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 Fujitsu General (Shanghai) Co., Ltd.

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 7NF008-1308E

SPLIT TYPE
SPLIT DHW INTEGRATED TYPE
MONOBLOC TYPE



FUJITSU GENERAL LIMITED

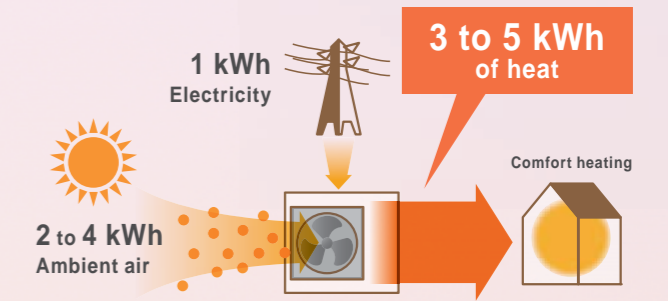
WATERSTAGE™

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

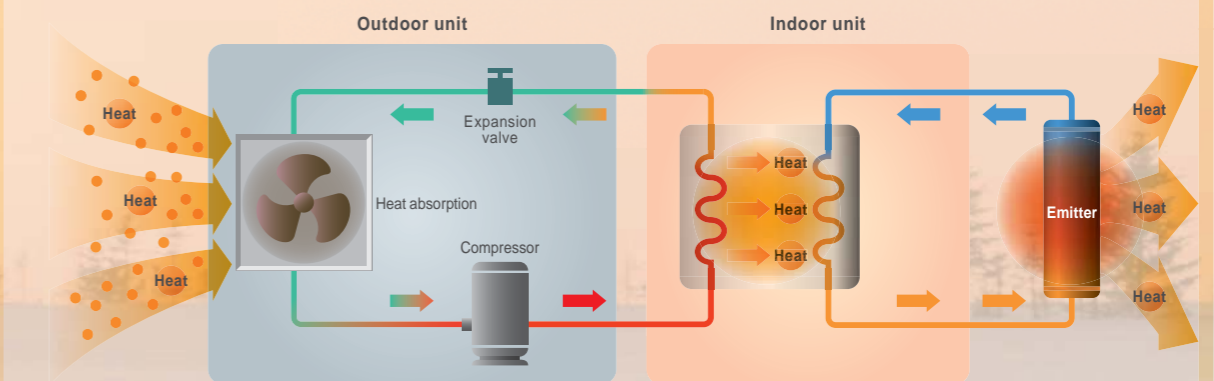
Environmentally friendly water heating system applying heat pump technology that collects heat from the outdoor air

WHAT'S A HEAT PUMP ?

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

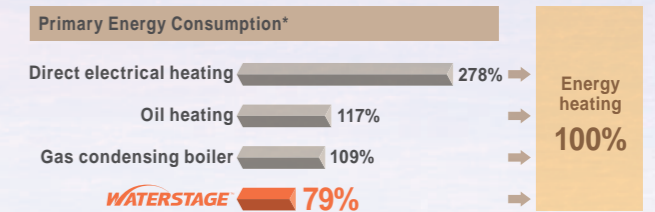


Heat Pump system framework



PRIMARY ENERGY USAGE REDUCED DRASTICALLY !

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



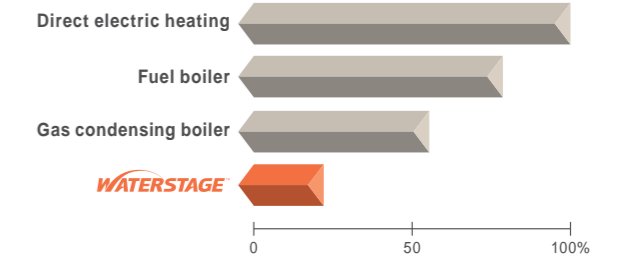
Advantages of **WATERSTAGE™**

LESS CO₂ EMISSIONS

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

Advantages

Average annual CO₂ emissions



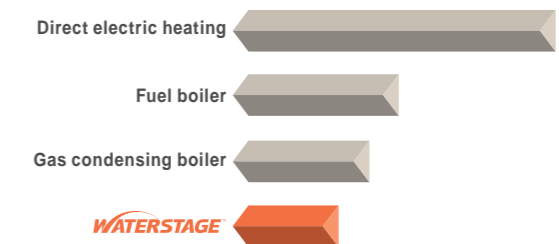
*Calculations based on data provided by European Program-2001' for EU27 Fuel boiler efficiency: 89%, Gas boiler efficiency: 93%

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.

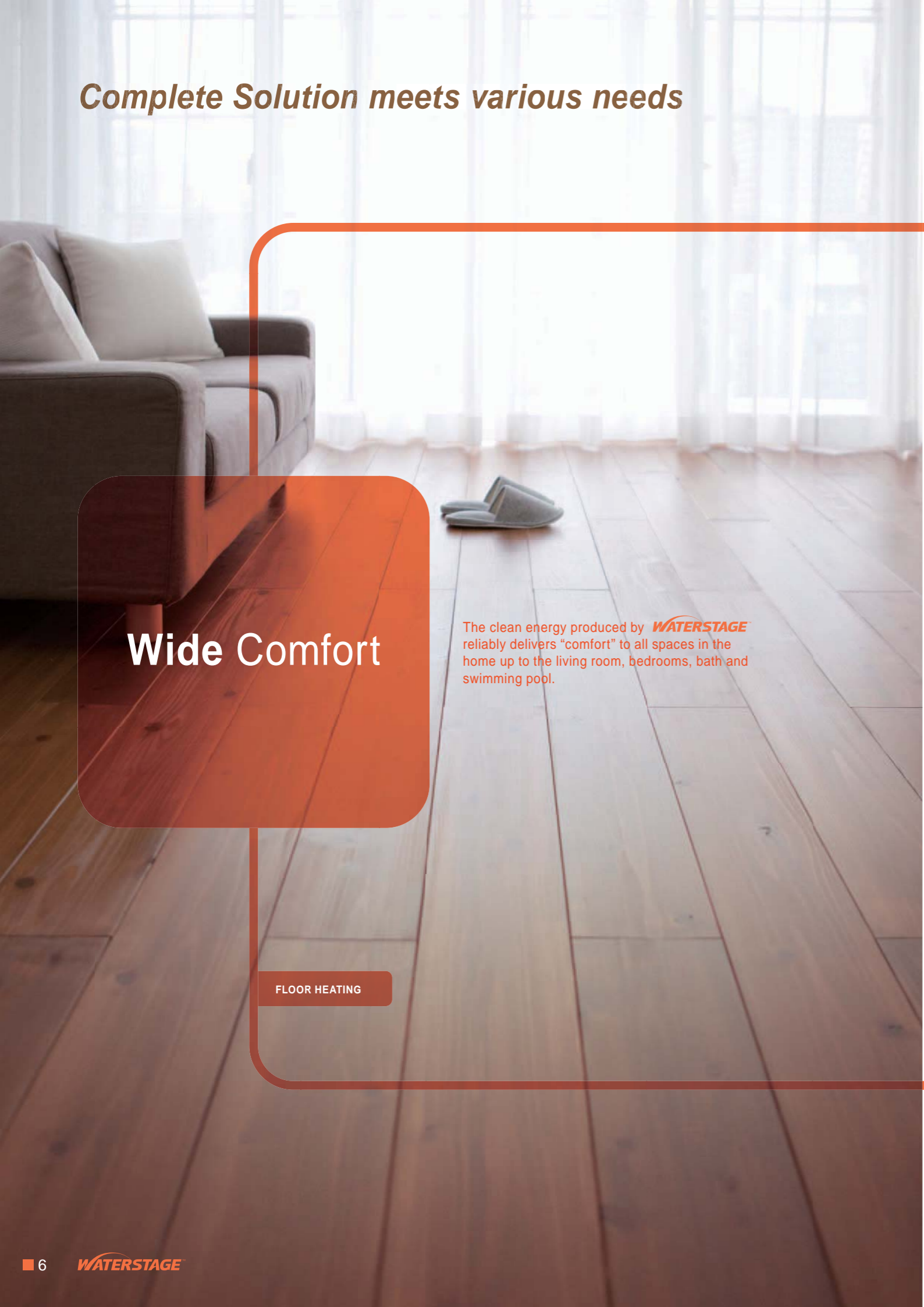
Sophisticated arrangement of hydraulic units, allows easy piping and maintenance

No chimney sweep

No pollution

Low maintenance cost

Complete Solution meets various needs



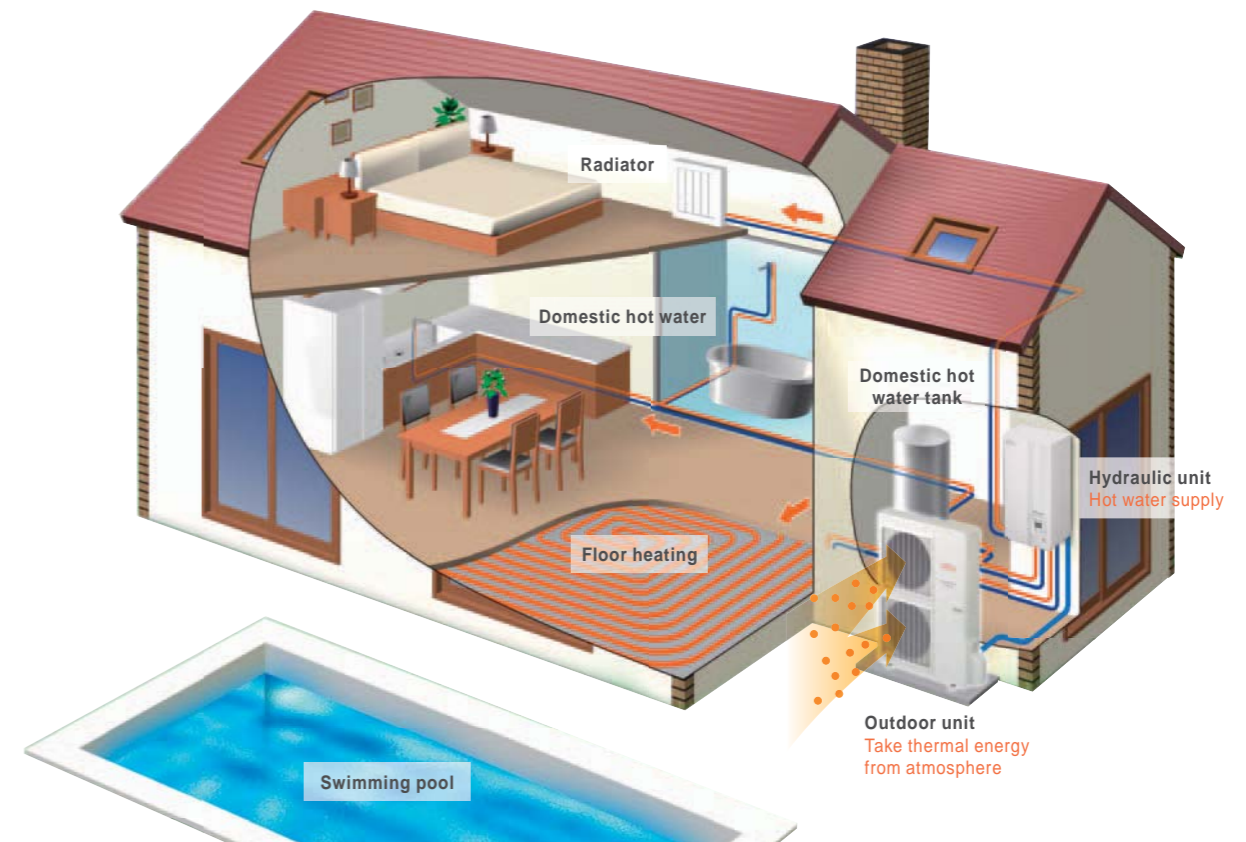
Wide Comfort

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.

ROOM HEATING



COOLING



FLOOR HEATING











SWIMMING POOL



DOMESTIC HOT WATER



Product lineup for various needs

Type	SPLIT TYPE				SPLIT DHW INTEGRATED TYPE				MONOBLOC TYPE
	High power series		Comfort series		High power series		Comfort series		Compact series
Series	Usable outdoor temperature: -25°C 		Usable outdoor temperature: -20°C 		Usable outdoor temperature: -25°C 		Usable outdoor temperature: -20°C 		Usable outdoor temperature: -20°C 
	Outdoor unit 		Outdoor unit 		Outdoor unit 		Outdoor unit 		Monobloc unit 
	Capacity range : 11 / 14 kW 11 / 14 / 16 kW		Capacity range : 5 / 6 / 8 kW 10 kW		Capacity range : 11 / 14 kW 11 / 14 / 16 kW		Capacity range : 5 / 6 / 8 kW 10 kW		Capacity range : 8 / 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* 		<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
Power source	1Ø 230V / 50Hz 3Ø 400V / 50Hz		1Ø 230V / 50Hz		1Ø 230V / 50Hz 3Ø 400V / 50Hz		1Ø 230V / 50Hz		1Ø 230V / 50Hz
Capacity range			<ul style="list-style-type: none"> 5 kW 6 kW 8 kW 10 kW 				<ul style="list-style-type: none"> 5 kW 6 kW 8 kW 10 kW 		<ul style="list-style-type: none"> 8 kW 10 kW
	<ul style="list-style-type: none"> 11 kW 14 kW 16 kW 				<ul style="list-style-type: none"> 11 kW 14 kW 		<ul style="list-style-type: none"> 11 kW 14 kW 		

*Optional parts are required.

