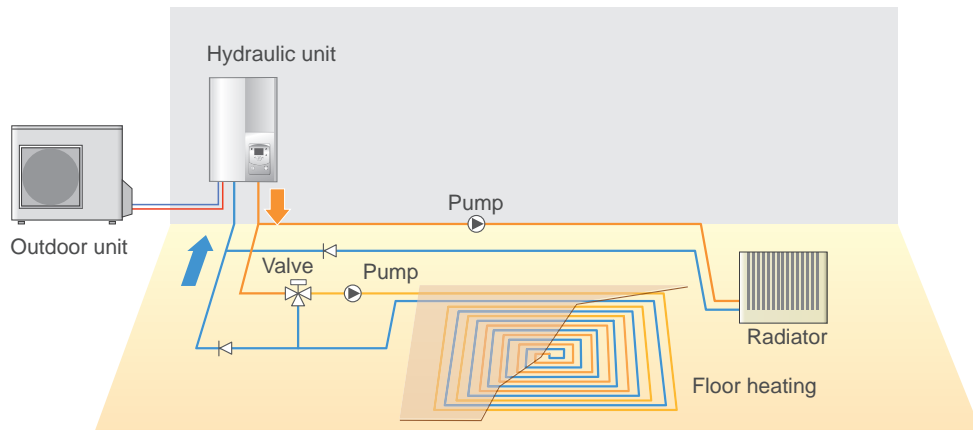
System configuration



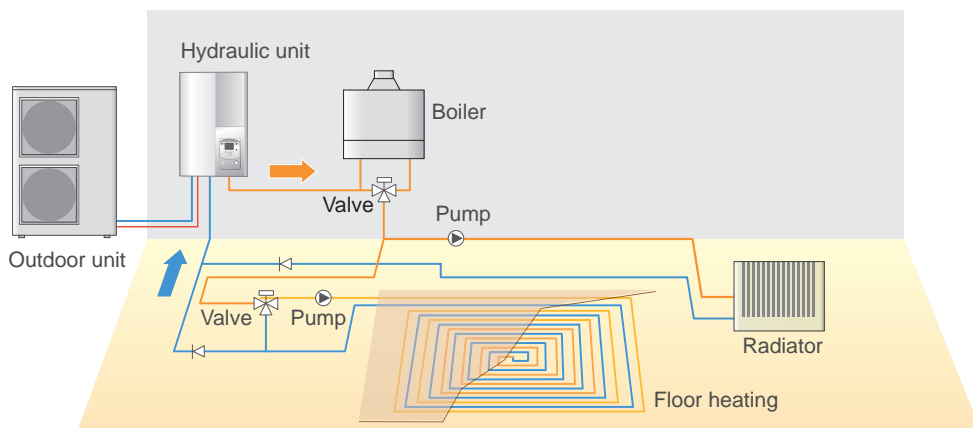
Split Case studies

2 emitter simultaneous heating (Individual control)

Floor heating + Radiator

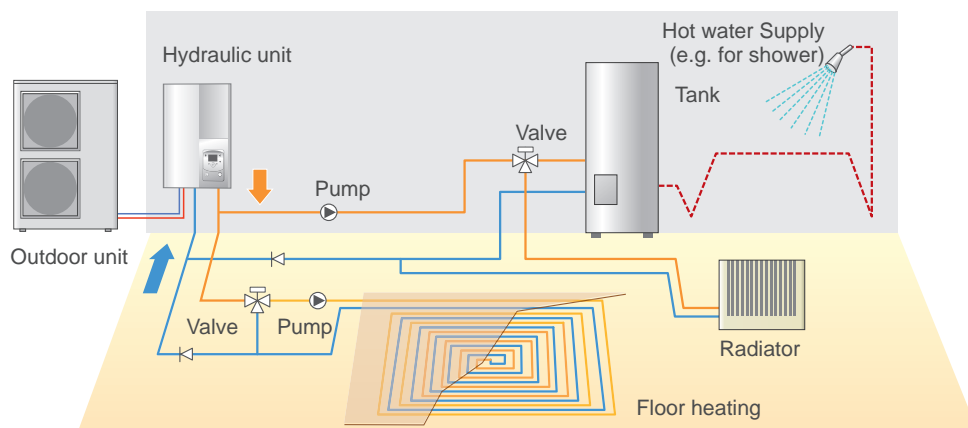


Boiler connected to heating (Boiler + Heating)



3 types of heat distribution

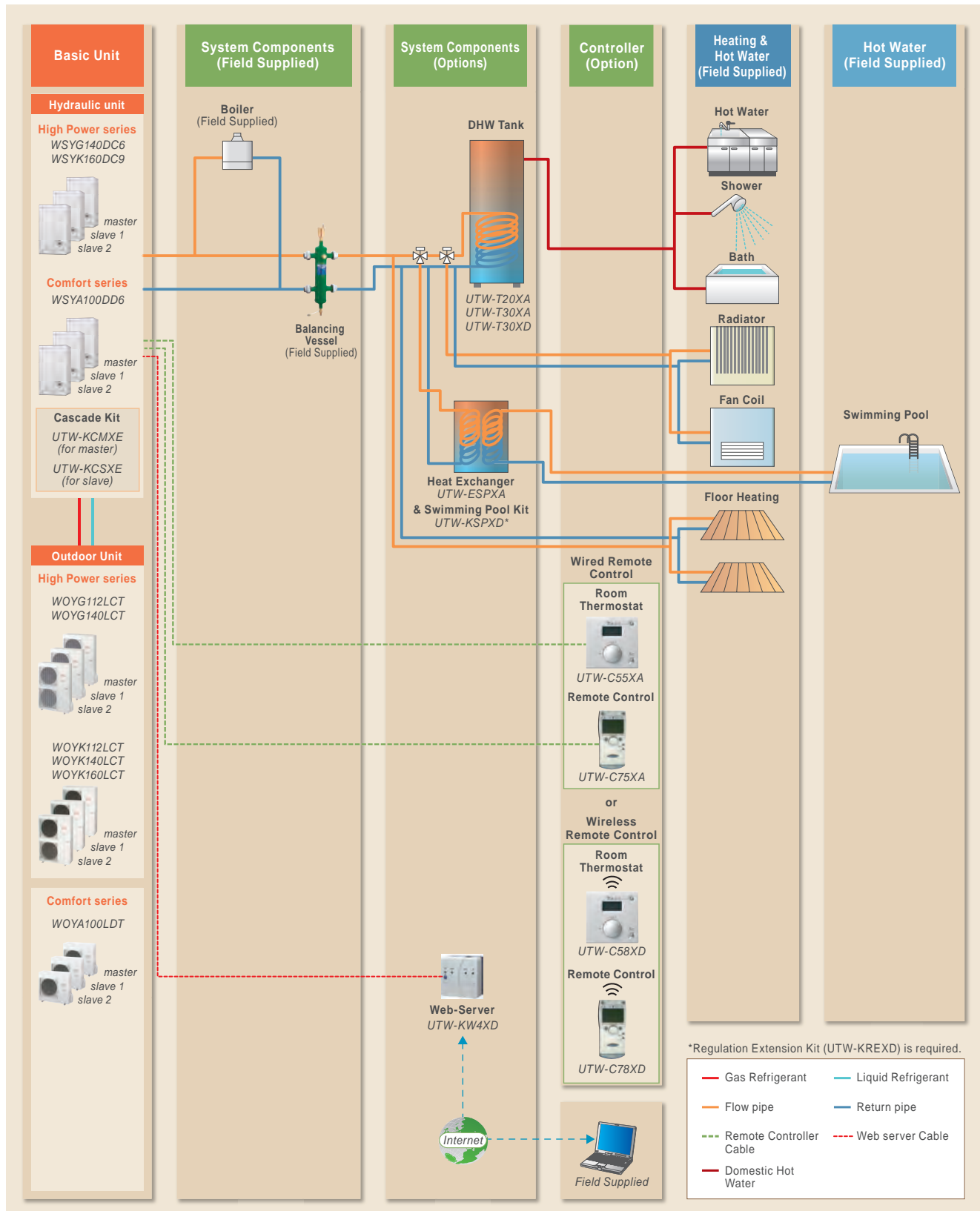
Floor heating + Radiator + Domestic Hot Water



