# Residential

# AIR TO WATER

280 Home Heating Air to Water Overview

282 Technology

283 WATERSTAGE™ Lineup



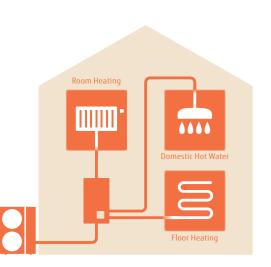


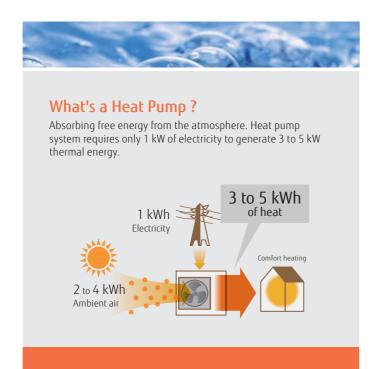
284 Split Type/Split DHW Integrated Type \*New Super High Power series

286 Case Studies
Installation Limitations

288 Optional Parts

290 Specifications & Dimensions





# Complete Solution meets various needs

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.





# 

# Home Heating

Air to Water Overview

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.



# Appearance-oriented compact outdoor unit

Split type Comfort series

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

\*: Outdoor Unit: WOYA060LFCA/WOYA080LFCA



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

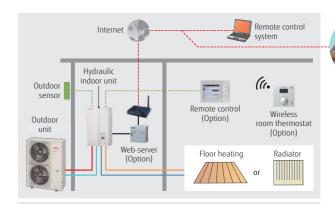
Existing boiler can be replaced easily. A larger heating capacity can be performed flexibly by using more units in cascade connection.



+ Boiler

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

\*optional part necessary



# Smart control

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

# Technology

# **High** Efficiency

#### 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.







For Hydraulic Indoor Unit

Class A pump

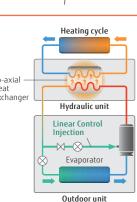
volume or pressure

adjustment function.

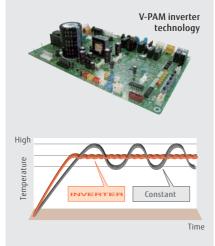
Energy saving pump with constant



# Optimized circuit = Linear Control

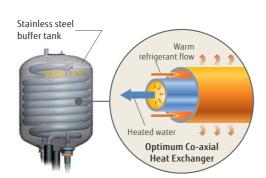






# Stainless steel buffer tank

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



# Easy Control



# **Hydraulic Indoor Unit Controller** 4 Heating mode

#### 1. Automatic mode

Comfort/Reduce mode switching automatically according to time program

#### 2. Reduce mode

Constant reduce temperature

#### 3. Comfort mode

Constant comfort temperature

#### 4. Protection mode

Stand-by mode with antifrost protection

# WATERSTAGE™ Lineup

Ca	pacity (kW)		5	6	8	10	11	14	15	16	17
	Super High Power series Single phase	NEW								8	
	Hydraulic Indoor Unit/ Outdoor Unit									WSYG160DJ6 / WOYG160LJL	
	Super High Power series 3 phase	NEW							8		0
	Hydraulic Indoor Unit/ Outdoor Unit								WSYK170DJ9 / WOYK150LJL		WSYK170DJ9 / WOYK170LJL
Split	High Power series Single phase										
	Hydraulic Indoor Unit/ Outdoor Unit						WSYG140DG6 / WOYG112LHT	WSYG140DG6 / WOYG140LCTA			
	High Power series 3 phase										
	Hydraulic Indoor Unit/ Outdoor Unit						WSYK160DG9 / WOYK112LCTA	WSYK160DG9 / WOYK140LCTA		WSYK160DG9 / WOYK160LCTA	
	Comfort series		. 0	. 0	. 0	. 0					
	Hydraulic Indoor Unit/ Outdoor Unit		YA050DG6 / YA060LFCA	WSYA100DG6 / WOYA060LFCA	WSYA100DG6 / WOYA080LFCA	WSYA100DG6 / WOYA100LFTA					
	Super High Power series Single phase	NEW								8	
	Hydraulic Indoor Unit/ Outdoor Unit									WGYG160DJ6 / WOYG160LJL	
	5 phase	NEW							0		0
Spli	Hydraulic Indoor Unit/ Outdoor Unit	_							WGYK170DJ9 / WOYK150LJL		WGYK170DJ9 / WOYK170LJL
<	High Power series Single phase						0	0			
integrated	Hydraulic Indoor Unit/ Outdoor Unit						WGYG140DG6 / WOYG112LHT	WGYG140DG6 / WOYG140LCTA			
ď	High Power series 3 phase										
	Hydraulic Indoor Unit/ Outdoor Unit						WGYK160DG9 / WOYK112LCTA	WGYK160DG9 / WOYK140LCTA		WGYK160DG9 / WOYK160LCTA	
	Comfort series		0	0		0					
	Hydraulic Indoor Unit/ Outdoor Unit		YA050DG6 / YA060LFCA	WGYA100DG6 / WOYA060LFCA	WGYA100DG6 / WOYA080LFCA	WGYA100DG6 / WOYA100LFTA					