High Power series

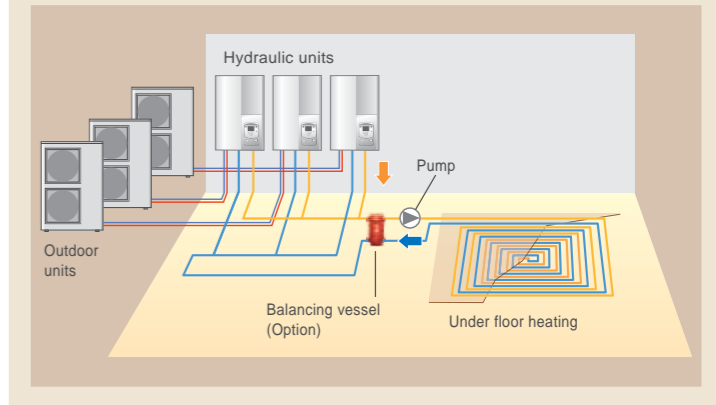
<p>Single Phase power supply</p> <p>11kW 14kW</p> <p>Hydraulic unit WSYG140DC6</p>  <p>Outdoor unit WOYG112LCT WOYG140LCT</p>	<p>3 Phase power supply</p> <p>11kW 14kW 16kW</p> <p>Hydraulic unit WSYK160DC9</p>  <p>Outdoor unit WOYK112LCT WOYK140LCT WOYK160LCT</p>
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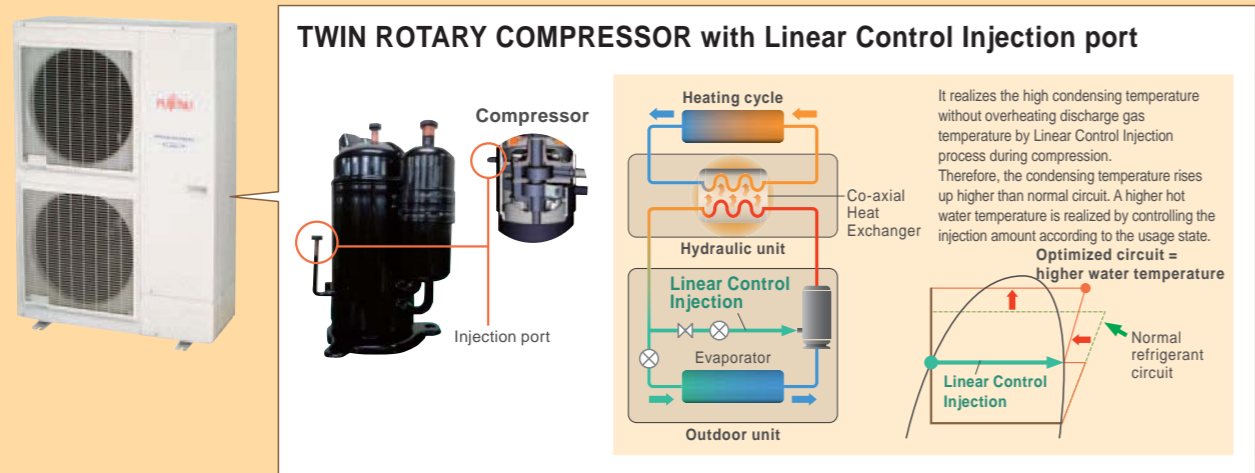
High power models realizes high heating capacity and high efficiency by newly developed "Linear Control Injection Technology" and "Co-axial Heat Exchanger". These properties are the key for a reliable heating operation throughout the whole year-even in a strong winter.

Cascade connection

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

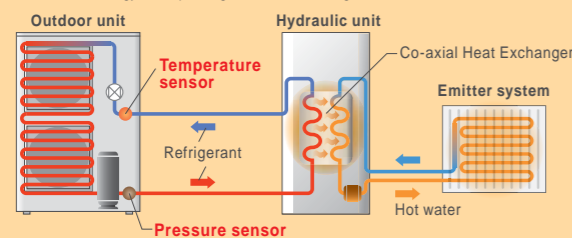


High Power & High Efficiency Outdoor unit technology

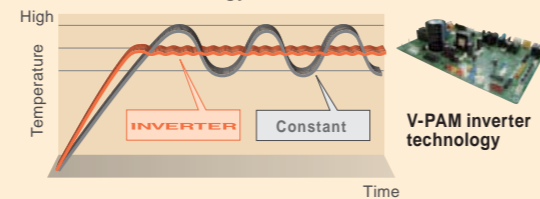


Optimization of refrigerant cycle operation

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



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.



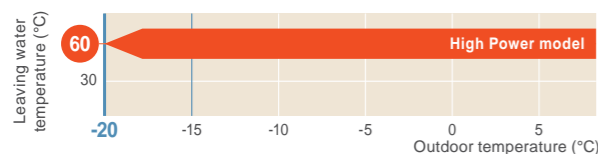
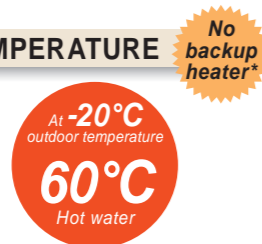
High Power series

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

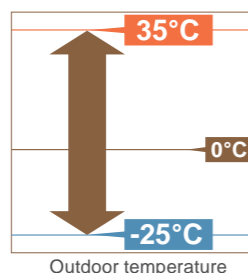
High leaving water temperature 60°C kept down to -20°C outdoor temperature without using backup heater.



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

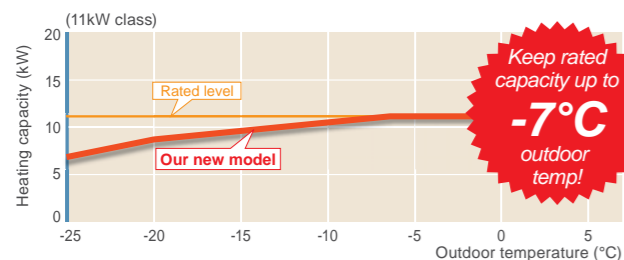
EXTENDED OPERATION RANGE DOWN TO -25°C

Improved operation range down to -25°C outdoor temperature



STRONG & POWERFUL HEATING CAPACITY

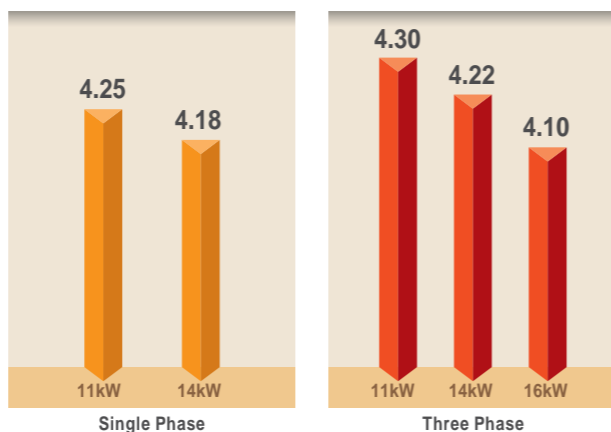
Keeping the rated heating capacity up to -7°C outdoor temperature



High Efficiency

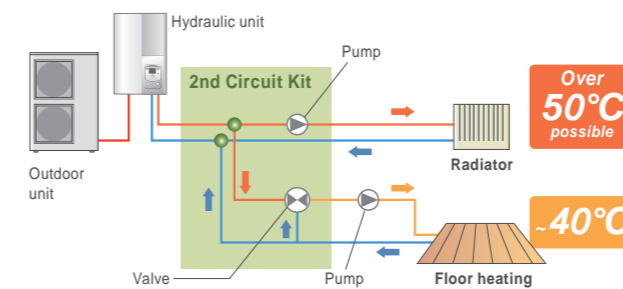
Energy efficiency is improved by the linear Control Injection Technology and the optimization of refrigerant cycle control. High power model realizes high performance and high efficiency by adopting twin sensors and control technology corresponding to hot water heating.

HIGH COP



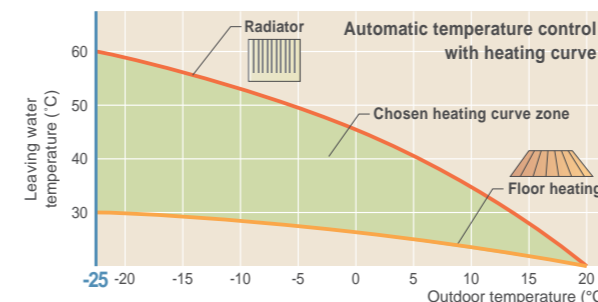
Intelligent Control

2 ZONE INDIVIDUAL CONTROL*



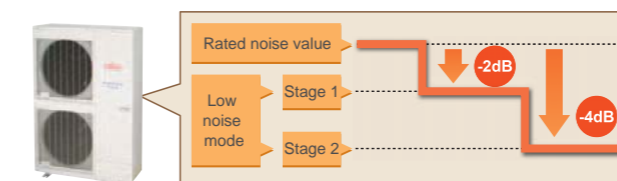
AUTOMATIC HEATING CURVE CONTROL

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



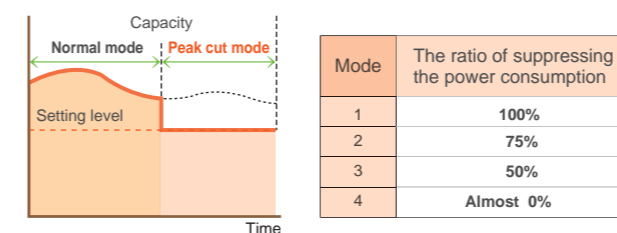
2 STAGE LOW NOISE MODE*

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

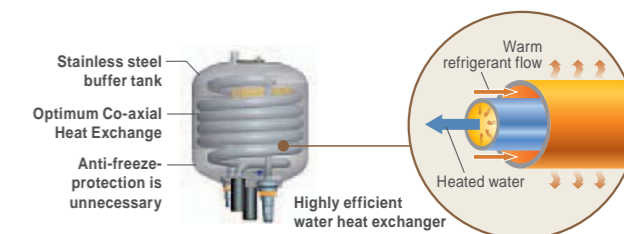
- Cooling operation is possible*
- Anti-Legionella function
- Additional electric heater control for backup
- Cascade connection is possible.* (Future Release)
- Web server can be connected.*

*Optional parts are required.

High Reliability

HIGH DURABILITY

- Corrosion protected
- No flow switch and no filter necessary

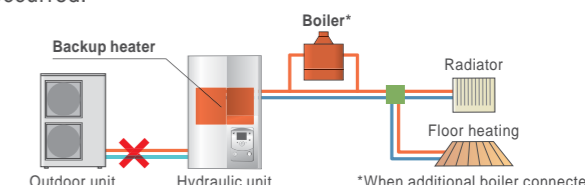


EASY INSTALLATION & MAINTENANCE

- 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.



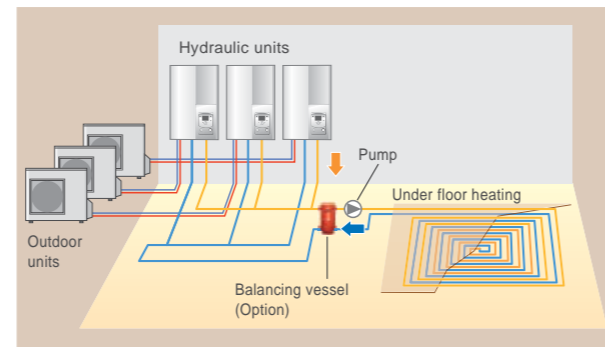
Comfort series

5kW	6kW	8kW	10kW
Hydraulic unit WSYA050DD6 WSYA100DD6		Hydraulic unit WSYA100DD6	
			
			
Outdoor unit WOYA060LDC WOYA080LDC		Outdoor unit WOYA100LDT	

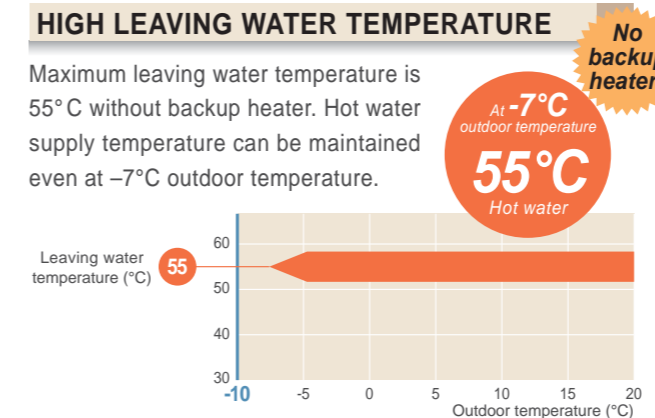
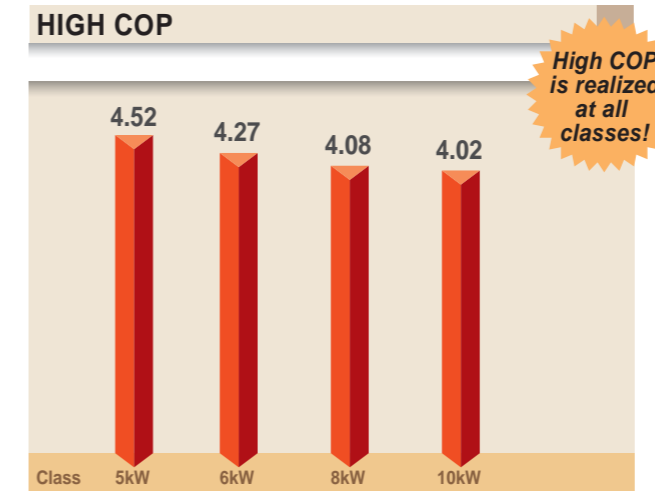
For Comfort series, optimized flow temperature control is realized by DC inverter technology.

