





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		WGYA50DD6		WGYA100DD6											
Power source			1Ø 230V, 50Hz		3Ø 400V, 50Hz		3Ø 400V, 50Hz		1Ø 230V, 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											
Dimensions H×W×D			mm				1800 × 600 × 648				1800 × 600 × 648											
Weight (Net)			kg				149				149											
DHW capacity			L				190				190											
Hot water heater capacity			kW				1.8				1.8											
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			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		WOYA100LDC			
Power source			1Ø 230V, 50Hz		3Ø 400V, 50Hz		3Ø 400V, 50Hz		3Ø 400V, 50Hz		1Ø 230V, 50Hz		1Ø 230V, 50Hz		1Ø 230V, 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}		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			
Refrigerant			R410A				R410A				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				5 / 20							
		Length (chargeless)	m				15				15				15							
	Height difference	Max	m				15				15				15							
Operation range			Heating °C				-25~35				-20 ~ 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.

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Distributed by :

FUJITSU GENERAL LIMITED

1116, Suenaga, Takatsu-ku, Kawasaki 213-8502, Japan
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SPLIT TYPE
 SPLIT DHW INTEGRATED TYPE
 MONOBLOC TYPE



FUJITSU GENERAL LIMITED

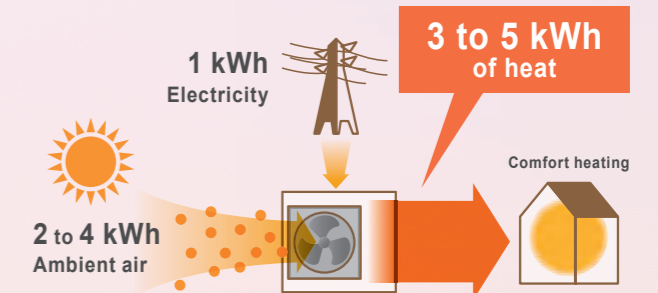
WATERSTAGE™

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

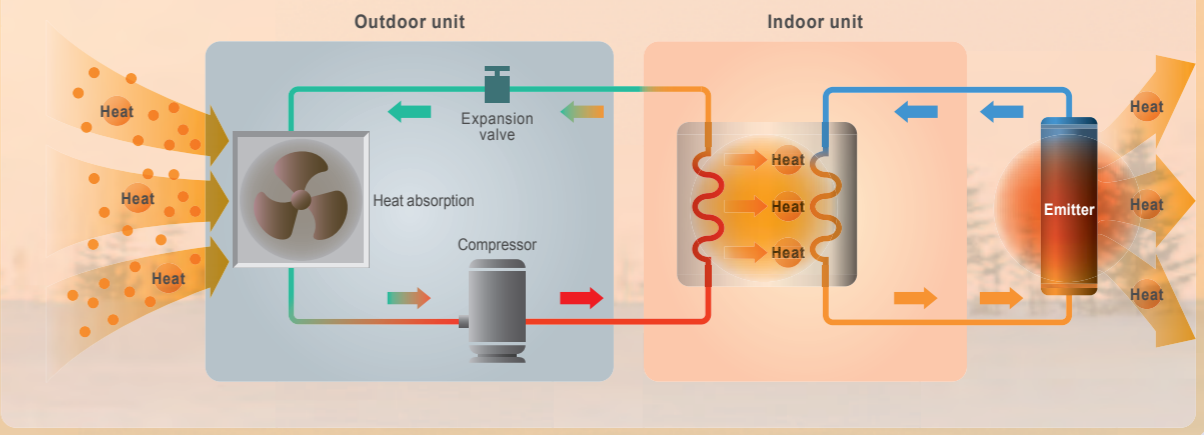
Environmentally friendly water heating system applying heat pump technology that collects heat from the outdoor air

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.

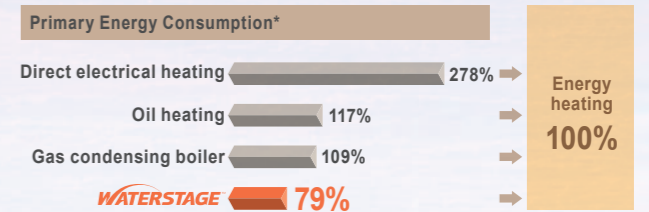


Heat Pump system framework



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



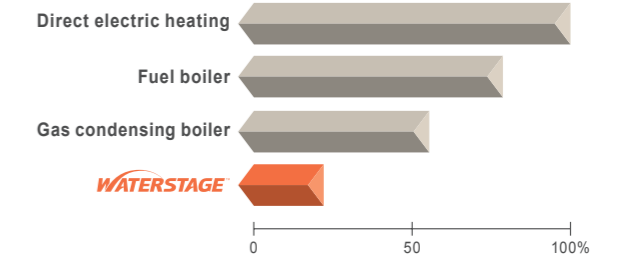
Advantages of **WATERSTAGE™**

LESS CO₂ EMISSIONS

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

Advantages

Average annual CO₂ emissions



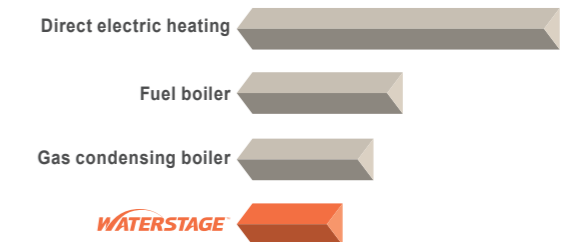
*Calculations based on data provided by European Program-2001' for EU27 Fuel boiler efficiency: 89%, Gas boiler efficiency: 93%

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

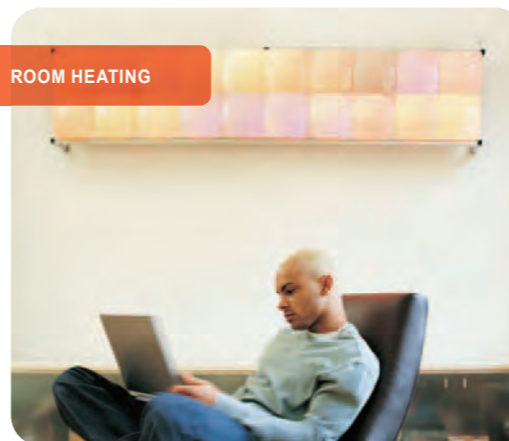
No chimney sweep

No pollution

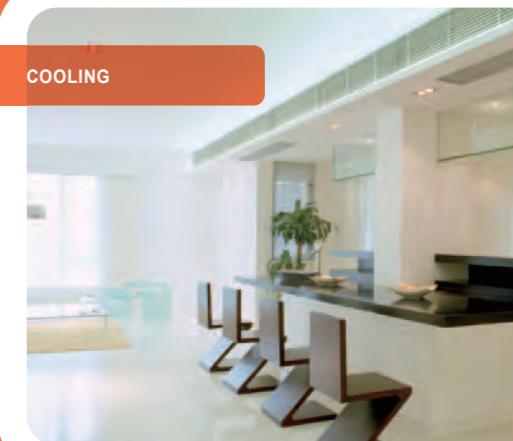
Low maintenance cost

Complete Solution meets various needs

ROOM HEATING

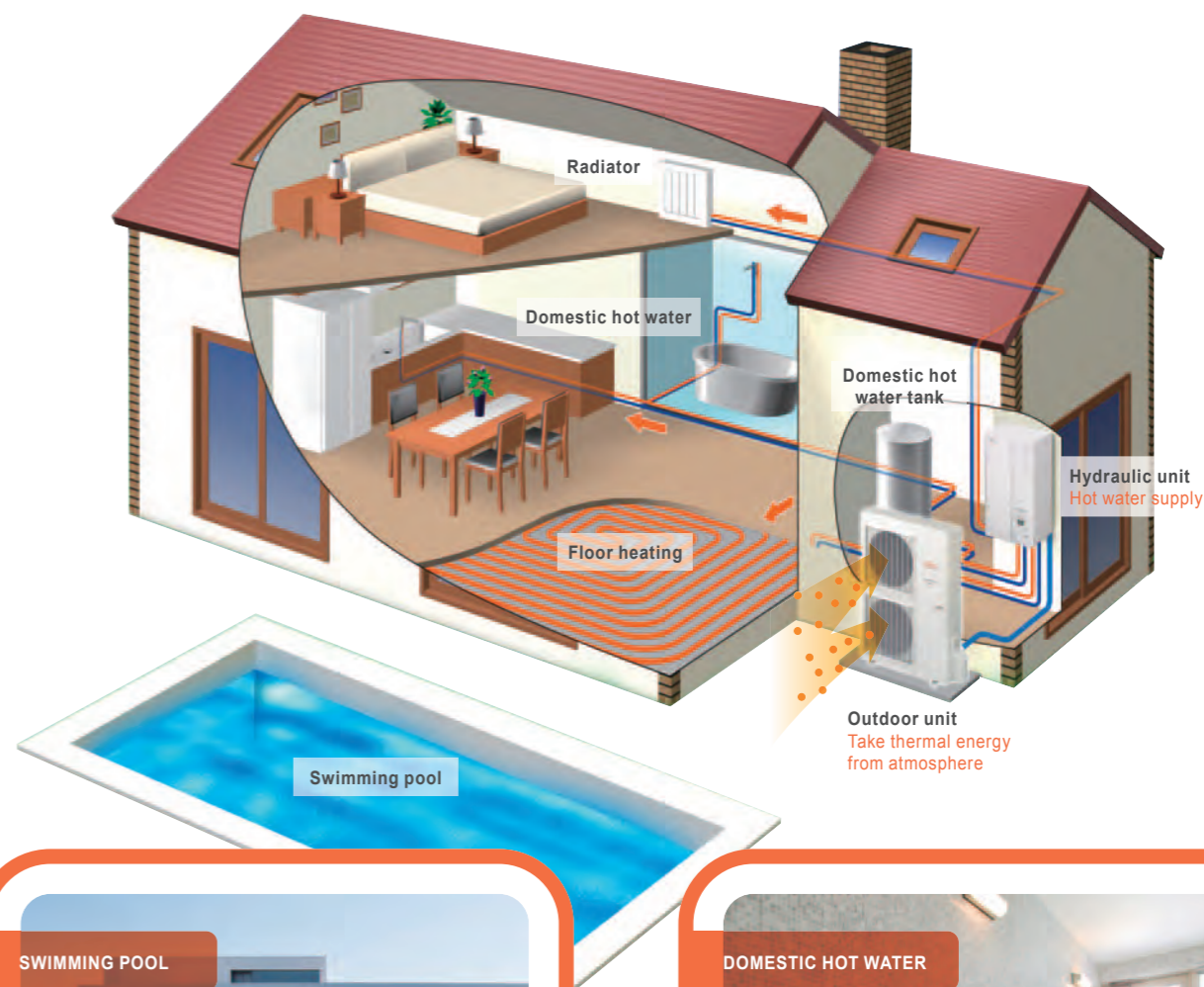


COOLING



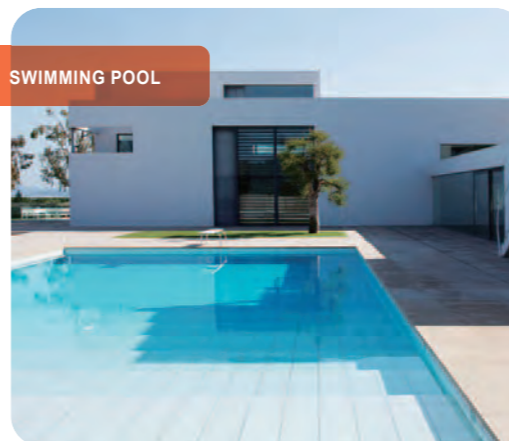
Wide Comfort

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











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 
Capacity range	Outdoor unit  Capacity range : 11 / 14 kW 11 / 14 / 16 kW		Outdoor unit  Capacity range : 5 / 6 / 8 kW 10 kW		Outdoor unit  Capacity range : 11 / 14 kW 11 / 14 / 16 kW		Outdoor unit  Capacity range : 5 / 6 / 8 kW 10 kW		Monobloc unit  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 • One control circuit connectable.*
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			5 kW 6 kW 8 kW 10 kW				5 kW 6 kW 8 kW 10 kW		8 kW 10 kW

*Optional parts are required.

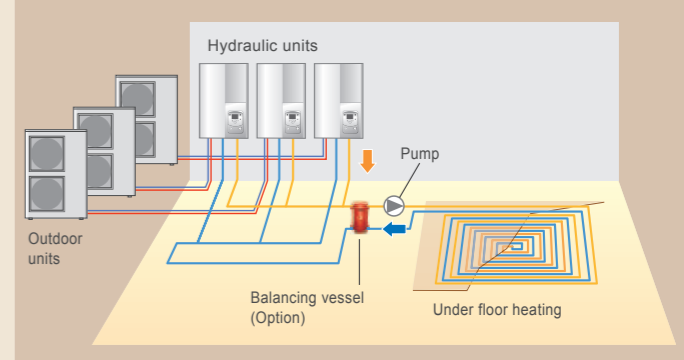
High Power series

<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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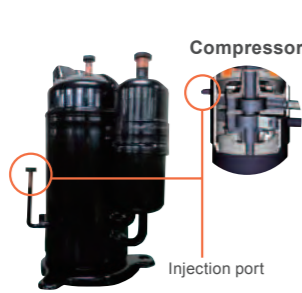
High power models realizes high heating capacity and high efficiency by newly developed "Linear Control Injection Technology" and "Co-axial Heat Exchanger". These properties are the key for a reliable heating operation throughout the whole year-even in a strong winter.

