

FUJITSU

WATERSTAGE™
INNOVATIVE SOLUTION OF DOMESTIC HEATING



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

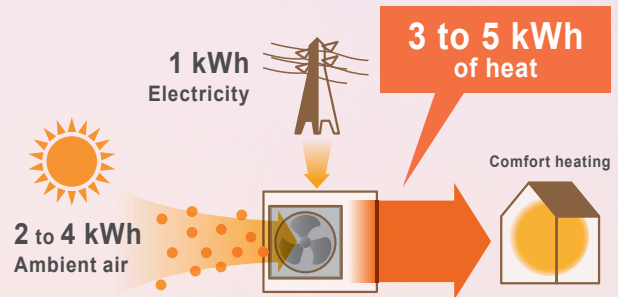


Environmentally friendly water heating system

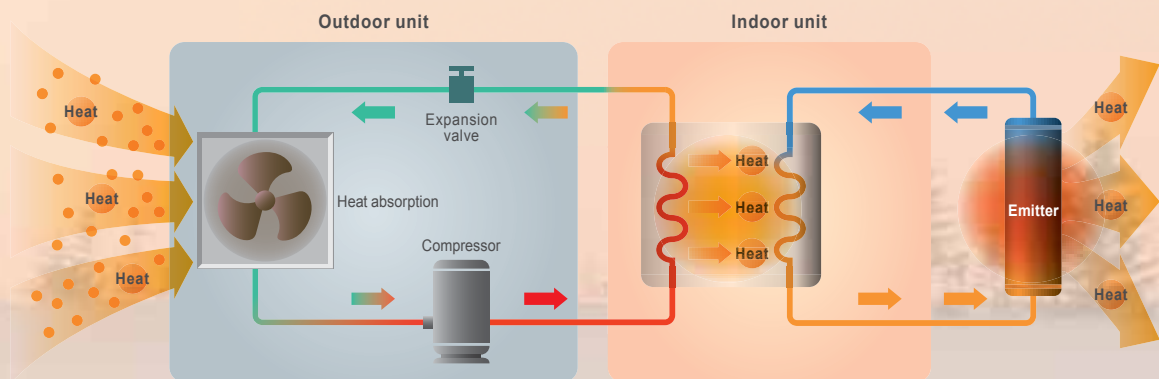
applying heat pump technology that collects heat from the outdoor air

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.

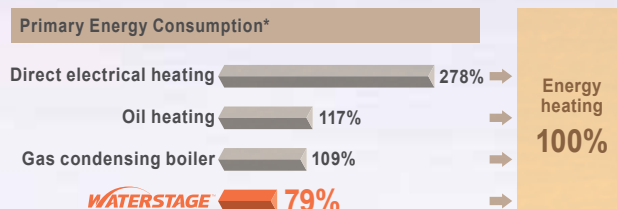


Heat Pump system framework



**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



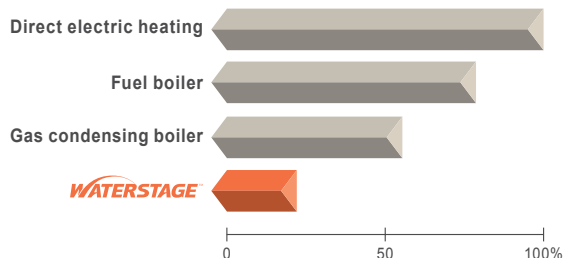
Advantages of **WATERSTAGE™**

LESS CO₂ EMISSIONS

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

Advantages

Average annual CO₂ emissions



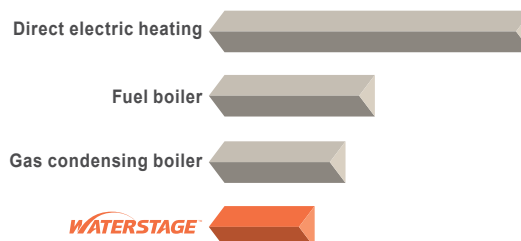
Calculations based on data provided by European Program-2001 for EU27 Fuel boiler efficiency: 89%, Gas boiler efficiency: 93%

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



Clean Air Conditioning



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

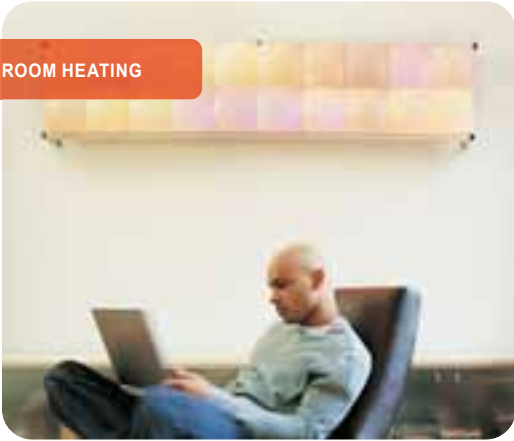
Complete Solution meets various needs

Wide Comfort

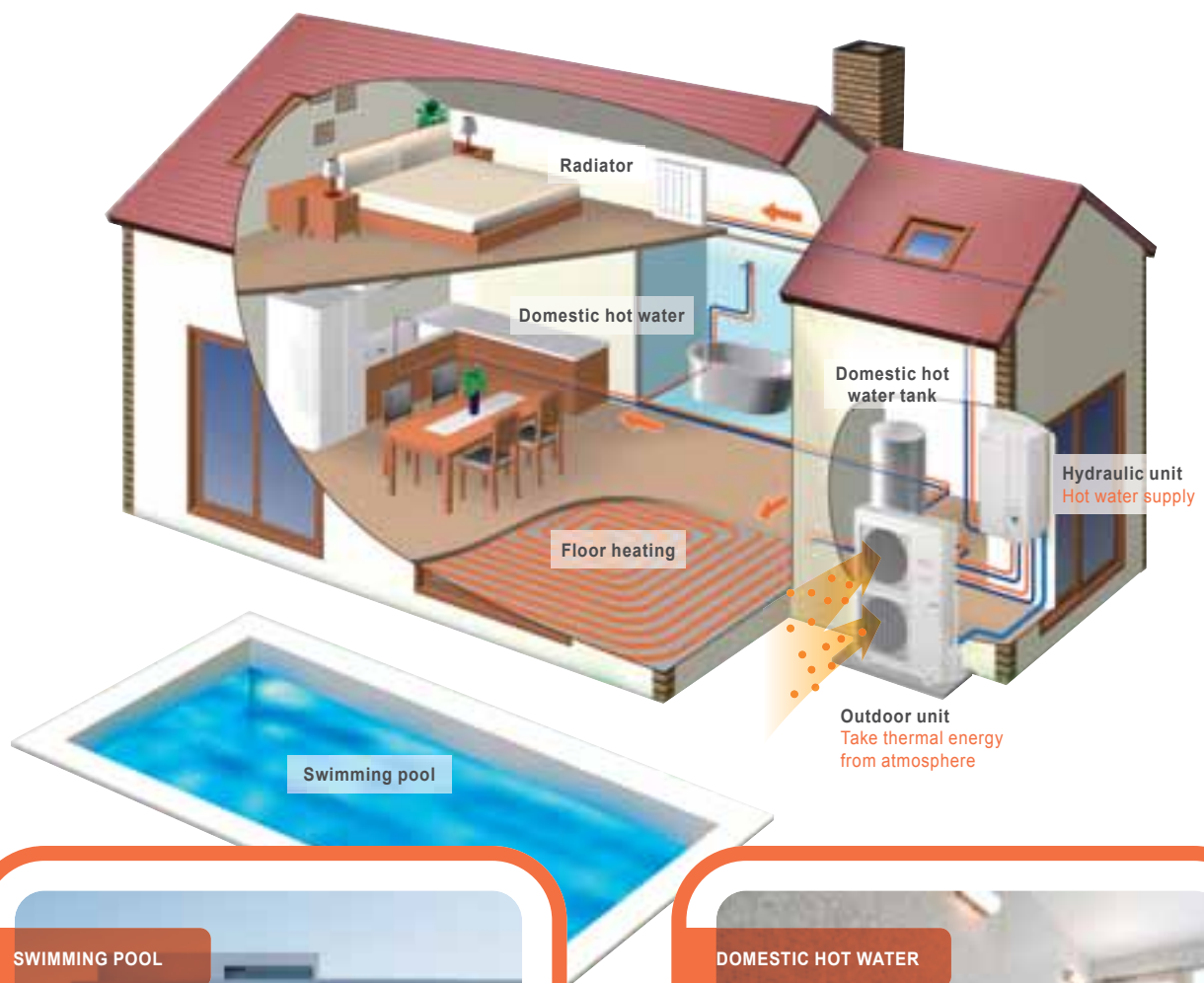
The clean energy produced by **WATERSTAGE** reliably delivers “comfort” to all spaces in the home up to the living room, bedrooms, bath and swimming pool.

FLOOR HEATING

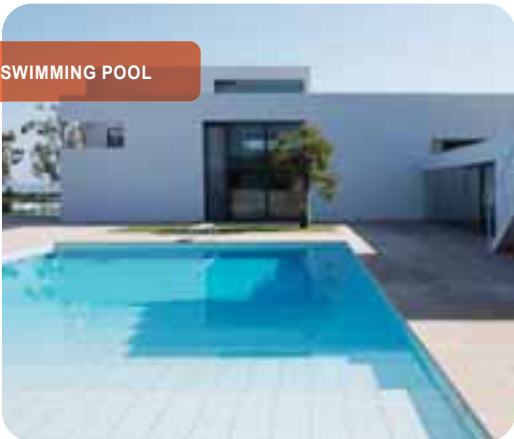
ROOM HEATING



COOLING



SWIMMING POOL



DOMESTIC HOT WATER



Product lineup for various needs

Type	SPLIT TYPE		
Series	High power series		Comfort series
	<p>Usable outdoor temperature: -25°C</p> <p>Hydraulic unit</p>  <p>Outdoor unit</p>  <p>Capacity range : 11 / 14 kW 11 / 14 / 16 kW</p>	<p>Usable outdoor temperature: -20°C</p> <p>Hydraulic unit</p>  <p>Outdoor unit</p>  <p>Capacity range : 5 / 6 / 8 kW 10 kW</p>	
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	1Ø 230V / 50Hz
Capacity range	5 kW		
	6 kW		
	8 kW		
	10 kW		
	11 kW		
	14 kW		
	16 kW		

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High Power series

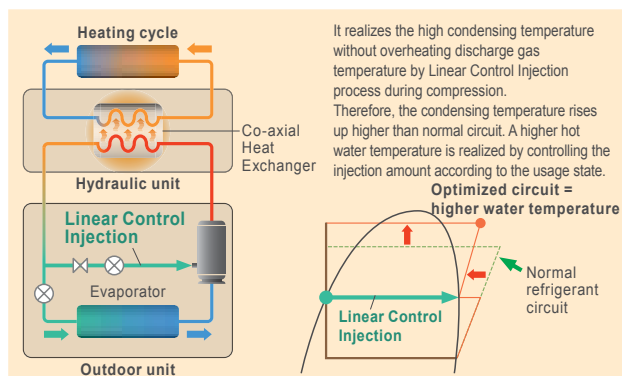
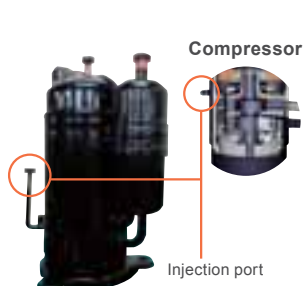
<p>Single Phase power supply</p> <p>11kW 14kW</p> <p>Hydraulic unit WSYG140DC6</p>  <p>Outdoor unit WOYG112LCT WOYG140LCT</p> 	<p>3 Phase power supply</p> <p>11kW 14kW 16kW</p> <p>Hydraulic unit WSYK160DC9</p>  <p>Outdoor unit WOYK112LCT WOYK140LCT WOYK160LCT</p> 
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High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

