

FUJITSU GENERAL LIMITED

WATERSTAGE™ Overview





30 Models

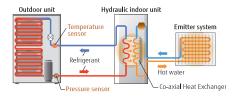
Fujitsu General WATERSTAGE™ Heat Pumps are very efficient, regenerative and varied central heating systems, which absorb the energy mainly from the air.



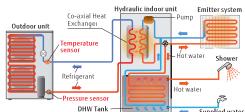
Optimization of refrigerant cycle operation

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

Split type

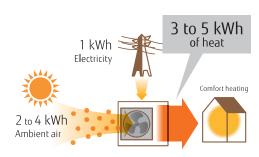


Split DHW Integrated type



What's a Heat Pump?

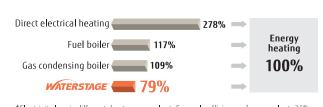
Absorbing free energy from the atmosphere. Heat Pump system requires only 1 kW of electricity to generate 3 to 5 kW thermal energy.



Primary Energy Usage Reduced Drastically!

Proportion of primary energy into heating energy of 100%

Primary Energy Consumption*



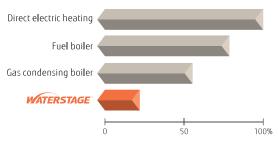
 ${\rm *Electricity\,loss\,is\,different\,due\,to\,power\,plant.\,Example\,efficiency\,of\,power\,plant:\,36\%}$

Benefits



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

Average annual CO2 emissions

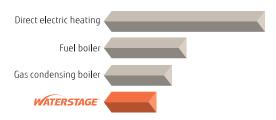


*Calculations based on data provided by European Program-2001` for EU 27 Fuel boiler efficiency: 89%, Gas boiler efficiency: 93%

LOW Running Cost

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

Average annual running cost



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

Clean and Healthy

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





Easy Installation and Maintenance

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





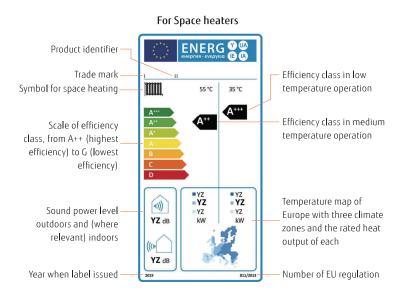


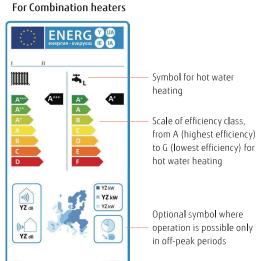
Well structured Hydraulic indoor unit.

Sophisticated arrangement of hydraulic units, allows easy piping and maintenance



Energy Efficiency standard Product labels





The Ecodesign Directive Lot 1 Regulation 813/2013

New Ecodesign directive defines a regulatory framework for improving the environmental performance of energy-related products (ErP) through design.

From 26 September 2015, the Ecodesign Directive will apply to space heaters(including heat pumps and fossil fuel boilers), combination heaters(for both space and water heating), water heaters and water storage tanks.

All these products will have to meet minimum requirements for energy efficiency*1 and maximum sound power levels. The minimum energy efficiency level will be raised from 26 September 2017 and maximum sound power level will be lowered on 26 September 2018.

*1: Energy efficiency is represented by seasonal space heating efficiency (η s). This value is based upon the seasonal coefficient of performance(SCOP).

The Energy Labelling Directive (EU) No. 811/213

The energy label aims to help consumers make direct comparisons of energy use, as well as product specific features. On all labels, product identifier, efficiency class, sound power levels and heat output must be displayed. For heat generators, the scale runs from A+++ to D. There are two different product labels for space heaters and combination heaters.

Energy efficiency class Except low temp HP 55°C 35°C A" $\eta_S \ge 150$ $\eta_S \ge 175$ A" $125 \le \eta_S < 150$ $150 \le \eta_S < 175$ A $98 \le \eta_S < 125$ $123 \le \eta_S < 150$ A $90 \le \eta_S < 98$ $115 \le \eta_S < 123$ B $82 \le \eta_S < 90$ $107 \le \eta_S < 115$

Seasonal space heating

EHPA Quality Label



Fujitsu General's WATERSTAGE*2 have obtained the EHPA Quality Label*3 by tests according to the international Standards EN14511 and EN17025. The EHPA Quality Label*3 is a label that shows

the end-consumer a quality heat pump unit on the market.

*2: On**l**y High Power 3 phase

*3: Check the validity of label at www.ehpa.org/quality/quality-label/

SG-Ready Label



SG-Ready is a defined standard by BWP*4, which makes it possible that the device can be integrated into a smart grid. Heat pumps, which

are equipped with the SG-Ready Label, can receive signals from the power grid (and e.g. also from PV systems) about the available (unused renewable) energy (from wind, sun & water). Fujitsu General provides the SG-Ready compatibility to all new Heat Pumps Series.

*4: BWP = the Federal German Heat Pump Association

The CEN Heat Pump KEYMARK



 $75 \le \eta s < 82$ $36 \le \eta s < 75$

 $34 \le \eta s < 36$

 $30 \le ns < 34$

The Heat Pump KEYMARK is a full certificate supporting the quality of heat pumps in the European market.

 $100 \le \eta s < 107$

 $61 \le \eta s < 100$

 $59 \le \eta s < 61$

55 ≤ ns < 59

ns < 55

The Heat Pump KEYMARK is a voluntary, independent, European certification mark (ISO type 5 certification) for all heat pumps, combination heat pumps

and hot water heaters (as covered by Ecodesign, EU Regulation 813/2013 and 814/2013). Fujitsu General's WATERSTAGE*5 have obtained the KEYMARK*6.

*5:Only R32 comfort model

*6:Check the validity of mark at www.heatpumpkeymark.com/about/

Home Heating & Domestic Hot Water

Wide range lineup suited for regional characteristics, family structure, and application. We provide various products to meet your needs from High Power via heating-centered series to reasonably-priced compact series.





High leaving water temperature

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

For Room heating & domestic hot water

Outdoor unit and hydraulic indoor unit can be installed freely, so installation is easy. Since hydraulic indoor unit is installed inside a house, freezing of circulated water can be prevented. A larger heating capacity can be performed flexibly by using more units in cascade connection.^{*1}

*1: For High Power only







Appearance-oriented compact outdoor unit

Split type Comfort Series

For Comfort Series, optimized flow temperature control is achieved by DC inverter technology.

*2: Outdoor Unit: WOYA060LFCA/WOYA080LFCA



DHW tank (option) can be used to supply hot water by connecting it to the system.

+ Boiler

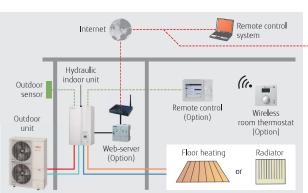
By combining existing boiler, powerful heating can be achieved even at low outdoor temperature.

*Optional parts necessary



Space is saved drastically due to built-in DHW tank.

Existing boiler can be replaced easily. Higher heating capacities can be achieved as there is the flexibility to use more units in a cascade type connection.



Smart control

User's needs are supported by offering a variety of controls, such as individual control and remote control options.



High Efficiency Technology

Twin Rotary Compressor

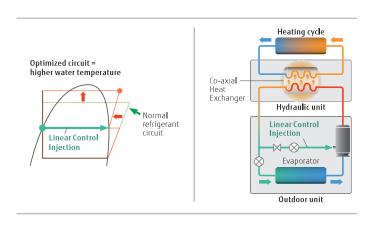


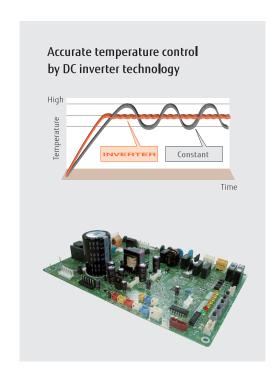
Linear Control Injection Port

For Outdoor Unit

Twin Rotary Compressor with Linear Control Injection Port

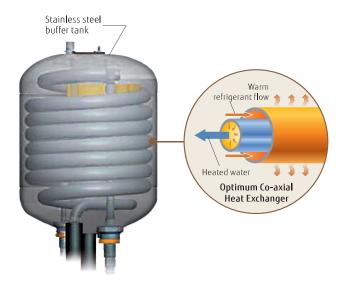
It realizes the high condensing temperature without overheating discharge gas temperature by Linear Control Injection process during compression. Therefore, the condensing temperature rises up higher than normal circuit. A higher hot water temperature is realized by controlling the injection amount according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







High Durability Co-axial Heat Exchanger



For Hydraulic Indoor Unit

Stainless steel buffer tank

Heat exchange amount is 25% higher than previous model. Energy saving performance is improved.