Cascade connection

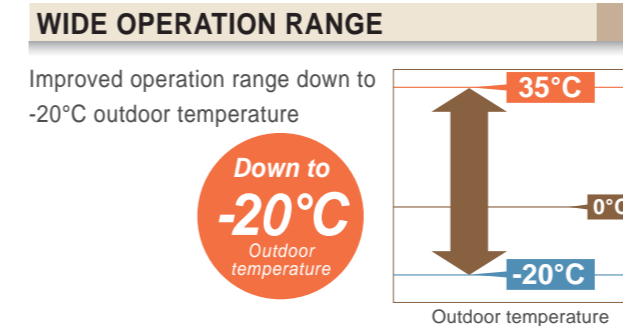
Large capacities can be realized by combining up to three systems into one control circuit.



High Efficiency & Comfort

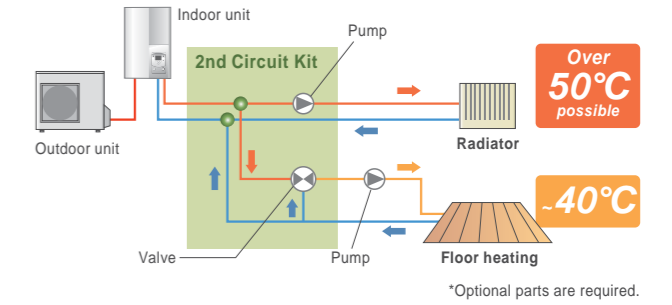


* If you want to raise the hot water supply temperature, backup heater can be used for the auxiliary operation.



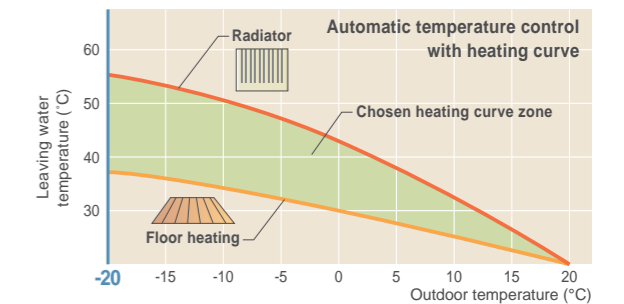
Intelligent Control

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

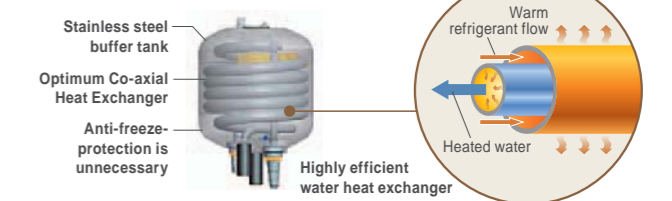
- Cooling operation is possible.*
- Anti-Legionella function
- Possible to docking the boiler (Field supplied)

*Optional parts are required.

High Reliability

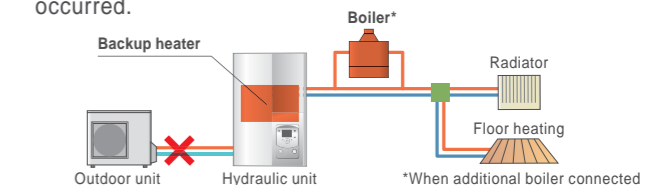
HIGH DURABILITY

- 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 Efficiency Technology

DC FAN MOTOR

High performance, high efficiency small DC fan motor mounted.



HIGH EFFICIENT CO-AXIAL HEAT EXCHANGER

Double-pipe water heat exchanger with built-in tank



DC TWIN ROTARY COMPRESSOR

High efficient DC twin rotary compressor



DC INVERTER

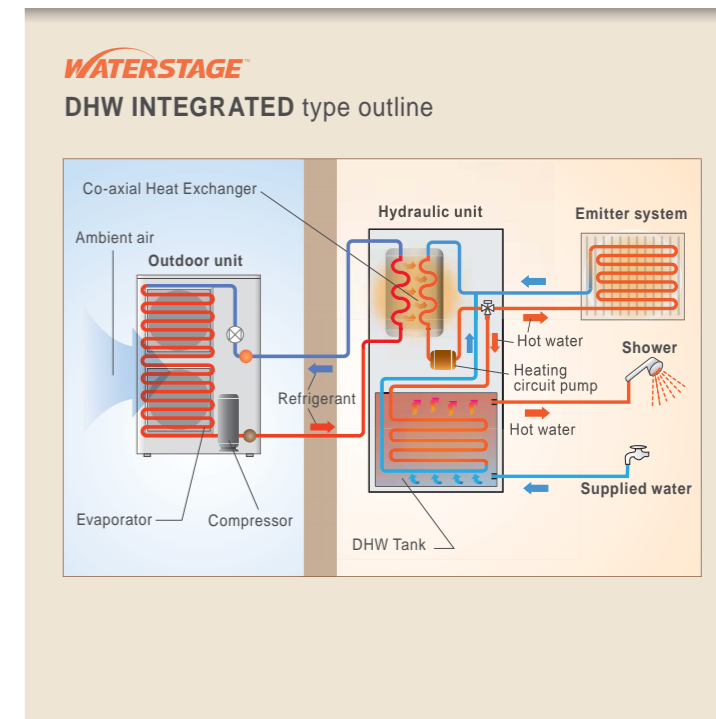
Smooth water temperature control realized by DC inverter control.



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

It realizes the high condensing temperature without overheating discharge gas temperature by Linear Control Injection process during compression. Therefore, the condensing temperature rises up higher than normal circuit. A higher hot water temperature is realized by controlling the injection amount according to the usage state. **Optimized circuit = higher water temperature**

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

V-PAM inverter technology

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

Installation space area about **50%** reduction

Dimensions: 648 mm (width) x 1,840 mm (height) x 698 mm (depth)

High Power series

Powerful Heating

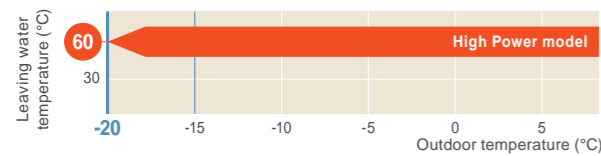
High power models realize high leaving water temperature and high heating capacity even at low ambient temperature by newly developed "Linear Control Injection Technology". It is possible to provide high water temperature and warm rooms in cold regions.

HIGH LEAVING WATER TEMPERATURE

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



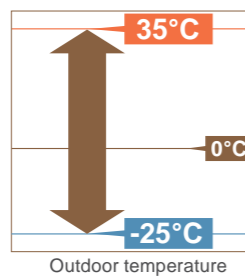
No backup heater*



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

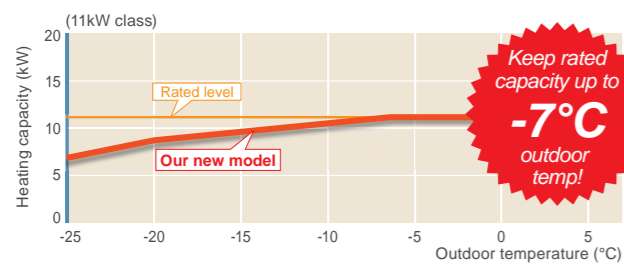
EXTENDED OPERATION RANGE DOWN TO -25°C

Improved operation range down to -25°C outdoor temperature



STRONG & POWERFUL HEATING CAPACITY

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

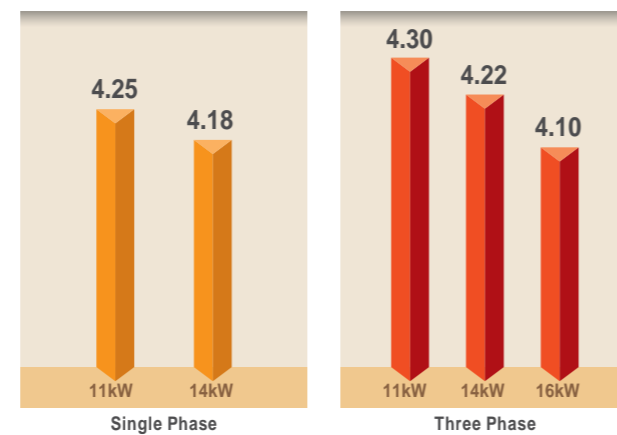


Keep rated capacity up to -7°C outdoor temp!

High Efficiency

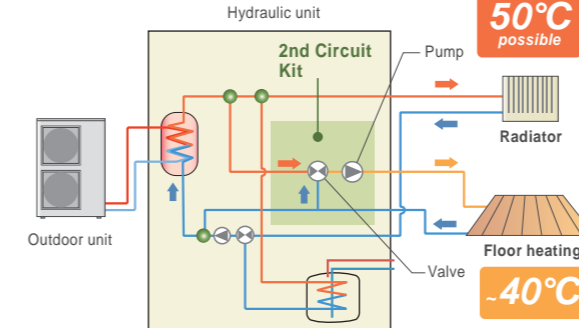
Energy efficiency is improved by the linear Control Injection Technology and the optimization of refrigerant cycle control. High power model realizes high performance and high efficiency by adopting twin sensors and control technology corresponding to hot water heating.

HIGH COP



Intelligent Control

2 ZONE INDIVIDUAL CONTROL*

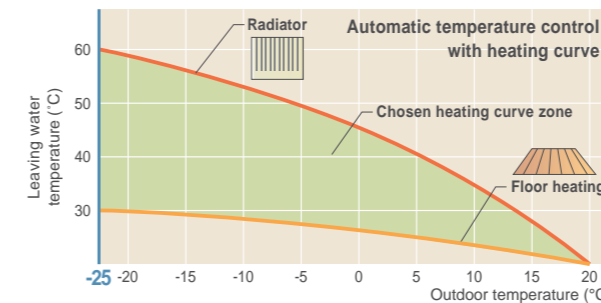


Over 50°C possible

-40°C

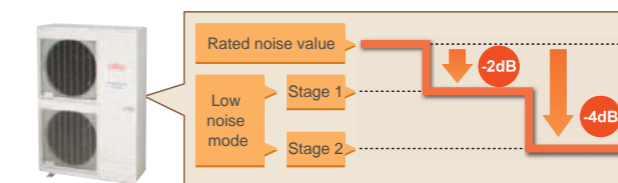
AUTOMATIC HEATING CURVE CONTROL

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



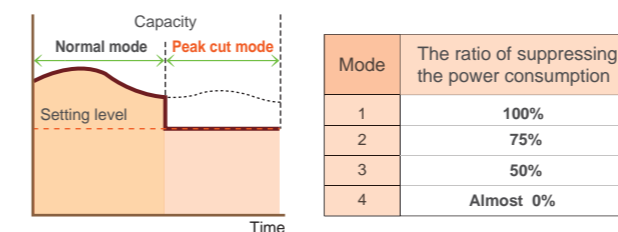
2 STAGE LOW NOISE MODE*

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

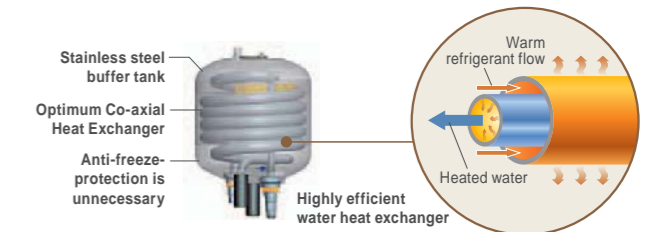
- Cooling operation is possible*
- Anti-Legionella function
- Additional electric heater control for backup
- Web server can be connected.*

*Optional parts are required.