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



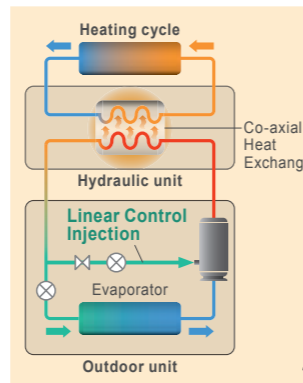
High Power & High Efficiency Outdoor unit technology

TWIN ROTARY COMPRESSOR with Linear Control Injection port



Compressor

Injection port



Heating cycle

Co-axial Heat Exchanger

Hydraulic unit

Linear Control Injection

Evaporator

Outdoor unit

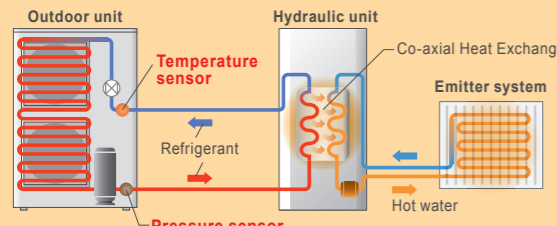
It realizes the high condensing temperature without overheating discharge gas temperature by Linear Control Injection process during compression. Therefore, the condensing temperature rises up higher than normal circuit. A higher hot water temperature is realized by controlling the injection amount according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

Optimized circuit = higher water temperature

Linear Control Injection

Normal refrigerant circuit

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.



Outdoor unit

Hydraulic unit

Temperature sensor

Refrigerant

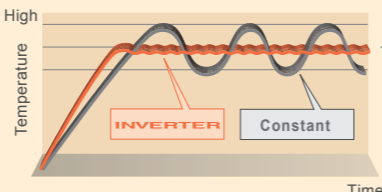
Pressure sensor

Co-axial Heat Exchanger

Emitter system

Hot water

Accurate temperature control by DC inverter technology



Temperature

High

INVERTER

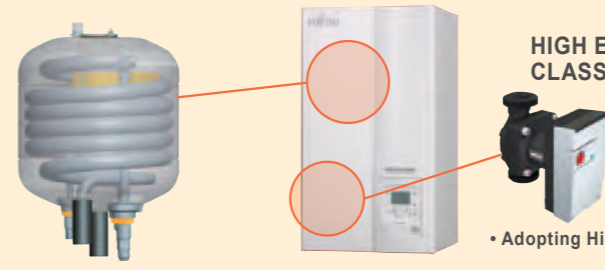
Constant

V-PAM inverter technology

Time

Renewed Hydraulic unit design

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



Co-axial Heat Exchanger

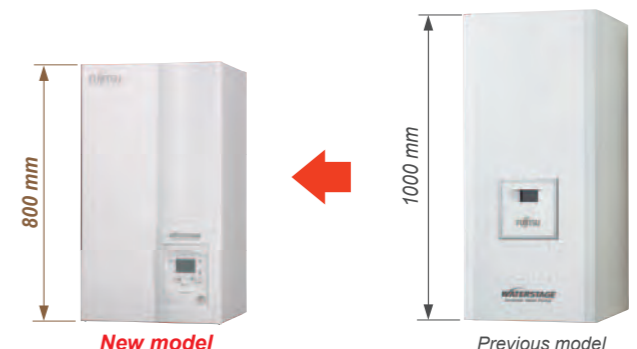
High Efficiency CLASS A PUMP

Rank A

Adopting High efficiency pump

Energy saving pump with constant volume or pressure adjustment function.

New designed Hydraulic unit allows significant space saving.



800 mm

New model

1000 mm

Previous model

Height 20% reduction

High Power series

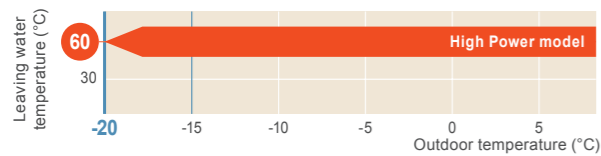
Powerful Heating

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*

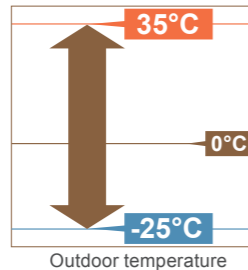
High leaving water temperature 60°C kept down to -20°C outdoor temperature without using backup heater.



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

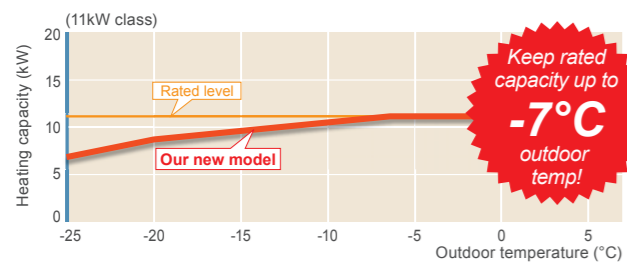
EXTENDED OPERATION RANGE DOWN TO -25°C

Improved operation range down to -25°C outdoor temperature



STRONG & POWERFUL HEATING CAPACITY

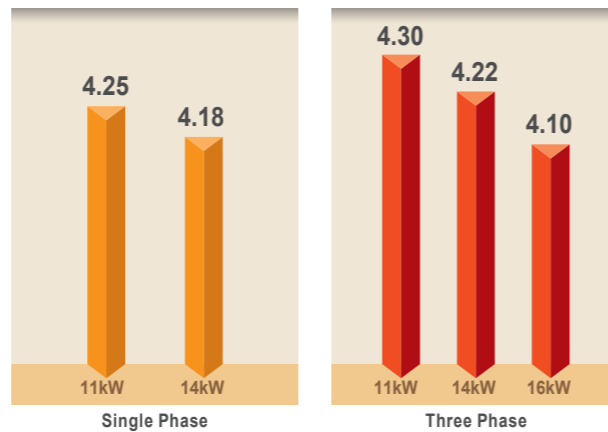
Keeping the rated heating capacity up to -7°C outdoor temperature



High Efficiency

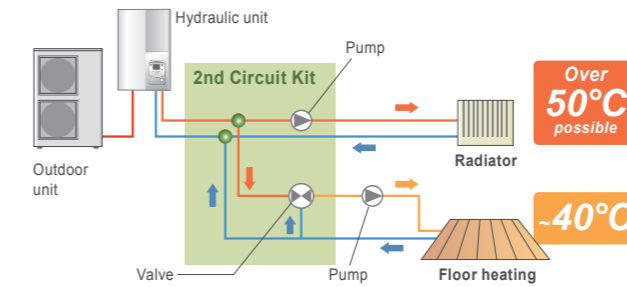
Energy efficiency is improved by the linear Control Injection Technology and the optimization of refrigerant cycle control. High power model realizes high performance and high efficiency by adopting twin sensors and control technology corresponding to hot water heating.

HIGH COP



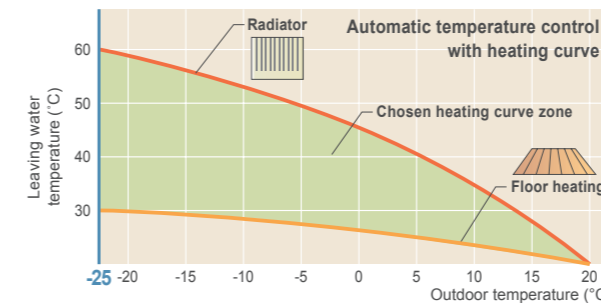
Intelligent Control

2 ZONE INDIVIDUAL CONTROL*



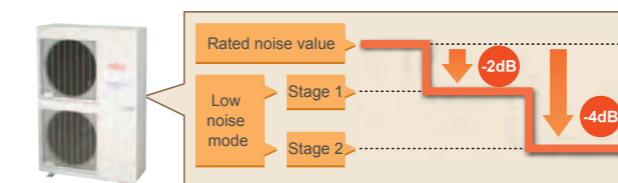
AUTOMATIC HEATING CURVE CONTROL

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



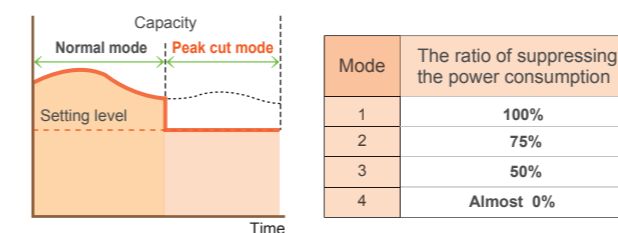
2 STAGE LOW NOISE MODE*

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.



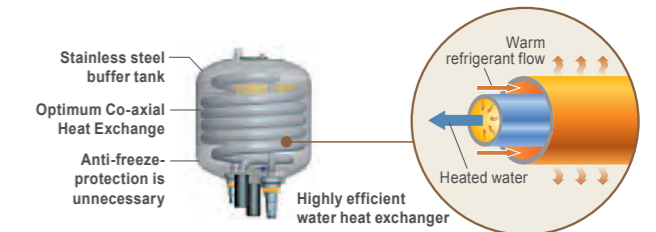
AND MORE

- 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

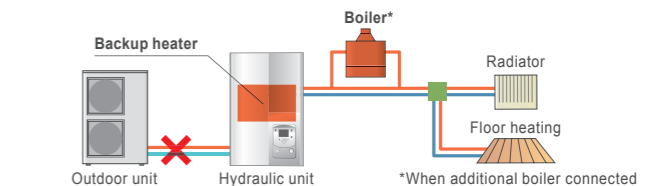


EASY INSTALLATION & MAINTENANCE

- 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 NEW 6kW 8kW NEW 10kW NEW

Hydraulic unit
WSYA050DD6
WSYA100DD6

Hydraulic unit
WSYA100DD6

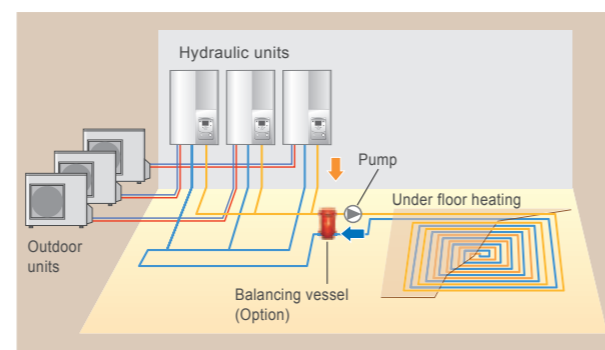
Outdoor unit
WOYA060LDC
WOYA080LDC

Outdoor unit
WOYA100LDT

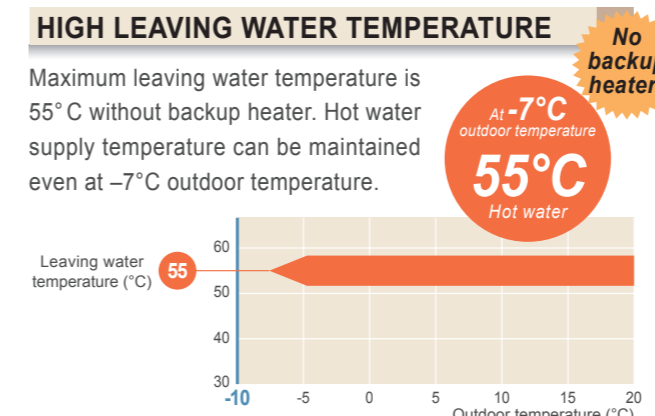
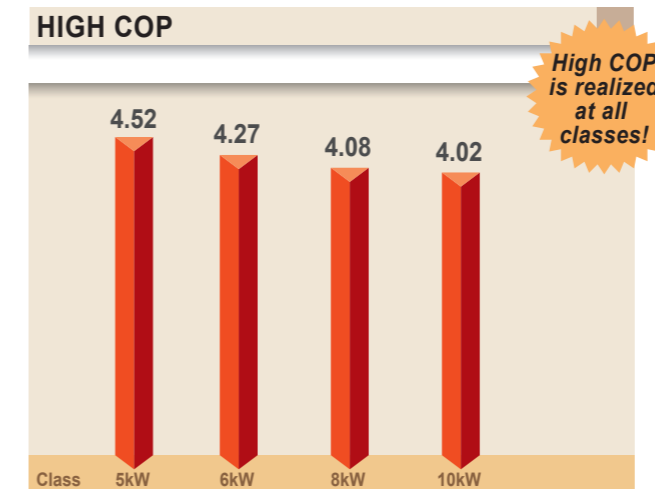
For Comfort series, optimized flow temperature control is realized by DC inverter technology.