# **EHPA Quality Label**



Fujitsu General's WATERSTAGE\* have obtained the EHPA Quality Label\*\* by tests according to the international Standards EN14511 and EN17025. The EHPA Quality Label\*\* is a label that shows the endconsumer a quality heat pump unit on the market.

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

# SG-Ready Label



SG-Ready is a defined standard by BWP\*\*\*, 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.

\*\*\*BWP: the Federal German Heat Pump Association

# Split Type / Split DHW **Integrated Type**



# WATERSTAGE"

# Split Type

#### Super high power series

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



Hydraulic indoor unit Single Phase/

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

## High power series

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



indoor unit Single Phase/

Outdoor unit Single Phase

High power series

WOYG112LHT/WOYG140LCTA

Hydraulic indoor unit:

Outdoor unit:

WOYK160LCTA

11/14/16 kW

**Comfort series** 

Hvdraulic indoor unit:

**Outdoor unit:** 

WOYA100LFTA

WSYA050DG6/WSYA100DG6

WOYA060LFCA/WOYA080LFCA/



indoor unit

Outdoor unit Single Phase

Single Phase

## High leaving water temperature

#### Super High power series:

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.









Super high power series

#### High power series:

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



High power series

#### Comfort series:

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



<sup>\*</sup> If you want to raise the hot water supply temperature, backup heaters can be used for auxiliary operation.

# High COP

Air to water heat pumps work with much more efficiency and save more energy than a traditional heating system.

> Energy efficiency class



#### Seasonal space heating energy efficiency $(\eta_s)$





(11 kW class)



(5 kW class)

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

## 2 Zone individual control

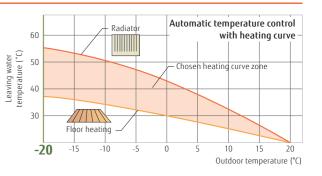
2 Zone individual control (2 under floor heating zones or under floor heating + radiator zone, etc.)\*

\*: Optional parts are required.



# Automatic heating curve control

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



# Split DHW Integrated Type

## Super high power series

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



Hydraulic indoor unit Single Phase/



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



WGYG140DG6/[3 phase] WGYK160DG9

[3 phase] WOYK112LCTA/WOYK140LCTA/

Outdoor unit indoor unit Single Phase 11/14 kW 11/14/16 kW

**Comfort series** 

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



Hydraulic Outdoor unit indoor unit Single Phase Single Phase 5/6/8 kW

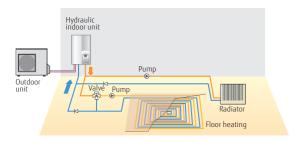
Single Phase

# **Case Studies**

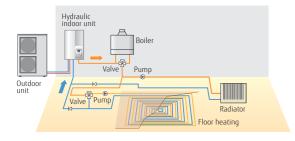
# Split Type

#### 2 emitter simultaneous heating (Individual control)

Floor heating + Radiator



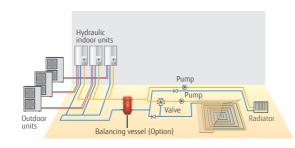
# Boiler connected to heating (Boiler + Heating)



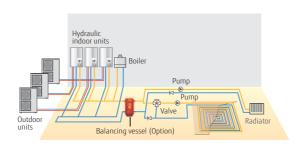
# Split Cascade System

#### 2 emitter simultaneous heating (Individual control)

Floor heating + Radiator



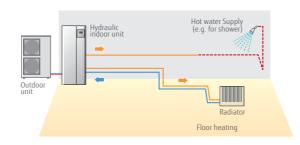
#### Boiler connected to heating (Boiler + Heating)