High Reliability

HIGH DURABILITY

- Corrosion protected
- No flow switch and no filter necessary

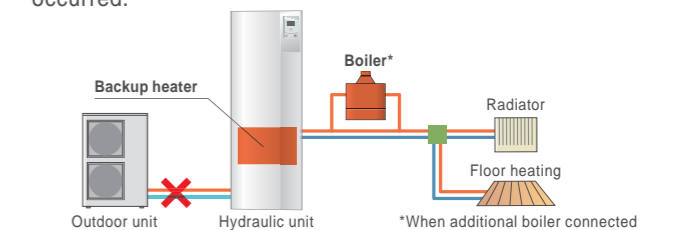


EASY INSTALLATION & MAINTENANCE

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

EMERGENCY OPERATION

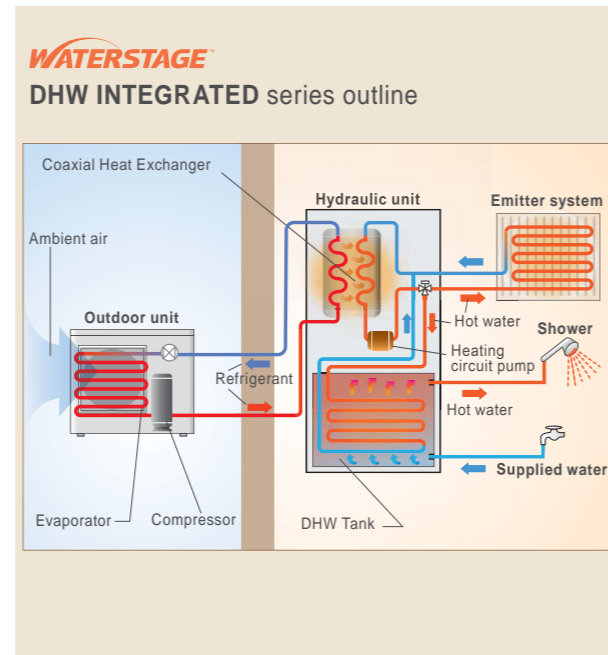
System can continuously supply hot water by built in back up heater or boiler, as emergency, even if an error is occurred.



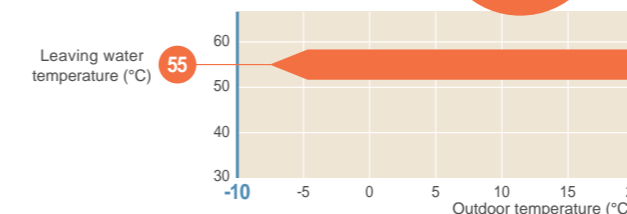
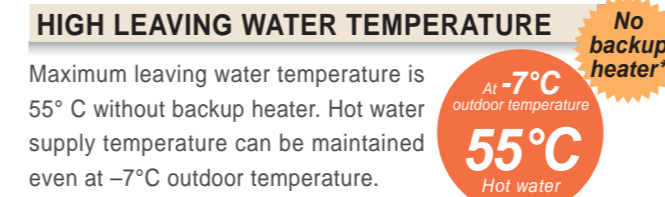
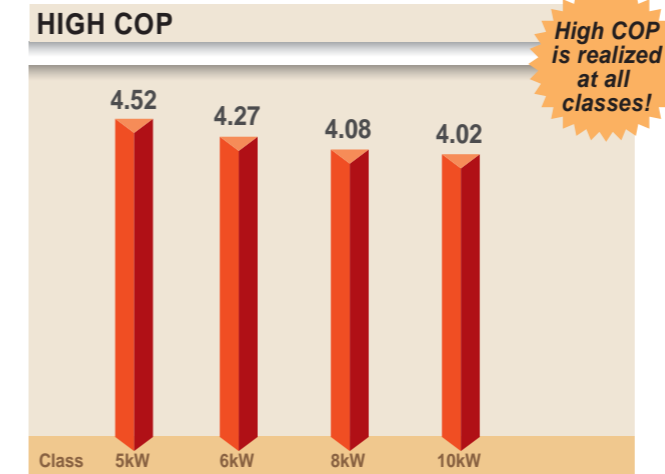
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Outdoor unit WOYA060LDC WOYA080LDC		Outdoor unit WOYA100LDT	

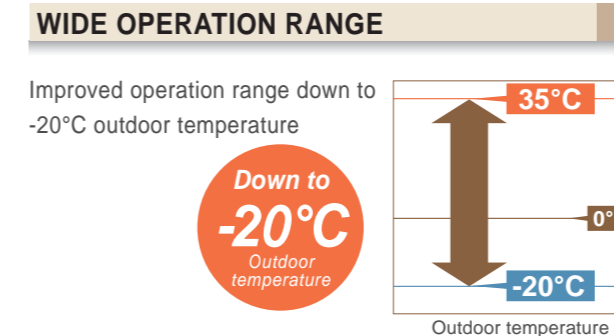
For Comfort series, optimized flow temperature control is realized by DC inverter technology.



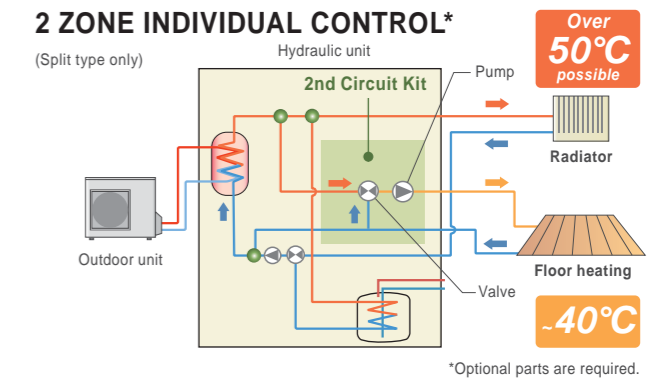
High Efficiency & Comfort



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

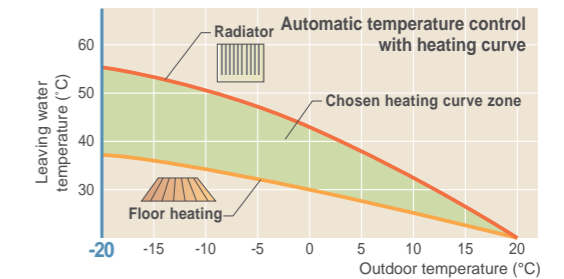


Intelligent Control



AUTOMATIC HEATING CURVE CONTROL

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



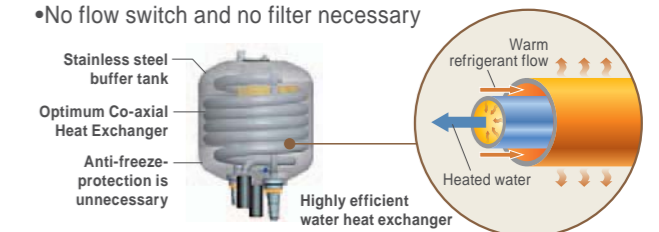
AND MORE

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

High Reliability

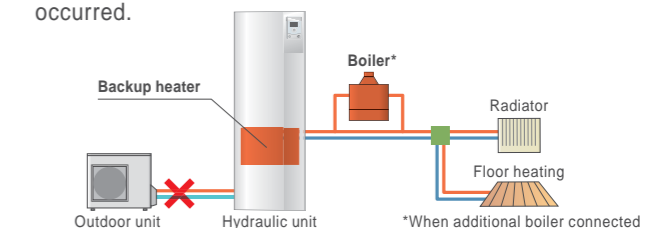
HIGH DURABILITY

- 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 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.

Compact series

8kW 10kW **NEW**

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



Control box
UTW-SCBYA

WPYA080LE
WPYA100LE

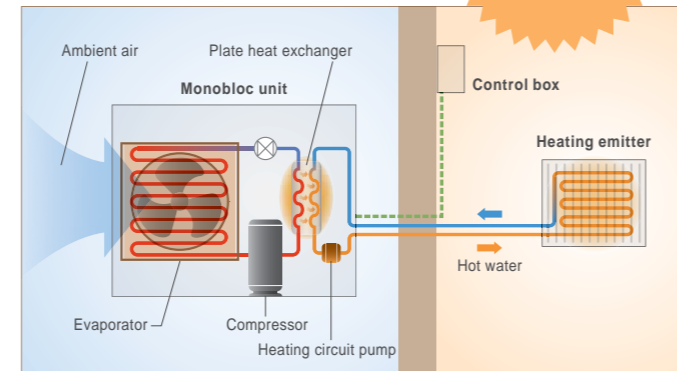
All-in-One Model

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.



Easy installation & maintenance!

WATERSTAGE outline (Monobloc type)



Compact & High Performance

HIGH COP

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

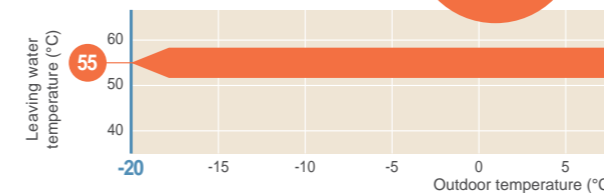


*Condition : Outdoor Temp. 7°C Heating Temp. 35°C.

HIGH LEAVING WATER TEMPERATURE

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

No backup heater
At -20°C outdoor temperature
55°C Hot water



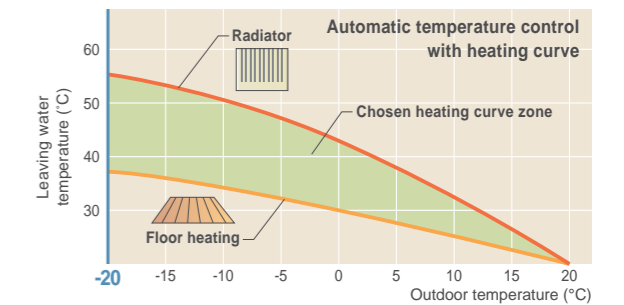
Intelligent Control

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)



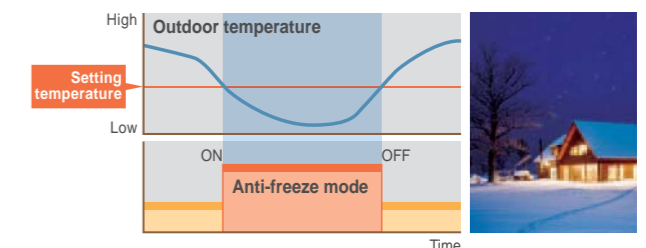
AND MORE

- 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

High Efficiency Technology

DC INVERTER

Smooth water temperature control realized by DC inverter control.



HIGH EFFICIENT PLATE HEAT EXCHANGER

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



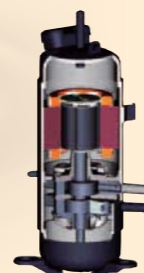
DC FAN MOTOR

High performance, high efficiency small DC fan motor mounted.



DC TWIN ROTARY COMPRESSOR

High efficient DC twin rotary compressor



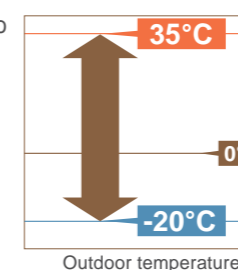
COMPACT & LIGHT WEIGHT DESIGN



WIDE OPERATION RANGE

Improved operation range down to -20°C outdoor temperature

Down to -20°C
Outdoor temperature



Smart & Comfort Control

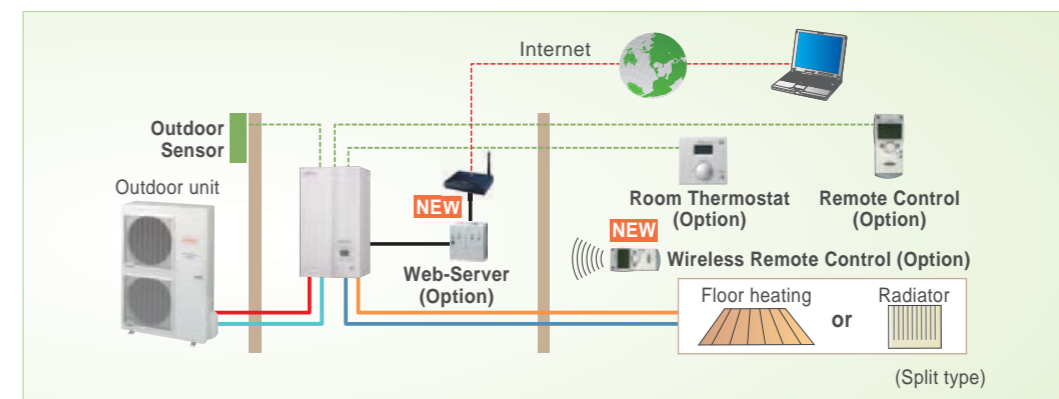
The heating water temperature is controlled automatically depending on outdoor temperature. The place for the sensor can be chosen freely.