Cascade connection

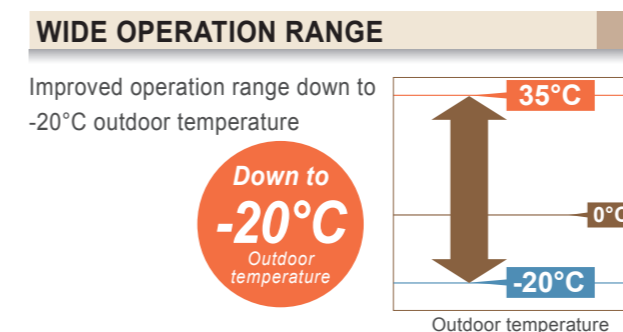
Large capacities can be realized by combining up to three systems into one control circuit.



High Efficiency & Comfort

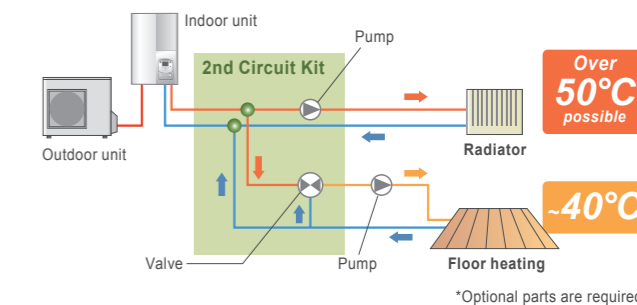


* If you want to raise the hot water supply temperature, backup heater can be used for the auxiliary operation.



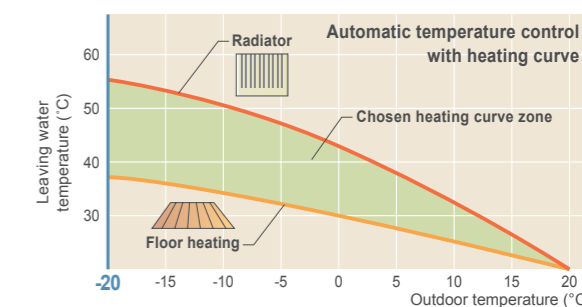
Intelligent Control

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

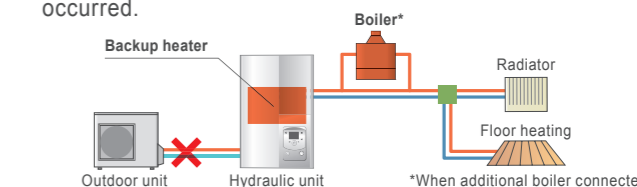
HIGH DURABILITY

- 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.



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

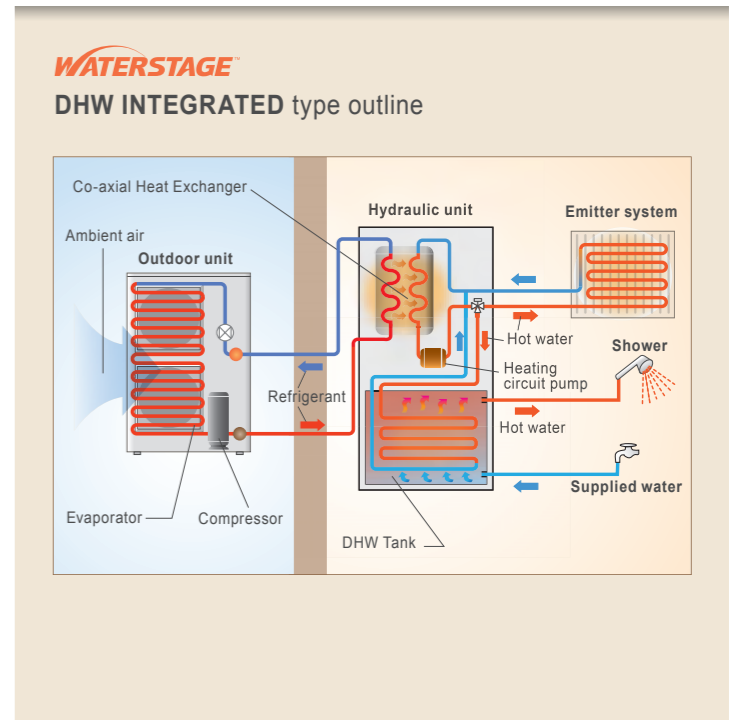
Smooth water temperature control realized by DC inverter control.



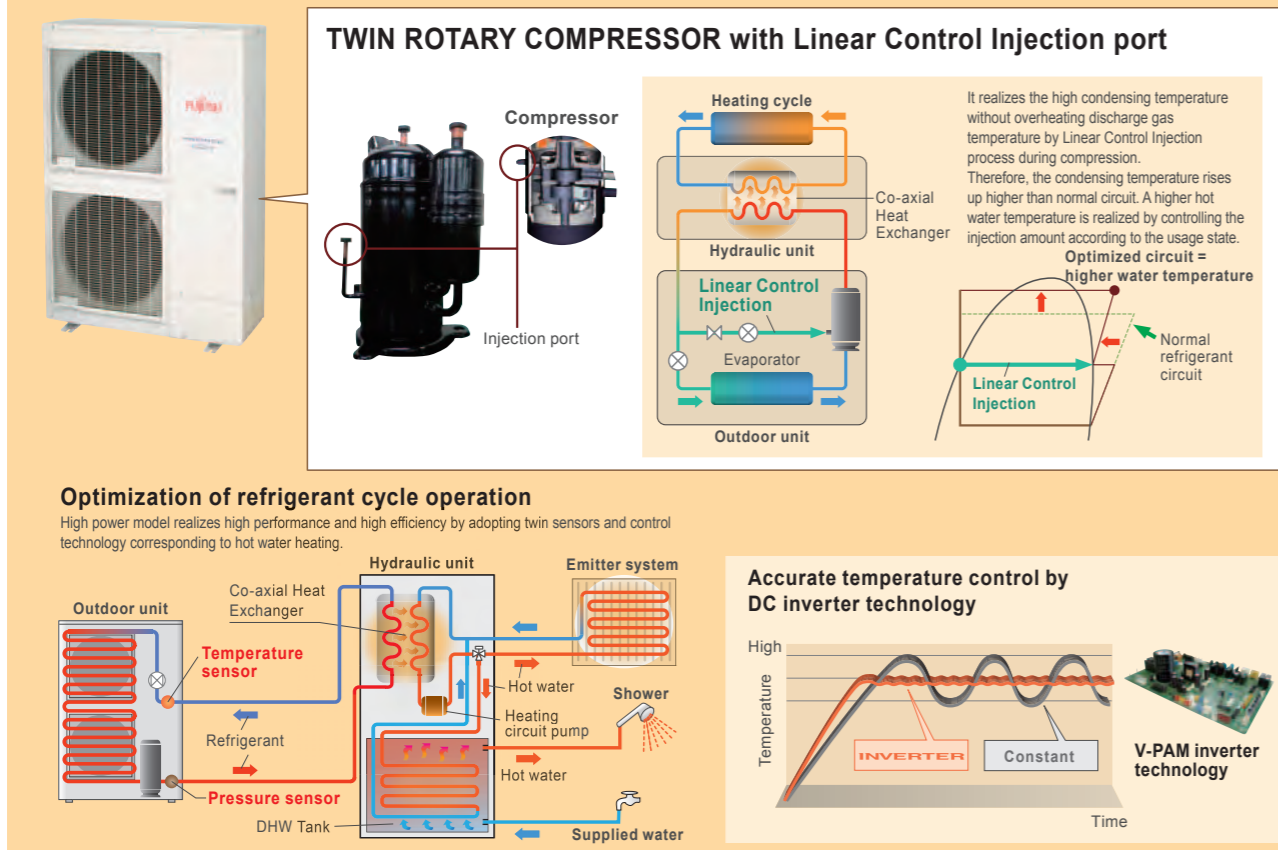
High Power series



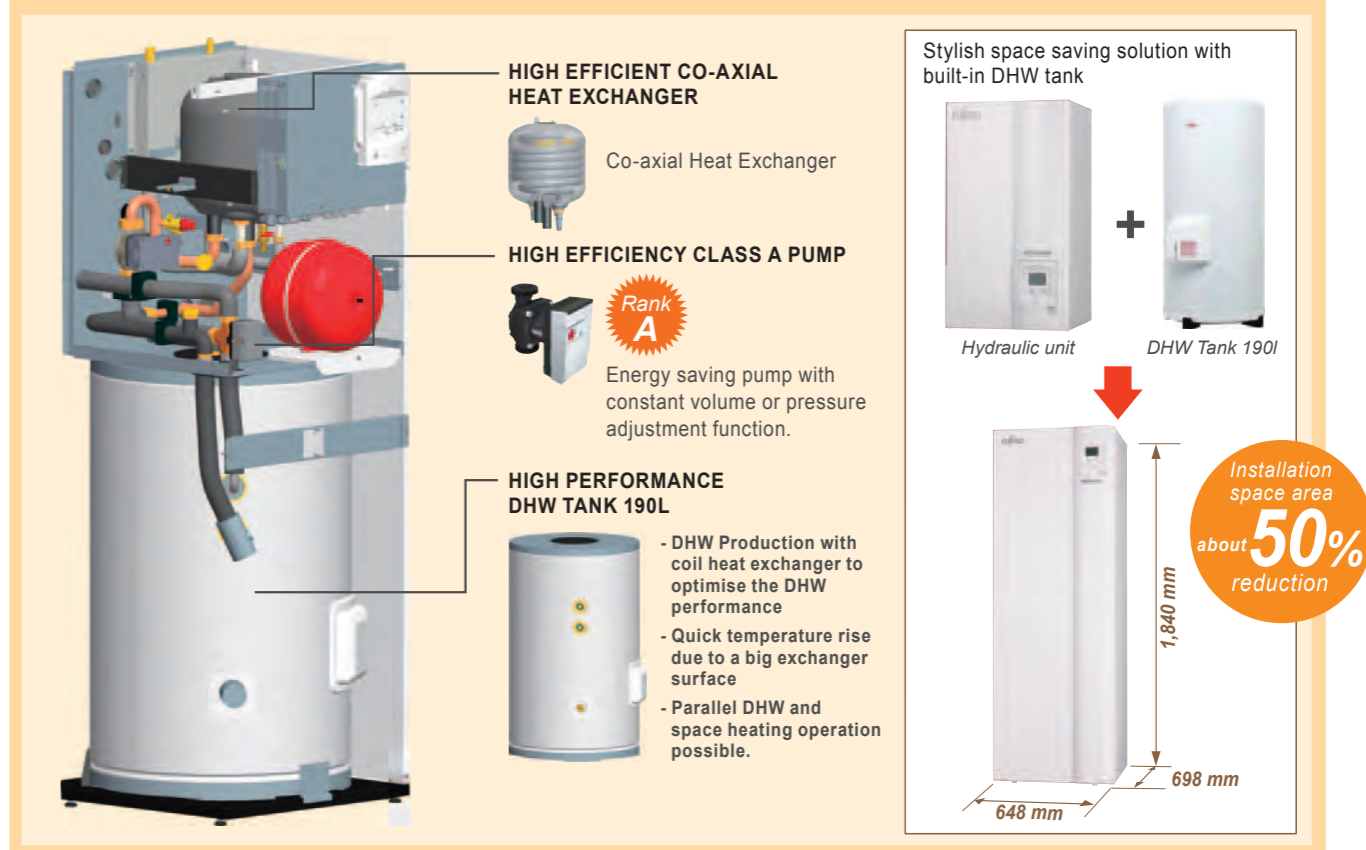
Split DHW integrated type realizes significant space saving because of the integrated DHW tank. Quick hot water supply is possible due to built-in high performance DHW tank. Heating and domestic hot water supply can be selected inside the intelligent controller. High Power models realize very efficient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



High Power & High Efficiency Outdoor unit technology



Compact Hydraulic unit design with DHW Tank



High Power series

Powerful Heating

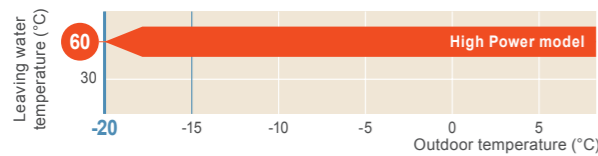
High power models realize high leaving water temperature and high heating capacity even at low ambient temperature by newly developed "Linear Control Injection Technology". It is possible to provide high water temperature and warm rooms in cold regions.