Total solution concept for comfort inside your home

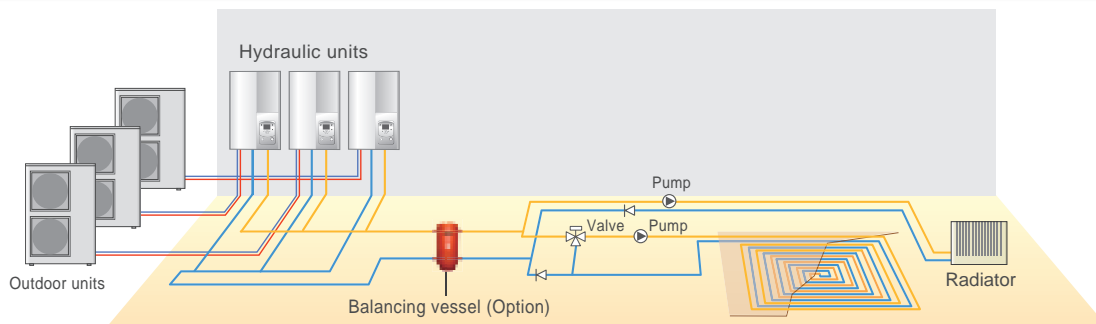
SPLIT TYPE

Cascade System configuration

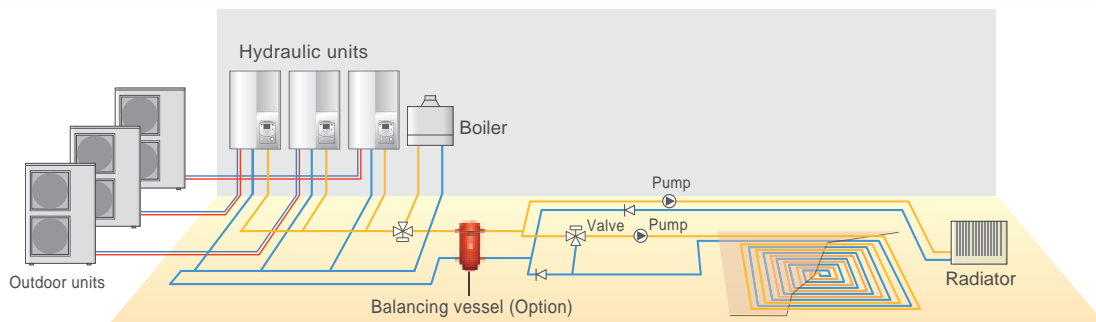


Split Cascade System Case studies

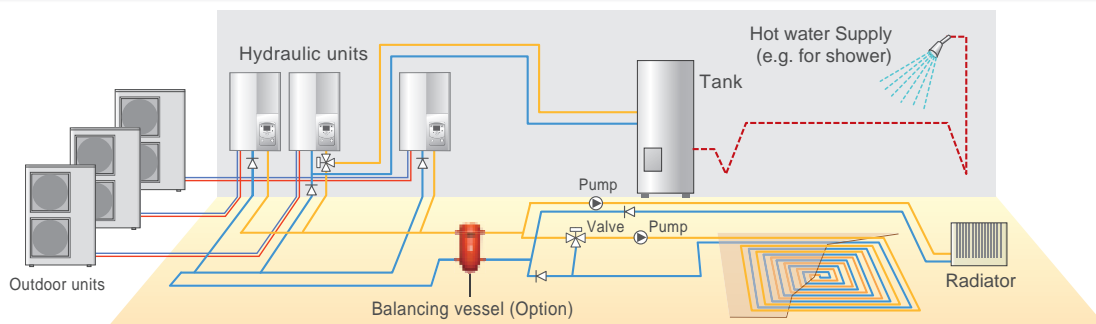
2 emitter simultaneous heating (Individual control)



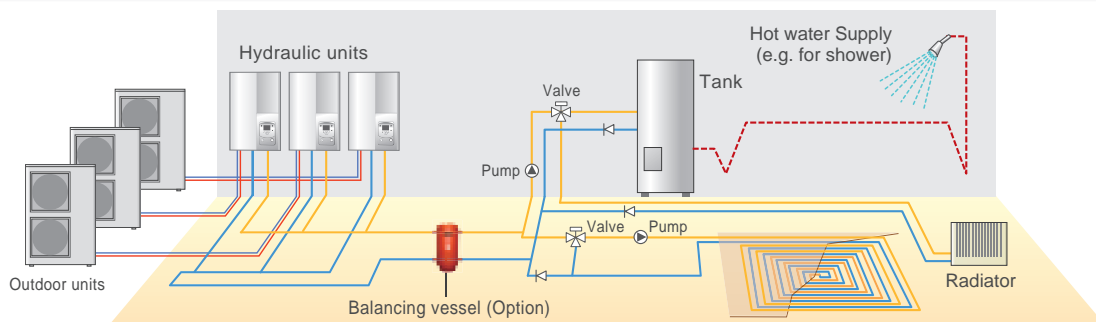
Boiler connected to heating (Boiler + Heating)



2 emitter simultaneous heating & Domestic Hot Water (type A)