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



REMOTE CONTROL - EXTENSION

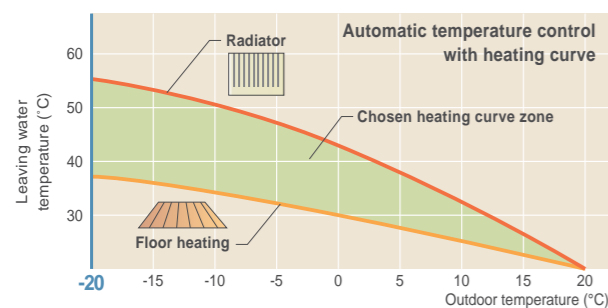
Various remote controls are available on your hand. Remote control is also available via Web. All kinds of life styles are supported.



Comfort Control

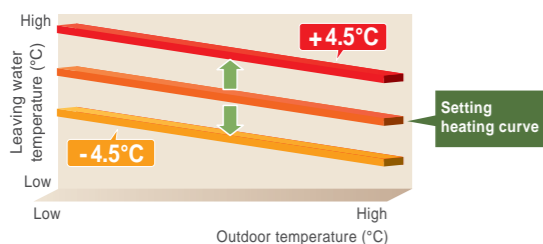
Automatic heating curve operation

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



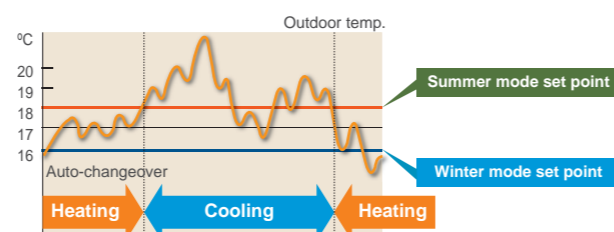
Heating curve off-set Adjust setting room temp.

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



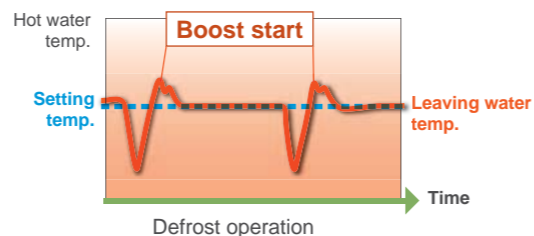
Auto-changeover

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



Energy Saving

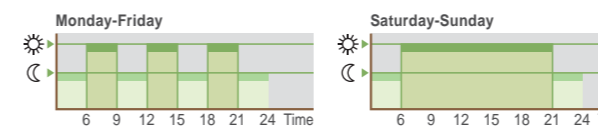
Programmable timer

- 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 Constant comfort temperature
Reduce mode Constant reduce temperature	Protection mode Stand-by mode with anti-frost protection

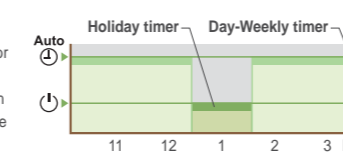
Day-Weekly timer setting

- 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

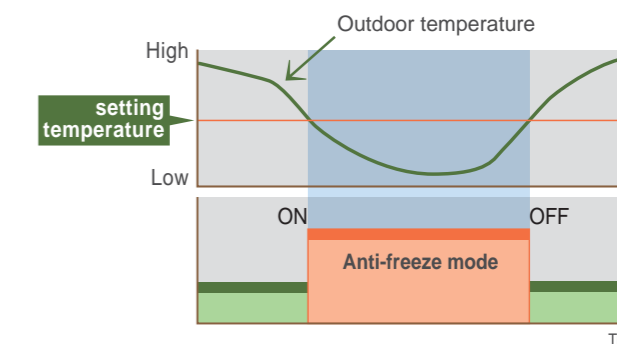
- The holiday timer can be set up for up to 8 periods
- If you are absent for a long time in the winter, freezing of room can be prevented.



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

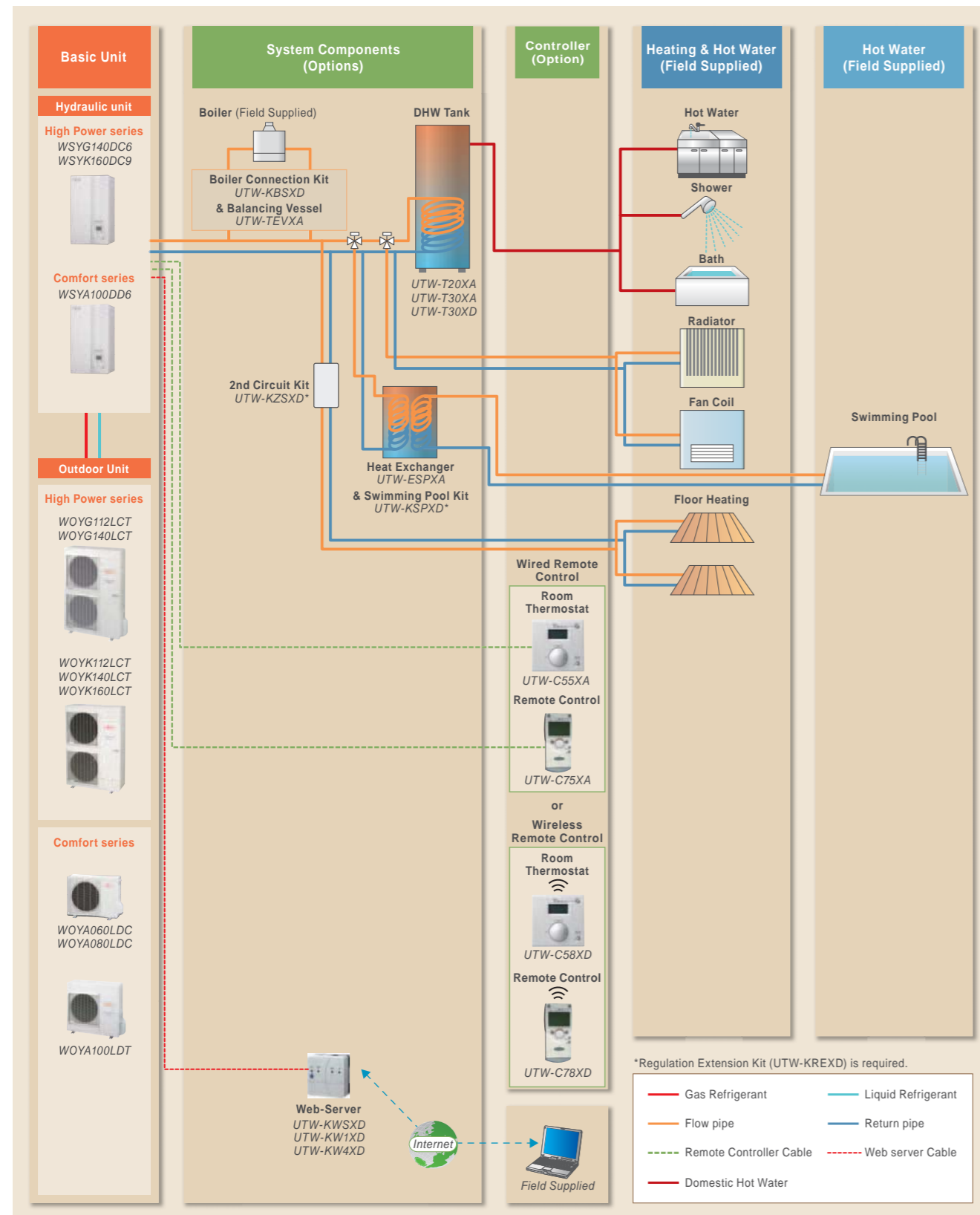
The growth of Legionella in DHW tank is suppressed and safe and clean hot water is supplied at all times.



Total solution concept for comfort inside your home

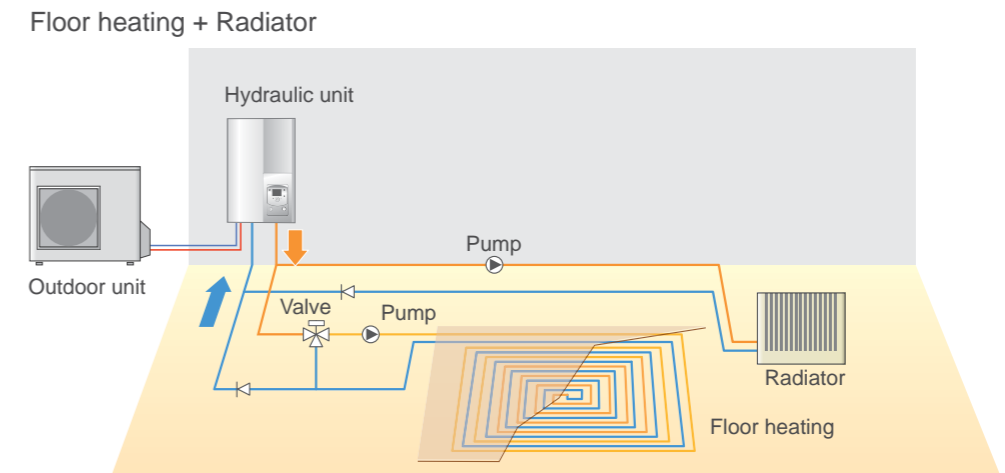
SPLIT TYPE

System configuration

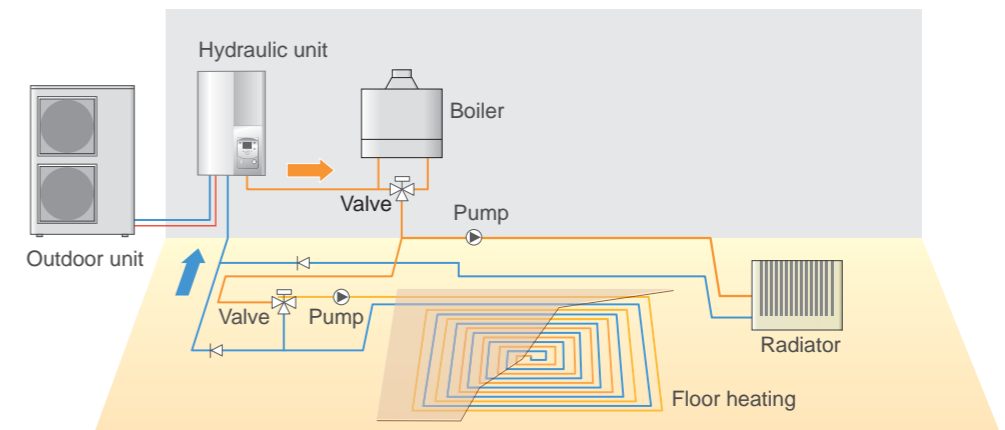


Split Case studies

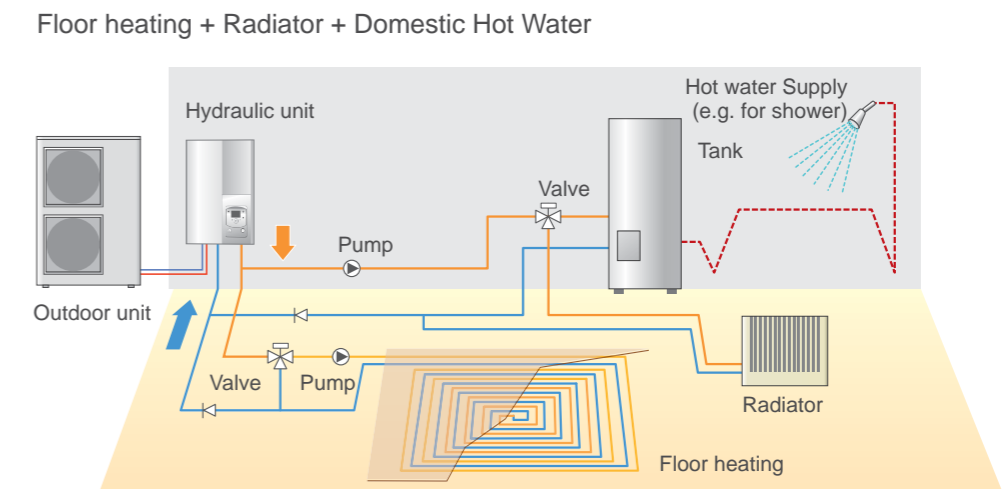
2 emitter simultaneous heating (Individual control)



Boiler connected to heating (Boiler + Heating)