HIGH LEAVING WATER TEMPERATURE

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



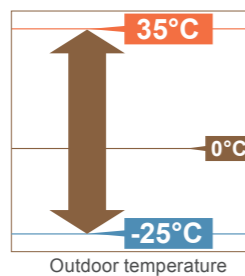
No backup heater*



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

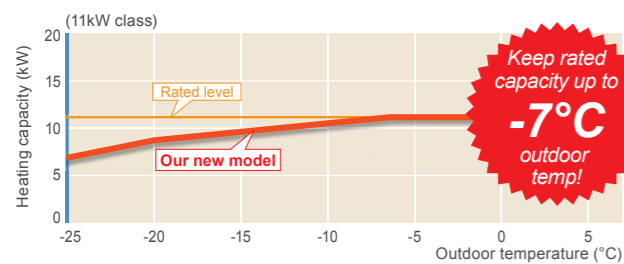
EXTENDED OPERATION RANGE DOWN TO -25°C

Improved operation range down to -25°C outdoor temperature



STRONG & POWERFUL HEATING CAPACITY

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

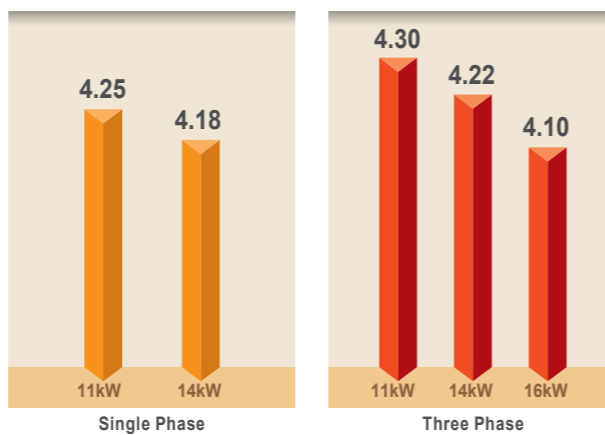


Keep rated capacity up to -7°C outdoor temp!

High Efficiency

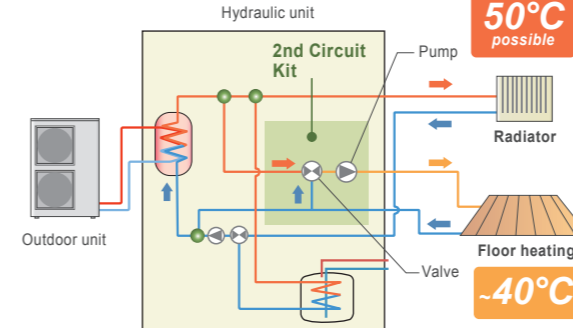
Energy efficiency is improved by the linear Control Injection Technology and the optimization of refrigerant cycle control. High power model realizes high performance and high efficiency by adopting twin sensors and control technology corresponding to hot water heating.

HIGH COP



Intelligent Control

2 ZONE INDIVIDUAL CONTROL*

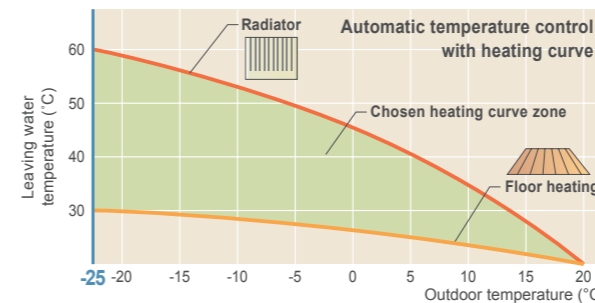


Over 50°C possible

-40°C

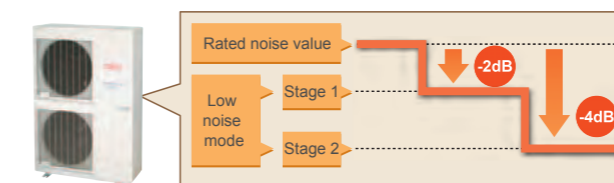
AUTOMATIC HEATING CURVE CONTROL

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



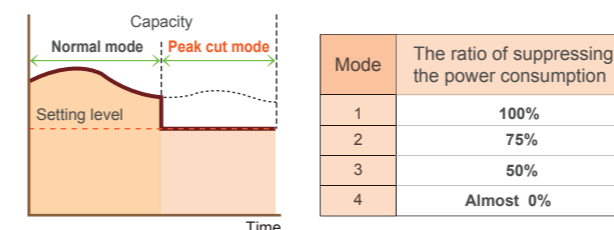
2 STAGE LOW NOISE MODE*

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

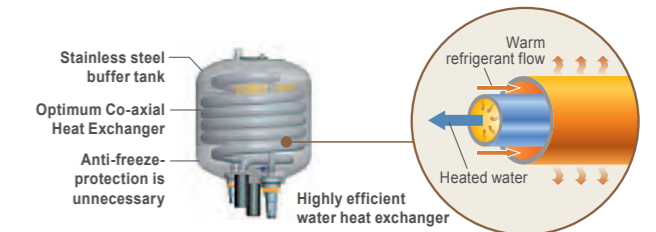
- Cooling operation is possible*
- Anti-Legionella function
- Additional electric heater control for backup
- Web server can be connected.*

*Optional parts are required.

High Reliability

HIGH DURABILITY

- Corrosion protected
- No flow switch and no filter necessary

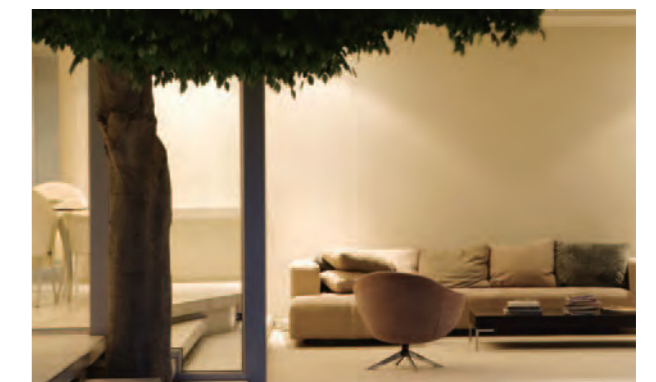
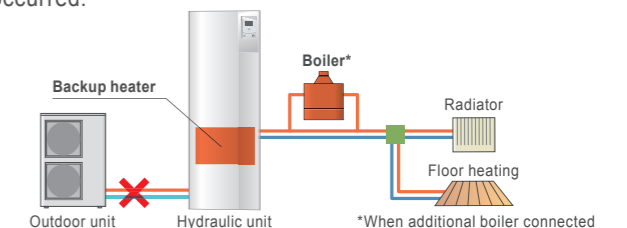


EASY INSTALLATION & MAINTENANCE

- 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.



Comfort series

5kW 6kW 8kW **NEW** 10kW **NEW**

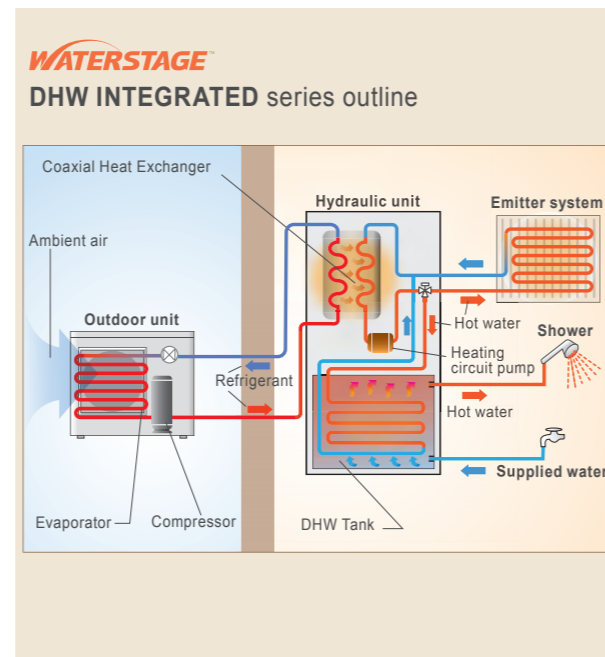
Hydraulic unit
WGYA050DD6
WGYA100DD6

Hydraulic unit
WGYA100DD6

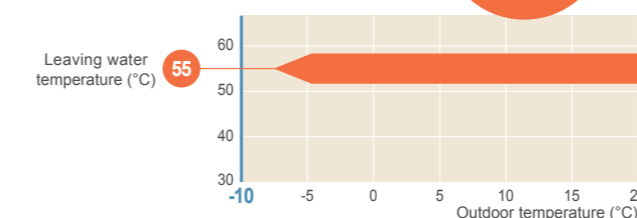
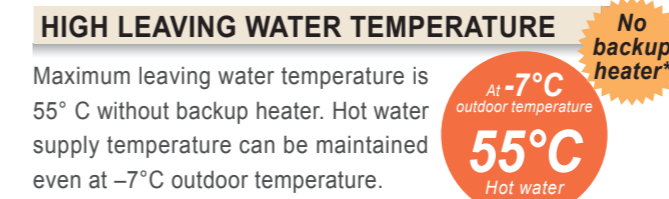
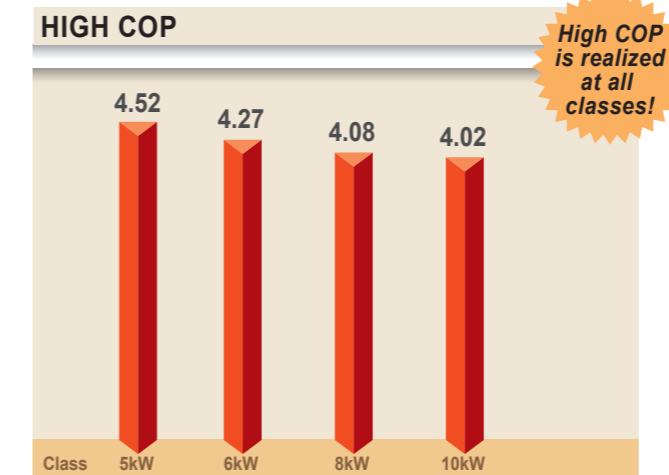
Outdoor unit
WOYA060LDC
WOYA080LDC

Outdoor unit
WOYA100LDT

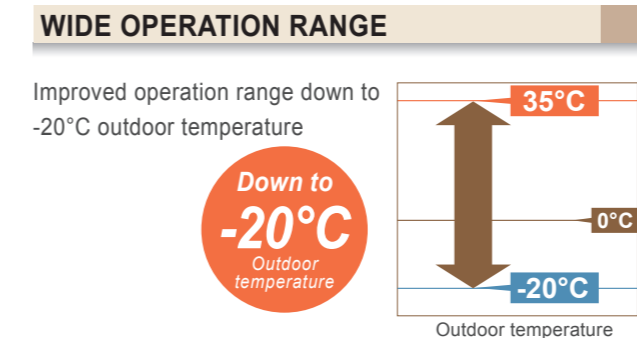
For Comfort series, optimized flow temperature control is realized by DC inverter technology.



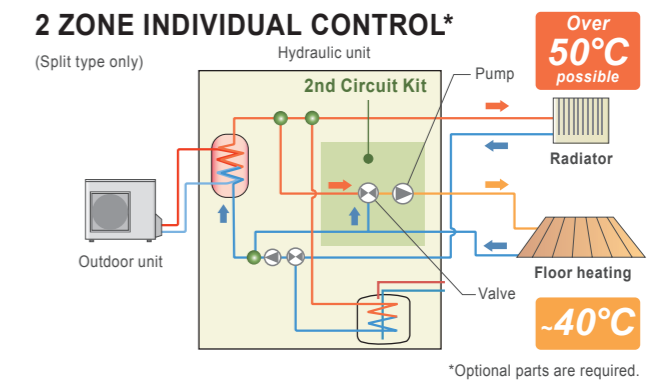
High Efficiency & Comfort



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

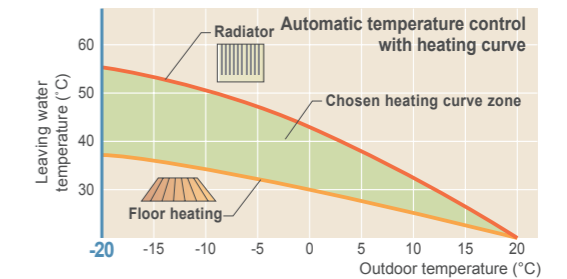


Intelligent Control



AUTOMATIC HEATING CURVE CONTROL

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



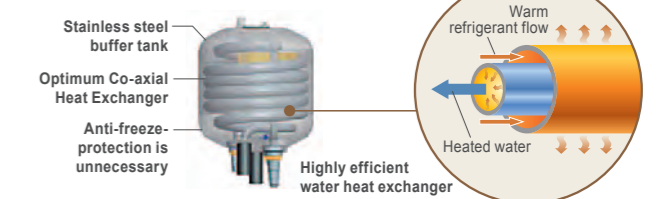
AND MORE

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

High Reliability

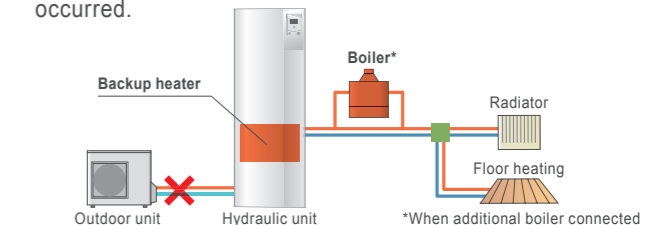
HIGH DURABILITY

- 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

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



Control box
UTW-SCBYA

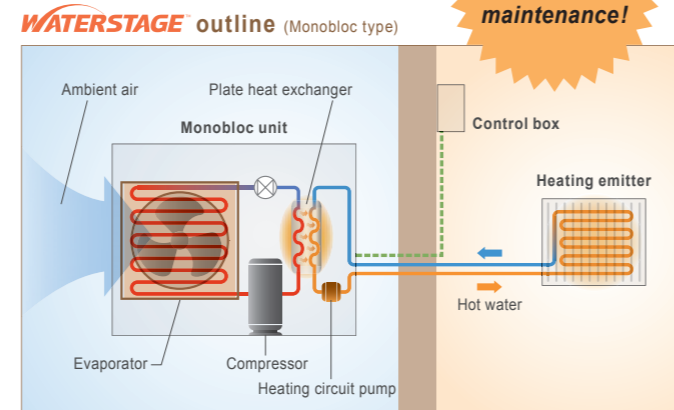
WPYA080LA
WPYA100LA

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!