# Split DHW Integrated Type

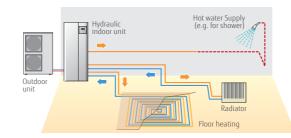
## Single heating & Domestic Hot Water

Radiator + Domestic Hot Water



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

Radiator + Domestic Hot Water

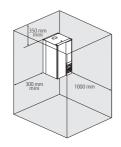


# **Installation Limitations**

# **Equipment Installation**

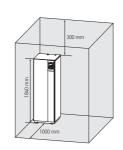
## Split type Hydraulic indoor unit

- Hydraulic indoor unit is to be hang on the wall
- Weight  $\leq$  88 kg (including water)
- Space for maintenance should be respected



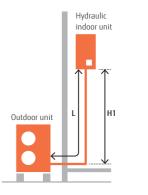
## Split DHW integrated type Hydraulic indoor unit

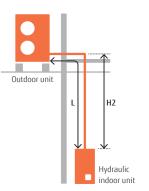
- Floor stand
- Weight  $\leq$  393 kg (including water)
- Space for maintenance should be respected.



# Piping and Wiring Split type

Series	Capacity range (kW)	Pipe diameter (Liquid/Gas) (mm)	H1 (m)	H2 (m)	L (m)
	5	6 25/12 70			
Comfort	6	0.33/12./0	uid/Gas) H1 (m) H 5/12.70 +20 2/15.88 +15	20	5-30
Connoc	8	6.35/15.88	+20	-20	3-30
	5 6 8 10	9.52/15.88			
	11				
High power	14	9.52/15.88	uid/Gas) H1 (m) H2 (m)  5/12.70  5/15.88  2/15.88  2/15.88  +15  -15	5-20	
High power	16				
C	15				
Super High power	16	9.52/15.88	+15	-25	5-30
riigii powei	17				





## AIR TO WATER

# **Optional Parts**

Produ	ct Name	Model Name		Super gh Pov			Hi	Sp gh Po	olit wer			Con	nfort		Hie	Supe gh Pov		5	Split D Hi	HW in gh Po		ed typ	e	Cor	nfort	
			1Ø 16		Ø		Ø		3Ø	16	_		Ø	10	10	_	Ø	_	Ø		3Ø		_		Ø 8	10
		UTW-KZSXE	16  -	15 _	17 -	•	•	•	•	16	•	•	8	•	16	15 _	17 _	- -	14	-	14    -	16 _	- -	6	-	10    -
2nd Circuit Kit	T	UTW-KZDXE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	•	•	•	•	•	•	•	•	•
Ziid Circuit Kit		UTW-KZSXJ	•	•	•	_	_	_	_	-	-	_	-	-	_	_	_	_	_	_	_	_	-	_	_	_
		UTW-KZDXJ	_	-	_	_	-	_	-	_	_	_	_	_	•	•	•	_	-	-	-	_	_	-	_	_
	D	UTW-KBSXD	-	_	_	•	•	•	•	•	•	•	•	•	-	-	_	-	-	-	-	-	-	_	-	-
Boiler Connection Kit	3	UTW-KBDXD	-	-	_	-	-	-	-	-	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•
		UTW-KBSXJ	•	•	•	-	-	_	-	-	_	_	-	_	•	•	•	_	-	-	-	-	-	-	-	-
Balancing Vess	el 🕌	UTW-TEVXA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DHW Kit		UTW-KDWXD (External)	•	•	•	•	•	•	•	•	•	•	•	•	-*1	_*1	_*1	_*1	_*1	_*1	_*1	_*1	_*1	_*1	-*1	_*1
DHW Tank	200 Liter 300 Liter	UTW-T20AXH UTW-T30AXH	•	•	•	•	•	•	•	•	•	•	•	•	-*1	-*1	_*1	-* <sup>1</sup>	-*1	-*1	-*1	-*1	-* <sup>1</sup>	-* <sup>1</sup>	-*1	_*1
	200 Liter 300 Liter	UTW-T20BXH UTW-T30BXH	•	•	•	•	•	•	•	•	•	•	•	•	-*1	-*1	-* <sup>1</sup>	-*1	-* <sup>1</sup>	-* <sup>1</sup>	-* <sup>1</sup>	-*1	-* <sup>1</sup>	-* <sup>1</sup>	-*1	_*1
Circulating Pun	np 👣	UTW-PHFXG	•	•	•	•	•	•	•	•	_	_	_	_	•	•	•	•	•	•	•	•	_	_	_	_
Swimming Pool Kit		UTW-KSPXD	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Heat Exchanger Swimming Pool I	for Kit	UTW-ESPXA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Cooling Kit		UTW-KCLXD	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Regulation Extension Kit		UTW-KREXD	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Low Noise Kit		UTW-KLNXE	•	•	•	•	•	•	•	•			-		•	•	•	•	•	•	•	•	-	-		_
Drain Pan		UTW-KDPXA	_	-	_	_	-	_	_	_	•	•	•	_	_	_	_	_	-	-	-	_	•	•	•	_