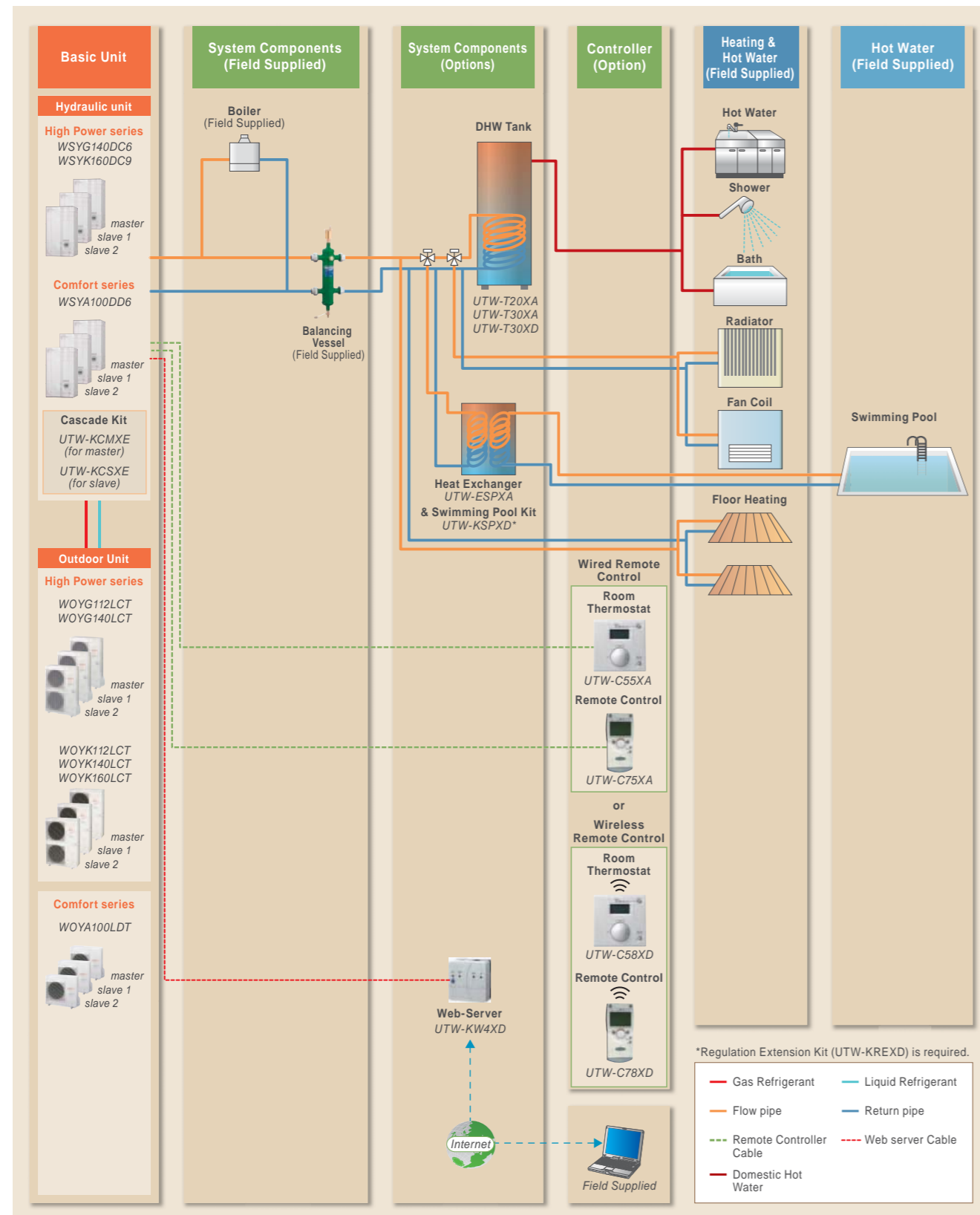
3 types of heat distribution



Total solution concept for comfort inside your home

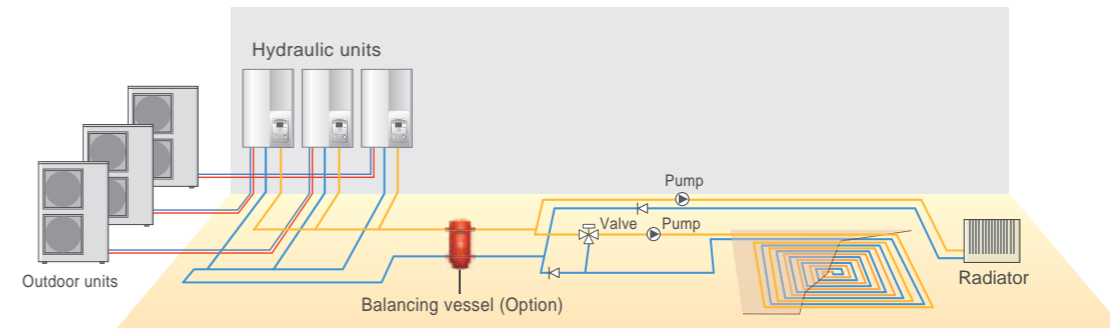
SPLIT TYPE

Cascade System configuration

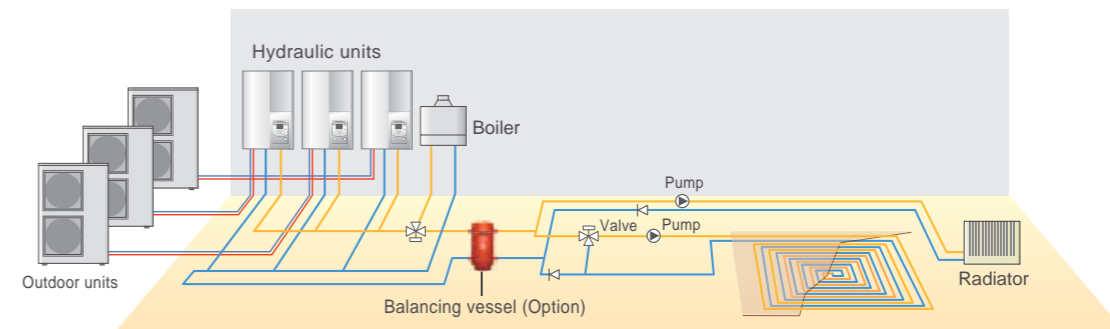


Split Cascade System Case studies

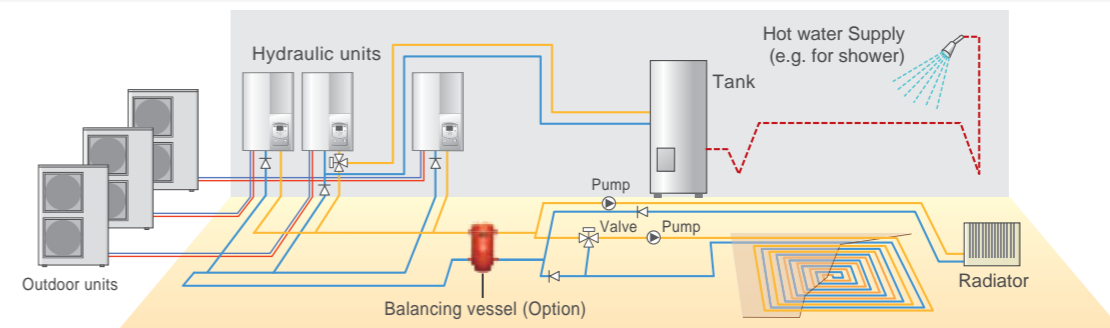
2 emitter simultaneous heating (Individual control)



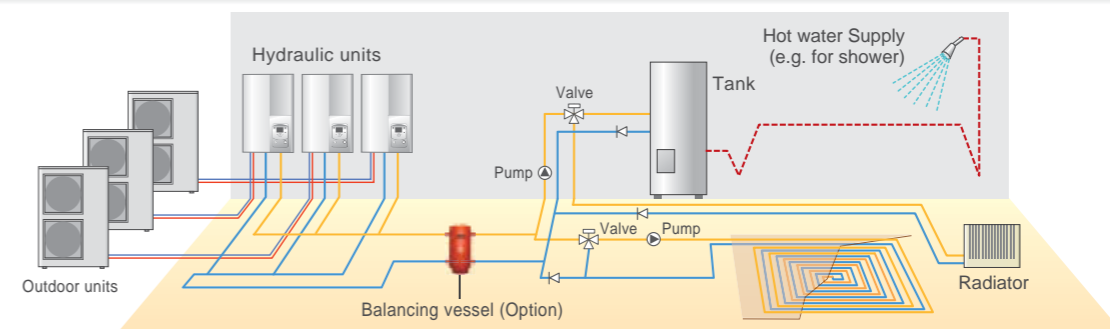
Boiler connected to heating (Boiler + Heating)



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



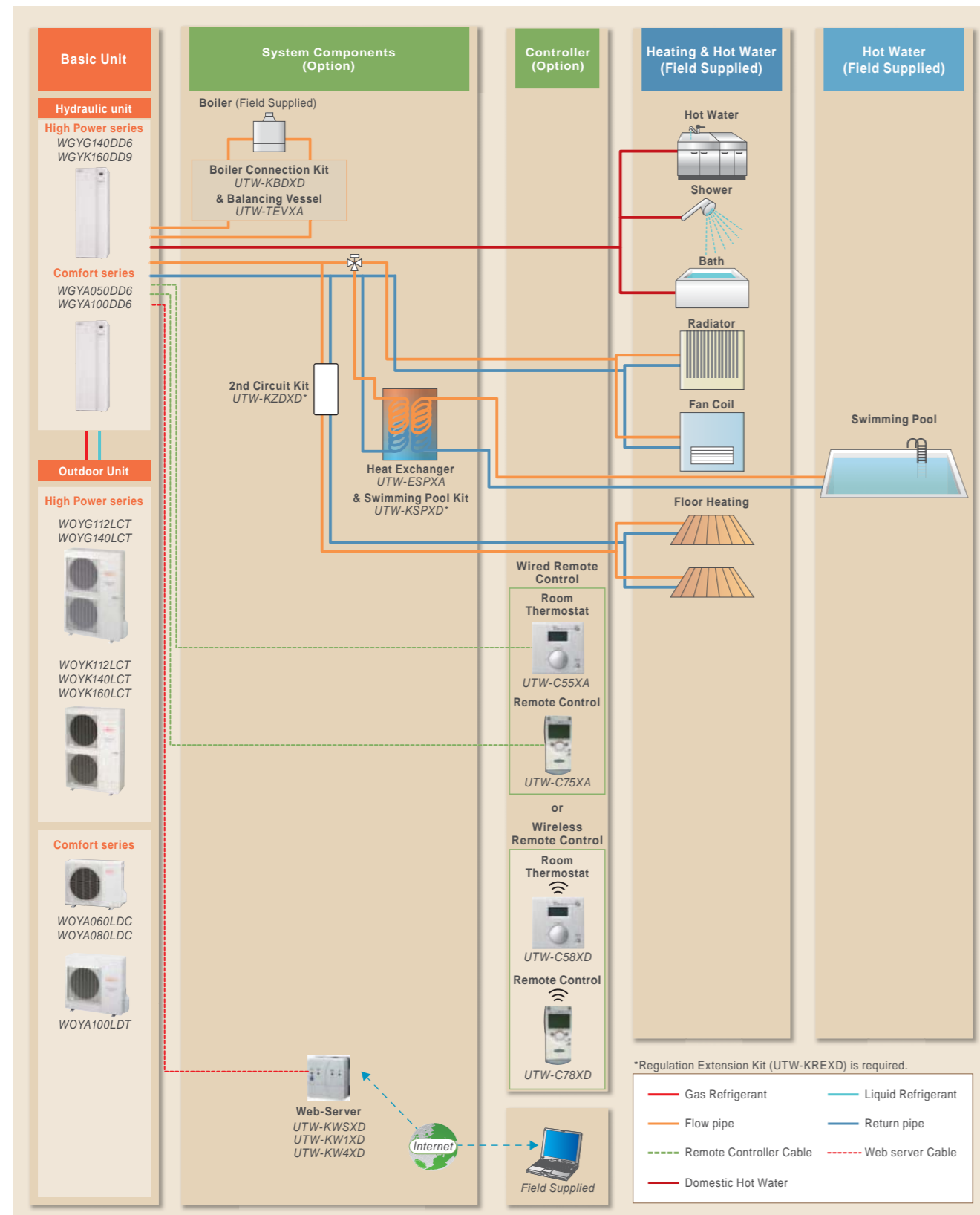
2 emitter simultaneous heating & Domestic Hot Water (type B)