Compact & High Performance

HIGH COP

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

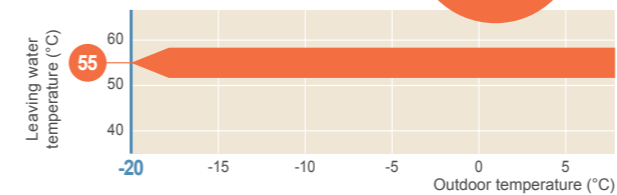


*Condition : Outdoor Temp. 7°C Heating Temp. 35°C.

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



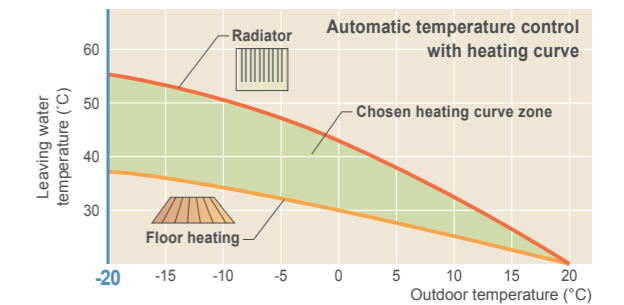
Intelligent Control

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)



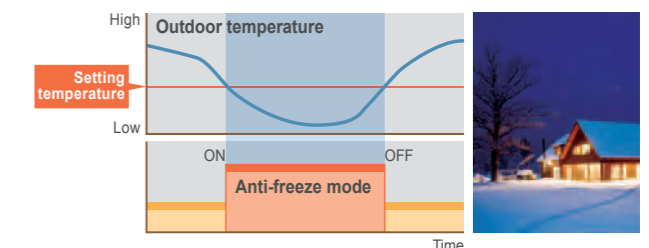
AND MORE

- 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.



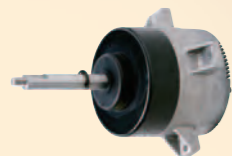
HIGH EFFICIENT PLATE HEAT EXCHANGER

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



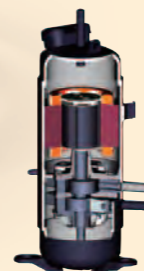
DC FAN MOTOR

High performance, high efficiency small DC fan motor mounted.



DC TWIN ROTARY COMPRESSOR

High efficient DC twin rotary compressor



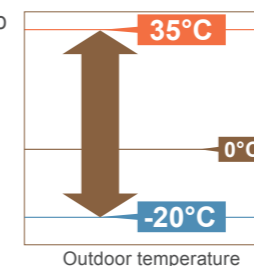
COMPACT & LIGHT WEIGHT DESIGN



WIDE OPERATION RANGE

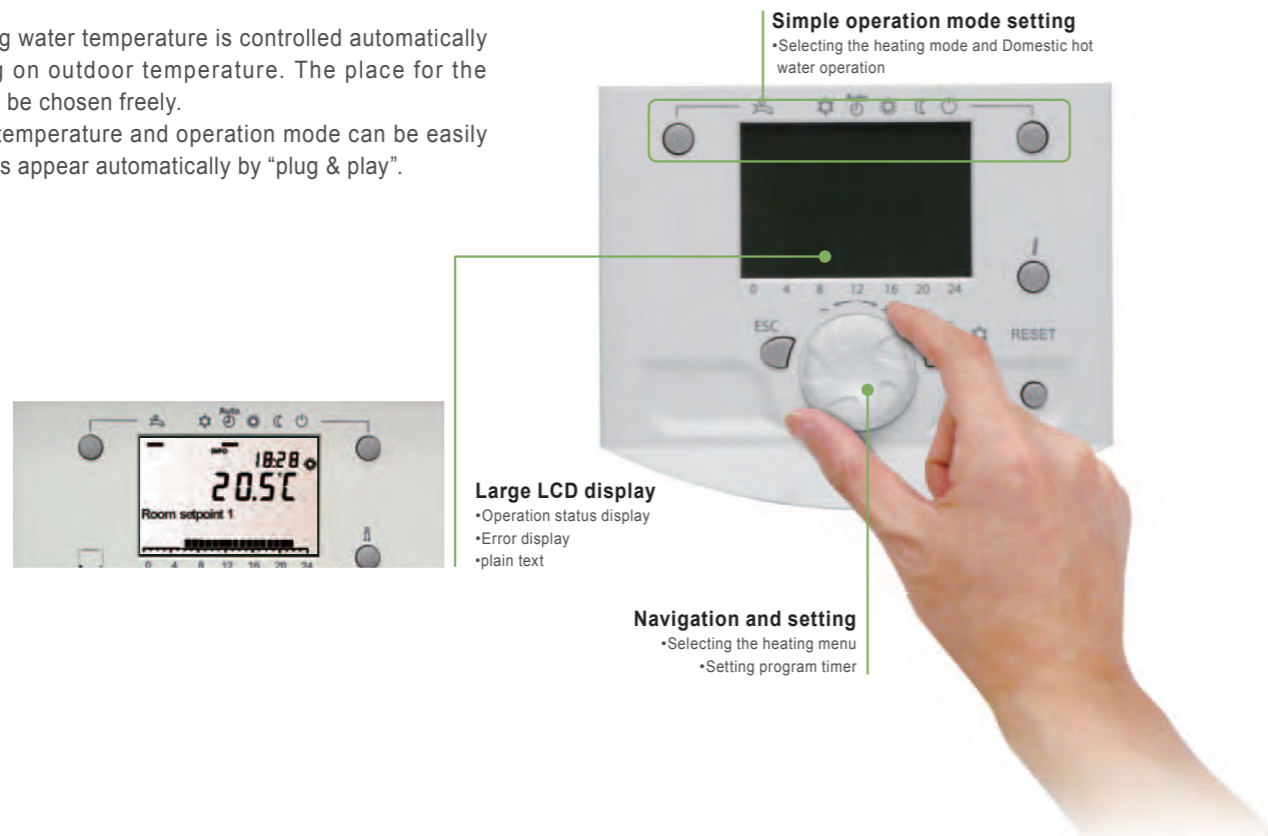
Improved operation range down to -20°C outdoor temperature

Down to **-20°C** Outdoor temperature



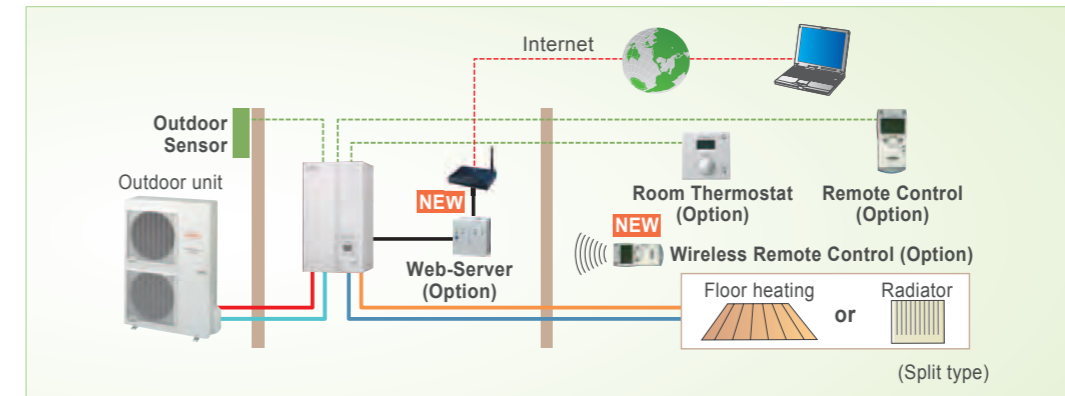
Smart & Comfort Control

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

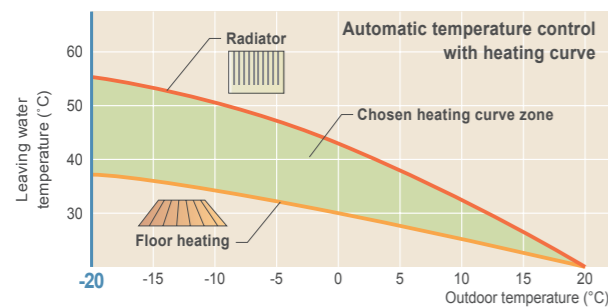
Various remote controls are available on your hand. Remote control is also available via Web. All kinds of life styles are supported.



Comfort Control

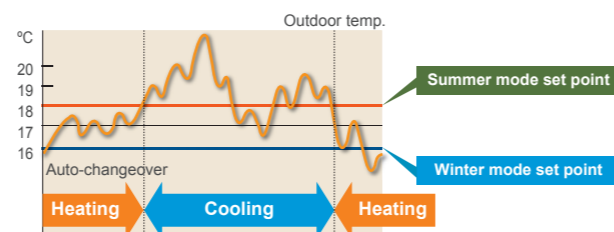
Automatic heating curve operation

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



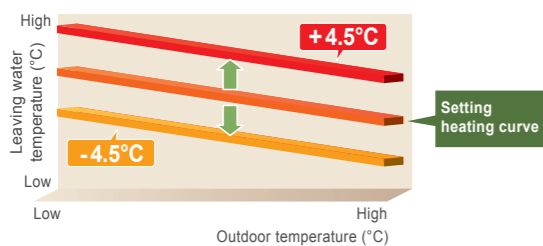
Auto-changeover

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.



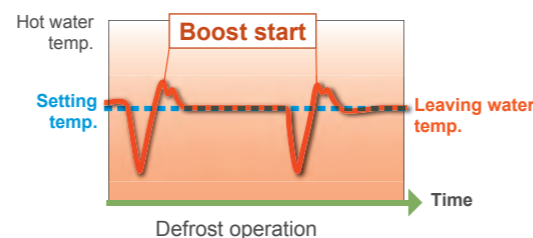
Heating curve off-set Adjust setting room temp.

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



Quick recovery from defrost operation

Maintaining the room temperature during defrost operation by boost start operation



Energy Saving

Programmable timer

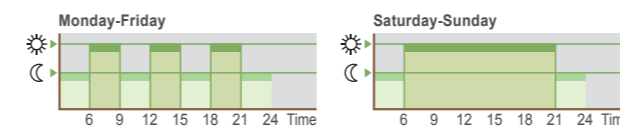
- The setting of timer operation can easily be adjusted.
- Changing the heating mode linked with time is possible.

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

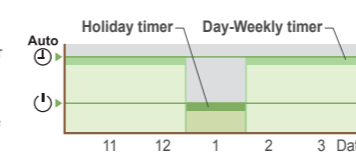
Day-Weekly timer setting

- 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

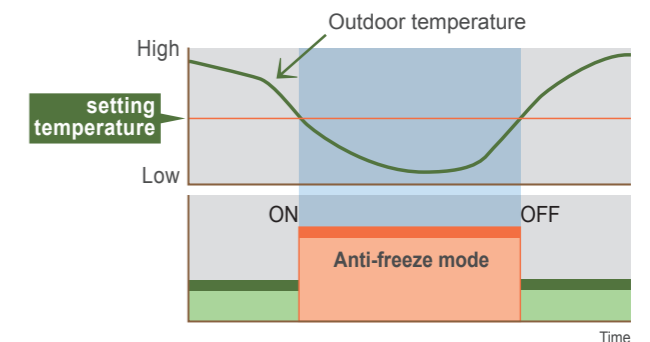
- The holiday timer can be set up for up to 8 periods
- If you are absent for a long time in the winter, freezing of room can be prevented.