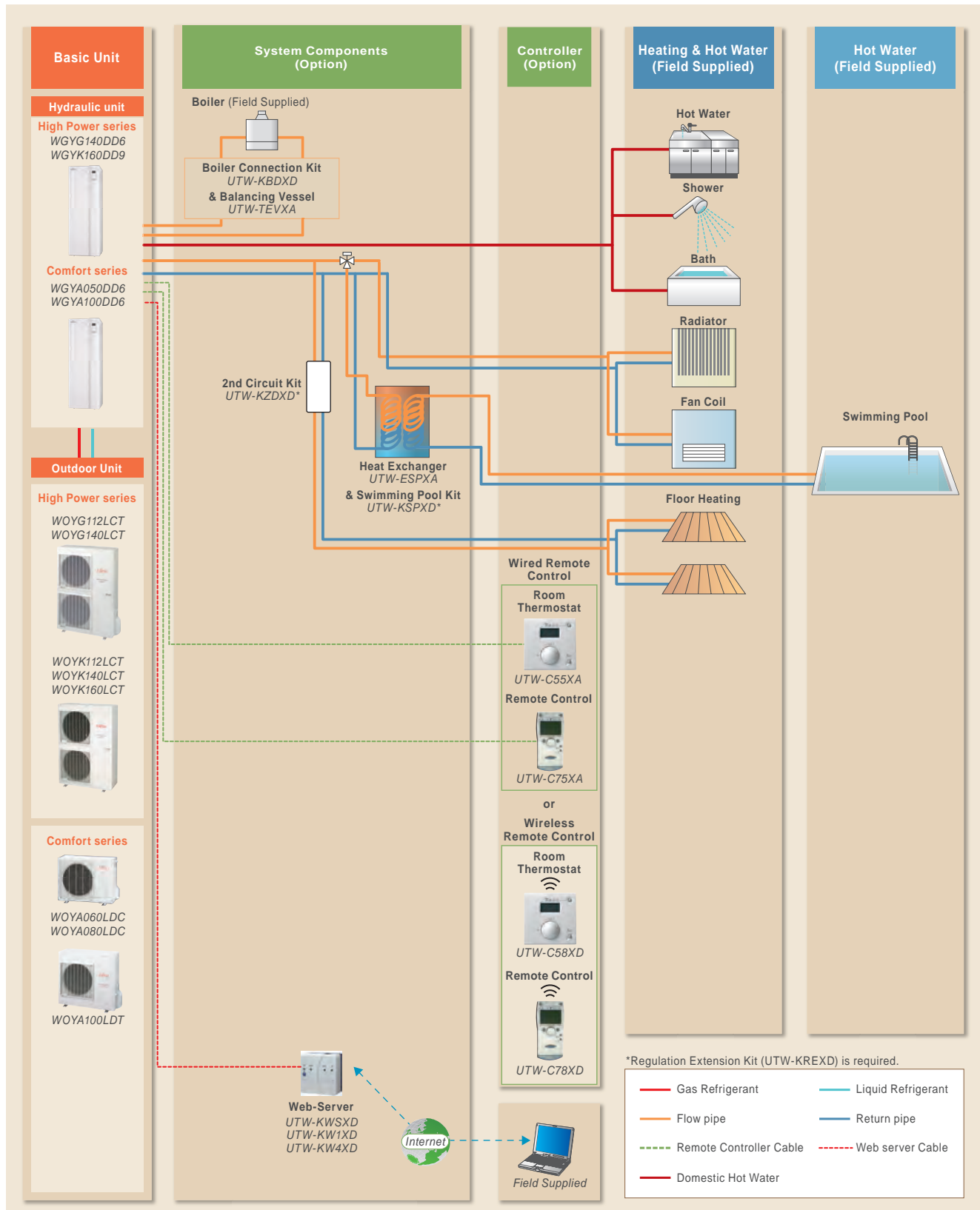
2 emitter simultaneous heating & Domestic Hot Water (type B)