- Corrosion protected
- No flow switch necessary
- Anti-freeze-protection is unnecessary

Class A++ Pump

Energy saving pump with constant volume or pressure adjustment function.











WATERSTAGE™ Lineup

					C-1	h boom o			
T	ype	Super High	Power Series	High	Spil Power Series	t type	Comfo	rt Series	
ir	ydraulic ndoor nit	of a				NEW R32		adva.	
	utdoor nit		ngino			NEW R32	***		Notes - Section 1997
	apacity ange	15/16	5/17 kW	11/14 kW	11/14/16 kW	5/6 kW	8 kW	5/6/8 kW	10 kW
	ystem utline	Office the following of the control circuit Office the control control circuit Cooling operation arangles Operation rarangles Operation rarangles	er supply outdoor ting system or heating, I others.* DHW in one ectric heater for ded. dependent ts.* ation is	even at -2 temperat Different can be us Like under radiators Heating a system.* Additional backup p Up to two control ci	heating system led. erfloor heating, and others.* and DHW in one al electric heater for rovided. o independent rcuits.* connection up to lems.* peration is * n range is	 55°C hot wat even at -10°C temperature Heating and system.* Additional el backup provi Up to two incontrol circui Cooling oper possible.* Operation ra -25 to 35°C. 	DHW in one ectric heater for ded. dependent ts.*	 55°C hot wate even at -10°C temperature Different hea can be used. Like underfloor radiators and Heating and system.* Additional elebackup provide Up to two indicontrol circuit Cooling operations possible.* Operation raries 25 to 35°C. 	outdoor ting system or heating, others.* DHW in one ectric heater for ded. lependent is.* ation is
	ower	Single Phase, 230 V/50 Hz	3 Phase, 400 V/50 Hz	Single Phase, 230 V/50 Hz	3 Phase, 400 V/50 Hz	Single Phase	e, 230 V/50 Hz	Single Phase	, 230 V/50 Hz
	5 kW					WSYA(WOYA	D50ML3 060KLT	WSYA0 WOYA0	50DG6 60LFCA
	6 kW					WOYA	080ML3 6	WOYAO	
	8 kW						080ML3 &	WOYA0	
<u>(a</u>	10 kW			MCVC1/ODCC	WCVVI CODGO A			WSYAT WOYA1	00DG6 00LFTA
Capacity	11 kW			WSYG140DG6 WOYG112LHT WSYG140DG6	WSYK160DG9 WOYK112LCTA WSYK160DG9				
	14 kW		WSYK170DJ9	WOYG140LCTA	WSYK160DG9 WOYK140LCTA				
	15 kW		WOYK150LJL		MZAK1euuco				
	16 kW	WOYG160LJL	WSVK170DIO		WSYK160DG9 WOYK160LCTA				
	17 kW		WSYK170DJ9 WOYK170LJL						





			Split DHW In	tegrated type			
Super High	Power Series	High	Power Series		Comfo	rt Series	
			index and a second seco	NEW R32		Adva	
	- day			NEV R32			-
15/16	5/17 kW	11/14 kW	11/14/16 kW	5/6 kW	8 kW	5/6/8 kW	10 kW
 60°C hot water -20°C outdoor t 55°C hot water -22°C outdoor t Different heating used. Like under adiators and control of the second of the seco	emperature supply even at emperature ng system can be erfloor heating, thers.* HW space saving c indoor unit. tric heater for id. pendent control	-20°C outdo • Different h used. Like radiators a • Heating ar in one hyde • Additional backup pro • Up to two i circuits.*	nd DHW space saving raulic indoor unit. electric heater for vided. ndependent control eration is possible.*	circuits.*	temperature OHW in one ctric heater for ed. ependent control tion is possible.*	 55°C hot water: -10°C outdoor to Different heating can be used. Lil heating, radiato Heating and Dh saving in one hunit. Additional electibackup provide Up to two indepicircuits.* Cooling operati Operation rang -25 to 35°C. 	emperature ng system ke underfloor ors and others.* HW space ydraulic indoor tric heater for d. oendent control on is possible.*
Single Phase, 230 V/50 Hz	3 Phase, 400 V/50 Hz	Single Phase, 230 V/50 Hz	3 Phase, 400 V/50 Hz	Sing l e Phase	e, 230 V/50 Hz	Single Phase,	, 230 V/50 Hz
					050ML3 A060KLT	WGYA0 WOYA0	
				WGYA WOYA	.080ML3 A060KLT	WGYA1 WOYA0	
					080ML3 A080KLT	WGYA1 WOYA08	
						WGYA1 WOYA1	
		WGYG140DG6 WOYG112LHT	WGYK160DG9 WOYK112LCTA				
		WGYG140DG6 WOYG140LCTA	WGYK160DG9 WOYK140LCTA				
	WGYK170DJ9 WOYK150LJL						
WGYG160DJ6 WOYG160LJL			WGYK160DG9 WOYK160LCTA				
	WGYK170DJ9 WOYK170LJ						







High Leaving Water Temperature

Maximum leaving water temperature is 55°C without backup heater. Hot water supply temperature can be maintained even at -10°C outdoor temperature.

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



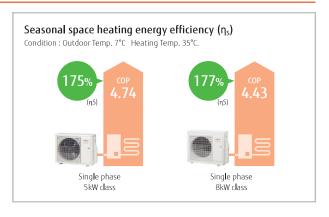
High COP

Waterstage Air to water heat pumps work much more efficient and save energy compared to traditional heating system.

Energy efficiency class



^{*}Temperature application : Heating Temp. 35°C.







Hydraulic indoor unit: WSYA050ML3 / WSYA080ML3 Outdoor unit: WOYA060KLT / WOYA080KLT



Hydraulic indoor unit Sing**l**e phase



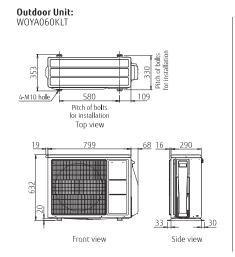
Outdoor unit Sing**l**e phase 5/6kW

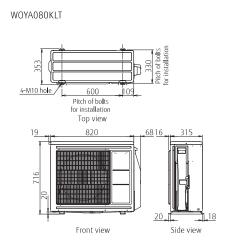


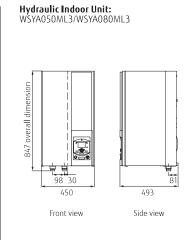
Outdoor unit Sing**l**e phase 8kW

Specifications

Model Name		Hydraulic indoor unit			050ML3		180ML3		080ML3
wodel name		Outdoor unit		WOYA	.060KLT	WOYA	060KLT	WOYA	080KLT
Capacity range					5		6		8
		Heating capacity	kW	4	.50	5.	50	7.	50
7°C/35°C floor heati	ng *1	Input power	T KW F	0.	949	1.	18	1.	69
	,	COP		4	.74	4.	65	4.	.43
		Heating capacity	1111	4	.50	5.	30	6.	30
2°C/35°C floor heati	na *1	Input power	⊢ kW ├	1	.33	1.	65	1.	96
	,	COP		3	.39	3.	22	3.	.21
		Heating capacity			.40		00		.70
-7°C/35°C floor heat	ina*1	Input power	⊢ kW ├		.59		90		.13
	9	COP			.76		63		68
Space heating cha	racteristics*2	1 441							
Temperature applic			°C T	55	35	55	35	55	35
Energy efficiency cl				A++	A+++	A++	A+++	A++	A+++
Rated heat output(kW	5	5	5	6	6	7
	iting energy efficiency	(n _s)	%	125	175	125	175	128	177
Annual energy cons		. 101	kWh	3,035	2,322	3,411	2,594	3,903	2,982
		uit		40	-	40	-	40	-
5ound power level*	Hydraulic indoor ur Outdoor unit		- dB(A) ├	57	-	57	_	60	_
Hydraulic indoor u									
Power source		,				Sing l e phase	230 V 50 Hz		
Dimensions H×W×D)		mm	847 x 4	50 x 493		50 x 493	847 x 4	50 x 493
Weight (Net)			kg		41		÷1		¥1
Water circulation		Min/Max	L/min		/22.0		22.0	10.0	/22.0
Buffer tank capacity	V		L		16		6	1	16
Expansion vessel ca			L		8		8		8
Leaving water temp		Max	0°C		- 55		- i5		55
Water pipe connect		Flow/Return	mm	Ø 25.4	4/Ø 25.4	0/25.4	/Ø 25.4	0/25.4	/Ø 25.4
Backup heater	1011 0101110001	Capacity	kW		3.0		.0		.0
Outdoor unit speci	fication	1/				_	·-		
Power source						Sing l e phase	230 V 50 Hz		
Current		Max	I A	1	3.0		3.0	18	3.0
Dimensions H × W >	· D		mm		'99 x 290		99 x 290		20 x 315
Weight (Net)			kg		39		39		2
		Type (Global Warming			(675)		(675)		(675)
Refrigerant		Charge	kg		.97		97		02
Additional refrigera	int charge amount	, ,	g/m		25		25		25
	1	Liquid	1 1		.35		35		.35
	Diameter	Gas	│ mm		2.70		.70		.70
Connection pipe	Length	Min/Max	m		/30		30		30
p.p.	Length(Pre-charge)		m		15		5		15
	Height difference	Max	m		20		20		20
Operation range		Heating	°C			-20 to 35		-20 to 35	