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

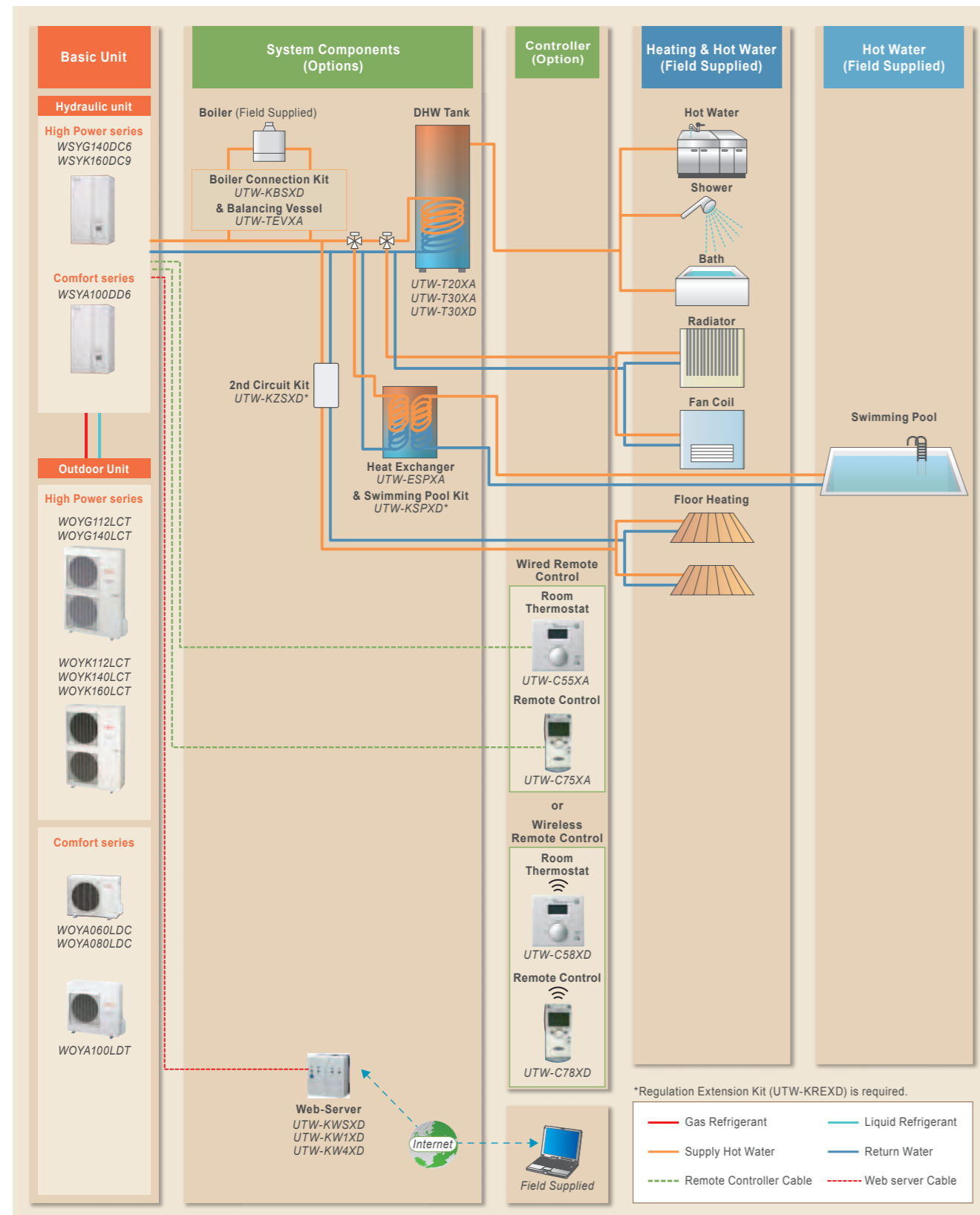
The growth of Legionella in DHW tank is suppressed and safe and clean hot water is supplied at all times.



Total solution concept for comfort inside your home

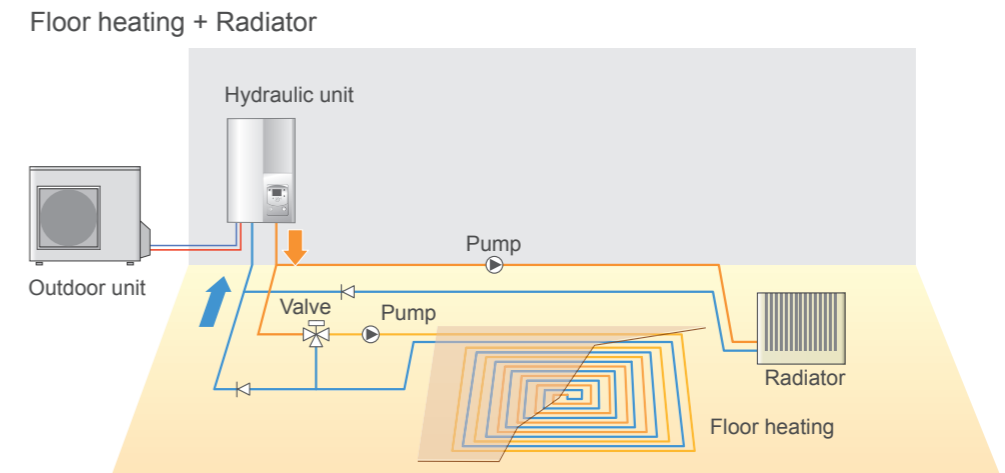
SPLIT TYPE

System configuration

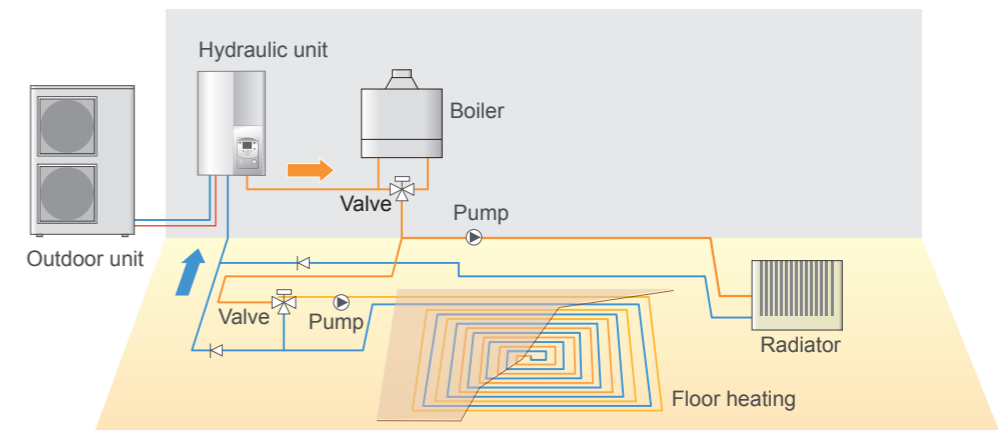


Split Case studies

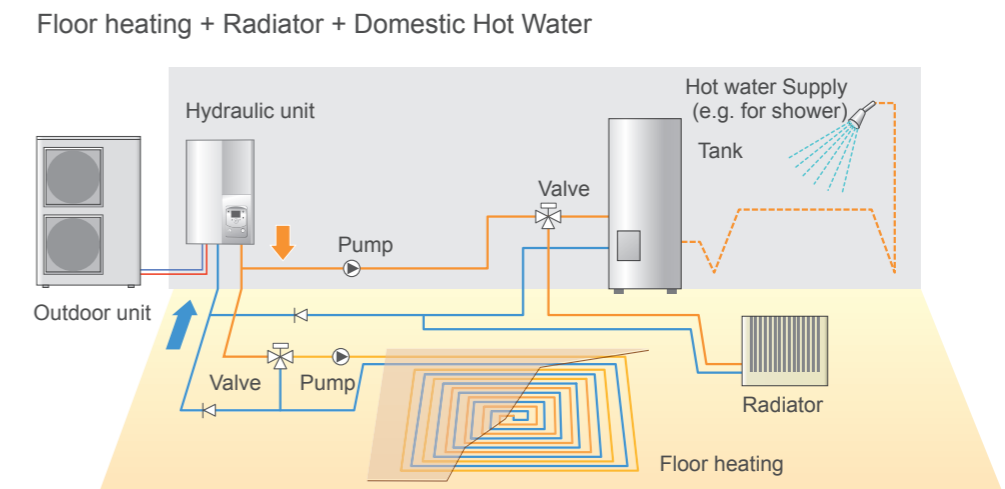
2 emitter simultaneous heating (Individual control)



Boiler connected to heating (Boiler + Heating)