Total solution concept for comfort inside your home

SPLIT DHW INTEGRATED TYPE

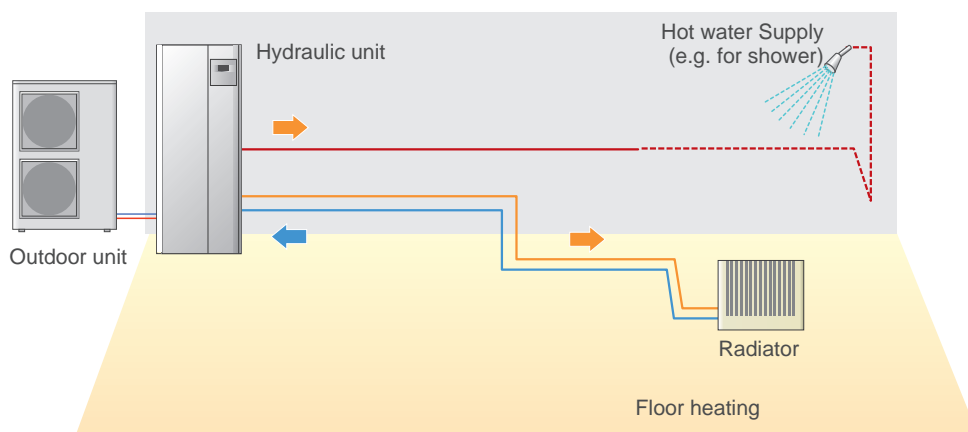
System configuration



Split DHW integrated Case studies

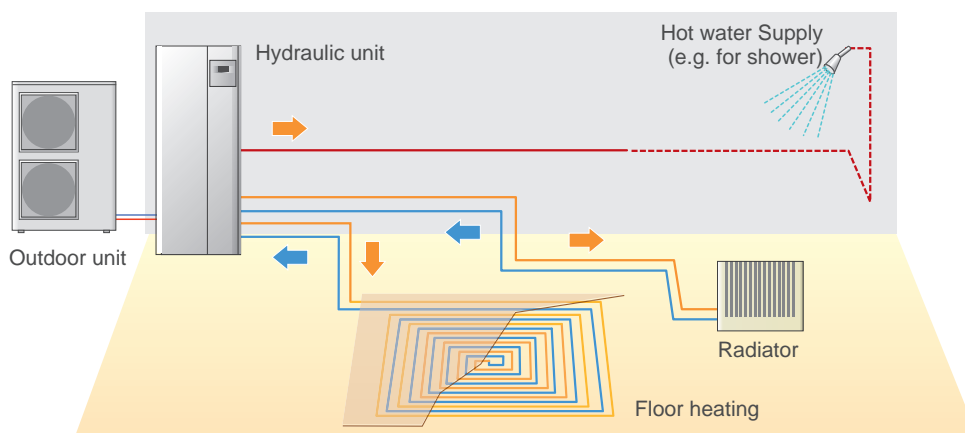
Single heating & Domestic Hot Water

Radiator + Domestic Hot Water

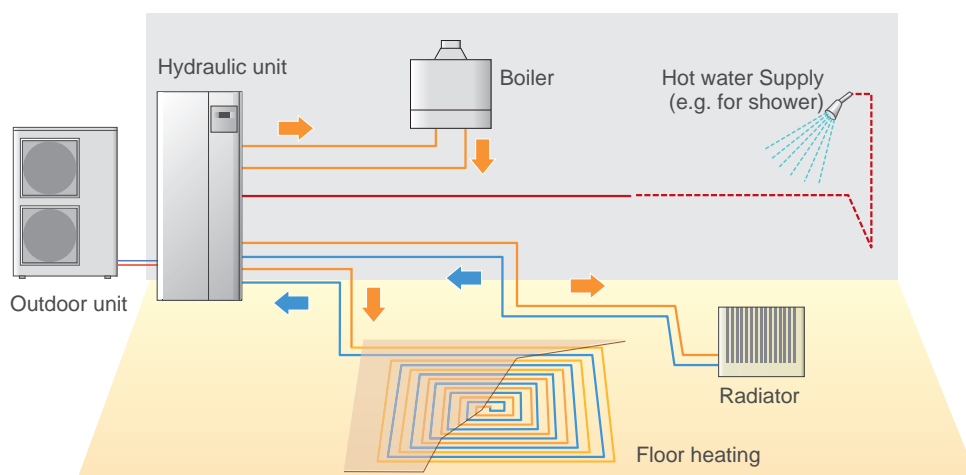


2 emitter simultaneous heating (Individual control) & Domestic Hot Water

Floor heating + Radiator + Domestic Hot Water



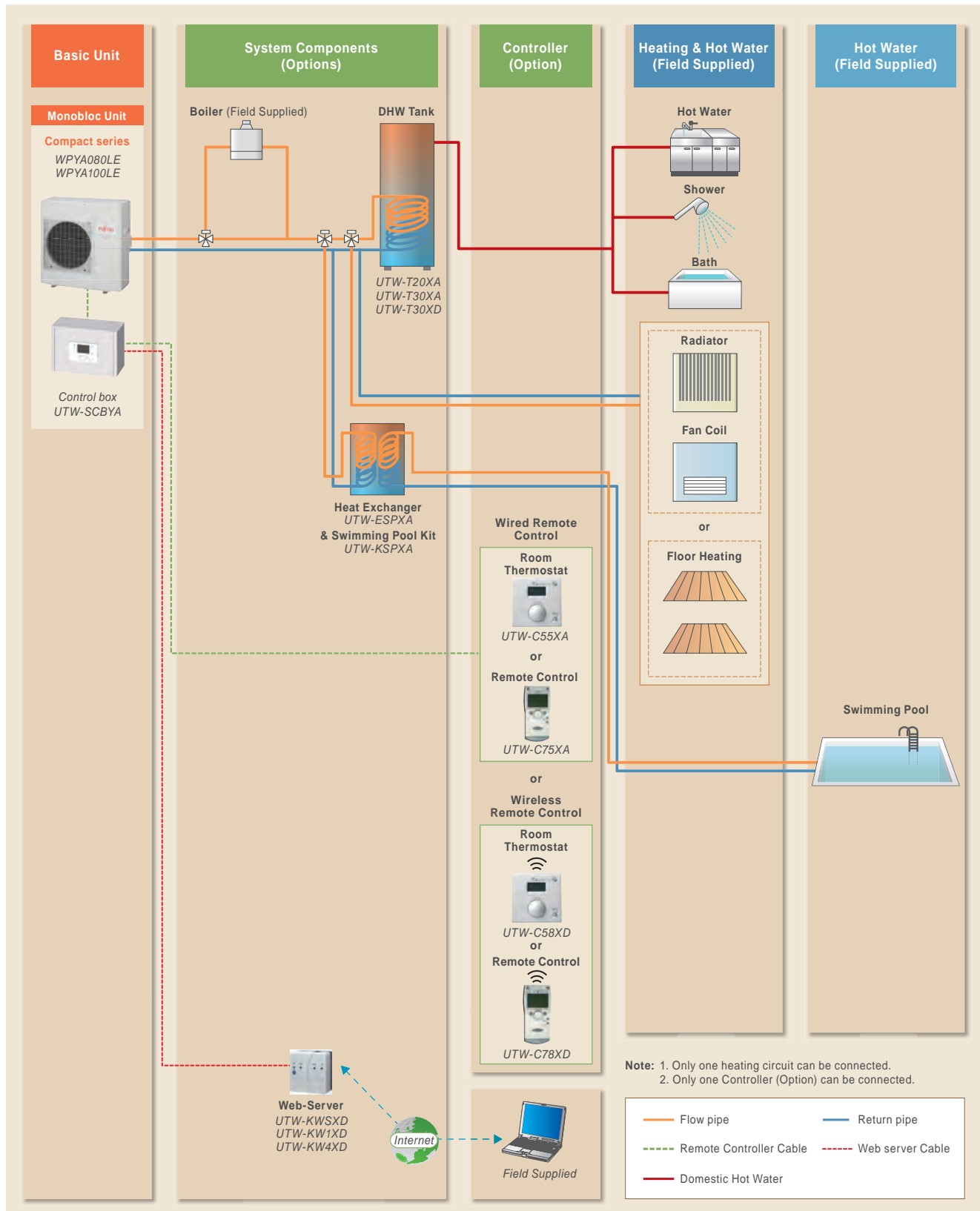
Boiler connected to heating (Boiler + Heating) & Domestic Hot Water