^{*1:}The values of heating capacity/input power/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 values and these values.
*2:All information of ErP can be available for downloaded from www.fujitsu-general.com/global/support/downloads/search/

^{*3:}The values of sound power level are besed on mesurement of EN12102 standard under conditions of EN14825 standard.

Split Type





High Leaving Water Temperature

High leaving water temperature of 60°C is kept even when outdoor temperature is down to -20°C without using backup heaters. And it's possible to supply 55°C at -22°C outdoor temperature without backup heater.

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





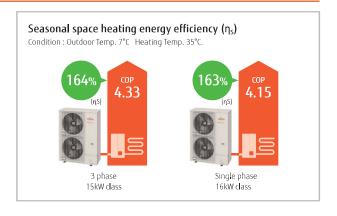
Super High Power Series

High COP

Waterstage Air to water heat pumps work much more efficient and save energy compared to traditional heating system.

> Energy efficiency class





Extended Operation Range down to -25°C

Improved operation range down to -25°C outdoor temperature





Hydraulic indoor unit: WSYG160DJ6 / [3 phase] WSYK170DJ9 Outdoor unit: WOYG160LJL [3 phase] WOYK150LJL / WOYK170LJL



Hydraulic indoor unit Single phase/ 3 phase



Outdoor unit Single phase 16kW 3 phase 15/17kW

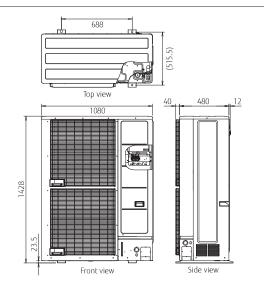
Specifications

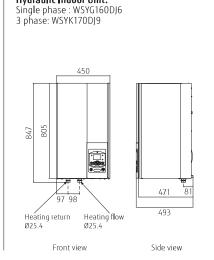
Model Name		Hydraulic indoor unit		WSYG1			170DJ9		170DJ9
		Outdoor unit		WOYG			150LJL	WOYK	
Capacity range					6		15		7
		Heating capacity	l kw	16.			.00	17.	
7°C/35°C floor heati	ng *¹	Input power	I KVV		36		46		10
		COP		4.			33		.15
		Heating capacity	- kw -	13.		13	.20		.50
2°C/35°C floor heati	ng *¹	Input power	NVV	4.			06	4.	
		COP		3.			25		16
		Heating capacity	l kw		50		.20		.00
-7°C/35°C floor heat	ing*¹	Input power	NVV	5.			55		32
		COP		2.	75	2.	90	2.	82
Space heating chai									
Temperature app l ic			°C	55	35	55	35	55	35
Energy efficiency c l				A++	A++	A++	A++	A++	A++
Rated heat output(kW	14	16	16	17	17	18
seasonal space hea	ting energy efficienc	y(η _s)	%	125	163	130	164	130	161
Annual energy cons	umption		kWh	8,757	8,014	9,915	8,606	10,232	9,059
Sound power level	Hydraulic indoor u	nit	JD/A)	45	45	45	45	45	45
sound power level	Outdoor unit		dB(A)	67	66	67	66	67	68
Hydraulic indoor ui	nit Specification								
Power source				Sing l e phase	, 230 V 50 Hz		3 phase, 4	00 V 50 Hz	
Dimensions H×W×D	1		mm	805 × 45	50 × 471		805 × 45	50 × 471	
Weight (Net)			kg	52	.5		52	2.5	
Water circulation		Min/Max	L/min	26.4	/57.8	24.0	/54.2	27.3	/61.4
Buffer tank capacity	/	•	L	2	5		2	5	
Expansion vessel ca	apacity		L	1	0		1	0	
eaving water temp	erature range	Max	°C	6	0		6	0	
Water pipe connect		Flow/Return	mm	Ø 25.4	Ø 25.4		Ø 25.4	/Ø 25.4	
Backup heater		Capacity	kW	6.0(3.0k'	W×2pcs.)		9.0(3.0k)	W×3pcs.)	
Outdoor unit speci	fication			`			· · · · · · · · · · · · · · · · · · ·		
Power source				Sing l e phase	, 230 V 50 Hz		3 phase, 4	00 V 50 Hz	
Current		Max	A	28	00	14	4.0	14	4.0
Dimensions H × W >	: D		mm	1,428 × 1,	080 × 480	1,428 × 1	,080 ×480	1,428 × 1	,080 ×480
Weight (Net)			kg	13	37	1	38	1.	38
		Type (Global Warming F				R410A	(2,088)		
Refrigerant		Charge	kg	3,	30	3.	80	3.	80
Additional refrigera	nt charge amount	. ,	g/m	5	0		50	5	0
.,,		Liquid	1 1	Ø9	.52	Ø	9.52	ØS	9.52
	Diameter	Gas	1 mm	Ø 15			5.88		5.88
onnection pipe	Length	Min/Max	m	5/			30	5/	
	Length(Pre-charge		m	1			15		5
	Height difference	Max	m				ınit:Upper/Lower)		
Operation range	1	Heating	°C	-25 t	o 2E		to 35	-25 1	to 25

^{*1:}The values of heating capacity/input power/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 values and these values.
*2:All information of ErP can be available for downloaded from www.fujitsu-general.com/global/support/downloads/search/

Dimensions

Outdoor Unit:Single phase: WOYG160LJL
3 phase: WOYK150LJL/WOYK170LJL





Hydraulic Indoor Unit:







High Leaving Water Temperature

High leaving water temperature of 60°C is kept even when outdoor temperature is down to -20°C without using backup heaters.

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



High Power Series

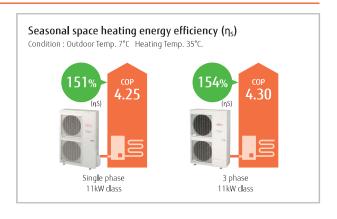
High COP

Waterstage Air to water heat pumps work much more efficient and save energy compared to traditional heating system.

Energy efficiency class



*Temperature application : Heating Temp. 35°C.