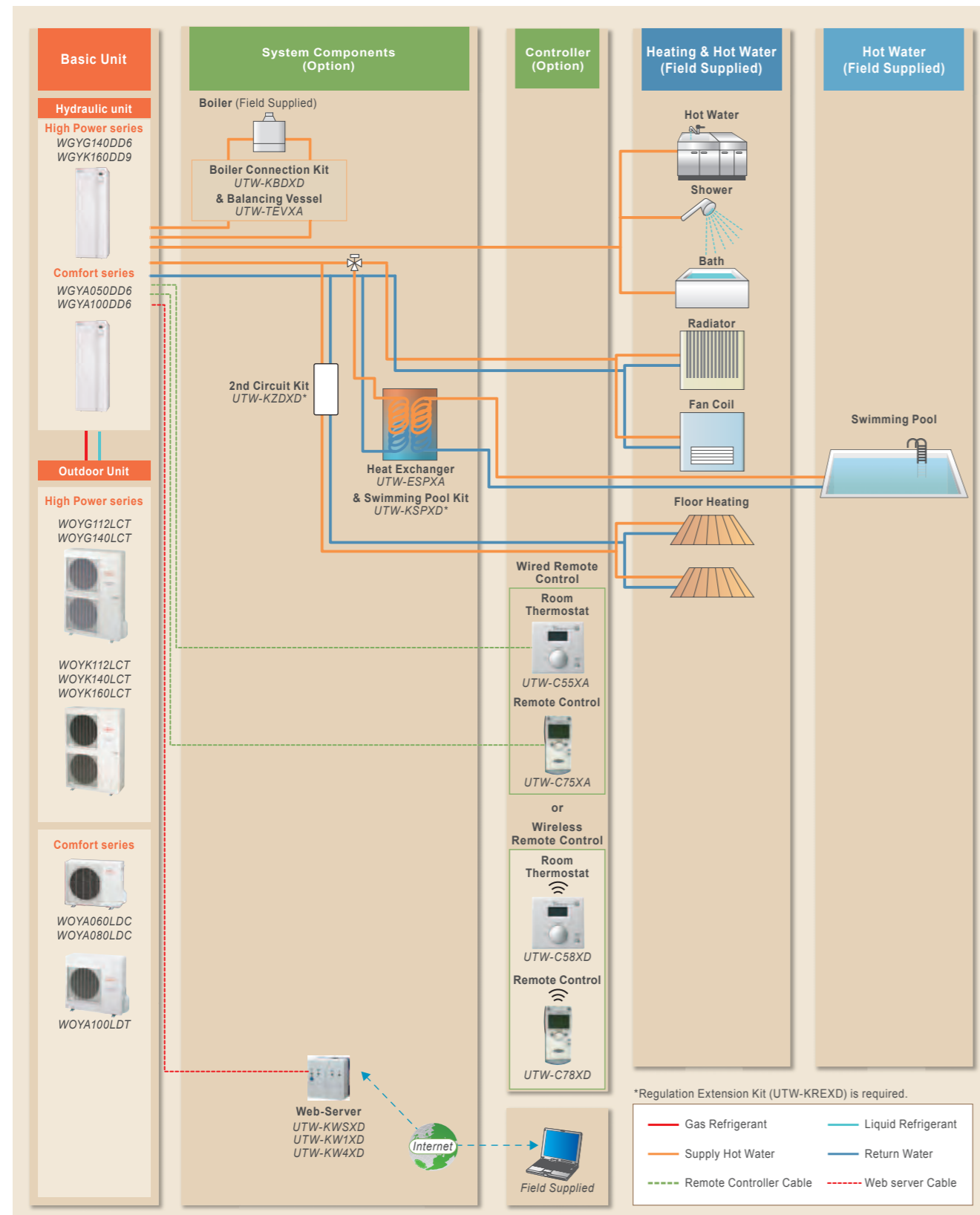
3 types of heat distribution



Total solution concept for comfort inside your home

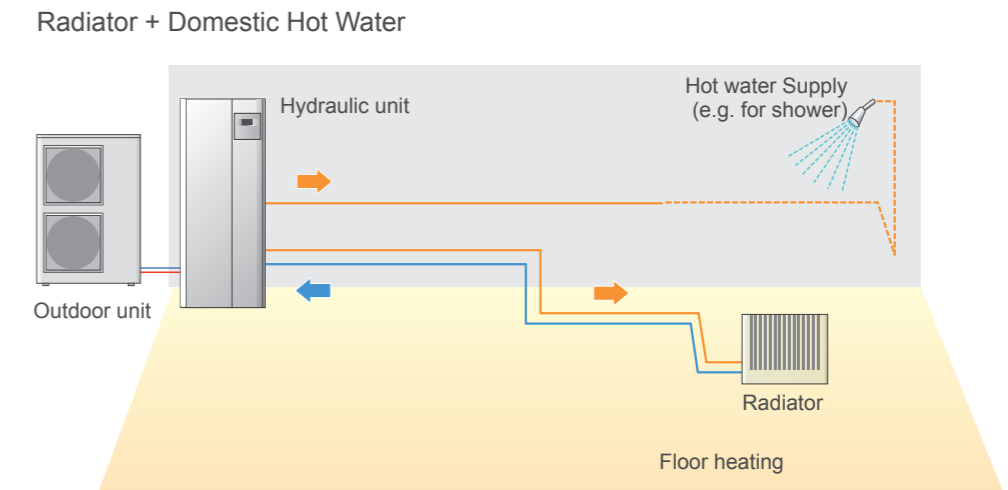
SPLIT DHW INTEGRATED TYPE

System configuration

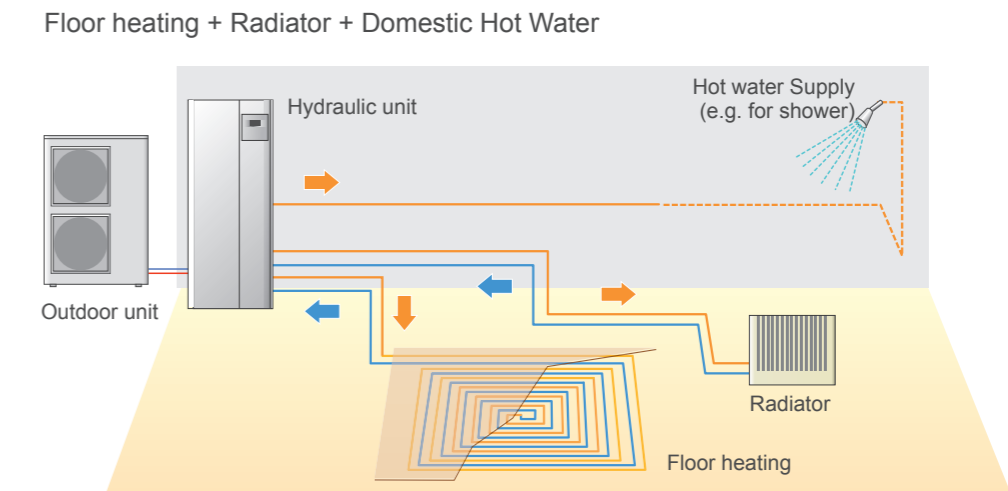


Split DHW integrated Case studies

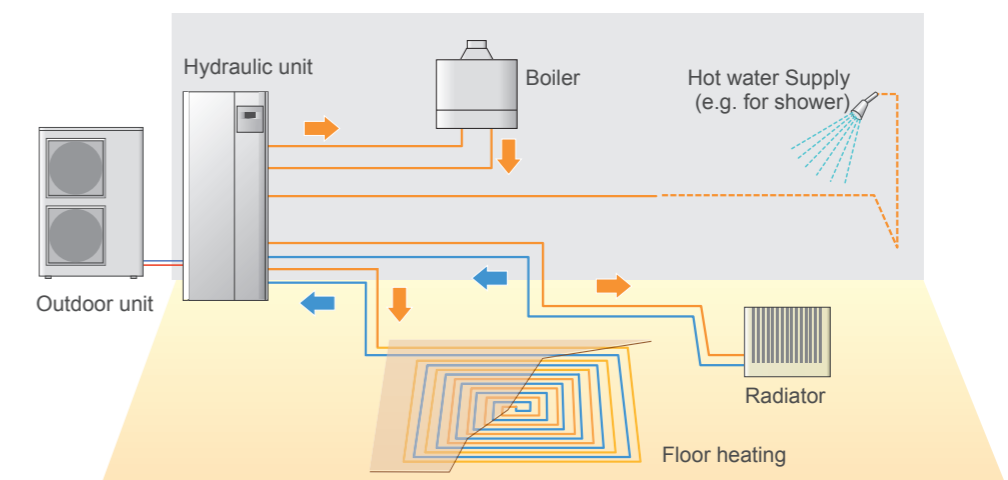
Single heating & Domestic Hot Water



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



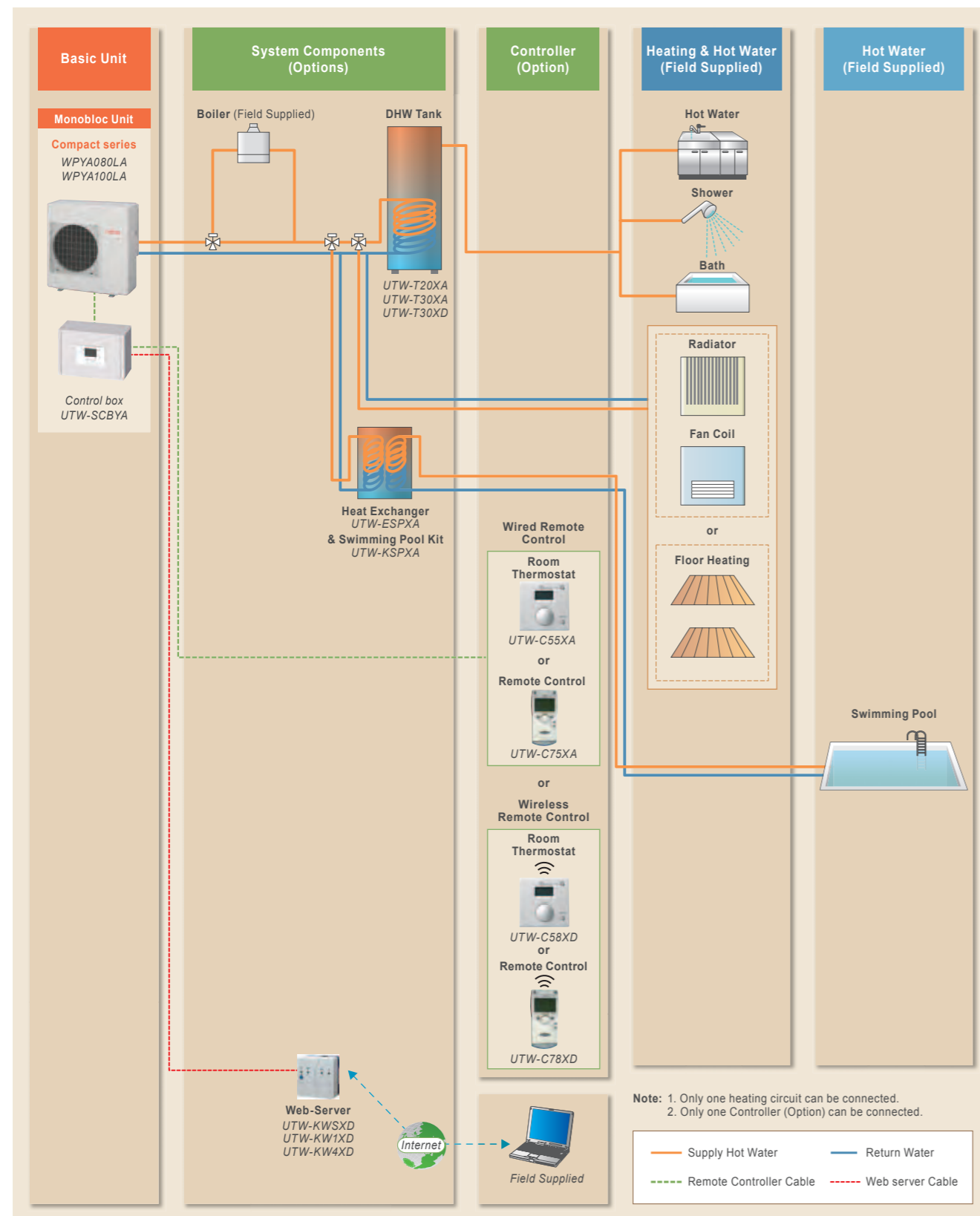
Boiler connected to heating (Boiler + Heating) & Domestic Hot Water



Total solution concept for comfort inside your home

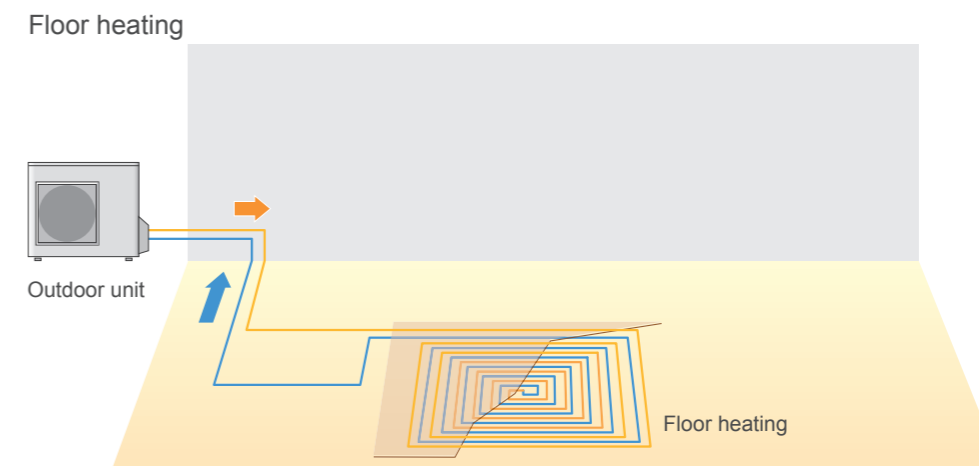
MONOBLOC TYPE

System configuration

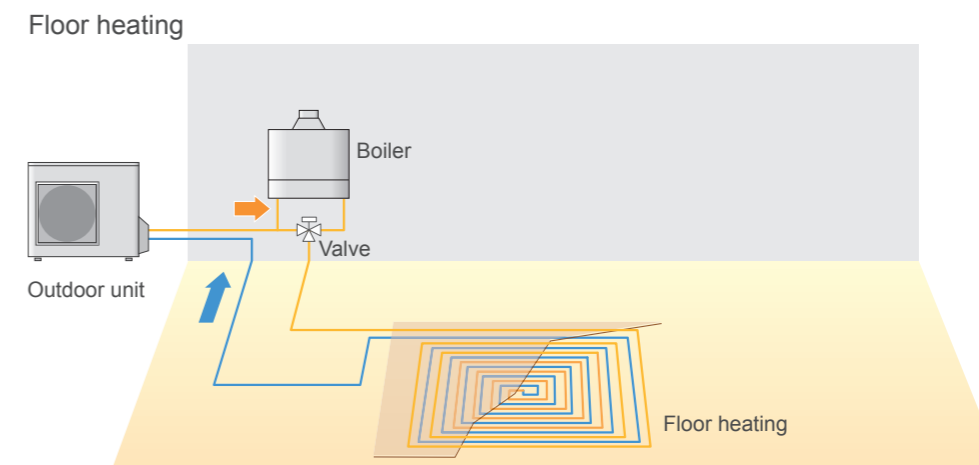


Monobloc Case studies

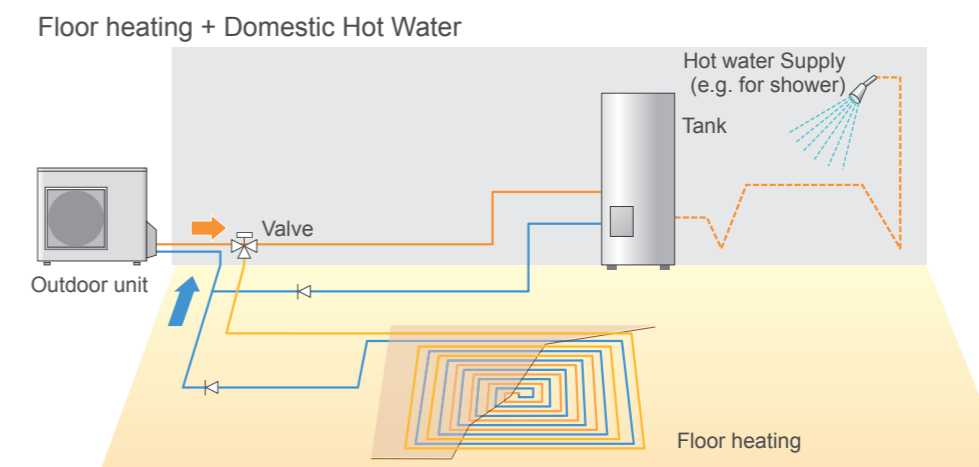
Single heating system



Boiler connected to heating (Boiler + Heating)



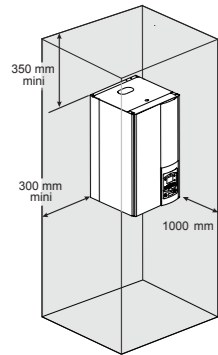
2 types of heat distribution



Installation Limitations

Equipment Installation

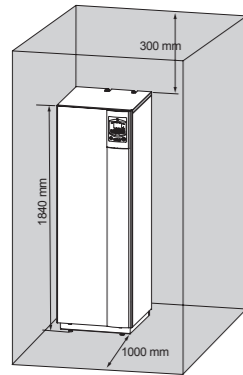
Split Type Hydraulic unit



(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



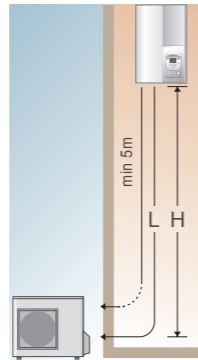
(mm)