Total solution concept for comfort inside your home

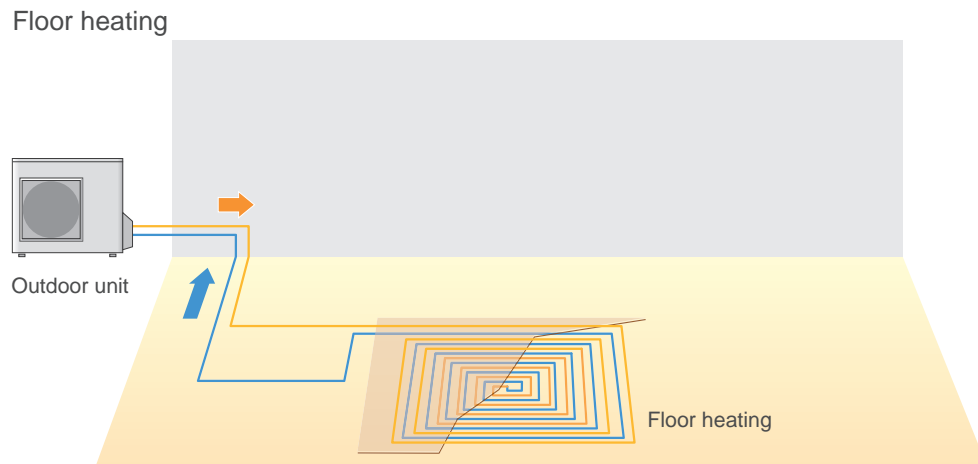
MONOBLOC TYPE

System configuration

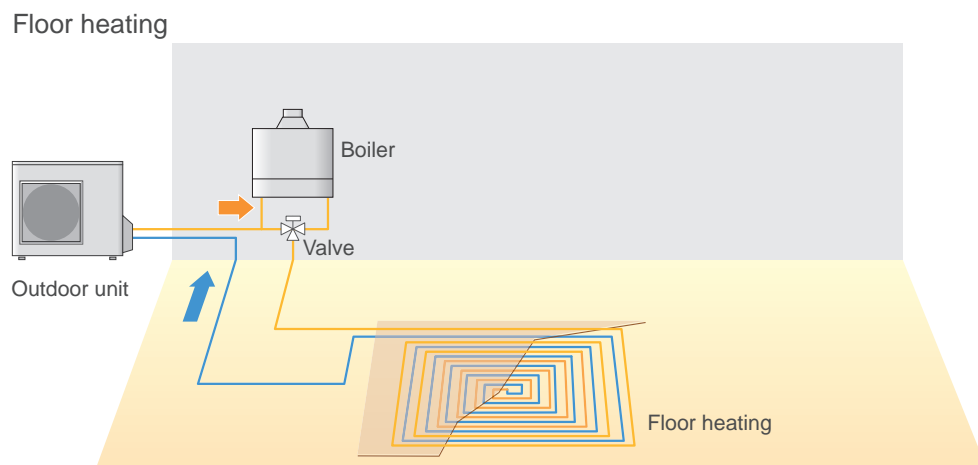


Monobloc Case studies

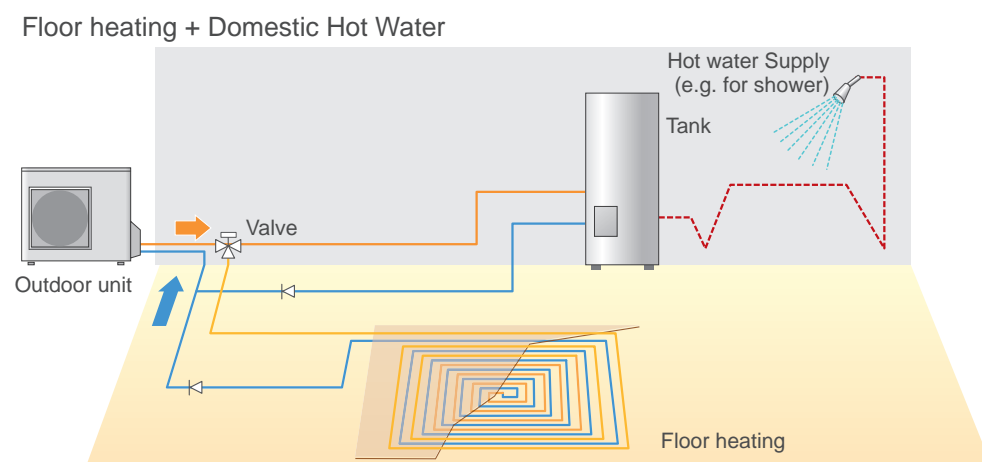
Single heating system



Boiler connected to heating (Boiler + Heating)













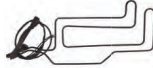




2 types of heat distribution



Optional Parts Compatibility

Product Name		Model Name	Split										Monobloc		Split DHW integrated type									
			High Power					Comfort					Compact		High Power					Comfort				
			1Ø		3Ø			1Ø				1Ø		1Ø		3Ø			1Ø					
			11	14	11	14	16	5	6	8	10	8	10	11	14	11	14	16	5	6	8	10		
2nd Circuit Kit		UTW-KZSXD	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—	—	—	—			
		UTW-KZDXD	—	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●	●			
Boiler Connection kit		UTW-KBSXD	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—	—	—	—			
		UTW-KBDXD	—	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●	●			
Balancing vessel		UTW-TEVXA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
DHW kit		UTW-KDWXA	—	—	—	—	—	—	—	—	●	●	—*1	—*1	—*1	—*1	—*1	—*1	—*1	—*1	—*1			
		UTW-KDWXD	●	●	●	●	●	●	●	●	—	—	—*1	—*1	—*1	—*1	—*1	—*1	—*1	—*1	—*1			
DHW Expansion Vessel kit		UTW-KDEXE	—	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●	●			
DHW tank	200 Liter 300 Liter 	UTW-T20XA UTW-T30XA	●	●	●	●	●	●	●	●	●	●	—*1	—*1	—*1	—*1	—*1	—*1	—*1	—*1	—*1			
	300 Liter 	UTW-T30XD	●	●	●	●	●	●	●	●	●	●	—*1	—*1	—*1	—*1	—*1	—*1	—*1	—*1	—*1			
Circulating pump		UTW-PHFXD	●	●	●	●	●	—	—	—	—	—	●	●	●	●	●	—	—	—	—			
Swimming Pool kit		UTW-KSPXA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
		UTW-KSPXD	●	●	●	●	●	●	●	●	—	—	●	●	●	●	●	●	●	●	●			
Heat Exchanger for swimming pool kit		UTW-ESPXA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
Cooling kit		UTW-KCLXD	●	●	●	●	●	●	●	●	—*2	—*2	●	●	●	●	●	●	●	●	●			
Regulation Extension Kit		UTW-KREXD	●	●	●	●	●	●	●	●	—	—	●	●	●	●	●	●	●	●	●			
Solar Regulation Kit		UTW-KSRXE	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—	—	—	—			
Mode Exchange Kit		UTW-KMEXE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
Low Noise Kit		UTW-KLNXE	●	●	●	●	●	—	—	—	—	—	●	●	●	●	●	—	—	—	—			
HMI Kit		UTW-KHMXE ^{*5}	●	●	●	●	●	●	●	●			●	●	●	●	●	●	●	●	●			

Product Name		Model Name	Split										Monobloc		Split DHW integrated type									
			High Power					Comfort					Compact		High Power						Comfort			
			1Ø		3Ø			1Ø				1Ø		1Ø		3Ø			1Ø					
			11	14	11	14	16	5	6	8	10	8	10	11	14	11	14	16	5	6	8	10		
Remote Controller	Wired 	UTW-C75XA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
		UTW-C75XA-E ^{*5}	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
	Wireless 	UTW-C78XD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
		UTW-C78XD-E ^{*5}	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
Room Thermostat	Wired 	UTW-C55XA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
	Wireless 	UTW-C58XD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
Outdoor Sensor Transmitter		UTW-MOSXD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
RF Modules	for X60-Port 	UTW-M60XD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
	for BSB-Port 	UTW-MRCXD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
Web server		UTW-KWSXD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
		UTW-KW1XD UTW-KW4XD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
Cascade Master Kit (incl. LPB Clip)		UTW-KCMXE	●	●	●	●	●	—	—	—	●	—	—	—	—	—	—	—	—	—	—			
Cascade Slave Kit (incl. LPB Clip)		UTW-KCSXE	●	●	●	●	●	—	—	—	●	—	—	—	—	—	—	—	—	—	—			
LPB Clip		UTW-KL1XD	●	●	●	●	●	●	●	●	—	—	●	●	●	●	●	●	●	●	●			
Base Heater		UTZ-HAMXE	—	—	—	—	—	—	—	—	●	●	—	—	—	—	—	—	—	—	—			
Service Tool (incl.OC1700 adaptor)		UTW-KSTXD	● ^{*3}	● ^{*3}	● ^{*3}	● ^{*3}	● ^{*3}	● ^{*3}	● ^{*3}	● ^{*3}	●	●	● ^{*3}	● ^{*3}	● ^{*3}	● ^{*3}	● ^{*3}	● ^{*3}	● ^{*3}	● ^{*3}	● ^{*3}			
Service Tool Software		UTW-KPSXD	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}	● ^{*4}			

*1: DHW operation is possible without DHW Kit and DHW Tank.

● : Available — : Not Available

*2: Cooling operation is possible without cooling kit

*3: UTW-KL1XD is required for the connection.

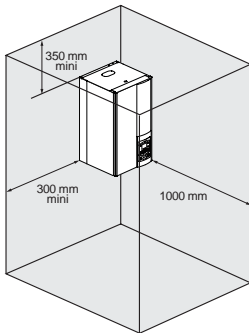
*4: UTW-KSTXD(OC1700 adaptor not included), UTW-KW1XD or UTW-KW4XD is required for the connection.