Hydraulic indoor unit: WSYG140DG6 / [3 phase] WSYK160DG9 Outdoor unit: WOYG112LHT / WOYG140LCTA [3 phase] WOYK112LCTA/WOYK140LCTA/ **WOYK160LCTA**



Hydraulic indoor unit Single phase/





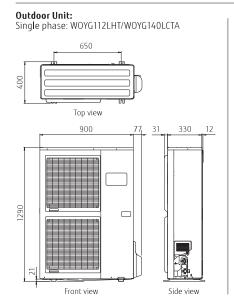


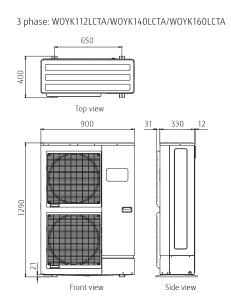
Outdoor unit 3 phase 11/14/16 kW

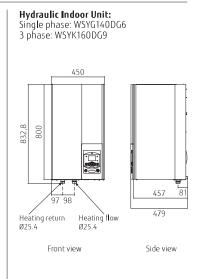
Specifications

Model Name		Hydraulic indoor unit		WSYG1	40DG6	WSYG1		WSYK1	60DG9		60DG9	WSYK1	
Woder Name		Outdoor unit		WOYG	112LHT	WOYG1	40LCTA	WOYK1	12LCTA	WOYK1	40LCTA	WOYK1	60LCTA
Capacity range							4	1			4		6
	C floor heating *1 Heating capaci Input power COP Heating capaci Input power	Heating capacity	kW		10.80 13.50 2.54 3.23		10.			.50	15		
7°C/35°C floor heati	ing *1		T KW	2.	54			2.	51	3.	20	3.70	
		COP		4.	25	4.	18	4.	30	4.	22	4.	10
		Heating capacity	kW	10	.77	12.	00	10.	77	13	.00	13.	.50
2°C/35°C floor heati	ing *1	Input power	T KW	3.	44	3.6	37	3.4	40	4.	.15	4.	34
	-	COP		3.	.13	3.	10	3.	17	3.	.13	3.	11
		Heating capacity	kW	10	.38	11.	54	10.	38	12	.20	13.	.50
-7°C/35°C floor heat	ting* ¹	Input power	T KW	4.	32	5.	08	4.	28	5.	.13	5	40
	-	COP		2.	40	2	27	2	43	2.	38	2.	50
Space heating cha	racteristics*2												
Temperature applic	ation		°C	55	35	55	35	55	35	55	35	55	35
Energy efficiency cl			•	A+	A++	A+	A+	A+	A++	A+	A++	A+	A+
Rated heat output(kW	9	11	11	13	9	11	11	13	13	14
Seasonal space hea	ating energy efficiency	/(n _s)	%	112	151	113	148	112	154	117	150	117	14
		1.10	kWh	6,704	6,062	8,041	6,824	6,669	5,930	7,803	6,738	9,062	7,4
		nit	10/4)	_	6	4		4			6	4	
sound power level			dB(A)	6	8	6	9	69	68	70	68	7	1
Hydrau l ic indoor u	nit Specification												
Power source				S	ing l e phase	, 230 V 50 F	lz			3 phase, 4	00 V 50 Hz		
Dimensions H×W×D)		mm		800 × 4						50 × 457		
Weight (Net)			kg		4	2				4	2		
Water circulation		Min/Max	L/min	19.5	/39.0	24.4	48.7	19.5/	39.0	24.4	/48.7	27.4/	/54.8
Buffer tank capacit	:V		L			6				1	6		
			L			8					8		
		Max	°C		6	0				6	50		
		Flow/Return	mm		Ø 25.4	/Ø 25.4				Ø 25.4	/Ø 25.4		
Backup heater			kW		6.0(3.0k					9.0(3.0k			
	ification	1/								(р /		
Power source				S	ingle phase	, 230 V 50 F	7			3 phase, 4	00 V 50 Hz		
Current		Max	I A		2.0	25		9.	0		.5	10),5
	× D		mm					1,290 × 9	000 ×330				
Dimensions H × W :			ka		9	12		.,		9	19		
								R410A	(2,088)				
Weight (Net)		Type (Global Warming I	otentia l)						50				
Weight (Net)		Type (Global Warming I Charge						Ζ.:	JU				
Weight (Net) Refrigerant	ant charge amount	Type (Global Warming I Charge	kg					5					
Weight (Net) Refrigerant	1 1	Charge	kg g/m						0				
Weight (Net) Refrigerant	ant charge amount Diameter		kg					5 Ø 9	0 .52				
Weight (Net) Refrigerant Additiona l refrigera	Diameter	Charge Liquid Gas	kg g/m mm					5 Ø 9 Ø 15	0 .52 5.88				
Weight (Net) Refrigerant Additiona l refrigera	Diameter Length	Charge Liquid Gas Min/Max	kg g/m mm m					5 Ø 9 Ø 15 5/	0 .52 5.88 20				
Dimensions H × W : Weight (Net) Refrigerant Additional refrigera Connection pipe	Diameter	Charge Liquid Gas Min/Max	kg g/m mm					5 Ø 9 Ø 15	0 .52 5.88 20				

^{*1:}The values of heating capacity/input power/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 values and these values.
*2:All information of ErP can be available for downloaded from www.fujitsu-general.com/global/support/downloads/search/













High Leaving Water Temperature

Maximum leaving water temperature is 55°C without backup heater. Hot water supply temperature can be maintained even at -10°C outdoor temperature.







Comfort Series

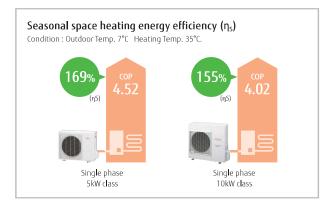
High COP

Waterstage Air to water heat pumps work much more efficient and save energy compared to traditional heating system.

Energy efficiency class



^{*}Temperature application : Heating Temp. 35°C.





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



Hydraulic indoor unit:
WSYA050DG6 / WSYA100DG6
Outdoor unit:
WOYA060LFCA / WOYA080LFCA /
WOYA100LFTA



Hydraulic indoor unit Single phase



Outdoor unit Sing**l**e phase 5/6/8kW

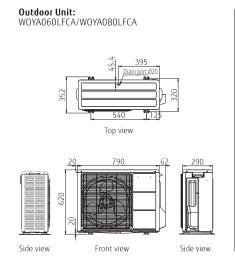


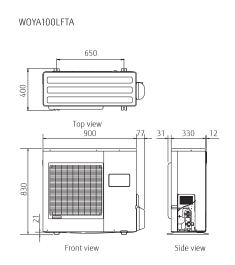
Outdoor unit Single phase 10kW

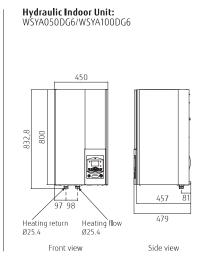
Specifications

Model Name		Hydraulic indoor unit		WSYA	050DG6	WSYA	100DG6	WSYA1	00DG6	WSYA1	00DG6
Model Name		Outdoor unit		WOYA(D60LFCA	WOYAG	060LFCA	WOYA0	80LFCA	WOYA1	00LFTA
Capacity range										1	
		Heating capacity	kW		.50	6	.00		50	10	.00
7°C/35°C floor heati	ng *1	Input power			996		.41		84	2.	
		COP			.52	4	.27		08	4.	02
		Heating capacity	kW		.50		.95		65	7.	
2°C/35°C floor heati	ng *¹	Input power	NVV		.39		.53		78	2.	
		COP			.24		.24		17	3.	
		Heating capacity	⊣ kw ∤		.10		.60		70		40
-7°C/35°C floor heat	ing*¹	Input power			.47		.74		23	2.	
		COP		2	.79	2	.64	2.	56	2.	49
Space heating chai											
Temperature app l ic	ation		°C	55	35	55	35	55	35	55	35
Energy efficiency cl	ass			Α+	A++	A+	A++	A+	A++	A+	A+
Rated heat output(kW	4	4	5	5	6	7	8	8
	iting energy efficiency	(η _s)	%	115	169	115	169	118	156	113	15
Annua l energy cons			kWh	3,026	2,160	3,180	2,505	3,886	3,375	5,415	4,4
Sound power level	Hydraulic indoor ur	nit	dB(A)		46		46		6		ь6
sound power level	Outdoor unit] UD(A)	65	60	65	63	65	69	68	69
Hydrau l ic indoor ui	nit Specification										
Power source							Single phase				
Dimensions H×W×D)		mm				800 × 4	50 × 457			
Weight (Net)			kg				4	2			
Water circu l ation		Min/Max	L/min	8.1	/16.2	10.8	3/21.7	13.5	/27.1	18.1	/36.1
Buffer tank capacity	У		L				1	6			
Expansion vessel ca	apacity		L					3			
Leaving water temp	perature range	Max	°C				5				
Water pipe connect	ion diameter	Flow/Return	mm				Ø 25.4				
Backup heater		Capacity	kW				6.0(3.0k	W×2pcs.)			
Outdoor unit speci	fication										
Power source							Sing l e phase	230 V 50 Hz			
Current		Max	A		12	2.5			7.5	18	3.5
Dimensions H × W >	< D		mm			620 × 7	790 ×290			830 × 91	00 × 330
Weight (Net)			kg		4	1		4	2	6	0
Pofrigorant		Type (Global Warming	Potential)				R410A				
Refrigerant		Charge	kg		1.	10		1.	40		80
Additiona l refrigera	nt charge amount	_	g/m				25			4	0
7	Diameter	Liquid				Ø	5.35			ØS	9.52
	Diameter	Gas	mm		Ø 1	2.7			Ø 1	5.88	
Connection pipe	Length	Min/Max	m				5/	30			
	Length(Pre-charge)		m				1	5			
	Height difference	Max	m				2				
Operation range	1 2	Heating	°C				-20 t				

^{*1:}The values of heating capacity/input power/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 values and those values.