							SI											plit DI	HW in	tegrat		oe			
		Hic	Super 3h Pov	ver											Supei gh Pov	ver									
		1Ø 16	15	Ø 17				3Ø							15	Ø 17	1 11	Ø 14	11	3Ø				Ø 8	
sscade Master Kit ncl. LPB Clip)	UTW-KCMXE	_	-	-	•	•	•	•	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ascade Slave t ncl. LPB Clip)	UTW-KCSXE	-	-	_	•	•	•	•	•	-	_	-	-	-	-	-	-	-	_	-	-	-	_	-	_
MI Kit	UTW-KHMXE*3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
emote Wired	UTW-C74TXF*3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ontroller	UTW-C74HXF* <sup>3</sup>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Wired Oom	UTW-C55XA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Wireless	UTW-C58XD	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
utdoor Sensor (%)	UTW-MOSXD	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
odules for BSB-Port	UTW-MRCXD	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
eb Server	UTW-KW1XD UTW-KW4XD	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PB Clip	UTW-KL1XD	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ODBUS Clip	UTW-KMBXJ	●* <sup>7</sup>	●* <sup>7</sup>	•* <sup>7</sup>	●* <sup>7</sup>	•* <sup>7</sup>	●* <sup>7</sup>	●* <sup>7</sup>	•* <sup>7</sup>	•* <sup>7</sup>	●* <sup>7</sup>	●* <sup>7</sup>	•* <sup>7</sup>	●* <sup>7</sup>	•* <sup>7</sup>	•* <sup>7</sup>	•* <sup>7</sup>	●* <sup>7</sup>	●* <sup>7</sup>	●* <sup>7</sup>	•* <sup>7</sup>	•* <sup>7</sup>	●* <sup>7</sup>	●* <sup>7</sup>	• *
ervice Tool ncl. OCI700 dapter)	UTW-KSTXD	<b>●*</b> <sup>5</sup>	●* <sup>5</sup>	●* <sup>5</sup>	●* <sup>5</sup>	•* <sup>5</sup>	●* <sup>5</sup>	<b>●</b> * <sup>5</sup>	●* <sup>5</sup>	• '															
ervice Tool oftware	UTW-KPSXD	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	●* <sup>6</sup>	•* <sup>6</sup>	●* <sup>6</sup>	•,
kternal	UTY-XWZXZ2	-	-	-	•	•	•	•	•	-	-	-	-	-	-	-	•	•	•	•	•	-	-	-	_
onnect Kit																									

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

\*3: 19 Languages included, no separate Eastern European RC necessary. C74TXF: Built in Room Temperature sensor C74HXF: Built in Room temperature and Humidity sensor

\*4: Eastern European Language(English, Czech Republic, Slovakia, Poland, Turkey, Hungary, Russia, Slovenia, Greece, Serbia)

\*5: UTW-KL1XD is required for the connection.

\*6: UTW-KW1XD or UTW-KW4XD is required for the connection.

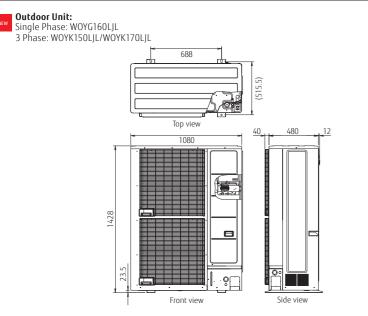
\*7: Additional optional parts necessary.