*5: Eastern European Language(English, Czech Republic, Slovakia, Poland, Turkey, Hungary, Russia, Slovenia, Greece, Serbia)

Installation Limitations

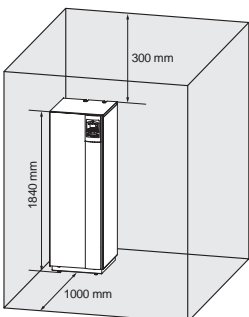
Equipment Installation

Split Type Hydraulic unit



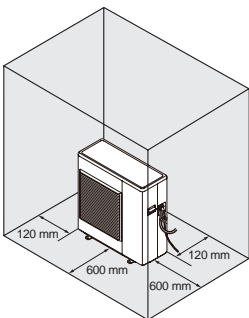
- Hydraulic unit is to be hang on the wall
- Weight < 60kg (including water)
- Distances for maintenance should be respected

Split DHW integrated Type Hydraulic unit



- Floor stand
- Weight: 366kg (including water)
- Distances for maintenance should be respected.

Monobloc Type Outdoor unit

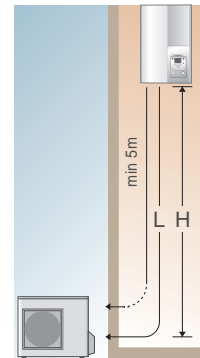


- Floor stand
- Weight 74 kg (without water)
- Distances for maintenance should be kept

Piping and Wiring

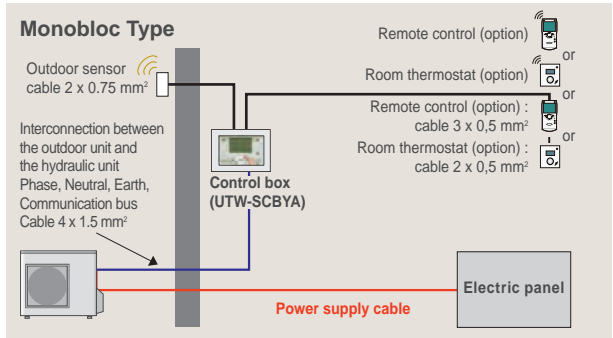
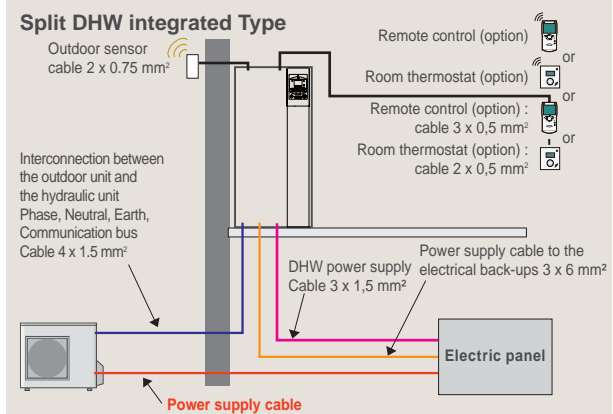
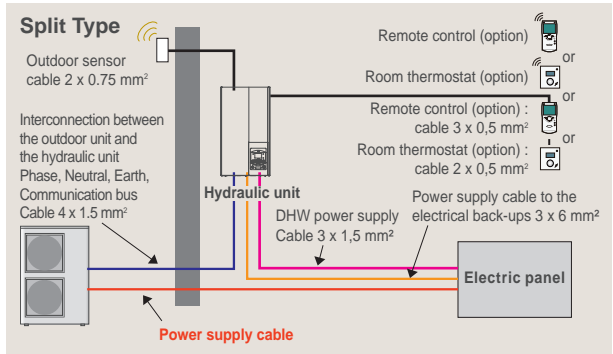
Piping

Split Type



Series	Capacity range(kW)	H (m)	L (m)
Comfort	5	±15	5-20
	6		
	8		
	10		
High power	11		
	14		
	16		

Electrical wiring

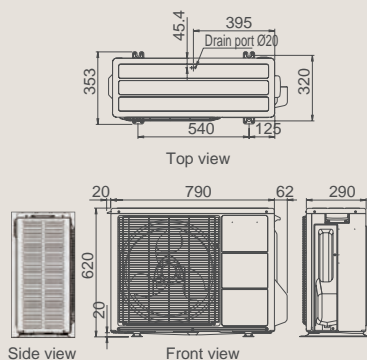


SPLIT TYPE

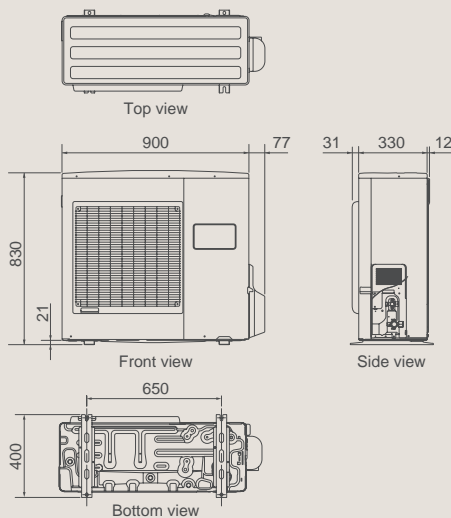
Unit : mm

Outdoor Units Comfort series

WOYA060LDC / WOYA080LDC



WOYA100LDT

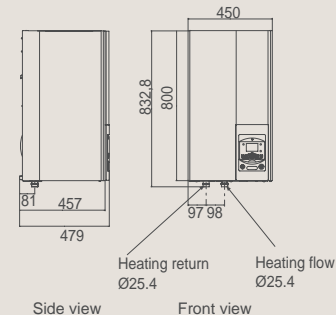


Hydraulic units Split type High Power series

WSYG140DC6 / WSYK160DC9

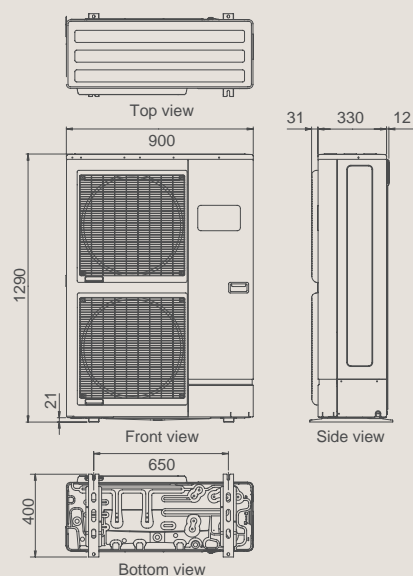
Hydraulic units Split type Comfort series