^{*2:}All information of ErP can be available for downloaded from www.fujitsu-general.com/global/support/downloads/search/







High Leaving Water Temperature

Maximum leaving water temperature is 55°C without backup heater. Hot water supply temperature can be maintained even at -10°C outdoor temperature.

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





Comfort Series

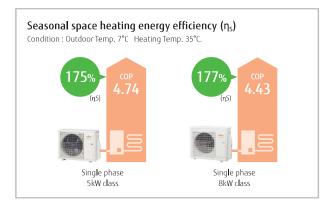
High COP

Waterstage Air to water heat pumps work much more efficient and save energy compared to traditional heating system.

> Energy efficiency class



^{*}Temperature application : Heating Temp. 35°C.



Outdoor unit technology DC Fan Motor High performance, high efficiency small DC fan motor mounted. DC Twin Rotary Compressor 716 mm High efficient DC twin rotary compressor DC Inverter 5 - 6 kW 8 kW Smooth water temperature control realized by DC inverter control.



Hydraulic indoor unit: WGYA050ML3/WGYA080ML3 Outdoor unit: WOYA060KLT / WOYA080KLT



Hydraulic indoor unit Sing**l**e phase



Outdoor unit Sing**l**e phase 5/6kW



Outdoor unit Sing**l**e phase 8kW

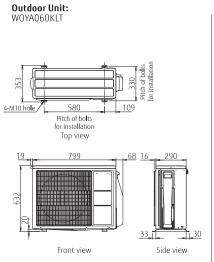
Specifications

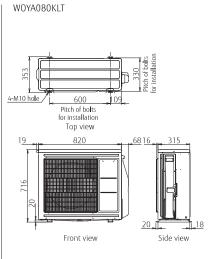
Model Name		Hydraulic indoor unit		WGYAC			80ML3	WGYA0	
				WOYA		WOYA		WOYAG	
Capacity range		T			5		6	}	
	. 1	Heating capacity	⊢ kw ⊢	4.			50	7.:	
7°C/35°C floor heatii	ng *'	Input power	1 1111		949		18		69
		COP			74		65		43
		Heating capacity	⊢ kw ⊢		50		30		30
2°C/35°C floor heatii	ng *'	Input power	100		33		65		96
	,	COP			39		22	3.	
		Heating capacity	⊢ kw ⊢		40		00	5.	
-7°C/35°C floor heati	ng*¹	Input power	I KW		59		90		13
		COP		2.	76	2.	63	2.	68
Space heating char									
Temperature app l ica			°C	55	35	55	35	55	35
Energy efficiency c l a				A++	A+++	A++	A+++	A++	A+++
Rated heat output(F			kW	5	5	5	6	6	7
	ting energy efficienc	y(η _s)	%	125	175	125	175	128	177
Annual energy cons	umption		kWh	3,035	2,322	3,411	2,594	3,903	2,982
Sound nower level*	Hydraulic indoor u	nit	dB(A)	40	-	40	-	40	-
oonna power ievei	Hydraulic indoor u Outdoor unit		UD(A)	57	-	57	-	60	-
Domestic hot water	characteristics*2								
Load profi l e							L		
Energy efficiency cla	iss			Д	+	Α	\+	А	·+
Energy efficiency(n	vh)		%	13	30	1.	30	13	30
Annual electricity co	nsumption		kWh	79	93	7:	93	79	93
Hydraulic indoor ur	ilt Specification								
Power source	•					Sing l e phase	230 V 50 Hz		
Dimensions H×W×D			mm	1,863 x 6	48 x 700	1,863 x 6	48 x 700	1,863 x 6	48 x 700
Weight (Net)			kg	14	43	14	43	14	43
Water circulation			L/min	7.6/	22.0	8.5/	22.0	10.0	/22.0
DHW capacity			L	19	90	19	90	19	90
Hot water heater ca	pacity		kW		.5		.5	1.	
Buffer tank capacity				1	6	1	6		6
Expansion vesse l ca			L		3		8	3	
Leaving water temp		Max	°C	5			5	5	
Water pipe connecti		Flow/Return	mm	Ø 25.4			/Ø 25.4	Ø 25.4	
Hot water pipe conr		1	mm		9.05		9.05	Ø 19	
Backup heater		Capacity	kW		.0		.0		.0
Outdoor unit specif	ication	1							
Power source						Single phase	230 V 50 Hz		
Current		Max	T A	13	3.0		3.0	18	3.0
Dimensions H × W ×	D		mm	632 x 79			99 x 290	716 x 82	
Weight (Net)	-		kg		9		9	4	
		Type (Global Warming		R32(R32		R32(
Refrigerant		Charge	kg		97		97		02
Additiona l refrigera	nt charge amount	Lenorge	g/m		5		.5	2	
ionai remigera		Liquid			35		35		35
	Diameter	Gas	- mm		.70		.70		.70
Connection pipe	Length	Min/Max	m		30		30	3/	
LOTHICCHOIT PIPE	Length(Pre-charge		m						
				15		15 20		15 20	
	Height difference	Max	m		0			2	

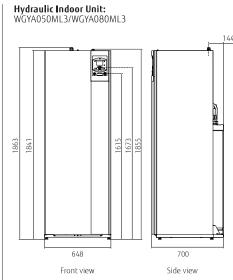
^{*1:}The values of heating capacity/input power/COP are based on measurement of EN1451 standard. Usage environment, such as operation of the heating equipment, room temperature, and controller adjustments, may cause disparities between practically determined values and these values.

*2:All information of ErP can be available for downloaded from www.fujitsu-general.com/global/support/downloads/search/

*3:The values of sound power level are besed on mesurement of EN12102 standard under conditions of EN14825 standard.

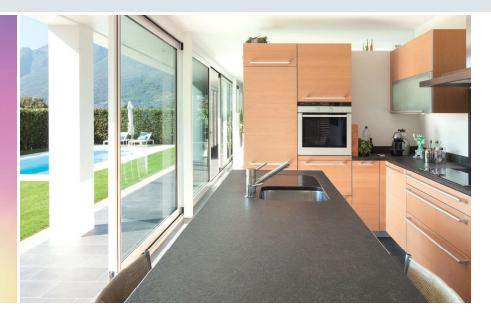






Split DHW Integrated Type

Super High Power Series





High Leaving Water Temperature

High leaving water temperature of 60°C is kept even when outdoor temperature is down to -20°C without using backup heaters. And it's possible to supply 55°C at -22°C outdoor temperature without backup heater.

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





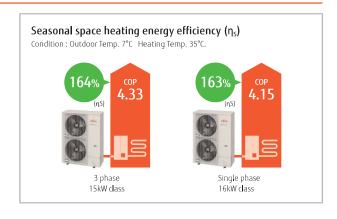
Super High Power Series

High COP

Waterstage Air to water heat pumps work much more efficient and save energy compared to traditional heating system.