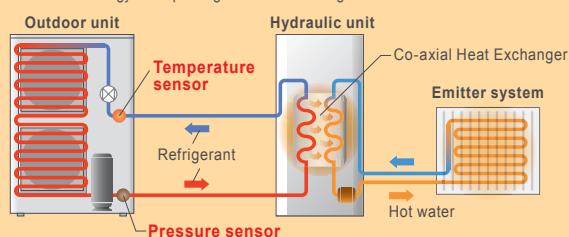


TWIN ROTARY COMPRESSOR with Linear Control Injection port

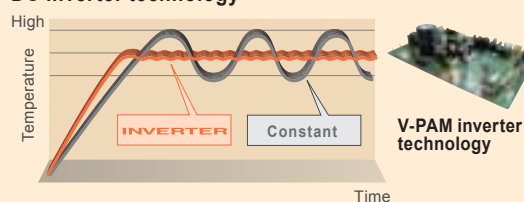


Optimization of refrigerant cycle operation

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



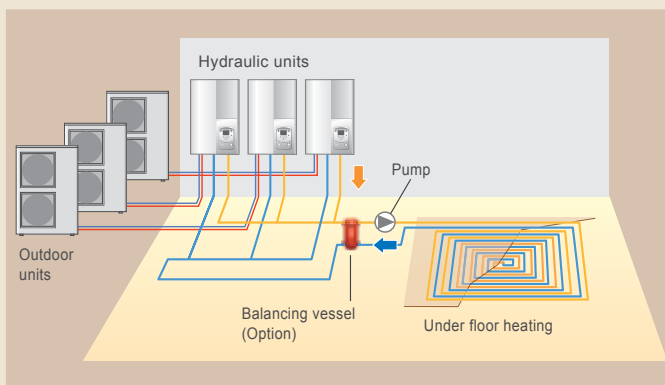
Accurate temperature control by DC inverter technology



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.

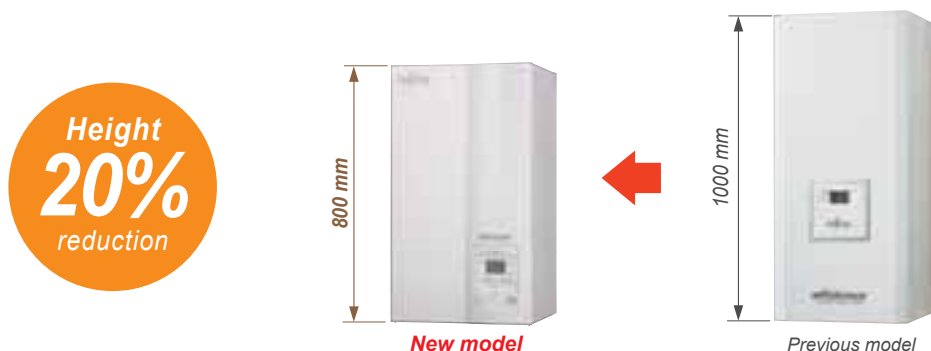


Renewed Hydraulic unit design

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

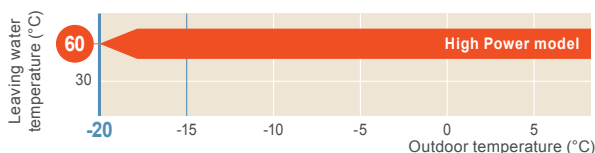
Powerful Heating

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*

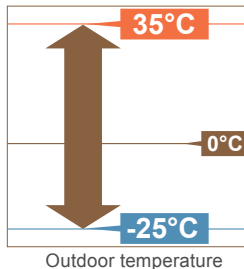
High leaving water temperature 60°C kept down to -20°C outdoor temperature without using backup heater.



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

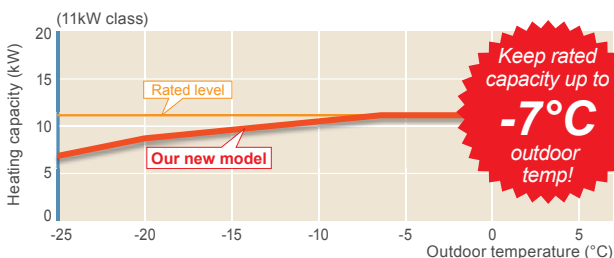
EXTENDED OPERATION RANGE DOWN TO -25°C

Improved operation range down to -25°C outdoor temperature



STRONG & POWERFUL HEATING CAPACITY

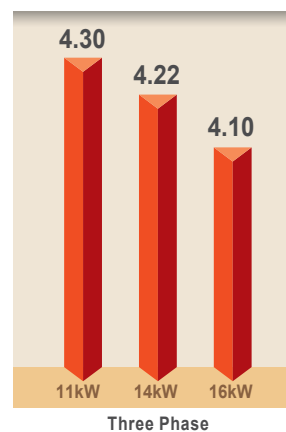
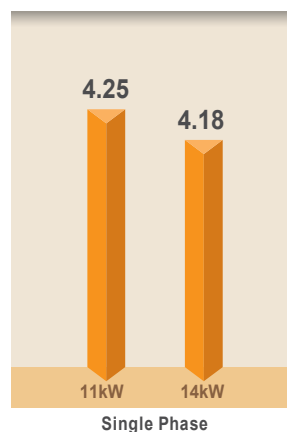
Keeping the rated heating capacity up to -7°C outdoor temperature



High Efficiency

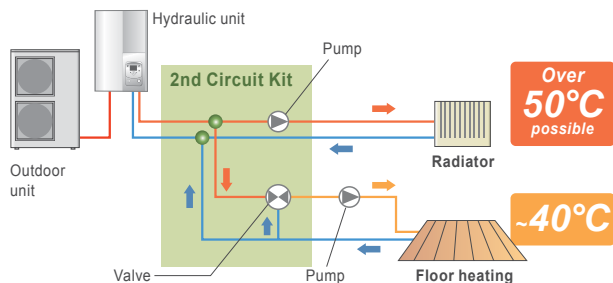
Energy efficiency is improved by the linear Control Injection Technology and the optimization of refrigerant cycle control. High power model realizes high performance and high efficiency by adopting twin sensors and control technology corresponding to hot water heating.

HIGH COP



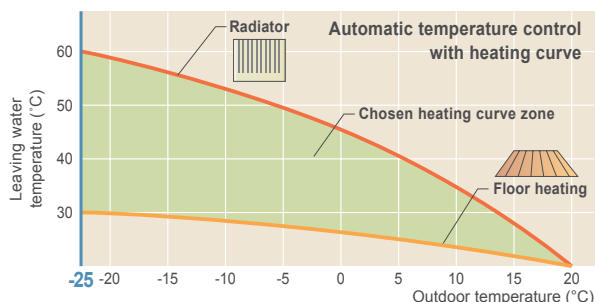
Intelligent Control

2 ZONE INDIVIDUAL CONTROL*



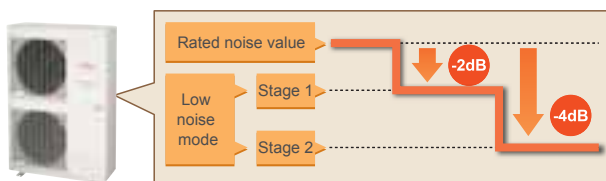
AUTOMATIC HEATING CURVE CONTROL

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



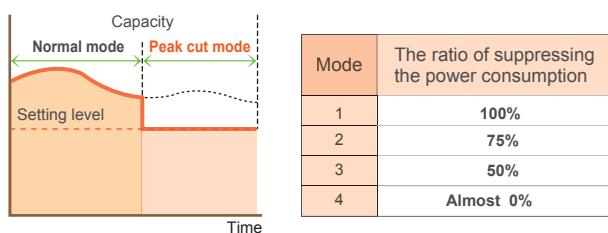
2 STAGE LOW NOISE MODE*

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.



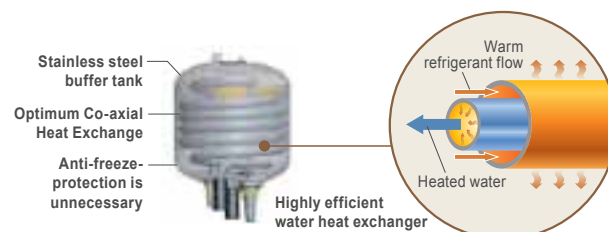
AND MORE

- 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

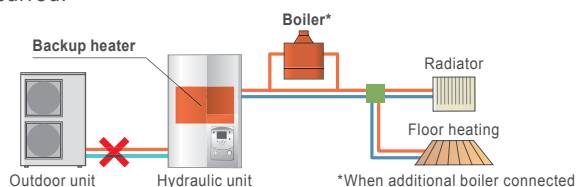


EASY INSTALLATION & MAINTENANCE

- 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.



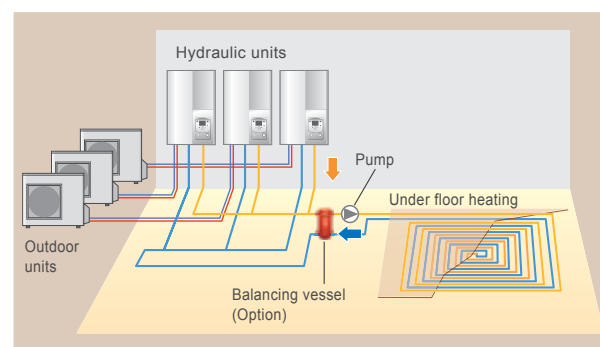
Comfort series

5kW	6kW	8kW	NEW	10kW	NEW
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 Technology

DC FAN MOTOR

High performance, high efficiency small DC fan motor mounted.



NEW

HIGH EFFICIENT CO-AXIAL HEAT EXCHANGER

Double-pipe water heat exchanger with built-in tank



NEW

DC TWIN ROTARY COMPRESSOR

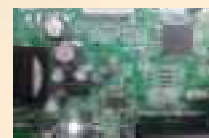
High efficient DC twin rotary compressor

NEW



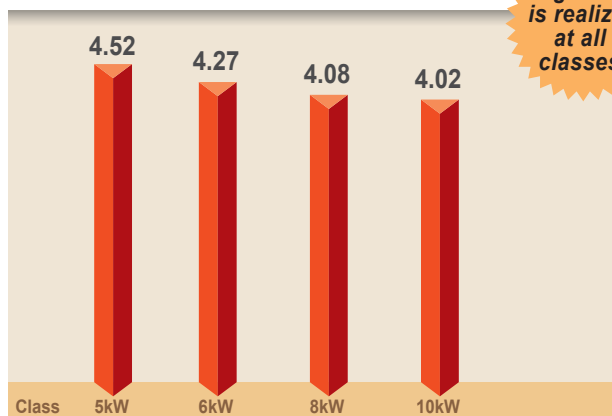
DC INVERTER

Smooth water temperature control realized by DC inverter control.