Total solution concept for comfort inside your home

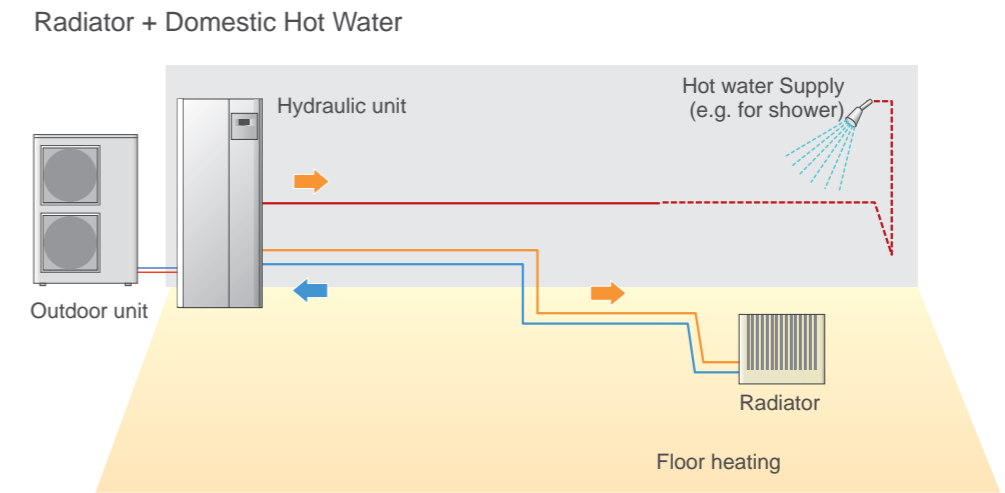
SPLIT DHW INTEGRATED TYPE

System configuration

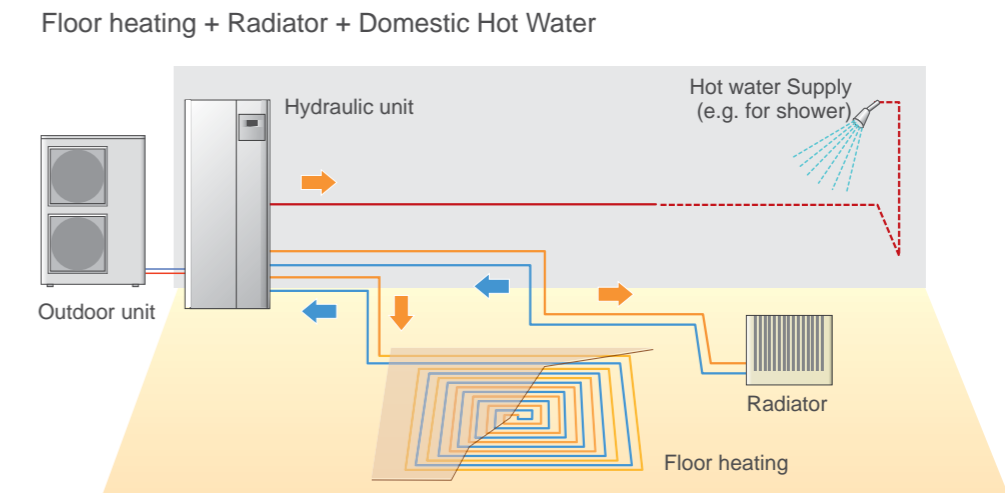


Split DHW integrated Case studies

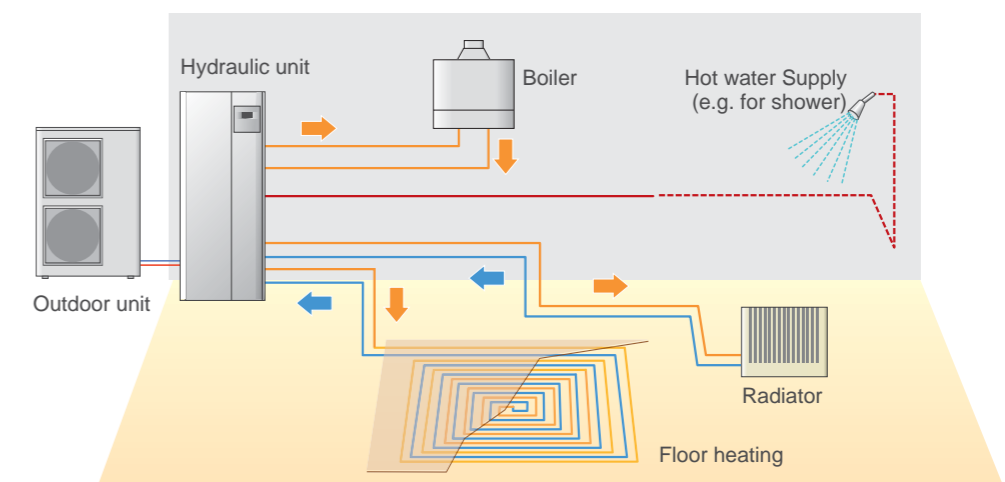
Single heating & Domestic Hot Water



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



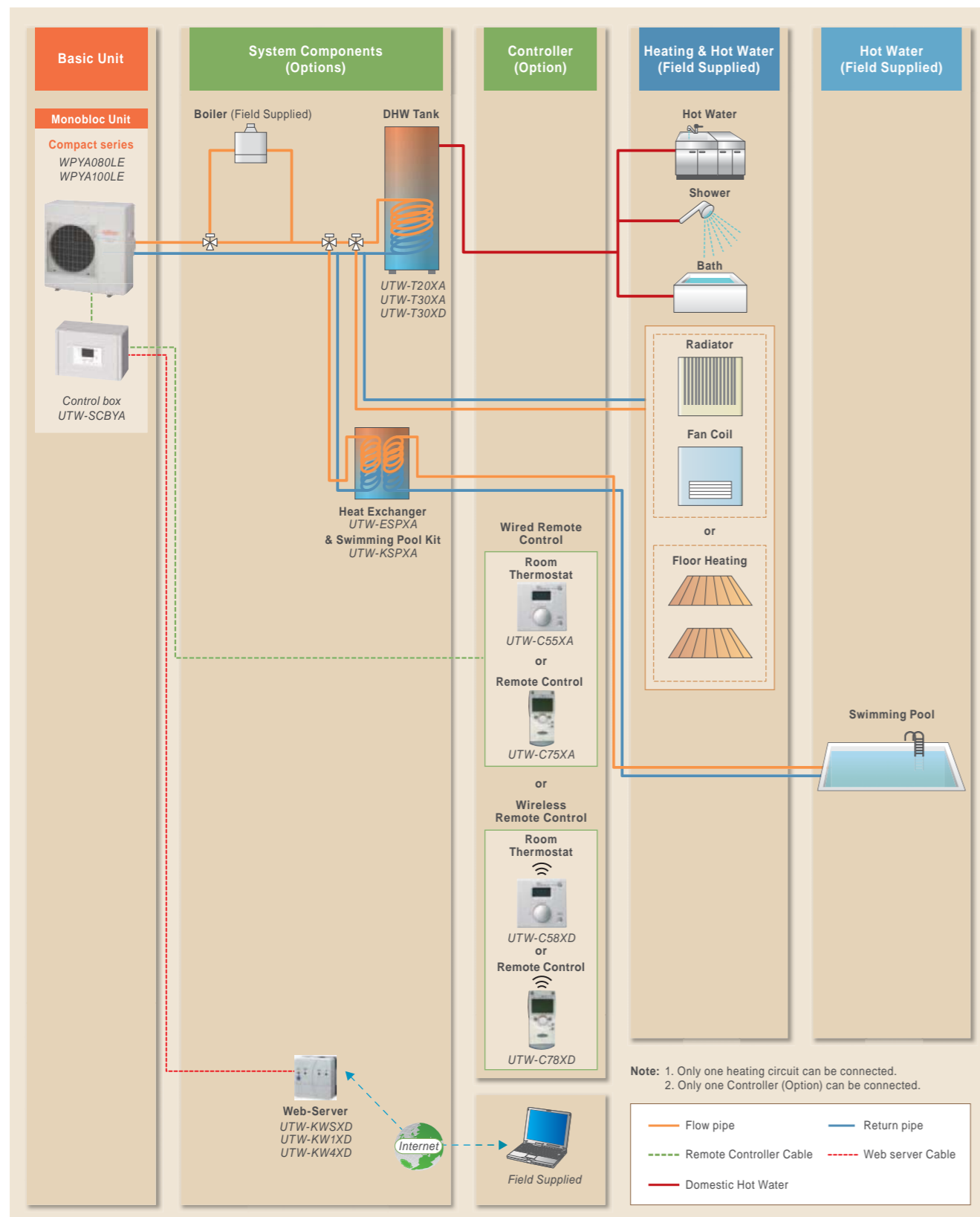
Boiler connected to heating (Boiler + Heating) & Domestic Hot Water



Total solution concept for comfort inside your home

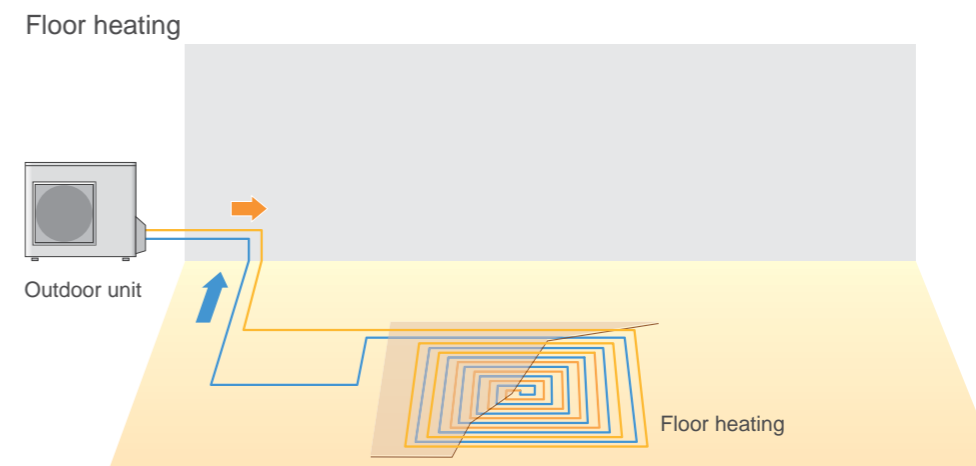
MONOBLOC TYPE

System configuration

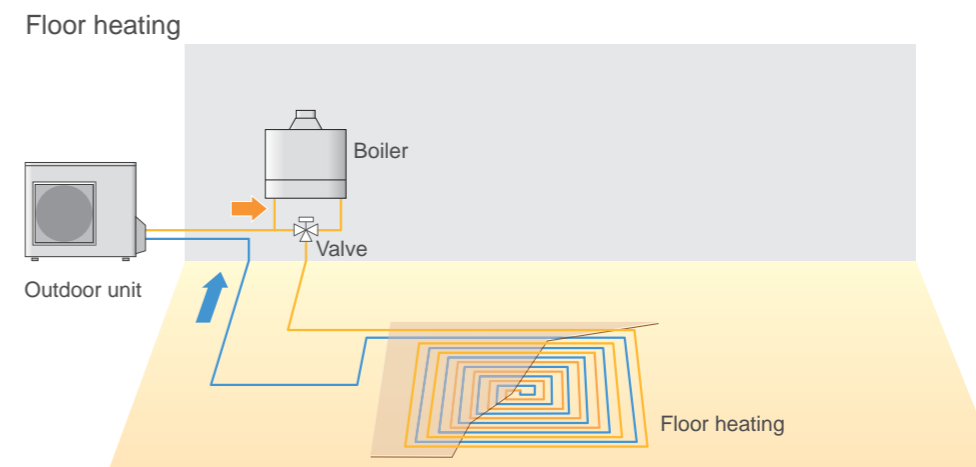


Monobloc Case studies

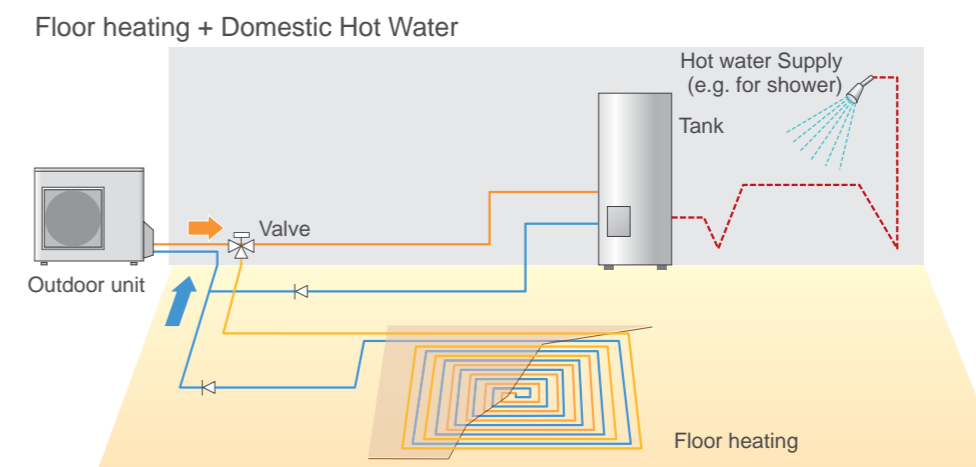
Single heating system






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		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}	●	●	●	●	●	●	●	●	—	—	●	●	●	●	●	●	●	●	●			

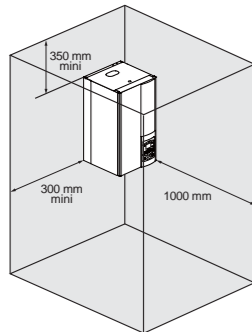
Product Name	Model Name	Split										Monobloc		Split DHW integrated type									
		High Power					Comfort					Compact		High Power					Comfort				
		1Ø		3Ø			1Ø			1Ø		1Ø		1Ø		3Ø			1Ø				
		11	14	11	14	16	5	6	8	10	8	10	11	14	11	14	16	5	6	8	10		
Remote Controller	Wired  UTW-C75XA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
	 UTW-C75XA-E ^{*5}	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
Wireless  UTW-C78XD	UTW-C78XD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
	 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.OCI700 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			