Energy efficiency class





Extended Operation Range down to -25°C

Improved operation range down to -25°C outdoor temperature





Hydraulic indoor unit: WGYG160DJ6 / [3 phase] WGYK170DJ9 Outdoor unit: WOYG160LJL [3 phase] WOYK150LJL / WOYK170LJL



Hydraulic indoor unit Single phase/ 3 phase



Outdoor unit Single phase 16kW 3 phase 15/17kW

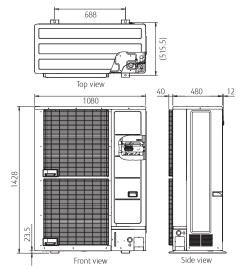
Specifications

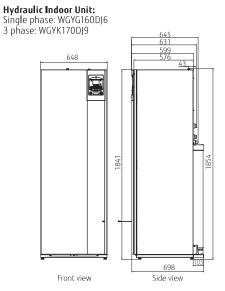
Model Name		Hydraulic indoor unit			160DJ6	WGYK1			170DJ9	
		Outdoor unit		WOYG		WOYK		WOYK	170LJL	
Capacity range					6		5		7	
		Heating capacity	kW		.00	15.			.00	
7°C/35°C floor heati	ing *1	Input power	I KVV		86	3.			10	
		COP		4.	15	4.	33	4.	15	
		Heating capacity	kW	13	.30	13.	20	13	.50	
2°C/35°C floor heati	ing *1	Input power	T KW	4.	25	4.1	06	4.	27	
	•	COP		3.	13	3.:	25	3.	16	
		Heating capacity		14	.50	13.	20	15	.00	
-7°C/35°C floor heat	ina*1	Input power	kW		27	4.	55		32	
	9	COP			75		90		82	
Space heating cha	racteristics*2	1 001			, ,					
Temperature applic			°C	55	35	55	35	55	35	
Energy efficiency c l				A++	A++	A++	A++	A++	A++	
Rated heat output(kW	14	16	16	17	17	18	
	r _{rated} , ating energy efficiency	(n)	% %	125	163	130	164	130	161	
Seasonal space nea Annual energy cons		(i R)	kWh	8,757	8,014	9,915	8,606	10,232	9.059	
		.ie	KVVII		8,014 45	9,915 45	8,606 45			
Sound power level	Hydraulic indoor ur	IIL	dB(A)	45				45	45	
	Outdoor unit		1 ' '	67	66	67	66	67	68	
	er characteristics*2									
Load profile			-			l	-			
Energy efficiency cl										
Energy efficiency(ŋ			%			10				
Annua l el ectricity c			kWh			94	¥1			
Hydrau l ic indoor u	nit Specification									
Power source				Single phase	, 230 V 50 Hz			00 V 50 Hz		
Dimensions H×W×D)		mm				48 × 698			
Weight (Net)			kg			16				
Water circu l ation			L/min	26.4	/57.8	24.0/		27.3	/61.4	
DHW capacity			L			19				
Hot water heater ca			kW			1.				
Buffer tank capacit	у		L			2	5			
Expansion vessel c			L			1	2			
Leaving water temp		Max	°C			6	0			
Water pipe connect		Flow/Return	mm			Ø 25.4	Ø 25.4			
Hot water pipe con			mm			Ø 19				
Backup heater		Capacity	kW	6.0(3.0k	W×2ncs.)	2 1.		:W×3pcs.)		
Outdoor unit speci	fication	1		0.015.010	pcsij		3.3 (3.0)	2001)		
Power source				Single phase	, 230 V 50 Hz		3 phase 4	00 V 50 Hz		
Current		Max	A		3.0			4.0		
Dimensions H × W :	× D	1	mm		080 × 480			,080 × 480		
Weight (Net)			kg		37			38		
		Type (Global Warming		R410A				(2,088)		
Refrigerant		Charge	kq		80			80		
Additional refrigera	ant charge amount	Lenarge	g/m		10			50		
nuuluullai leliligela	incenarge amount	Liquid	9/111					9.52		
	Diameter	Liquid	mm							
	1	Gas			5.88			5.88		
Connection pipe	Length	Min/Max	m		30			30		
	Length(Pre-charge		m		5			15		
	Height difference	Max	m		ınit:Upper/Lower)			ınit:Upper/Lower)		
Operation range		Heating	°C	-25 t	to 35	-25 to 35				

^{*1:}The values of heating capacity/input power/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 values and these values.
*2:All information of ErP can be available for downloaded from www.fujitsu-general.com/global/support/downloads/search/

Dimensions

Outdoor Unit: Single phase: WOYG160LJL 3 phase: WOYK150LJL/WOYK170LJL





Split DHW Integrated Type

High Power Series





High Leaving Water Temperature

High leaving water temperature of 60°C is kept even when outdoor temperature is down to -20°C without using backup heaters.

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



High Power Series

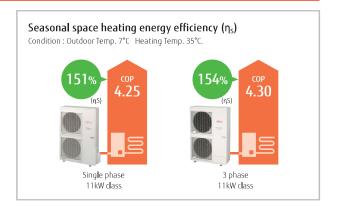
High COP

Waterstage Air to water heat pumps work much more efficient and save energy compared to traditional heating system.

Energy efficiency class

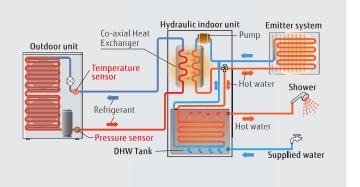


^{*}Temperature application : Heating Temp. 35°C.



Optimization of refrigerant cycle operation

High Power model achieves a high performance and high efficiency by adopting twin sensors and control technology corresponding to hot water heating.





Hydraulic indoor unit: WGYG140DG6 / [3 phase] WGYK160DG9 Outdoor unit: WOYG112LHT / WOYG140LCTA [3 phase] WOYK112LCTA/WOYK140LCTA/ **WOYK160LCTA**



Hydraulic indoor unit Single phase/ 3 pĥase



Outdoor unit Sing**l**e phase 11/14 kW

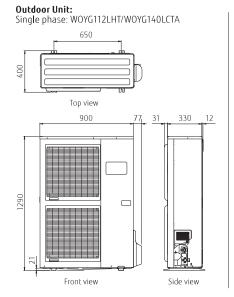


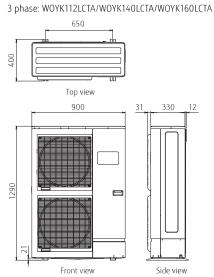
Outdoor unit 3 phase 11/14/16 kW

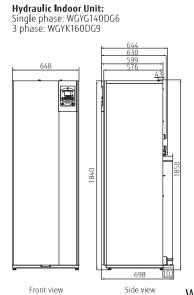
Specifications

		I the deposit of the deposit contra		MCVC1	40DG6	WCVC1	40DG6	WCVV1	60DG9	MCVIV:	160DG9	MCVIV	160DG9
Model Name					112LHT		40LCTA		12LCTA		40LCTA		160LCTA
Canacity range		Toutuooi uilit					40LCTA	WOTK1			40LCTA 4		16
Capacity range		Heating capacity			.80		.50		.80		.50		5.17
7°C/20°C flags boot	io o *1		kW		54		23	2.			.30		.70
/ C/33 C HOOF Heat	iiig "			_									
	city range Heating capacity Input power				25		18	4.			22		.10
200/2000 (1 1 1 1	41		kW		.77		.00		40		.00		3.50
2°C/35°C floor heat	ing ^"				44		87				.15		.34
					.13		10		17		.13		.11
			- kW		.38		.54		.38		.20		3.50
-7°C/35°C floor heat	ting*'				.32		08	4.			.13		.40
		COP		2.	40	2.	27	2.	43	2.	.38	2	.50
Temperature app l ic	ation		°C	55	35	55	35	55	35	55	35	55	35
Energy efficiency c	ass			A+	A++	A+	A+	A+	A++	A+	A++	A+	A+
			kW	9	11	11	13	9	11	11	13	13	14
		$y(\eta_s)$	%	112	151	113	148	112	154	117	150	117	149
Annual energy con:			kWh	6,704	6,062	8,041	6,824	6,669	5,930	7,803	6,738	9,062	7,408
Sound nower lovel		ınit	dB(A)		16		6		6		16		46
·			ub(A)	6	8	6	9	69	68	70	68		71
	er characteristics*2												
Load profile													
								/	Ą				
Energy efficiency(n			%					8	8				
			kWh					11	66				
Hydraulic indoor u	nit Specification												
Power source				5	single phase	230 V 50 H	z			3 phase, 4	00 V 50 Hz		
Dimensions H×W×E)		mm					1,840× 6	48 × 698				
Weight (Net)			kg					15	52				
Water circulation			L/min	19.5	/39.0	24.4	/28.7	19.5	39.0	24.4	/48.7	27.4	/54.8
DHW capacity			L					19	90				
	apacity		kW					1	.5				
Buffer tank capacit			L					1	6				
			L					1					
		Max	°C					6					
			mm					Ø 25.4.					
		1	mm					Ø 19					
Backup heater		Capacity	kW		6.0(3.0k	W×2pcs.)				9.0(3.0k	:W×3pcs.)		
Outdoor unit speci	fication	1/	1			/				(/		
Power source				(Single phase	230 V 50 H	 7			3 phase 4	00 V 50 Hz		
Current		Max	A		2.0		5.0	9	.0		1.5	1	0.5
Dimensions H × W	× D	Max	mm				,,,,		900 ×330				0.5
Weight (Net)			kg		C	12		1,250	,00 330	C	99		
		Type (Global Warming F						R410A	(2.088)		,,		
Refrigerant		Charge	kg						50				
Additional refrigera	ant charge amount	1 charge	g/m						0				
, againment remigere		Liquid	gnn										
	Diameter	Gas	mm					Ø 15					
Connection pipe	Length	Min/Max	m						20				
connection pipe	Length (Pre-charge												
	Height difference		m						5				-
O	I meigiit dillerence	Max	m °c										
Operation range		Heating	°C		/F11 -k J-			-25 t	0 35				

^{*1:}The values of heating capacity/input power/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 values and these values.
*2:All information of ErP can be available for downloaded from www.fujitsu-general.com/global/support/downloads/search/







Split DHW Integrated Type





High Leaving Water Temperature

Maximum leaving water temperature is 55°C without backup heater. Hot water supply temperature can be maintained even at -10°C outdoor temperature.