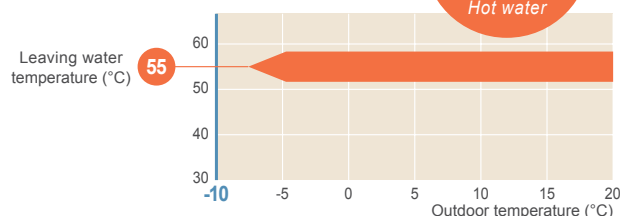
High Efficiency & Comfort

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.

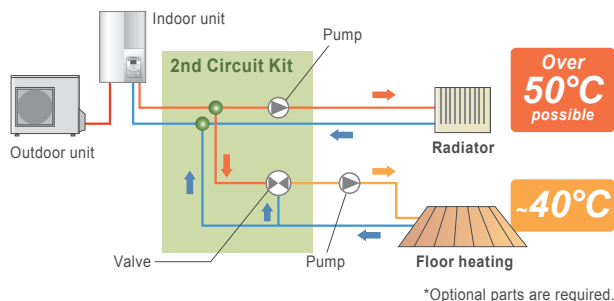
WIDE OPERATION RANGE

Improved operation range down to -20°C outdoor temperature



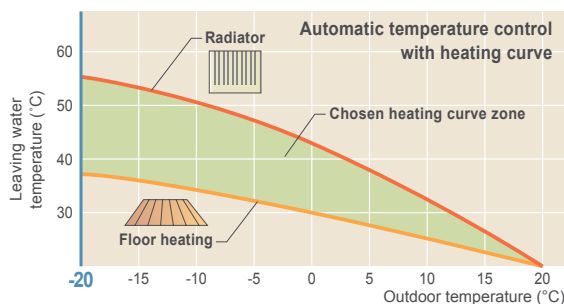
Intelligent Control

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

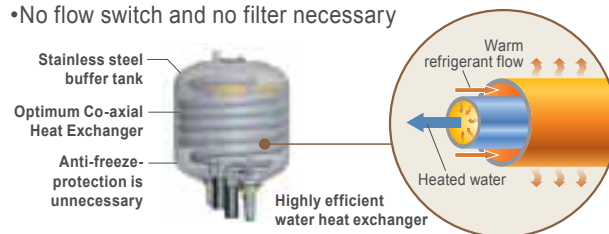
- Cooling operation is possible.*
- Anti-Legionella function
- Possible to docking the boiler (Field supplied)

*Optional parts are required.

High Reliability

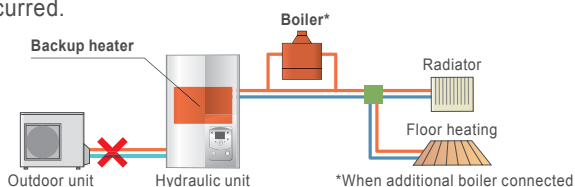
HIGH DURABILITY

- 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

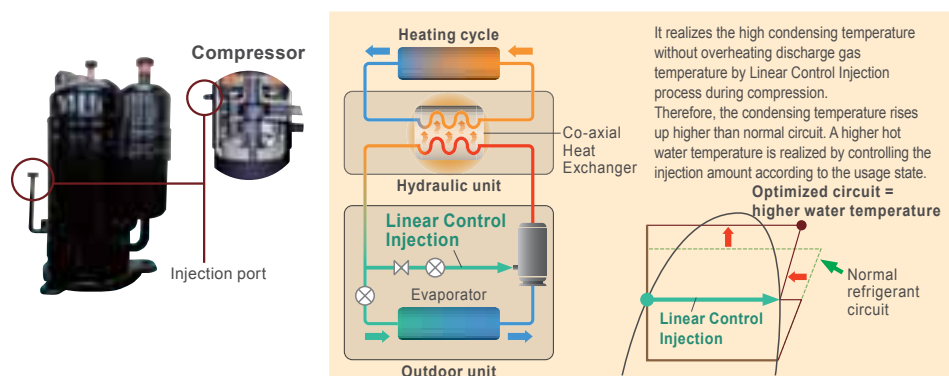


Split DHW integrated type realizes significant space saving because of the integrated DHW tank. Quick hot water supply is possible due to built-in high performance DHW tank. Heating and domestic hot water supply can be selected inside the intelligent controller. High Power models realize very efficient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

High Power & High Efficiency Outdoor unit technology

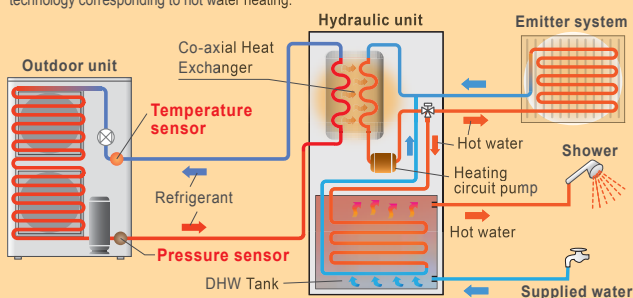


TWIN ROTARY COMPRESSOR with Linear Control Injection port

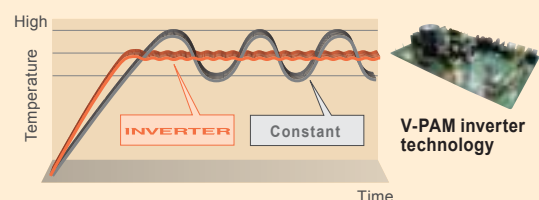


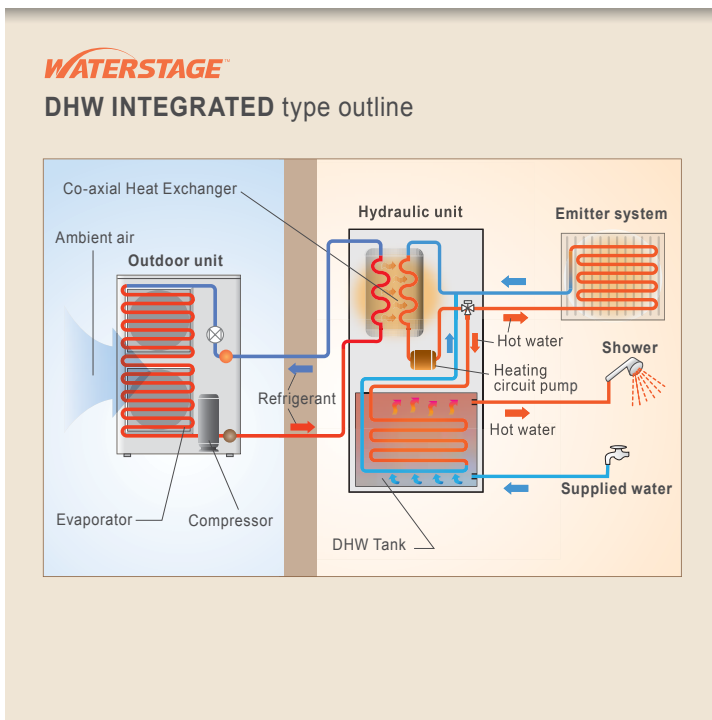
Optimization of refrigerant cycle operation

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





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
- Parallel DHW and space heating operation possible.

Stylish space saving solution with built-in DHW tank



Hydraulic unit



DHW Tank 190L

+



Installation space area
 about **50%**
 reduction

High Power series

Powerful Heating

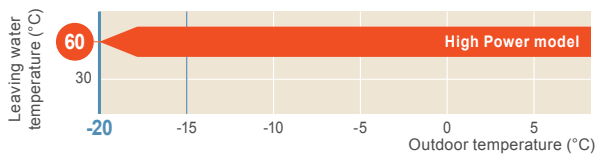
High power models realize high leaving water temperature and high heating capacity even at low ambient temperature by newly developed "Linear Control Injection Technology". It is possible to provide high water temperature and warm rooms in cold regions.

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

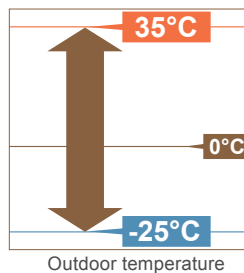


*If you want to raise the hot water supply temperature, backup heater can be used for the auxiliary operation.

EXTENDED OPERATION RANGE DOWN TO -25°C

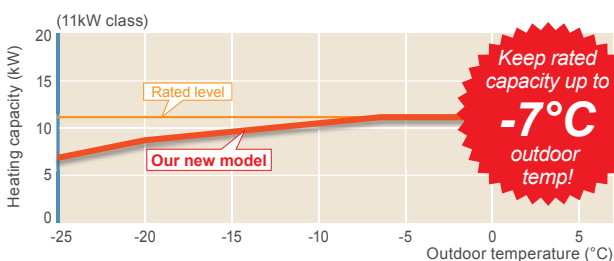
Improved operation range down to -25°C outdoor temperature

Down to
-25°C
Outdoor temperature



STRONG & POWERFUL HEATING CAPACITY

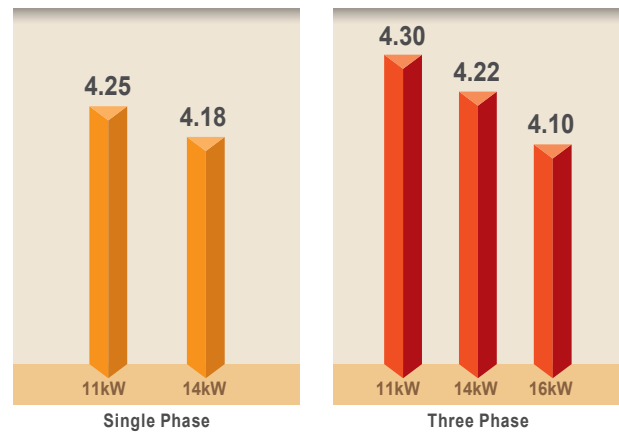
Keeping the rated heating capacity up to -7°C outdoor temperature



High Efficiency

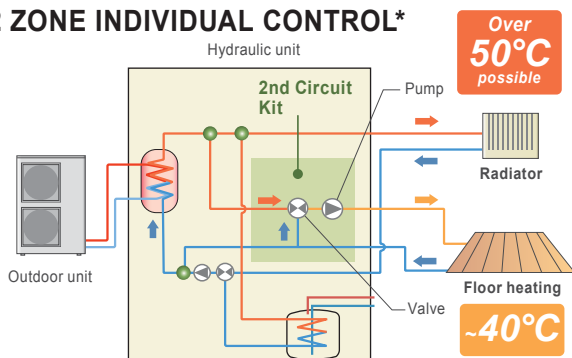
Energy efficiency is improved by the linear Control Injection Technology and the optimization of refrigerant cycle control. High power model realizes high performance and high efficiency by adopting twin sensors and control technology corresponding to hot water heating.