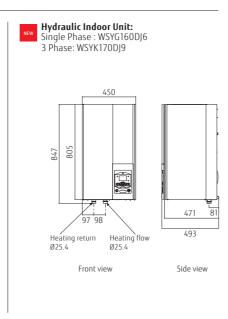
# Specifications & Dimensions

# for Split Type Super High Power Series

Specifications						Tent	ative					
		Hydraulic indoor unit		WSYG	160DJ6	WSYK1	70DJ9	WSYK1	170DJ9			
Model Name	Name   Hydraulic indoor unit		WOYG	160LJL	WOYK	150LJL	WOYK	170LJL				
Capacity range	A state of the sta		1	6		5	1					
		Heating capacity	Law	16	.00	15.	.00	17.	.00			
7°C/35°C floor heati	floor heating *1 Heating capacity Input power COP  Heating capacity Input power COP  Beating characteristics*  Beat output(P <sub>rated</sub> ) Is pace heating energy efficiency(n <sub>S</sub> ) Beat output(P <sub>rated</sub> ) Is pace heating energy efficiency (n <sub>S</sub> ) Beat output(P <sub>rated</sub> ) Is pace heating energy efficiency (n <sub>S</sub> ) Beat output(P <sub>rated</sub> ) Is pace heating energy efficiency (n <sub>S</sub> ) Beat output(P <sub>rated</sub> ) Is pace heating energy efficiency (n <sub>S</sub> ) Beat output(P <sub>rated</sub> ) Input power COP  Beating capacity Input power COP  Meating capacity Input power COP  Beating capacity Input	Input power	⊢ kW ⊢	3.	86	3.	46	4.	10			
		COP	·	4.	15	4.	33	4.	15			
	Hydraulic indoor unit	Heating capacity	kW	13	.30	13.	20	13.	.50			
2°C/35°C floor heati		Input power	T KWV	4.	25	4.	06	4.	27			
				13	3.	25	3.	16				
		Heating capacity	kW	14	.50	13.	20	15.	.00			
-7°C/35°C floor heat	ange  oor heating *1  oor heating *1  oor heating *1  oor heating *1  linput power  COP  Heating capacity Input power  COP  Heating capacity Input power  COP  Heating capacity Input power  COP  Input power  COP  Heating capacity Input power  COP  Input power  COP  Heating capacity Input power  C	Input power	T KVV	5.	27	4.	55	5.	32			
	-	COP		2.	75	2.	90	2.	82			
Temperature applic			°C	55	35	55	35	55	35			
Energy efficiency cl	The floor heating *1 Input power  COP  Heating capacity Input power  Input power  COP  Heating capacity Input power  Input power  COP  Heating capacity Input power  COP  Heating capacity Input power  Input power  Input power  Input power  Horal capacity Input p			A++	A++	A++	A++	A++	A++			
	Name    Hydraulic indoo   Outdoor unit		kW	14	16	16	17	17	18			
		$(\eta_s)$	%	125	163	130	164	130	161			
Annual energy con:			kWh	8,757	8,014	9,915	8,606	10,232	9,05			
Sound power level	Hydraulic indoor un	it	dB(A)	45	45	45	45	45	45			
	outdoor unit  outdoor unit  outdoor unit  outdoor unit  linput power COP  Heating capaci Input power COP  Input power I		UD(A)	67	66	67	66	67	68			
	nit Specification											
Power source					e, 230 V 50 Hz			400 V 50 Hz				
Dimensions H×W×[	)		mm		50 × 471			50 × 471				
Weight (Net)			kg		2.5			2.5				
Water circulation		Min/Max	L/min		/57.8	24.0			/61.4			
Buffer tank capacit			L		!5	25						
			L		0			10				
		Max	°C		0			60				
	tion diameter	Flow/Return	mm		/Ø 25.4			ï 25.4				
Backup heater		Capacity	kW	6.0(3.0k	W×2pcs.)		9.0(3.0k	(W×3pcs.)				
	ification											
Power source					e, 230 V 50 Hz			400 V 50 Hz				
Current		Max	A		.00		0		+.0			
	× D		mm		080 × 480	1,428 × 1,			080 ×480			
Weight (Net)			kg	1	37	13		13	38			
Refrigerant						R410A						
		Charge	kg		80	3.			80			
Additional refrigera	ant charge amount		g/m		0	5			0			
	Diameter		-  mm  -		9.52	Ø 9		Ø 9				
_					5.88	Ø 15			5.88			
Connection pipe			m		30	5/			30			
			m	1	5	1		1	5			
	Height difference		m			25/15 (Outdoor u						
Operation range	er circulation Min/Max er tank capacity ansion vessel capacity ving water temperature range Max er pipe connection diameter Flow/Return kup heater Capacity door unit specification rer source ent Max ensions H × W × D ght (Net) igerant Type (Global War Charge itional refrigerant charge amount Diameter Liquid Gas nection pipe Length Min/Max Length Min/Max Length Min/Max Length Min/Max Length Min/Max		°C	-25	to 35	-25 t	o 35	-25 t	to 35			