Comfort Series

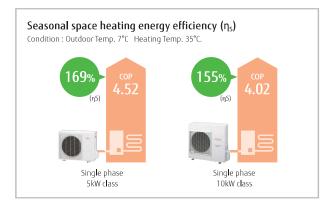
High COP

Waterstage Air to water heat pumps work much more efficient and save energy compared to traditional heating system.

Energy efficiency class



^{*}Temperature application : Heating Temp. 35°C.



Outdoor unit technology 5-8 kW 10 kW



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.

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





Hydraulic indoor unit: WGYA050DG6 / WGYA100DG6 Outdoor unit: WOYA060LFCA / WOYA080LFCA / WOYA100LFTA



Hydraulic indoor unit Sing**l**e phase



Outdoor unit Sing**l**e phase 5/6/8kW



Outdoor unit Sing**l**e phase 10kW

Specifications

Model Name		Hydraulic indoor unit			50DG6	WGYA1			100DG6	WGYA1	
					60LFCA	WOYA0			080LFCA		00LFTA
Capacity range		lar a			5	E			8		0
705/2505 (1 1	±1	Heating capacity	- k₩ -	4.		6.0			.50		.00
7°C/35°C floor heati	ng *'	Input power			196	1.4			.84		49
		COP			52	4.2			.08		02
	. 1	Heating capacity	⊢ kw ⊦	4.		4.9			.65		70
2°C/35°C floor heati	ng *'	Input power			39	1.5			.78		47
		COP			24	3.2			.17		12
		Heating capacity	- kw -		10	4.6			.70		40
-7°C/35°C floor heat	ing*'	Input power	1000		47	1.3			.23		97
		COP		2.	79	2.6	54	2.	.56	2.	49
Space heating cha											
Temperature app l ic			°C	55	35	55	35	55	35	55	35
Energy efficiency cl				A+	A++	A+	A++	A+	A++	A+	A++
Rated heat output(P _{rated})		kW	4	4	5	5	6	7	8	8
easonal space hea	ating energy efficiency	y(η _s)	%	115	169	115	169	118	156	113	155
Annual energy cons	sumption		kWh	3,026	2,160	3,180	2,505	3,886	3,375	5,415	4,415
Sound power level	Hydraulic indoor ur	nit	dB(A)		6	4			46		6
	Outdoor unit		T OB(A)	65	60	65	63	65	69	68	69
Domestic hot wate	r characteristics*2										
Load profi l e								L			
Energy efficiency cl								\ +			
Energy efficiency(n			%					20			
Annual electricity co			kWh				0	80			
							0	30			
	nit Specification										
Power source							Sing l e phase	230 V 50 Hz			
Power source Dimensions H×W×D			mm				Single phase 1,840× 6	230 V 50 Hz 48 × 698			
Power source Dimensions H×W×D Weight (Net)			mm kg				Single phase 1,840× 6	230 V 50 Hz 48 × 698			
Power source Dimensions H×W×D Weight (Net) Water circulation				8.1/	16.2	10.8/	Single phase 1,840× 6	230 V 50 Hz 48 × 698	5/27.1	18.1	/36.1
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity)		kg L/min L	8.1/	16.2	10.8/	Single phase 1,840× 6 1 /21.7	230 V 50 Hz 48 × 698 52 13.5	5/27.1	18.1	/36.1
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca	apacity		kg	8.1/	16.2	10.8/	Single phase 1,840× 6 1 /21.7 1	2 230 V 50 Hz 448 × 698 52 13.5 90	5/27.1	18.1	/36.1
Hydraulic indoor ui Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity	npacity		kg L/min L	8.1/	16.2	10.8/	Sing l e phase 1,840× 6 1 /21.7 1 1	230 V 50 Hz 48 × 698 52 13.5 90	5/27.1	18.1	/36.1
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity Expansion vessel ca	apacity y apacity		kg L/min L kW L	8.1/	16.2	10.8/	Sing l e phase 1,840× 6 1 /21.7 1 1 1	2 230 V 50 Hz 48 × 698 52 13.5 90 .5 6	5/27.1	18.1	/36.1
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity Expansion vessel ca	apacity y apacity erature range	Max	kg L/min L kW	8.1/	16.2	10.8/	Single phase 1,840× 6 1 /21.7 1 1 1	2 230 V 50 Hz 148 × 698 52 13.5 90 .5 6 2	5/27.1	18.1	/36.1
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity Expansion vessel ca Leaving water temp Water pipe connect	apacity y apacity perature range ion diameter	Max Flow/Return	kg L/min L kW L	8.1/	16.2	10.8/	Single phase 1,840× 6 1 /21.7 1 1 1 2 9 25.4	230 V 50 Hz 148 × 698 52 13.9 90 .5 6 2 2 15	5/27.1	18.1	/36.1
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity Expansion vessel ca Leaving water ten Hot water pipe connect	apacity y apacity perature range ion diameter		kg L/min L kW L L	8.1/	16.2	10.8/	Single phase 1,840 × 6 1/21.7 1-1 1 1 5 9/25.4	230 V 50 Hz 448 × 698 52 13.5 90 .5 6 2 25 10 10 10 10 10 10 10 10 10 10	5/27.1	18.1	/36.1
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity Expansion vessel ca Leaving water temp Water pipe connect Hot water pipe conl Backup heater	ipacity Y apacity Derature range ion diameter nection diameter		kg L/min L kW L L e°C	8.1/	16.2	10.8	Single phase 1,840× 6 1 /21.7 1 1 1 2 9 25.4	230 V 50 Hz 448 × 698 52 13.5 90 .5 6 2 25 10 10 10 10 10 10 10 10 10 10	5/27.1	18.1	/36.1
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity Expansion vessel ca Leaving water temp Water pipe connect Hot water pipe connect Bockup heater Outdoor unit specil	ipacity Y apacity Derature range ion diameter nection diameter	Flow/Return	kg L/min L kW L L °C mm	8.1/	16.2	10.8/	Single phase 1,840 × 6 1 /21.7 1 1 1 1 5 Ø 25.4 Ø 1 6.0(3.0k	2 230 V 50 Hz 148 × 698 52 13.5 90 .5 6 2 2 .5 Ø 25.4 9.05 W×2pcs.)	5/27.1	18.1	/36.1
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity Expansion vessel ca Leaving water temp Water pipe connect Hot water pipe conf Backup heater Outdoor unit specil Power source	ipacity Y apacity Derature range ion diameter nection diameter	Flow/Return Capacity	kg L/min L kW L L °C mm mm kW	8.1/			Single phase 1,840 × 6 1 /21.7 1 1 1 1 5 Ø 25.4 Ø 1 6.0(3.0k	230 V 50 Hz 48 × 698 52 13.5 90 .5 6 2 2 .5 //////////////////////////////////			
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity Expansion vessel ca Leaving water temp Water pipe connect Hot water pipe conf Backup heater Outdoor unit specil Power source Current	apacity y apacity erature range ion diameter nection diameter	Flow/Return	kg L/min L kW L L °C mm	8.1/		2.5	Single phase 1,840× 6 1,21.7 1 1 225.4 Ø 25.4 Ø 1 6.0(3.0k	230 V 50 Hz 48 × 698 52 13.5 90 .5 6 2 2 .5 //////////////////////////////////	7.5	18	3.5
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ce Buffer tank capacity Expansion vessel ce Leaving water temp Water pipe connect Hot water pipe coni Backup heater Outdoor unit specil Dimensions H × W ×	apacity y apacity erature range ion diameter nection diameter	Flow/Return Capacity	kg L/min L kW L L °C mm mm kW	8.1/	12	2.5 620 × 79	Single phase 1,840× 6 1,21.7 1 1 225.4 Ø 25.4 Ø 1 6.0(3.0k	2 230 V 50 Hz 148 × 698 52 13.5 90 .5 6 2 .5 10 25,5 10 25,4 90.5 W×2pcs.) 2 230 V 50 Hz	7.5	18 830 × 9	3.5 00 ×330