HIGH COP



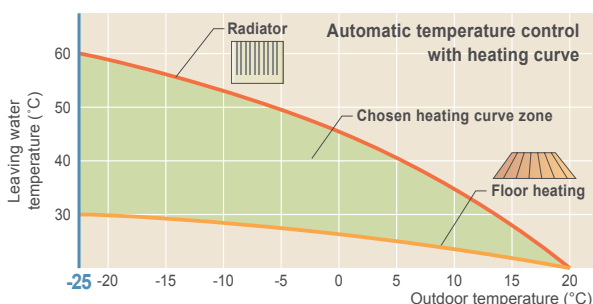
Intelligent Control

2 ZONE INDIVIDUAL CONTROL*



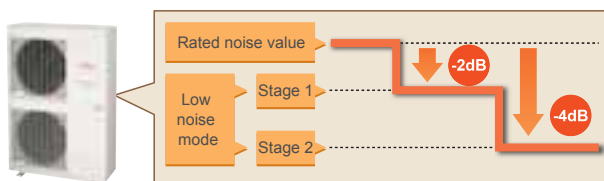
AUTOMATIC HEATING CURVE CONTROL

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



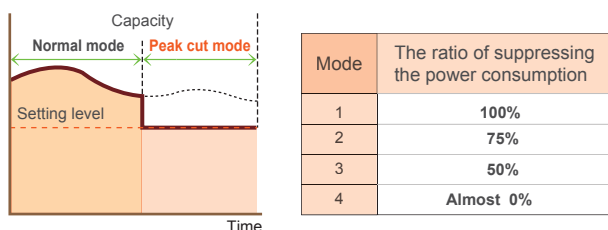
2 STAGE LOW NOISE MODE*

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

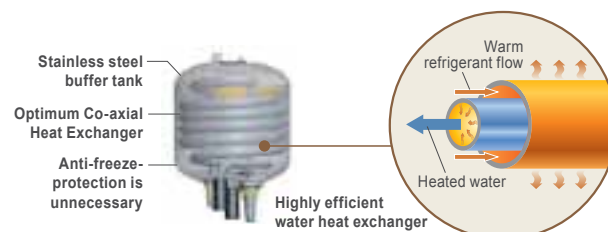
- Cooling operation is possible*
- Anti-Legionella function
- Additional electric heater control for backup
- Web server can be connected.*

*Optional parts are required.

High Reliability

HIGH DURABILITY

- Corrosion protected
- No flow switch and no filter necessary

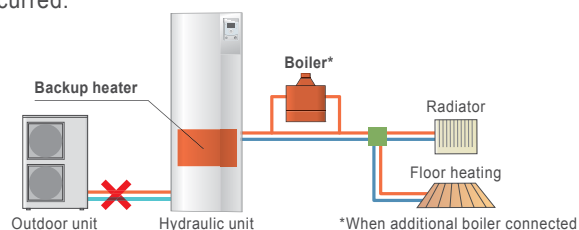


EASY INSTALLATION & MAINTENANCE

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

EMERGENCY OPERATION

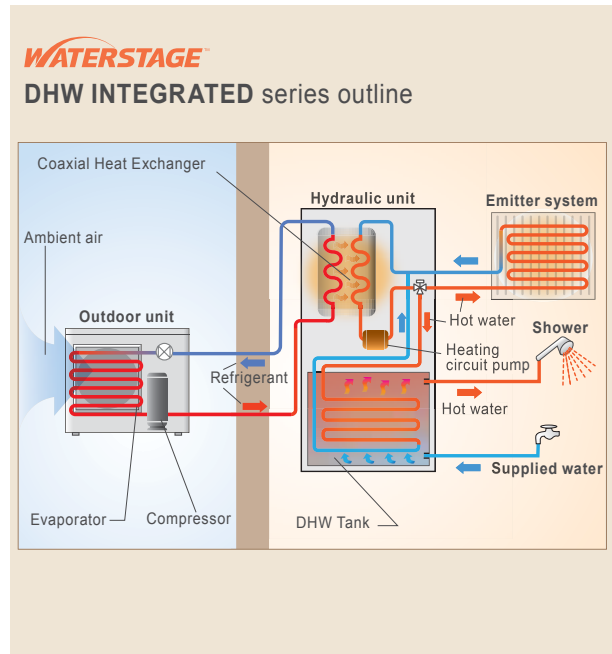
System can continuously supply hot water by built in back up heater or boiler, as emergency, even if an error is occurred.



Comfort series

5kW	6kW	8kW	NEW	10kW	NEW
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.



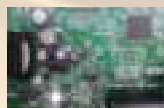
DC TWIN ROTARY COMPRESSOR

High efficient DC twin rotary compressor



DC INVERTER

Smooth water temperature control realized by DC inverter control.



NEW

HIGH EFFICIENT CO-AXIAL HEAT EXCHANGER



NEW

HIGH EFFICIENCY CLASS A PUMP



Rank A

Energy saving pump with constant volume or pressure adjustment function.

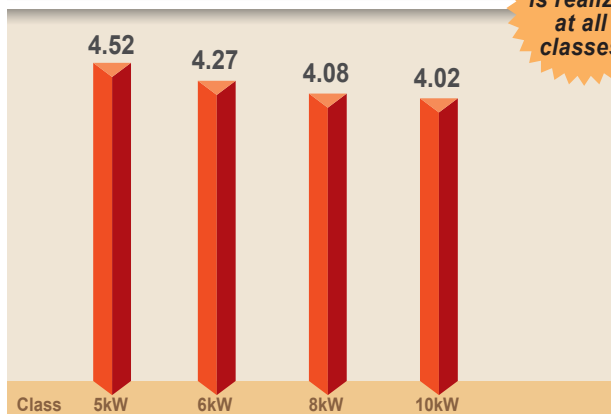
HIGH PERFORMANCE DHW TANK 190L



High heat-insulated structure minimizes the heat loss.

High Efficiency & Comfort

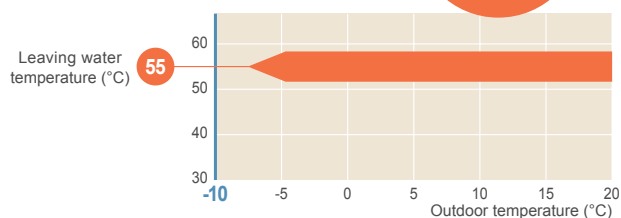
HIGH COP



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

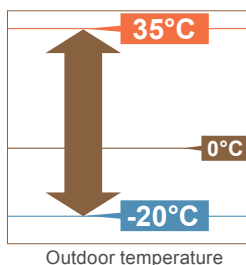


* If you want to raise the hot water supply temperature, backup heater can be used for the auxiliary operation.

WIDE OPERATION RANGE

Improved operation range down to -20°C outdoor temperature

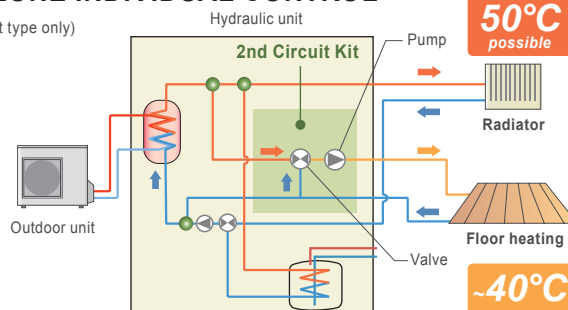
Down to
-20°C
Outdoor temperature



Intelligent Control

2 ZONE INDIVIDUAL CONTROL*

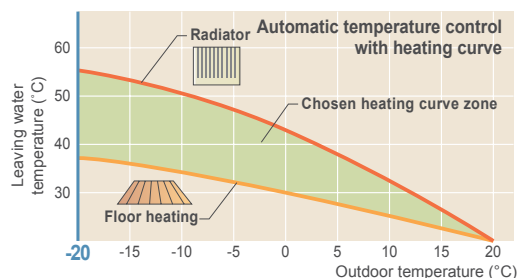
(Split type only)



*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

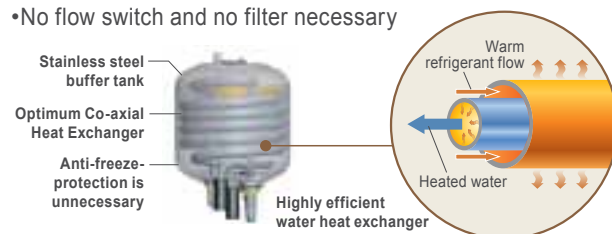
- Cooling operation is possible.*
- Anti-Legionella function
- Possible to docking the boiler (Field supplied)

*Optional parts are required.

High Reliability

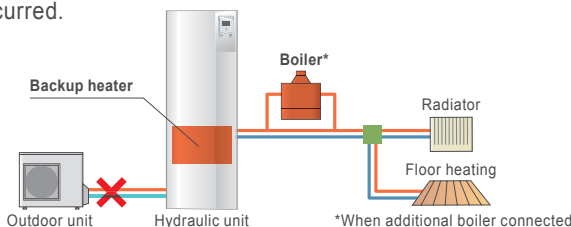
HIGH DURABILITY

- 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

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



WPYA080LA
WPYA100LA

Control box
UTW-SCBYA

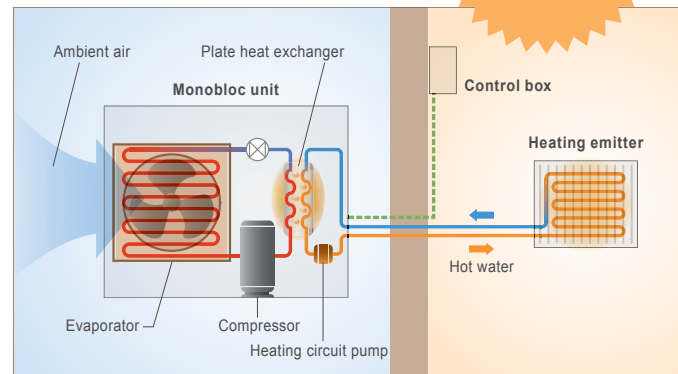
All-in-One Model

Compact design heat pump incl. all hydraulic components, refrigerant pipe work unnecessary. Easy installation and maintenance is realized.



Easy
installation &
maintenance!

WATERSTAGE outline (Monobloc type)



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.

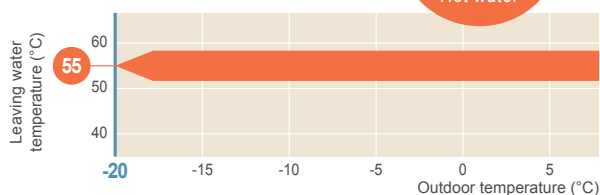


*Condition : Outdoor Temp. 7°C Heating Temp. 35°C.