#### Dimensions



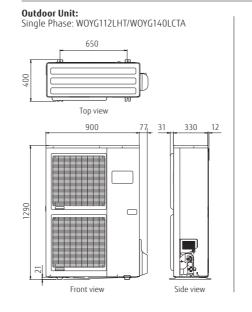


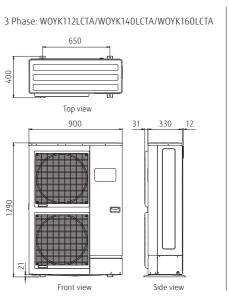
# for Split Type High Power Series

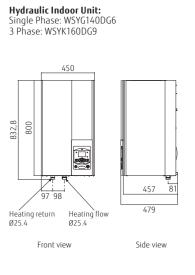
#### Specifications

Model Name		Hydraulic indoor unit		WSYG1			40DG6		60DG9		60DG9		160DG9
	acity range  35°C floor heating *¹  40°C floor heating *²  40°C floo	Outdoor unit		WOYG1			40LCTA		12LCTA		40LCTA		60LCTA
Capacity range				1			4		1		4		16
			kW	10.			.50		.80		.50		.17
7°C/35°C floor heating	Name  ty range  "C floor heating *1  Heating capacity Input power  COP	Input power	KVV	2.5			23	2.	51		20		.70
	Name  ty range  "C floor heating *1  Input power  COP  Heating capacity  Input power  COP  theating characteristics*  rature application  efficiency class  theat output(P <sub>rated</sub> )  that space heating energy efficiency(η <sub>s</sub> )  I energy consumption  power level  Hydraulic indoor unit  Outdoor unit  Ulic indoor unit Specification  source  sions H×W×D  (Net)  irrculation  tank capacity  go water temperature range  po theater  D heater  D heater  Type (Global Warmin Charge  son H×W×D  (Net)  Type (Global Warmin Charge  to the figure of the fi	COP		4.2		4.	.18		30		22		.10
	Name   Outdoor unit			10.			.00		.77		.00		.50
2°C/35°C floor heating	As a city range  (35°C floor heating *1		kW	3.4	44	3.	87	3.	40		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 heati	ing*1	Input power	T KVV	4.	32	5.	08	4.	28	5.	13	5.	40
		COP		2.4	40	2.	27	2.	43	2.	38	2.	50
Space heating char	acteristics*2									•			
Temperature applica	perature application  yy efficiency class  d heat output(\$P_{ratea}\$)  onal space heating energy efficiency(\$\mathbf{\eta}_s\$)  al energy consumption  d power level  Hydraulic indoor unit  Outdoor unit  aulic indoor unit Specification  or source			55	35	55	35	55	35	55	35	55	35
Energy efficiency cla	ass			A+	A++	A+	A+	A+	A++	A+	A++	A+	A+
			kW	9	11	11	13	9	11	11	13	13	14
Seasonal space hea	ting energy efficiency	'(η <sub>s</sub> )	%	112	151	113	148	112	154	117	150	117	149
Annual energy cons	umption		kWh	6,704	6,062	8,041 6,824		6,669 5,930		7,803	6,738	9,062	7,40
Causal sauras laural	Outdoor unit			46		46		46		4	6	4	6
Sound power level	Outdoor unit raulic indoor unit Specification		dB(A)	6	8	6	59	69	68	70	68	7	71
Hydraulic indoor ur	ydraulic indoor unit Specification												
Power source					ngle-phase	, 230 V 50 I	Hz			3-phase, 4	00 V 50 Hz		
Dimensions H×W×D			mm		800 × 45	50 × 457				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 capacity	1		L		1	6				6			
Expansion vessel ca	pacity		L		8	3					8		
Leaving water temp	erature range	Max	°C		6	0		60					
		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.)		
	ication					F/					/		
Power source				Si	ngle-phase	, 230 V 50 I	Hz			3-phase. 4	00 V 50 Hz		
Current		Max	Α	22			5.0	9	.0		.5	10	0.5
Dimensions H × W ×	D		mm						900 ×330				
Weight (Net)			kg		9	2				9	19		
		Type (Global Warming P						R410A	(2,088)				
Refrigerant			kg						50				
Additional refrigera	nt charge amount	1 3-	g/m						0				
	1	Liquid							0.52				
	Diameter		mm						5.88		6,738 9,062 6 68 00 V 50 Hz 50 × 457 22 48.7 27. 6 3 0 0 00 25.4 W×3pcs.)		
Connection pipe	Length		m					5/					
F F.	Length(Pre-charge)		m						5				
		Max	m						5			WOYKI	
									to 35				