WSYA050DD6 / WSYA100DD6



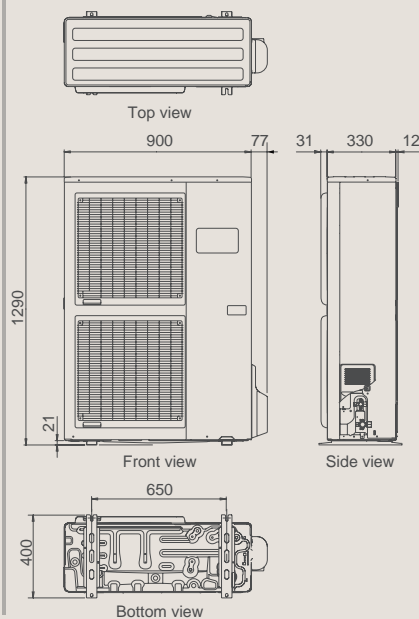
Outdoor Units High Power series

WOYK112LCT / WOYK140LCT / WOYK160LCT



Outdoor Units High Power series

WOYG112LCT / WOYG140LCT

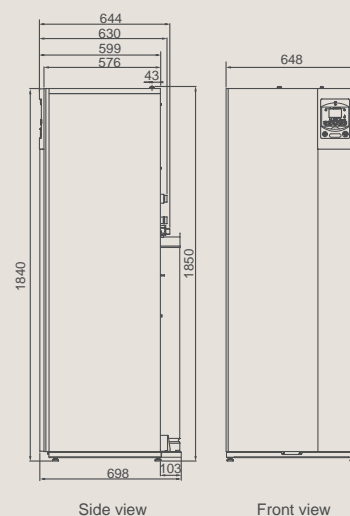


Hydraulic units Split DHW integrated type High Power series

WGYG140DD6 / WGYK160DD9

Hydraulic units Split DHW integrated type Comfort series

WG YA050DD6 / WG YA100DD6

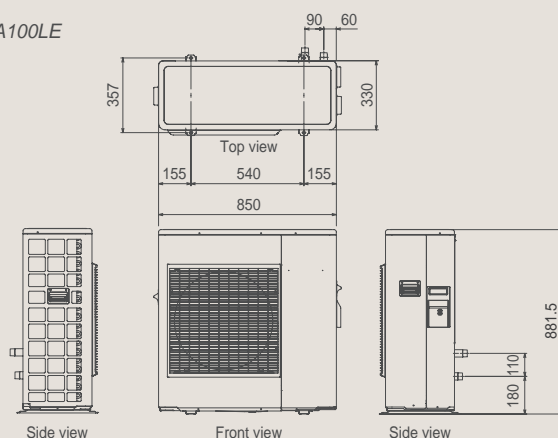


MONOBLOC TYPE

Unit : mm

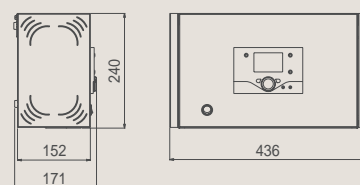
Compact series

WPYA080LE / WPYA100LE








Control Box

UTW-SCBYA








SPECIFICATIONS

Type			Split type									
Series name			High Power series					Comfort series				
												
Capacity range (kW)			11	14	11	14	16	5	6	8	10	
+7°C / +35°C floor heating *1	Heating capacity	kW	10.80	13.50	10.80	13.50	15.17	4.50	6.00	7.50	10.00	
	Input power		2.54	3.23	2.51	3.20	3.70	0.996	1.41	1.84	2.49	
	COP		4.25	4.18	4.30	4.22	4.10	4.52	4.27	4.08	4.02	
+2°C / +35°C floor heating *1	Heating capacity	kW	10.77	12.00	10.77	13.00	13.50	4.50	4.95	5.65	7.70	
	Input power		3.44	3.87	3.40	4.15	4.34	1.39	1.53	1.78	2.47	
	COP		3.13	3.10	3.17	3.13	3.11	3.24	3.24	3.17	3.12	
-7°C / +35°C floor heating *1	Heating capacity	kW	10.80	12.00	10.80	13.00	13.50	4.10	4.60	5.70	7.40	
	Input power		4.32	5.08	4.28	5.18	5.40	1.47	1.74	2.23	2.97	
	COP		2.50	2.36	2.52	2.51	2.50	2.79	2.64	2.56	2.49	
+7°C / +45°C radiators *1	Heating capacity	kW	9.23	11.54	10.10	12.60	13.00	4.50	5.10	6.20	8.27	
	Input power		2.84	3.72	3.01	3.81	4.00	1.30	1.50	1.87	2.53	
	COP		3.25	3.10	3.35	3.30	3.25	3.46	3.40	3.31	3.27	
-7°C / +45°C radiators *1	Heating capacity	kW	9.16	11.45	10.02	12.50	13.00	4.10	4.45	5.05	7.40	
	Input power		4.58	5.92	4.63	6.00	6.37	1.86	2.04	2.47	3.70	
	COP		2.00	1.93	2.16	2.08	2.04	2.20	2.18	2.04	2.00	
Backup heater	Capacity	kWxpcs.	6.0(3.0x2 pcs.)	6.0(3.0x2 pcs.)	9.0(3.0 x 3pcs.)	9.0(3.0 x 3pcs.)	9.0(3.0 x 3pcs.)	6.0(3.0x2 pcs.)	6.0(3.0x2 pcs.)	6.0(3.0x2 pcs.)	6.0(3.0x2 pcs.)	
Hydraulic unit Model name			WSYG140DC6		WSYK160DC9			WSYA050DD6		WSYA100DD6		
Power source			1Ø 230V, 50Hz		3Ø 400V, 50Hz			1Ø 230V, 50Hz				
Water circulation	Rated	L/min	31.2	39.0	31.2	39.0	43.8	13.00	17.33	21.66	28.88	
	Min / Max		25.0 / 50.0					8.1/16.2	10.8/21.7	13.5/27.1	18.1/36.1	
Dimensions HxWxD			800 x 450 x 457					800 x 450 x 457				
Weight (Net)			42					42				
Buffer tank capacity			16					16				
Expansion vessel capacity			8					8				
Leaving water temperature range			8-60					8-55				
Water pipe connection diameter	Flow / Return	mm	Ø25.4 / Ø25.4					Ø25.4 / Ø25.4				
Outdoor unit Model name			WOYG112LCT	WOYG140LCT	WOYK112LCT	WOYK140LCT	WOYK160LCT	WOYA060LDC		WOYA080LDC	WOYA100LDT	
Power source			1Ø 230V, 50Hz		3Ø 400V, 50Hz			1Ø 230V, 50Hz				
Current	Rated	A	11.4	14.2	3.7	4.8	5.5	4.5	6.3	8.1	10.9	
	Max		22.0	25.0	8.5	9.5	10.5	11.0	12.5	17.5	18.5	
Noise level (Sound pressure)			55 ^{*2}	56 ^{*2}	53 ^{*2}	55 ^{*2}	56 ^{*2}	48 ^{*2}	51 ^{*2}	56 ^{*2}	55 ^{*2}	
Dimensions HxWxD			1290 x 900 x 330					620 x 790 x 290				
Weight (Net)			92		99			41		42	60	
Refrigerant			R410A					R410A				
Refrigerant amount			2.50					1.10		1.40	1.80	
Additional refrigerant charge amount			50					20		20	40	
Connection pipe	Diameter	Liquid	mm	Ø9.52					Ø6.35		Ø9.52	
		Gas	mm	Ø15.88					Ø12.70		Ø15.88	
	Length	Min / Max	m	5 / 20					5 / 20			
		Length (chargeless)	Max	15					15			
	Height difference	Max	m	15					15			
Operation range			Heating -25-35					-20-35				