HIGH LEAVING WATER TEMPERATURE

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

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



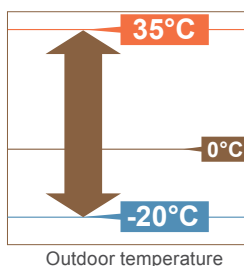
COMPACT & LIGHT WEIGHT DESIGN



WIDE OPERATION RANGE

Improved operation range down to -20°C outdoor temperature

Down to -20°C
Outdoor temperature



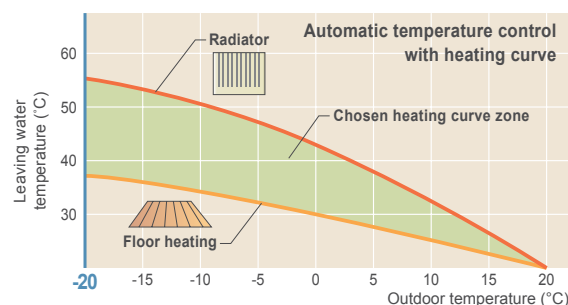
Intelligent Control

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)



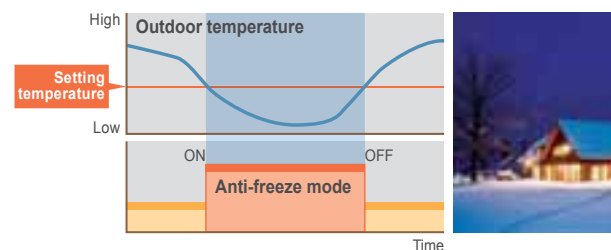
AND MORE

- 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



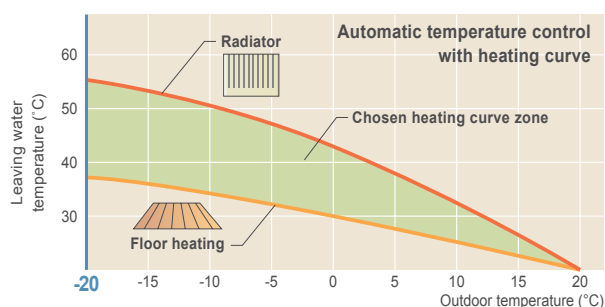
Navigation and setting

- Selecting the heating menu
- Setting program timer

Comfort Control

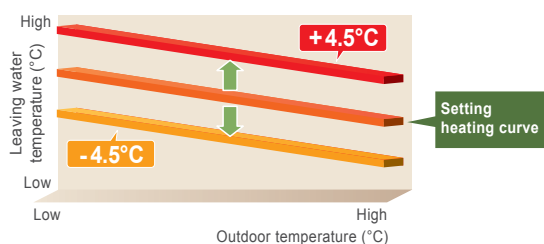
Automatic heating curve operation

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



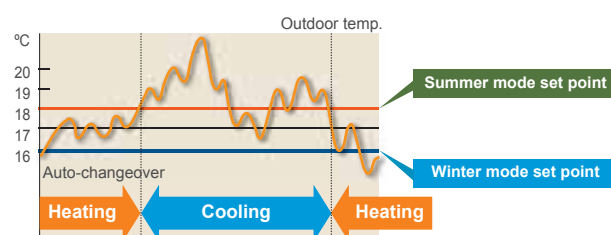
Heating curve off-set Adjust setting room temp.

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



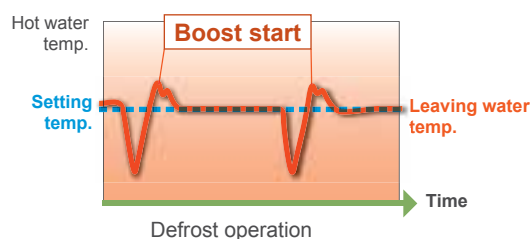
Auto-changeover

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.



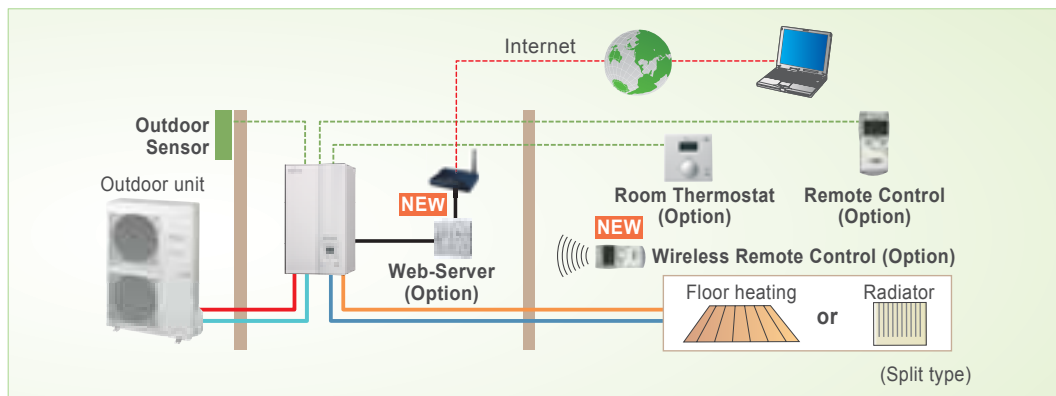
Quick recovery from defrost operation

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



Automatic mode

Comfort/Reduce mode switching automatically according to outdoor temperature



Comfort mode

Constant comfort temperature



Reduce mode

Constant reduce temperature

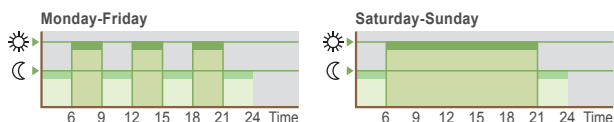


Protection mode

Stand-by mode with anti-frost protection

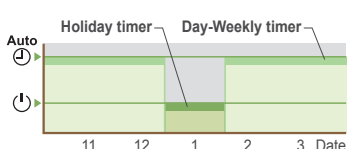
Day-Weekly timer setting

- 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

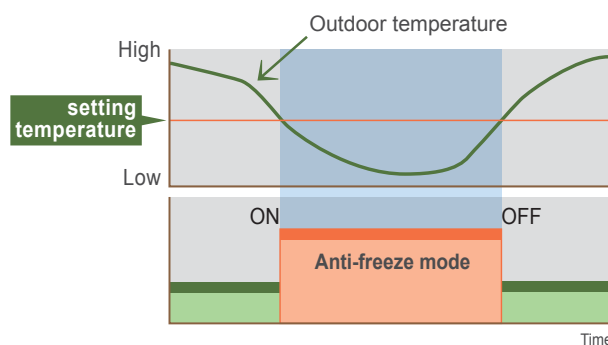
- The holiday timer can be set up for up to 8 periods
- If you are absent for a long time in the winter, freezing of room can be prevented.



Safety Function

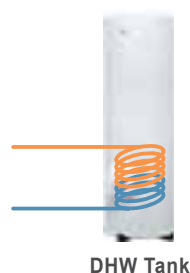
Anti-freeze function

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



Anti-legionella function

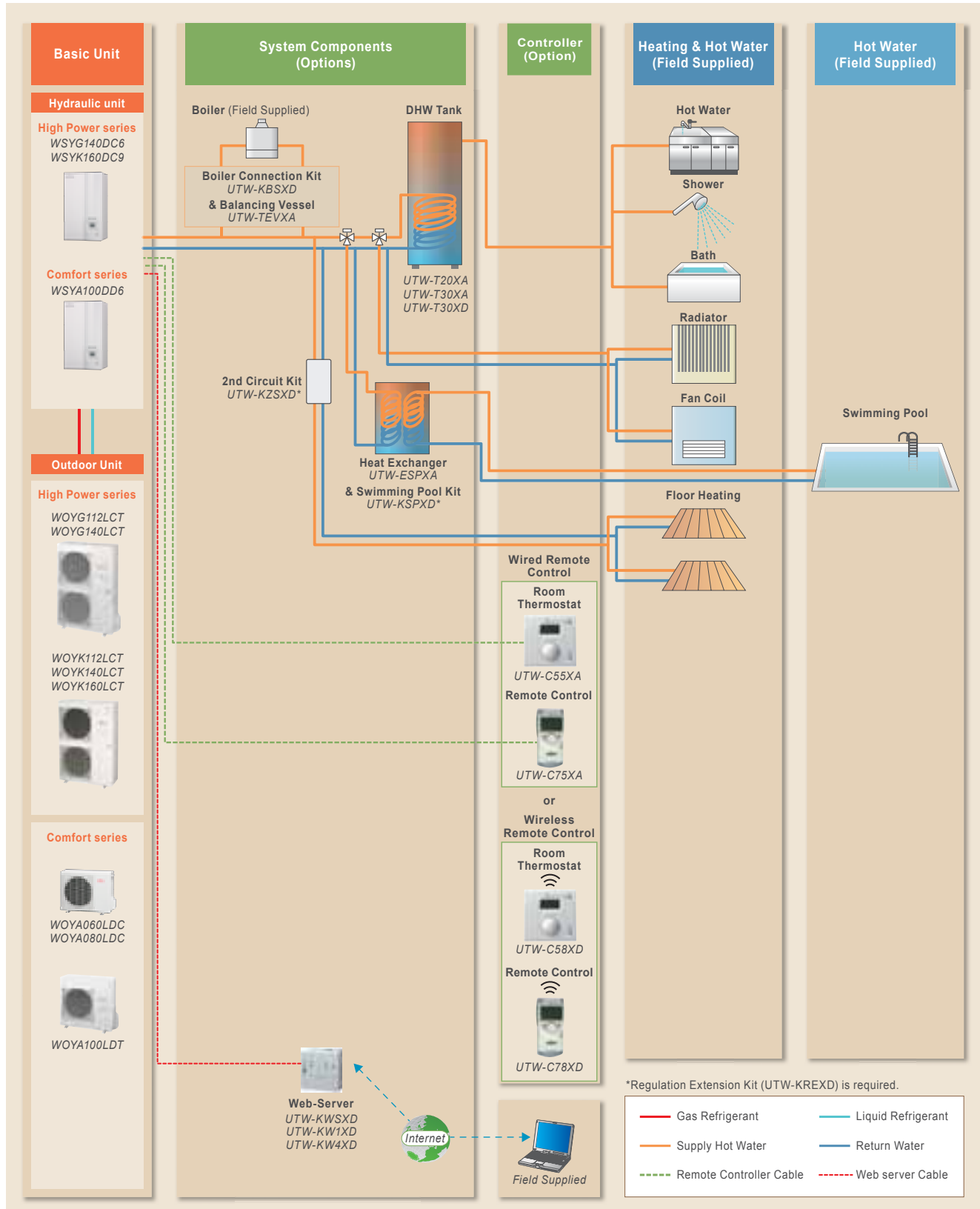
The growth of Legionella in DHW tank is suppressed and safe and clean hot water is supplied at all times.