*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(OCI700 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

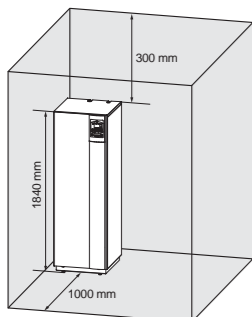
Equipment Installation

Split Type Hydraulic unit



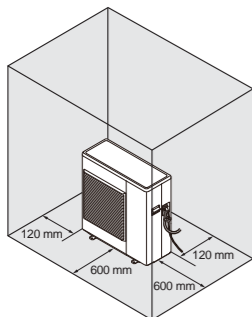
- Hydraulic unit is to be hang on the wall
- Weight < 60kg (including water)
- Distances for maintenance should be respected

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

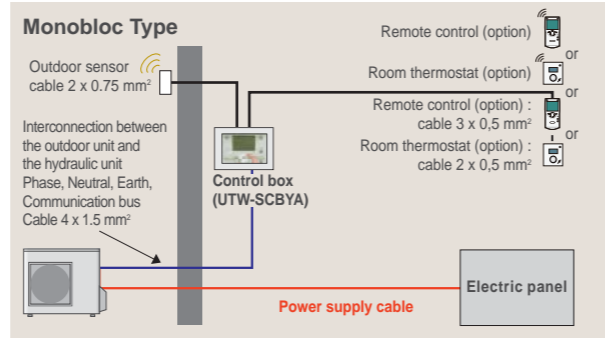
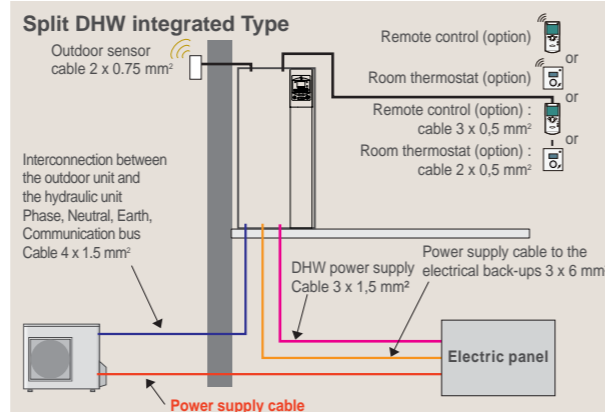
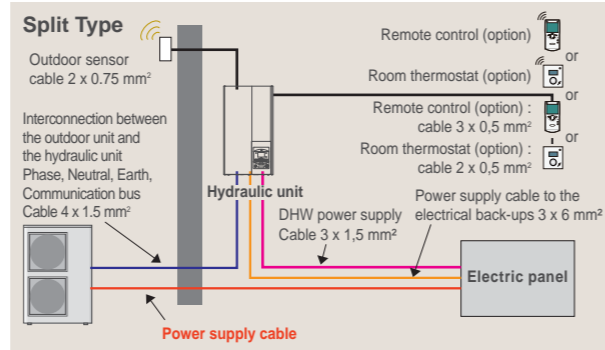
Piping and Wiring

Piping

Split Type

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

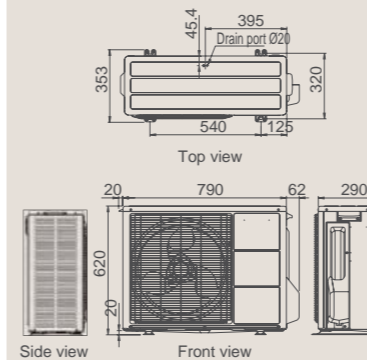
Electrical wiring



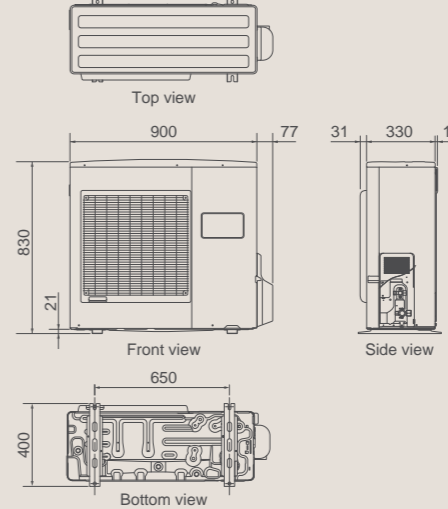
SPLIT TYPE

Outdoor Units Comfort series

WOYA060LDC / WOYA080LDC

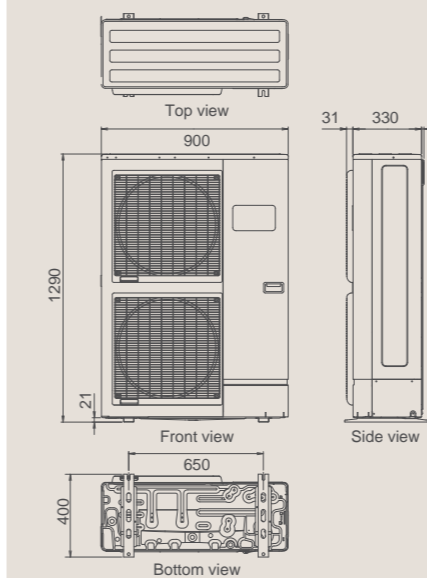


WOYA100LDT



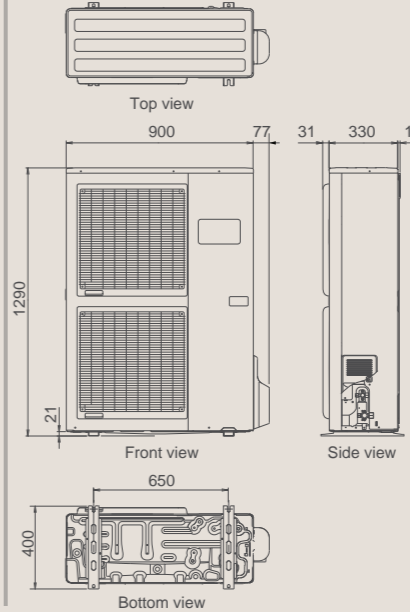
Outdoor Units High Power series

WOYK112LCT / WOYK140LCT / WOYK160LCT



Outdoor Units High Power series

WOYG112LCT / WOYG140LCT

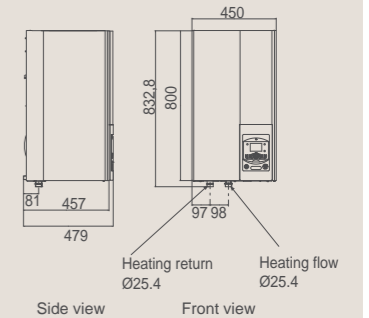


Hydraulic units Split type High Power series

WSYG140DC6 / WSYK160DC9

Hydraulic units Split type Comfort series

WSYA050DD6 / WSYA100DD6

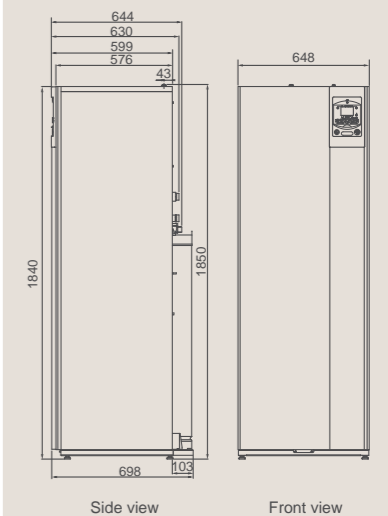


Hydraulic units Split DHW integrated type High Power series

WGYG140DD6 / WGYK160DD9

Hydraulic units Split DHW integrated type Comfort series

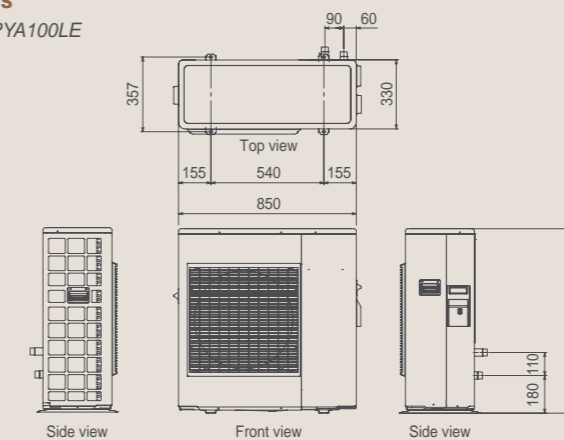
WGYA050DD6 / WGYA100DD6



MONOBLOC TYPE

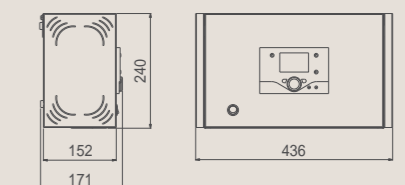
Compact series

WPYA080LE / WPYA100LE



Control Box





UTW-SCBYA







Unit : mm

Unit : mm


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	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	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	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	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	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	6.0(3.0x2 pcs.)		6.0(3.0x2 pcs.)		9.0(3.0x3 pcs.)		9.0(3.0x3 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	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		Ø25.4 / Ø25.4					Ø25.4 / Ø25.4					
Outdoor unit Model name		WOYG112LCT		WOYG140LCT		WOYK112LCT		WOYK140LCT		WOYK160LCT		
Power source		1Ø 230V, 50Hz		3Ø 400V, 50Hz			1Ø 230V, 50Hz					
Current	Rated	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			830x900x330		
Weight (Net)		92					99			60		
Refrigerant		R410A					R410A					
Refrigerant amount		2.50					1.10			1.40		
Additional refrigerant charge amount		50					20			40		
Connection pipe	Diameter	Liquid	Ø9.52					Ø6.35				
		Gas	Ø15.88					Ø12.70			Ø15.88	
	Length	Min / Max	5 / 20					5 / 20				
		Length (chargeless)	Max					15				
	Height difference	Max	15					15				
Operation range	Heating	-25-35					-20-35					

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	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	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	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	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	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	6.0(3.0x2 pcs.)		6.0(3.0x2 pcs.)		9.0(3.0x3 pcs.)		9.0(3.0x3 pcs.)		6.0(3.0x2 pcs.)		
Hydraulic unit Model name		WYG140DD6			WYK160DD9			WGYA050DD6		WGYA100DD6		
Power source		1Ø 230V, 50Hz		3Ø 400V, 50Hz			1Ø 230V, 50Hz					
Water circulation	Rated	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		1840 x 648 x 698					1840 x 648 x 698					
Weight (Net)		152					152					
DHW capacity		190					190					
Hot water heater capacity		1.5					1.5					
Buffer tank capacity		16					16					
Expansion vessel capacity		12					12					
Leaving water temperature range		8-60					8-55					
Water pipe connection diameter		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		
Power source		1Ø 230V, 50Hz		3Ø 400V, 50Hz			1Ø 230V, 50Hz					
Current	Rated	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			830x900x330		
Weight (Net)		92					99			60		
Refrigerant		R410A					R410A					
Refrigerant amount		2.50					1.10			1.40		
Additional refrigerant charge amount		50					20			40		
Connection pipe	Diameter	Liquid	Ø9.52					Ø6.35				
		Gas	Ø15.88					Ø12.70			Ø15.88	
	Length	Min / Max	5 / 20					5 / 20				
		Length (chargeless)	Max					15				
	Height difference	Max	15					15				
Operation range	Heating	-25-35					-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.

*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		Monobloc type	
Series name		Compact series	
			
Capacity range (kW)		8	10
+7°C / +35°C floor heating ^{*1}	Heating capacity	8.00	10.00
	Input power	1.78	2.30
	COP	4.50	4.35
+2°C / +35°C floor heating ^{*1}	Heating capacity	7.40	8.10
	Input power	2.73	3.00
	COP	2.71	2.70
-7°C / +35°C floor heating ^{*1}	Heating capacity	7.10	8.00
	Input power	2.93	3.32
	COP	2.42	2.41
+7°C / +45°C radiators ^{*1}	Heating capacity	7.80	9.80
	Input power	2.23	2.88
	COP	3.50	3.40
-7°C / +45°C radiators ^{*1}	Heating capacity	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	22.9	28.7
	Min / Max	10.0 / 30.0	10.0 / 30.0
Current		8.30	10.20
Noise level (Sound pressure)		51 ^{*2}	51 ^{*2}
Dimensions HxWxD		881.5 x 850 x 330	
Weight (Net)		74	
Water pipe connection diameter		Ø25.4 / Ø25.4	
Refrigerant		R410A	
Refrigerant amount		1.5	
Leaving water temperature range		8-55	
Operation range	Heating	-20-35	