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ce Buffer tank capacity Expansion vessel ce Leaving water temp Water pipe connect Hot water pipe coni Backup heater Outdoor unit specil Dimensions H × W ×	apacity y apacity erature range ion diameter nection diameter	Flow/Return Capacity Max	kg L/min L kW L L °C mm mm kW	8.1/	12	2.5	Single phase 1,840 × 6 1,21.7 1 21.7 1 22.7 25 Ø 25.4 Ø 1 6.0(3.0k Single phase	2 230 V 50 Hz 148 × 698 52 13.5 90 .5 6 2 .5 10 25.4 90.5 W×2pcs.) 2 30 V 50 Hz		18 830 × 9	3.5
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity Expansion vessel ca Leaving water temp Water pipe connect Hot water pipe connect Backup heater Dutdoor unit specil Power source Current Dimensions H×W× Weight (Net)	apacity y apacity erature range ion diameter nection diameter	Flow/Return Capacity Max Type (Global Warming R	kg L/min L kW L L °C mm mm kW	8.1/	1;	2.5 620 × 75	Single phase 1,840× 6 1,21.7 1 1 225.4 Ø 25.4 Ø 1 6.0(3.0k	2 230 V 50 Hz 48 × 698 52 90 .5 6 2 2 .5 /// /// // // // // // // // // // //	7.5	18 830 × 9	3.5 00 ×330 0
Ower source Dimensions H×W×D Weight (Net) Water circulation DHW capacity dot water heater ca Suffer tank capacity Expansion vessel ca eaving water temp Water pipe connect dot water pipe connect dot water pipe connect Dutdor unit specil Cower source Current Dimensions H × W × Weight (Net) Refrigerant	apacity y apacity apacity perature range ion diameter nection diameter fication	Flow/Return Capacity Max	kg L/min L kW L L °C mm mm kW	8.1/	1;	2.5 620 × 79 11	Single phase 1,840× 6 1,840× 6 /21.7 1 1 25.4 Ø 15.4 Ø 16.0(3.0k Single phase 90 ×290 R410A	230 V 50 Hz 48 × 698 52 90 .5 6 2 2 .5 /// /// // // // // // // // // // //	7.5	18 830 × 9 6	3.5 00 ×330 0
Ower source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Suffer tank capacity Expansion vessel ca eaving water temp Water pipe connect Hot water pipe connect Hot water pipe connect Outdoor unit specil Cower source Eurrent Dimensions H × W × Weight (Net) Refrigerant	apacity y apacity apacity perature range ion diameter nection diameter fication	Flow/Return Capacity Max Type (Global Warming F	kg L/min L kW L L °C mm mm kW A A mm kg Potential)	8.1/	1;	2.5 620 × 79 11 10	Single phase 1,840× 6 1 /21.7 1 1 25 Ø 25.4 Ø 1 6.0(3.0k Single phase 90 ×290 R410A	230 V 50 Hz 48 × 698 52 90 .5 6 2 2 .5 /// /// // // // // // // // // // //	7.5	18 830 × 9 6	3.5 00 ×330 00
Ower source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Suffer tank capacity Expansion vessel ca eaving water temp Water pipe connect Hot water pipe connect Hot water pipe connect Outdoor unit specil Cower source Eurrent Dimensions H × W × Weight (Net) Refrigerant	apacity y appacity perature range ion diameter nection diameter fication	Flow/Return Capacity Max Type (Global Warming F Charge Liquid	kg L/min L kW L L c c mm mm kW A mm kg Potential) kg	8.1/	12 4	2.5 620 × 79 11 10 2	Single phase 1,840× 6 1 /21.7 1 1 25 Ø 25.4 Ø 1 6.0(3.0k Single phase 90 ×290 R410A	230 V 50 Hz 48 × 698 52 90 .5 6 2 2 .5 /// /// // // // // // // // // // //	7.5	18 830 × 9 6 1. 4	3.5 00 ×330 0
Ower source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity Expansion vessel ca Leaving water temp Water pipe connect Hot water pipe connect Hot water pipe connect Outdoor unit special Cower source Current Dimensions H × W × Weight (Net) Refrigerant Additional refrigera	apacity y apacity apacity perature range ion diameter nection diameter fication	Flow/Return Capacity Max Type (Global Warming F Charge Liquid Gas	kg L/min L kW L L C Mmm mm kW A A Mmm kg Potential)	8.1/	12 4	2.5 620 × 79 11 10	Single phase 1,840× 6 1,840× 6 1/21.7 1 1 1 1 0 25.4 Ø 1 6.0(3.0k Single phase 90 ×290 R410A	230 V 50 Hz 48 × 698 52 13.5 90 .5 6 2 2 55 Ø 25.4 9.05 W×2pcs.) 230 V 50 Hz 4 (2,088) 1.	7.5	18 830 × 9 6	3.5 00 ×330 00
Ower source Dimensions H×W×D Weight (Net) Water circulation DHW capacity dot water heater ca Suffer tank capacity Expansion vessel ca Leaving water temp Water pipe connect dot water pipe connect Dutdoor unit special Dower source Lurrent Dimensions H × W × Weight (Net) Refrigerant Additional refrigera	apacity y apacity y apacity oerature range ion diameter nection diameter fication D int charge amount Diameter Length	Flow/Return Capacity Max Type (Global Warming F. Charge Liquid Gas Min/Max	kg L/min L kW L L c c mm mm kW A mm kg Potential) kg	8.1/	12 4	2.5 620 × 79 11 10 2	Single phase 1,840× 6 1,840× 6 /21.7 1 1 25.4 Ø 25.4 Ø 1 6.0(3.0k Single phase 90 ×290 R410A 5	2 230 V 50 Hz 48 × 698 52 13.5 90 15.5 6 2 2 5 7 7 8 230 V 50 Hz 1 (2,088) 1 30	7.5	18 830 × 9 6 1. 4	3.5 00 ×330 00
Ower source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity Expansion vessel ca Leaving water temp Water pipe connect Hot water pipe connect Hot water pipe connect Outdoor unit special Cower source Current Dimensions H × W × Weight (Net) Refrigerant Additional refrigera	apacity y apacity y apacity berature range ion diameter nection diameter fication Diameter Length Length Length(Pre-charge	Flow/Return Capacity Max Type (Global Warming F. Charge Liquid Gas Min/Max	kg L/min L kW L L °C mm mm kW A mm kg Otential) kg g/m mm	8.1/	12 4	2.5 620 × 79 11 10 2	Single phase 1,840× 6 1,840× 6 21.7 1 1 1 21.7 1 6.0(3.0k Single phase 90×290 R410A 5 .35	2 230 V 50 Hz 48 × 698 52 13.5 90 .5 6 2 2 5 /Ø 25.4 9.05 W×2pcs.) 2 230 V 50 Hz (2,088) 1.	7.5	18 830 × 9 6 1. 4	3.5 00 ×330 00
Power source Dimensions H×W×D Weight (Net) Water circulation DHW capacity Hot water heater ca Buffer tank capacity Expansion vessel ca Leaving water temp Water pipe connect Hot water pipe conf Backup heater Outdoor unit specil Power source Current	apacity y apacity y apacity oerature range ion diameter nection diameter fication D int charge amount Diameter Length	Flow/Return Capacity Max Type (Global Warming F. Charge Liquid Gas Min/Max	kg L/min L kW L L °C mm mm kW A mm kg g/m mm m m	8.1/	12 4	2.5 620 × 79 11 10 2	Single phase 1,840× 6 1,840× 6 21.7 1 1 1 21.7 1 6.0(3.0k Single phase 90×290 R410A 5 .35	2 230 V 50 Hz 48 × 698 52 13.5 90 15.5 6 2 2 5 7 7 8 230 V 50 Hz 1 (2,088) 1 30	7.5	18 830 × 9 6 1. 4	3.5 .00 ×330 .0

^{*1:}The values of heating capacity/input power/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 values and these values.
*2:All information of ErP can be available for downloaded from www.fujitsu-general.com/global/support/downloads/search/