Total solution concept for comfort inside your home

SPLIT TYPE

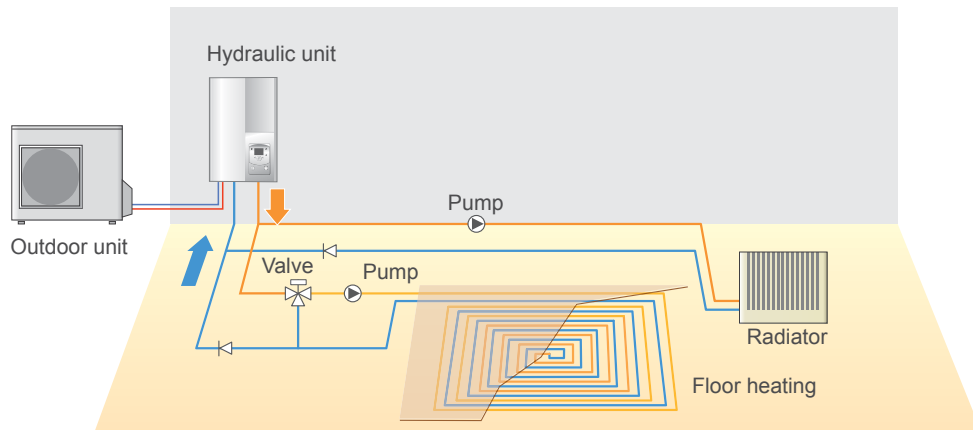
System configuration



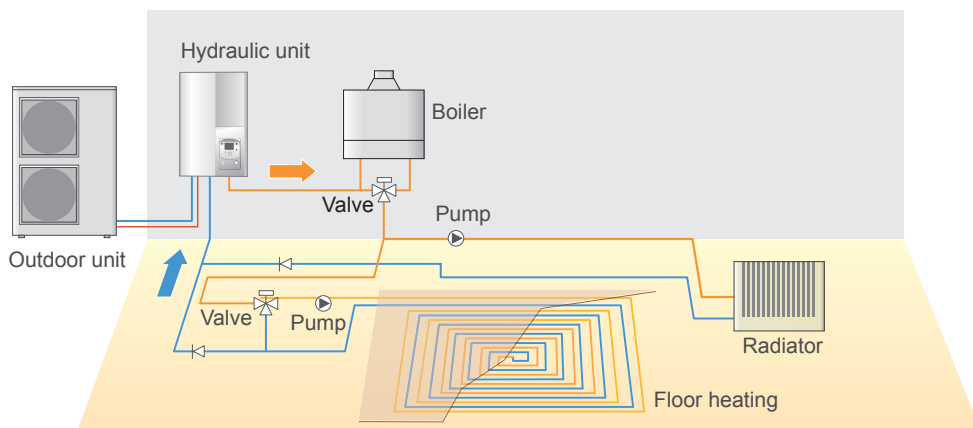
Split Case studies

2 emitter simultaneous heating (Individual control)

Floor heating + Radiator

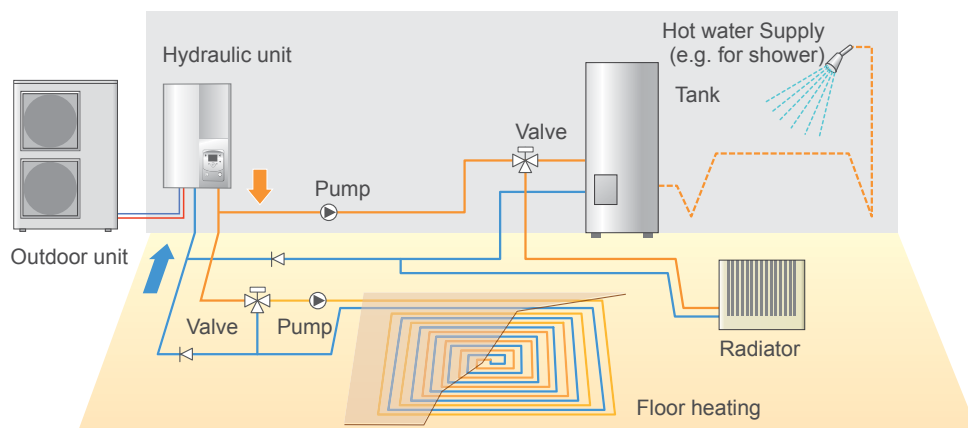


Boiler connected to heating (Boiler + Heating)



3 types of heat distribution

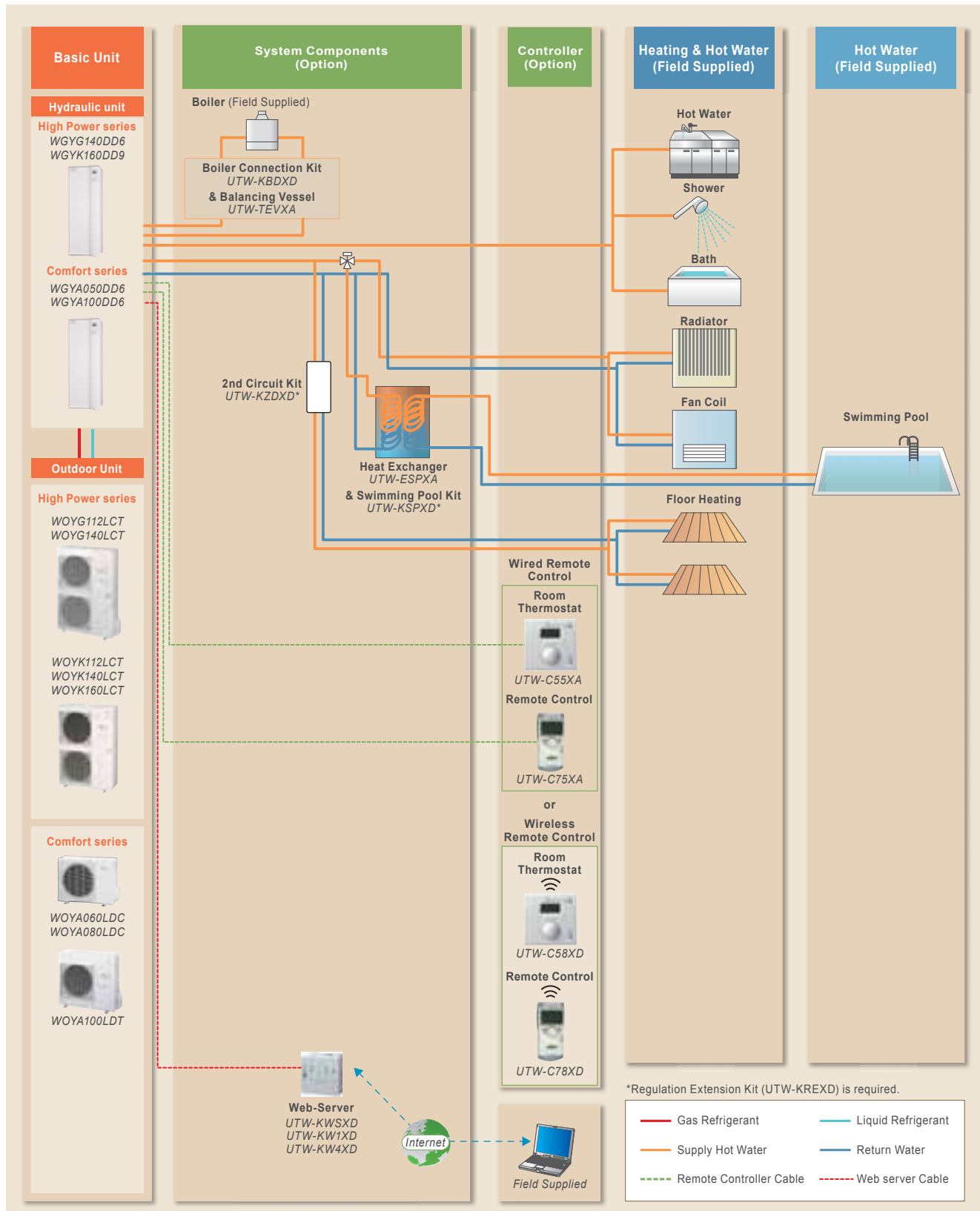
Floor heating + Radiator + Domestic Hot Water