Type	Monobloc type				
Series name	Compact series				
					
Capacity range (kW)			8	10	
+7°C / +35°C floor heating *1	Heating capacity	kW	8.00	10.00	
	Input power		1.78	2.30	
	COP		4.50	4.35	
+2°C / +35°C floor heating *1	Heating capacity	kW	7.40	8.10	
	Input power		2.73	3.00	
	COP		2.71	2.70	
-7°C / +35°C floor heating *1	Heating capacity	kW	7.10	8.00	
	Input power		2.93	3.32	
	COP		2.42	2.41	
+7°C / +45°C radiators *1	Heating capacity	kW	7.80	9.80	
	Input power		2.23	2.88	
	COP		3.50	3.40	
-7°C / +45°C radiators *1	Heating capacity	kW	6.50	7.00	
	Input power		2.98	3.31	
	COP		2.18	2.11	
Monobloc unit		Model name	WPYA080LE	WPYA100LE	
Power source			1Ø 230V, 50Hz		
Water circulation	Rated	L/min	22.9	28.7	
	Min / Max		10.0 / 30.0	10.0 / 30.0	
Current	Rated	A	8.30	10.20	
Noise level (Sound pressure)		dB(A)	51*2	51*2	
Dimensions H×W×D		mm	881.5 × 850 × 330		
Weight (Net)		kg	74		
Water pipe connection diameter		Flow / Return	mm	Ø25.4 / Ø25.4	
Refrigerant		R410A			
Refrigerant amount		kg	1.5		
Leaving water temperature range		°C	8 ~ 55		
Operation range		Heating	°C	-20 ~ 35	

*1. The values of heating capacity/power input/COP are based on measurement of EN14511 standard. Usage environment, such as operation of the heating equipment, room temperature, and controller adjustments, may cause disparities between practically determined and these values.
*2. Sound pressure level measured at distance of 1m from the device.

Type			Split DHW integrated type									
Series name			High Power series						Comfort series			
												
Capacity range (kW)			11	14	11	14	16	5	6	8	10	
+7°C / +35°C floor heating* ¹	Heating capacity	kW	10.80	13.50	10.80	13.50	15.17	4.50	6.00	7.50	10.00	
	Input power		2.54	3.23	2.51	3.20	3.70	0.996	1.41	1.84	2.49	
	COP		4.25	4.18	4.30	4.22	4.10	4.52	4.27	4.08	4.02	
+2°C / +35°C floor heating* ¹	Heating capacity	kW	10.77	12.00	10.77	13.00	13.50	4.50	4.95	5.65	7.70	
	Input power		3.44	3.87	3.40	4.15	4.34	1.39	1.53	1.78	2.47	
	COP		3.13	3.10	3.17	3.13	3.11	3.24	3.24	3.17	3.12	
-7°C / +35°C floor heating* ¹	Heating capacity	kW	10.80	12.00	10.80	13.00	13.50	4.10	4.60	5.70	7.40	
	Input power		4.32	5.08	4.28	5.18	5.40	1.47	1.74	2.23	2.97	
	COP		2.50	2.36	2.52	2.51	2.50	2.79	2.64	2.56	2.49	
+7°C / +45°C radiators* ¹	Heating capacity	kW	9.23	11.54	10.10	12.60	13.00	4.50	5.10	6.20	8.27	
	Input power		2.84	3.72	3.01	3.81	4.00	1.30	1.50	1.87	2.53	
	COP		3.25	3.10	3.35	3.30	3.25	3.46	3.40	3.31	3.27	
-7°C / +45°C radiators* ¹	Heating capacity	kW	9.16	11.45	10.02	12.50	13.00	4.10	4.45	5.05	7.40	
	Input power		4.58	5.92	4.63	6.00	6.37	1.86	2.04	2.47	3.70	
	COP		2.00	1.93	2.16	2.08	2.04	2.20	2.18	2.04	2.00	
Backup heater	Capacity	kWxpcs.	6.0(3.0x2 pcs.)	6.0(3.0x2 pcs.)	9.0(3.0 x 3pcs.)	9.0(3.0 x 3pcs.)	9.0(3.0 x 3pcs.)	6.0(3.0x2 pcs.)	6.0(3.0x2 pcs.)	6.0(3.0x2 pcs.)	6.0(3.0x2 pcs.)	
Hydraulic unit Model name			WGYG140DD6			WGYK160DD9			WGYA050DD6		WGYA100DD6	
Power source			1Ø 230V, 50Hz			3Ø 400V, 50Hz			1Ø 230V, 50Hz			
Water circulation	Rated Min / Max	L / min	31.2	39.0	31.2	39.0	43.8	13.00	17.33	21.66	28.88	
			25.0 / 50.0					8.1/16.2	10.8/21.7	13.5/27.1	18.1/36.1	
Dimensions H×W×D		mm	1840 × 648 × 698						1840 × 648 × 698			
Weight (Net)		kg	152						152			
DHW capacity		L	190						190			
Hot water heater capacity		kW	1.5						1.5			
Buffer tank capacity		L	16						16			
Expansion vessel capacity		L	12						12			
Leaving water temperature range		°C	8-60						8-55			
Water pipe connection diameter	Flow / Return	mm	Ø25.4 / Ø25.4						Ø25.4 / Ø25.4			
Hot water pipe diameter			(Inlet/Outlet) Ø19.05						(Inlet/Outlet) Ø19.05			
Outdoor unit Model name			WOYG112LCT	WOYG140LCT	WOYK112LCT	WOYK140LCT	WOYK160LCT	WOYA060LDC		WOYA080LDC	WOYA100LDT	
Power source			1Ø 230V, 50Hz			3Ø 400V, 50Hz			1Ø 230V, 50Hz			
Current	Rated Max	A	11.4	14.2	3.7	4.8	5.5	4.5	6.3	8.1	10.9	
Noise level (Sound pressure)		dB(A)	55 ⁻²	56 ⁻²	8.5 ⁻²	9.5 ⁻²	10.5 ⁻²	11.0 ⁻²	12.5 ⁻²	17.5 ⁻²	18.5 ⁻²	
Dimensions H×W×D		mm	1290 × 900 × 330						620 × 790 × 290			830×900×330
Weight (Net)		kg	92		99			41		42	60	
Refrigerant			R410A						R410A			
Refrigerant amount		kg	2.50						1.10		1.40	1.80
Additional refrigerant charge amount		g/m	50						20		20	40
Connection pipe	Diameter	Liquid	mm						Ø6.35		Ø9.52	
		Gas	mm						Ø12.70		Ø15.88	
	Length	Min / Max	m						5 / 20			
	Length (chargeless)	Max	m						15			
Height difference		Max	m						15			
Operation range		Heating	°C						-20 - 35			

*1. The values of heating capacity/power input/COP are based on measurement of EN14511 standard. Usage environment, such as operation of the heating equipment, room temperature, and controller adjustments, may cause disparities between practically determined and these values.

*2. Sound pressure level measured at distance of 1m from the device.

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1116, Suenaga, Takatsu-ku, Kawasaki 213-8502, Japan
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