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

Piping and Wiring

Piping

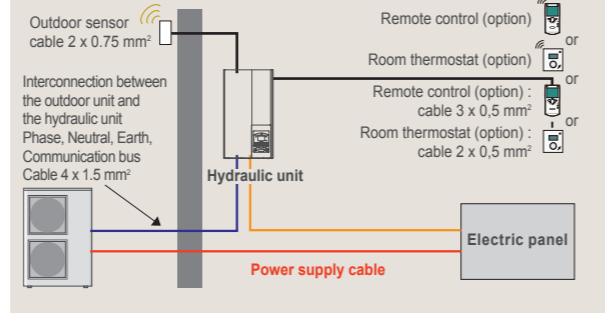
Split Type



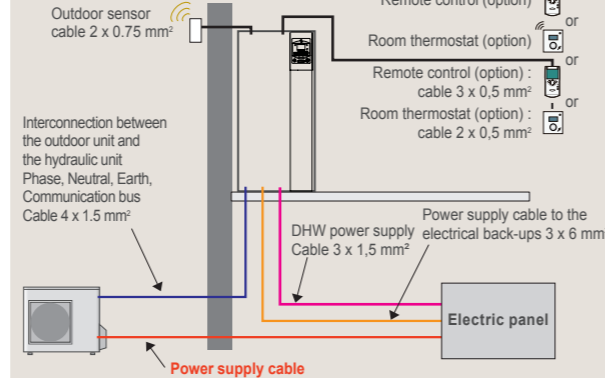
Series	Capacity range(kW)	H (m)	L (m)
Comfort	5	±15	5-20
	6		
	8		
High power	10		
	11		
	14		
	16		

Electrical wiring

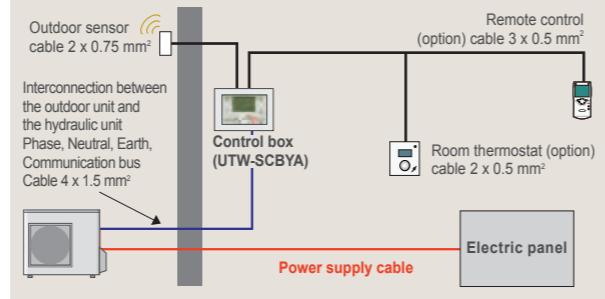
Split Type



Split DHW integrated Type



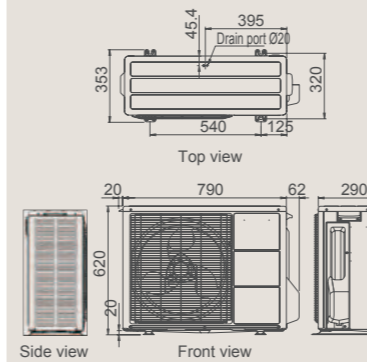
Monobloc Type



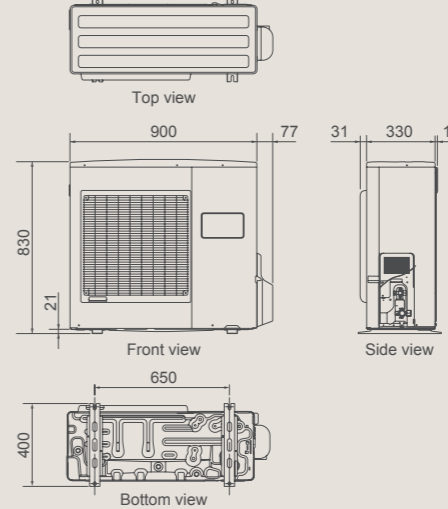
SPLIT TYPE

Outdoor Units Comfort series

WOYA060LDC / WOYA080LDC

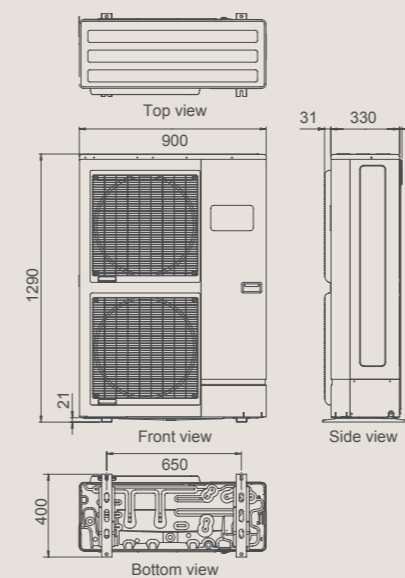


WOYA100LDT



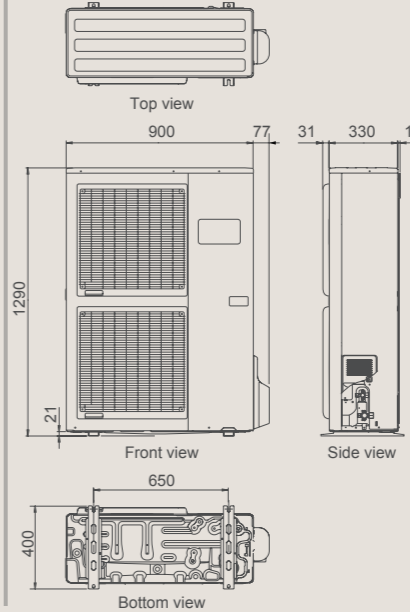
Outdoor Units High Power series

WOYK112LCT / WOYK140LCT / WOYK160LCT



Outdoor Units High Power series

WOYG112LCT / WOYG140LCT

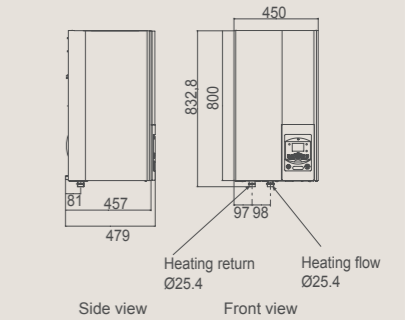


Hydraulic units Split type High Power series

WSYG140DC6 / WSYK160DC9

Hydraulic units Split type Comfort series

WSYA050DD6 / WSYA100DD6

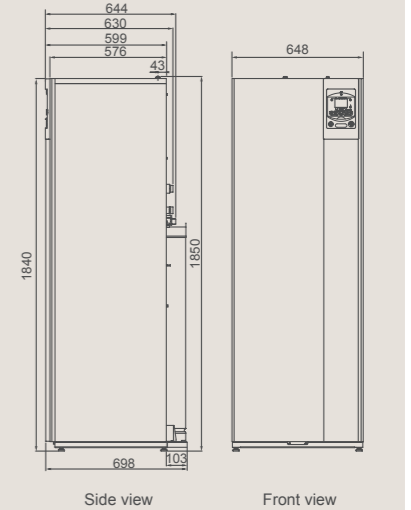


Hydraulic units Split DHW integrated type High Power series

WGYG140DD6 / WGYK160DD9

Hydraulic units Split DHW integrated type Comfort series

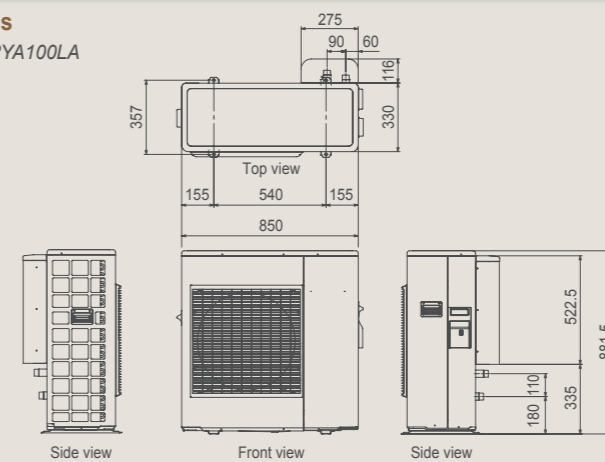
WGYA050DD6 / WGYA100DD6



MONOBLOC TYPE

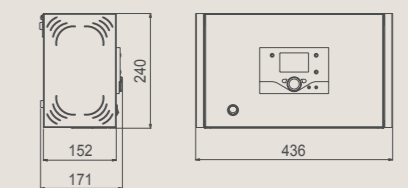
Compact series

WPYA080LA / WPYA100LA



Control Box

UTW-SCBYA



Unit : mm

Unit : mm

Optional Parts Compatibility

Product Name	Model Name	Split										Monobloc Compact		Split DHW integrated type									
		High Power					Comfort					1Ø		High Power					Comfort				
		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	—	—	—	—	—	—	—	—	—	●	●	—	—	—	—	—	—	—				
	UTW-KDWXD	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—	—	—			
DHW Tank	200 Liter 300 Liter	UTW-T20XA	●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—			
	300 Liter	UTW-T30XA	●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—			
		UTW-T30XD	●	●	●	●	●	●	●	●	●	●	—	—	—	—	—	—	—	—			
Circulating Pump	UTW-PHFXD	●	●	●	●	●	—	—	—	—	—	—	●	●	●	●	—	—	—				
Swimming Pool Kit	UTW-KSPXA	—	—	—	—	—	—	—	—	—	●	●	—	—	—	—	—	—	—				
	UTW-KSPXD	●	●	●	●	●	●	●	●	●	—	—	●	●	●	●	●	●	●				
Heat Exchanger for Swimming Pool Kit	UTW-ESPA	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
Cooling Kit	UTW-KCLXD	●	●	●	●	●	●	●	●	●	—	—	●	●	●	●	●	●	●				
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	●	●	●	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
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				
Service Tool Software	UTW-KPSXD	● 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

Type		Split type											
Series name		High Power series					Comfort series						
Capacity range (kW)		11		14			11		16				
+7°C / +35°C floor heating *1	Heating capacity	10.80		13.50			10.80		13.50				
	Input power	2.54		3.23			2.51		3.20				
	COP	4.25		4.18			4.30		4.22				
+2°C / +35°C floor heating *1	Heating capacity	10.77		12.00			10.77		13.00				
	Input power	3.44		3.87			3.40		4.15				
	COP	3.13		3.10			3.17		3.11				
-7°C / +35°C floor heating *1	Heating capacity	10.80		12.00			10.80		13.00				
	Input power	4.32		5.08			4.28		5.18				
	COP	2.50		2.36			2.52		2.51				
+7°C / +45°C radiators *1	Heating capacity	9.23		11.54			10.10		12.60				
	Input power	2.84		3.72			3.01		3.81				
	COP	3.25		3.10			3.35		3.30				
-7°C / +45°C radiators *1	Heating capacity	9.16		11.45			10.02		12.50				
	Input power	4.58		5.92			4.63		6.00				
	COP	2.00		1.93			2.16		2.08				
Backup heater	Capacity	6.0(3.0×2 pcs.)		6.0(3.0×2 pcs.)			9.0(3.0×3 pcs.)		9.0(3.0×3 pcs.)				
Hydraulic unit	Model name	WSYG140DC6					WSYK160DC9						
Power source		1Ø 230V, 50Hz					3Ø 400V, 50Hz						
Water circulation	Rated	31.2		39.0			31.2		39.0				
	Min / Max	—		25.0 / 50.0			—		43.8				
Dimensions H×W×D	mm	800 × 450 × 457					800 × 450 × 457						
Weight (Net)	kg	42					42						
Buffer tank capacity	L	16					16						
Expansion vessel capacity	L	8					8						
Leaving water temperature range	°C	8~60					8~55						
Water pipe connection diameter	Flow / Return	Ø25.4 / Ø25.4					Ø25.4 / Ø25.4						
Outdoor unit	Model name	WOYG112LCT	WOYG140LCT	WOYK112LCT	WOYK140LCT	WOYK160LCT	WOYA060LDC			WOYA080LDC	WOYA100LDT		
Power source		1Ø 230V, 50Hz			3Ø 400V, 50Hz			1Ø 230V, 50Hz					
Current	Rated	11.4		14.2			3.7		4.8			5.5	
	Max	22.0		25.0			8.5		9.5			10.5	
Noise level (Sound pressure)	dB(A)	55 ¹²		56 ¹²			53 ¹²		55 ¹²			56 ¹²	
Dimensions H×W×D	mm	1290 × 900 × 330					620 × 790 × 290						
Weight (Net)	kg	92					99			41		42	
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	Ø9.52			Ø15.88			Ø6.35				
	Gas	Ø15.88			Ø12.70			Ø15.88					
Length	Min / Max	5 / 20					5 / 20						
	Length (chargeless)	15					15						
Height difference	Max	15					15						
		—					—						
Operation range	Heating	-25~35					-20 ~ 35						

Type Monobloc type Compact series

Type		Monobloc type Compact series	
Series name			
Capacity range (kW)		8 10	
+7°C / +35°C floor heating *1	Heating capacity	8.00	
	Input power	1.78	
	COP	4.50	
+2°C / +35°C floor heating *1	Heating capacity	7.40	
	Input power	2.73	
	COP	2.71	
-7°C / +35°C floor heating *1	Heating capacity	7.10	
	Input power	2.93	
	COP	2.42	
+7°C / +45°C radiators *1	Heating capacity	7.80	
	Input power	2.23	
	COP	3.50	
-7°C / +45°C radiators *1	Heating capacity	6.50	
	Input power	2.98	
	COP	2.18	
Monobloc unit	Model name	WPYA080LA	WPYA100LA
Power source		1Ø 230V, 50Hz	
Water circulation	Rated	22.9	
	Min / Max	10.0 / 30.0	
Current	Rated	8.30	
		10.20	
Noise level (Sound pressure)	dB(A)	51 ¹²	
Dimensions H×W×D	mm	881.5 × 850 × 330	
Weight (Net)	kg	82	
Expansion vessel capacity	L	8	
Water pipe connection diameter	Flow / Return	Ø25.4 / Ø25.4	
Refrigerant		R410A	
Refrigerant amount	kg	1.5	
Leaving water temperature range	°C	8 ~ 55	
Operation range	Heating	-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.