Total solution concept for comfort inside your home

SPLIT DHW INTEGRATED TYPE

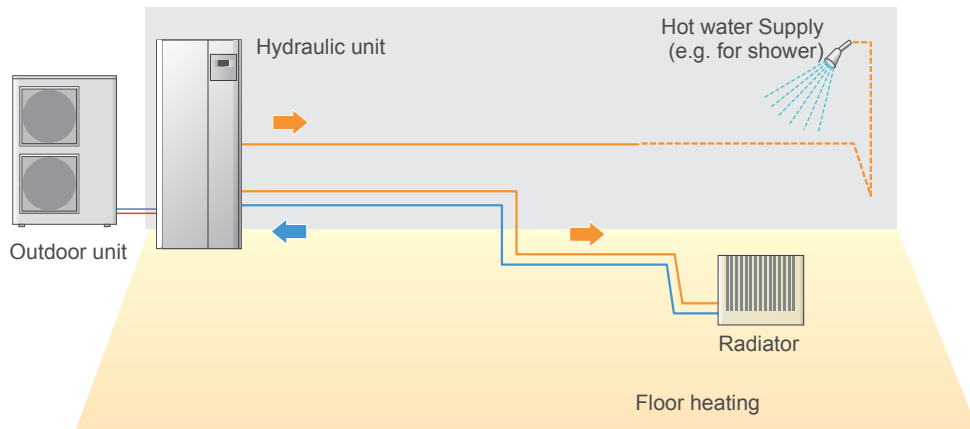
System configuration



Split DHW integrated Case studies

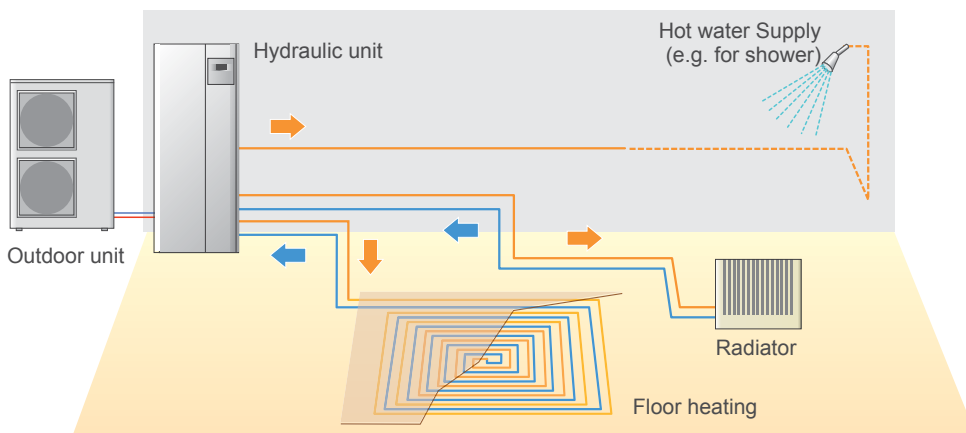
Single heating & Domestic Hot Water

Radiator + Domestic Hot Water

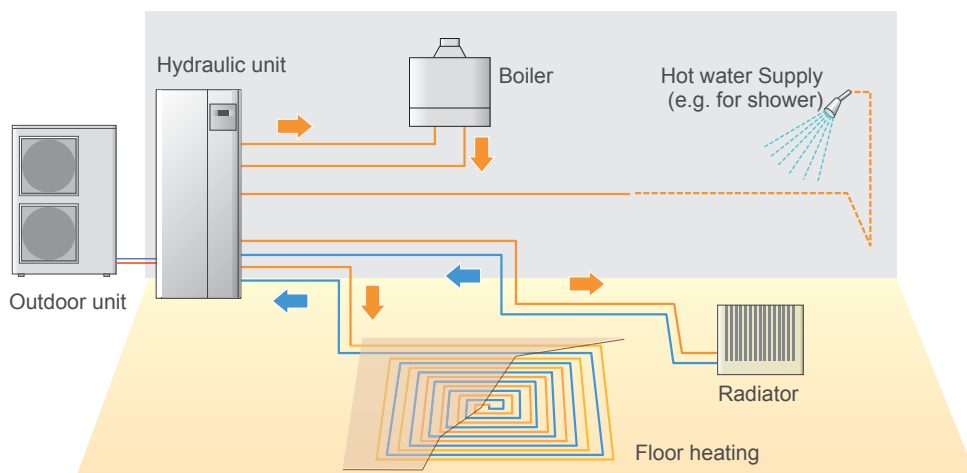


2 emitter simultaneous heating (Individual control) & Domestic Hot Water

Floor heating + Radiator + Domestic Hot Water



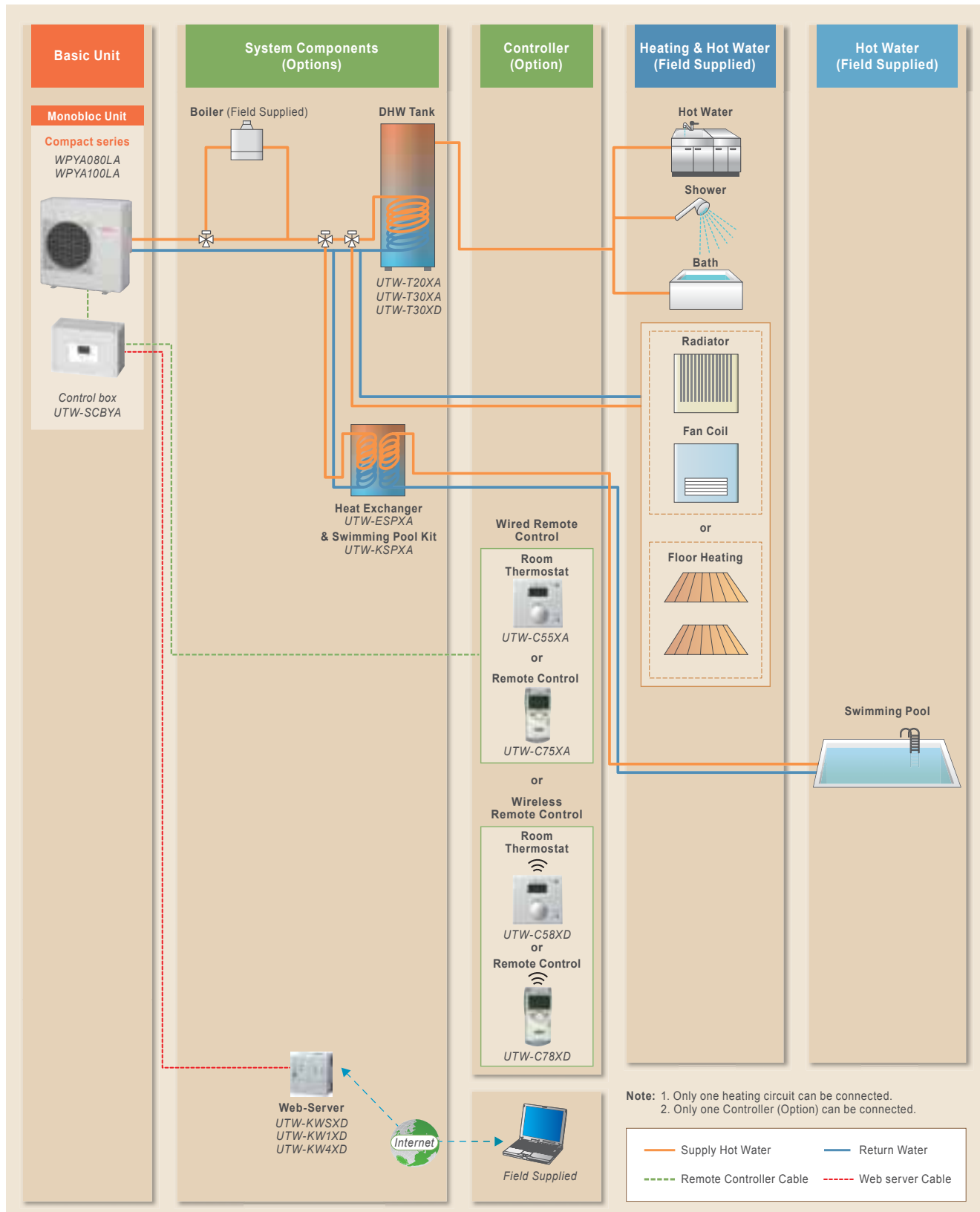
Boiler connected to heating (Boiler + Heating) & Domestic Hot Water



Total solution concept for comfort inside your home

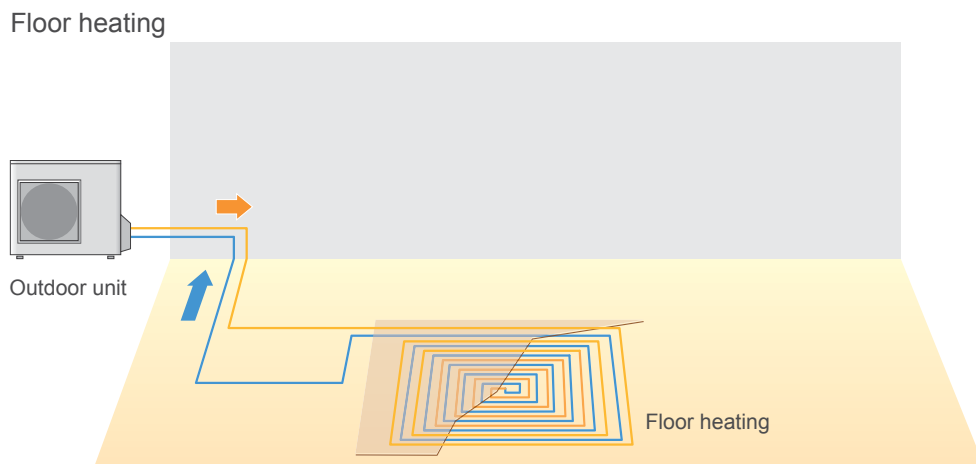
MONOBLOC TYPE

System configuration

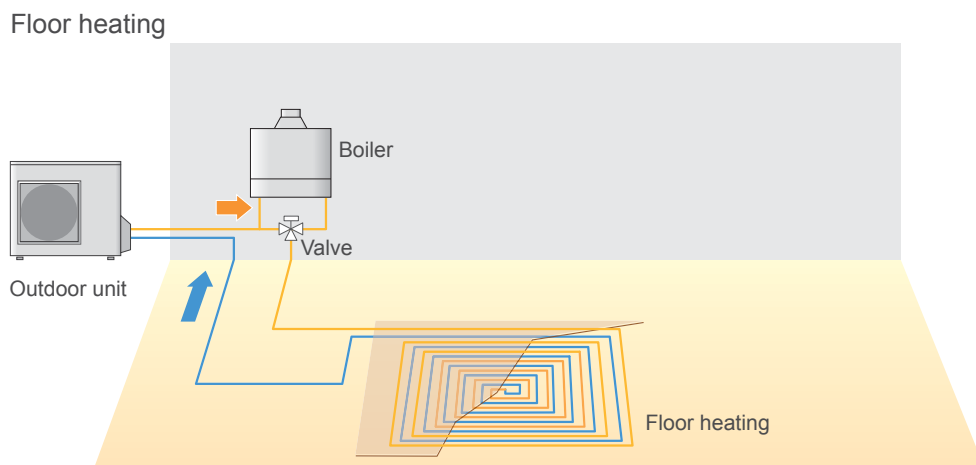


Monobloc Case studies

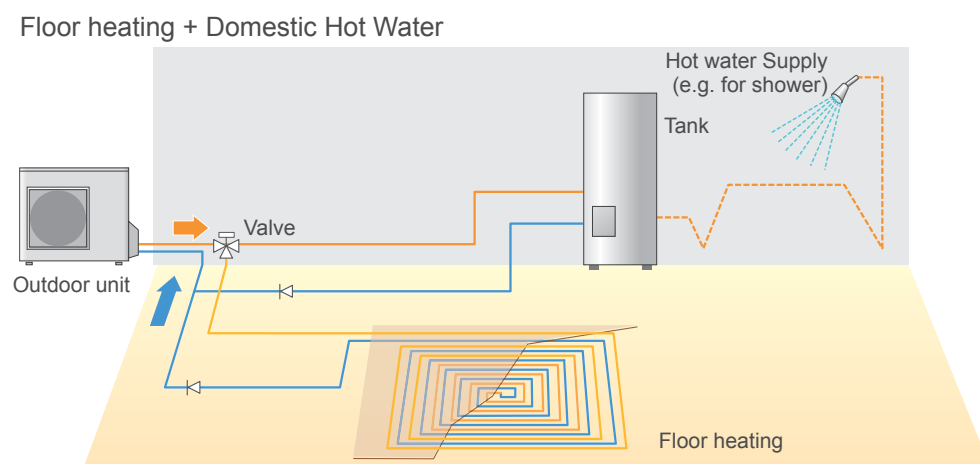
Single heating system



Boiler connected to heating (Boiler + Heating)



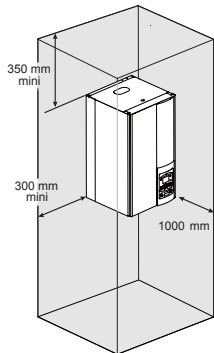
2 types of heat distribution



Installation Limitations

Equipment Installation

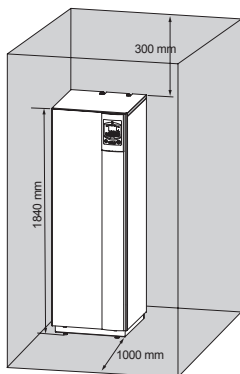
Split Type Hydraulic unit



(mm)

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

Split DHW integrated Type Hydraulic unit



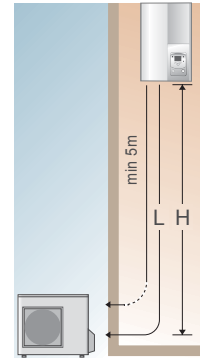
(mm)

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

Piping and Wiring

Piping

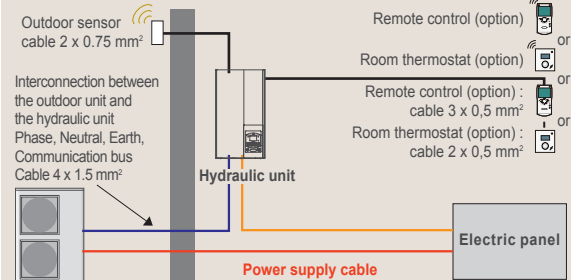
Split Type



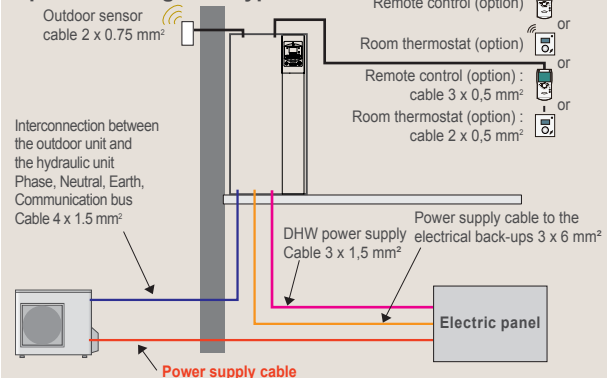
Series	Capacity range(kW)	H (m)	L (m)
Comfort	5	±15	5-20
	6		
	8		
	10		
High power	11	±15	5-20
	14		
	16		

Electrical wiring

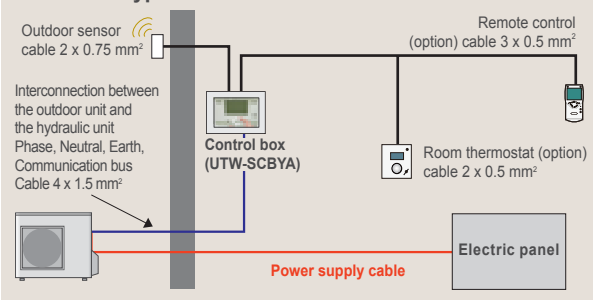
Split Type



Split DHW integrated Type



Monobloc Type

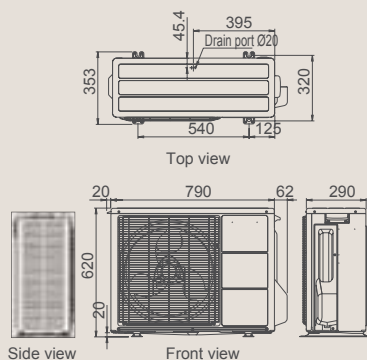


SPLIT TYPE

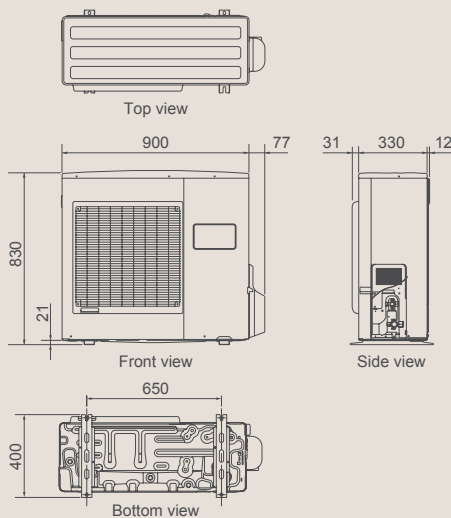
Unit : mm

Outdoor Units Comfort series

WOYA060LDC / Woya080LDC



WOYA100LDT

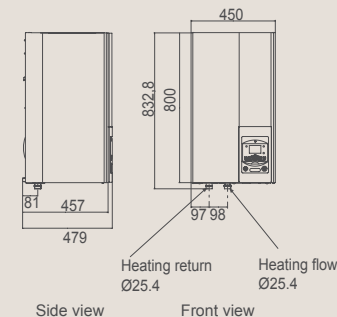


Hydraulic units Split type High Power series

WSYG140DC6 / WSYK160DC9

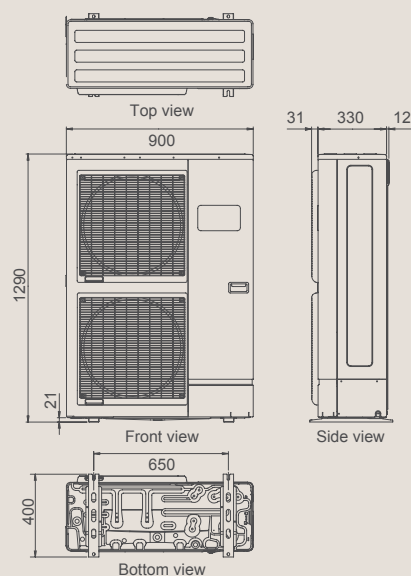
Hydraulic units Split type Comfort series

WSYA050DD6 / WSYA100DD6



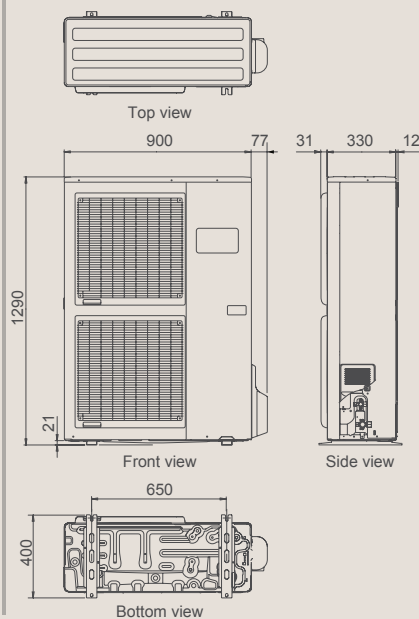
Outdoor Units High Power series

WOYK112LCT / WOYK140LCT / WOYK160LCT



Outdoor Units High Power series

WOYG112LCT / WOYG140LCT

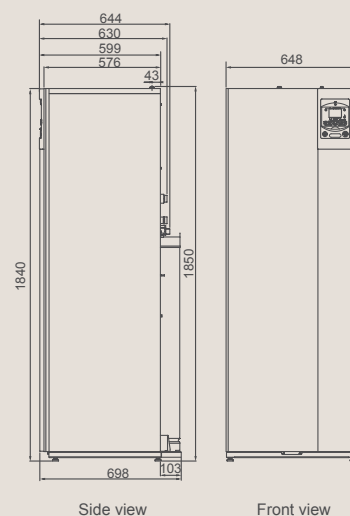


Hydraulic units Split DHW integrated type High Power series

WGYG140DD6 / WGYK160DD9

Hydraulic units Split DHW integrated type Comfort series

WGYA050DD6 / WGYA100DD6

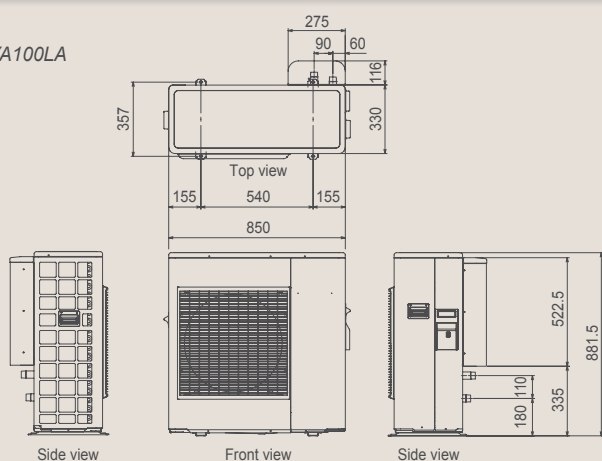


MONOBLOC TYPE

Unit : mm

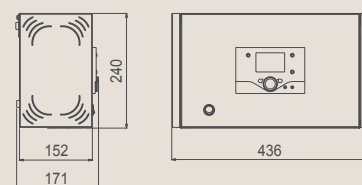
Compact series

WPYA080LA / WPYA100LA







Control Box

UTW-SCBYA



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	*1	*1
	 UTW-KDWXD	●	●	●	●	●	●	●	●	●	—	—	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
DHW Expansion Kit	 UTW-KDEXE	—	—	—	—	—	—	—	—	—	—	—	●	●	●	●	●	●	●	●	●	●	●
DHW Tank	200 Liter 300 Liter  UTW-T20XA	●	●	●	●	●	●	●	●	●	●	●	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
	300 Liter  UTW-T30XA	●	●	●	●	●	●	●	●	●	●	●	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
	300 Liter  UTW-T30XD	●	●	●	●	●	●	●	●	●	●	●	*1	*1	*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	●	●	●	●	●	●	●	●	●	—	—	●	●	●	●	●	●	●	●	●	●	●
Remote Controller	wired  UTW-C75XA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	wireless  UTW-C78XD	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
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 Kit	 UTW-KCMXE UTW-KCSXE	●	●	●	●	●	—	—	—	●	—	—	—	—	—	—	—	—	—	—	—	—	—
LPB Clip	 UTW-KL1XD	●	●	●	●	●	●	●	●	●	—	—	●	●	●	●	●	●	●	●	●	●	●
Service Tool (incl. OCI700 adapter)	 UTW-KSTXD	*3	*3	*3	*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	*4	*4	*4

● : Available — : Not Available





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


*2 :Cooling operation is possible without Cooling Kit.

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

*4 :UTW-KSTXD (OCI700 adapter), UTW-KW1XD or UTW-KW4XD is required for the connection





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	kW×pcs.	6.0(3.0×2 pcs.)	6.0(3.0×2 pcs.)	9.0(3.0 × 3pcs.)	9.0(3.0 × 3pcs.)	9.0(3.0 × 3pcs.)	6.0(3.0×2 pcs.)	6.0(3.0×2 pcs.)	6.0(3.0×2 pcs.)	6.0(3.0×2 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 H×W×D			mm 800 × 450 × 457					mm 800 × 450 × 457					
Weight (Net)			kg 42					kg 42					
Buffer tank capacity			L 16					L 16					
Expansion vessel capacity			L 8					L 8					
Leaving water temperature range			°C 8~60					°C 8 ~ 55					
Water pipe connection diameter			Flow / Return		mm Ø25.4 / Ø25.4			mm 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)			dB(A) 55 *2		56 *2		53 *2	55 *2	56 *2	48 *2	51 *2	56 *2	55 *2
Dimensions H×W×D			mm 1290 × 900 × 330					mm 620 × 790 × 290				mm 830×900×330	
Weight (Net)			kg 92		kg 99			kg 41		kg 42	kg 60		
Refrigerant			R410A					R410A					
Refrigerant amount			kg 2.50					kg 1.10		kg 1.40	kg 1.80		
Additional refrigerant charge amount			g/m 50					g/m 20		g/m 20	g/m 40		
Connection pipe	Diameter	Liquid	mm Ø9.52					mm Ø6.35		mm Ø9.52			
		Gas	mm Ø15.88					mm Ø12.70		mm Ø15.88			
	Length	Min / Max	m 5 / 20					m 5 / 20					
		Length (chargeless)	Max	m 15					m 15				
	Height difference	Max	m 15					m 15					
Operation range			Heating °C -25~35					Heating °C -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	WPYA080LA	WPYA100LA
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	82	
Expansion vessel capacity		L	8	
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.

SPECIFICATIONS

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	kW×pcs.	6.0(3.0×2pcs.)	6.0(3.0×2pcs.)	9.0(3.0×3pcs.)	9.0(3.0×3pcs.)	9.0(3.0×3pcs.)	6.0(3.0×2pcs.)	6.0(3.0×2pcs.)	6.0(3.0×2pcs.)	6.0(3.0×2pcs.)	
Hydraulic unit Model name			WGYG140DD6		WGYK160DD9			WGYA050DD6		WGYA100DD6		
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 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		mm	(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	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)		dB(A)	55 ^{*2}	56 ^{*2}	53 ^{*2}	55 ^{*2}	56 ^{*2}	48 ^{*2}	51 ^{*2}	56 ^{*2}	55 ^{*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		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	m		15			15			
Height difference		Max	m		15			15				
Operation range		Heating	°C		-25~35			-20 ~ 35				

*1. The values of heating capacity/power input/COP are based on measurement of EN14511 standard.
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*2. Sound pressure level measured at distance of 1m from the device.

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