#### **Dimensions**







<sup>\*1:</sup>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 https://www.fujitsu-general.com/global/support/downloads/search/index.html

<sup>\*1:</sup>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 https://www.fujitsu-general.com/global/support/downloads/search/index.html

# for Split Type Comfort Series

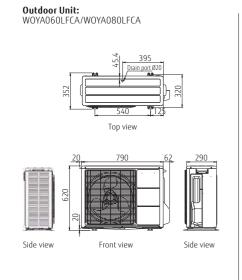
#### Specifications

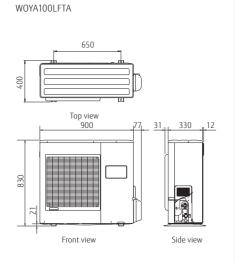
Model Name		Hydraulic indoor unit	t		50DG6		100DG6		00DG6							
Model Name		Outdoor unit		WOYA0	60LFCA	WOYAC	060LFCA	WOYA0	80LFCA	WOYA1	00LFTA					
Capacity range					5		6	{			0					
	Name  Outdoor unit  ity range  "C floor heating *1	Heating capacity	- kW		50		.00		50							
7°C/35°C floor heating	ng *1		KVV	0.9	996		.41	1.		2.	49					
		COP			52		.27	4.								
	Heating capacity Input power COP Input power Input		kW		50		.95	5.								
2°C/35°C floor heating	Hydraulic indoor of Outdoor unit  Heating capacity Input power COP Heating standard capacity Input power COP Heating capacity Input power COP Heating capacity Input power COP Heating capacity Input power COP  Input power COP  Input power COP  Input power COP  Outdoor unit	Input power	NVV	1.	39	1.	.53	1.	78	2.	47					
		COP		3.	24	3.	.24	3.	17	3.	12					
	Hydraulic indoor unit	kW	4.	10	4.	.60	5.	70	7.	40						
-7°C/35°C floor heati		Input power	T KVV	1.	47	1.	.74	2.	23	2.	97					
		COP		2.	79	2.	.64	2.	56	2.	49					
Space heating char	C floor heating *1  C floor heating *1  C floor heating *1  PC floor heating *1  The teating capacity input power cope in the power level in the power level in the power cope															
Temperature applica			°C	55	35	55	35	55	35	55	35					
Energy efficiency cla			•	A+	A++	A+	A++	A+	A++	A+	A++					
Rated heat output(F	O <sub>rated</sub> )		kW	4	4	5	5	6	7	8	8					
		/(η <sub>s</sub> )	%	115	169	115	169	118	156	113	155					
Annual energy cons	umption		kWh	3,026	2,160	3,180	2,505	3,886	3,375	5,415	4,415					
		nit			6		46	4								
Sound power level	COP Heating capacit Input power COP  eating characteristics*2 sture application efficiency class eat output(P <sub>rated</sub> ) of space heating energy efficiency (n <sub>s</sub> ) energy consumption ower level Hydraulic indoor unit Outdoor unit ic indoor unit Specification ource ons H×W>D (Net) roulation Min/Max ank capacity on vessel capacity water temperature range pe connection diameter Flow/Return heater Capacity r unit specification ource  Max Ons H × W × D (Net) Type (Global Warr Charge and Irefrigerant charge amount		dB(A)	B(A) 65 60 65 63 65 69 68 69												
Hydraulic indoor un	nit Specification					'										
Power source							Single-phase	230 V 50 Hz								
Dimensions H×W×D			mm				800 × 45	50 × 457								
Weight (Net)			kg				4	2								
Water circulation	(Net) circulation Min/Max		L/min	8.1/	16.2	10.8	3/21.7	13.5	/27.1	18.1	/36.1					
Buffer tank capacity	1		L				1	6								
Expansion vessel ca	pacity		L				3	3								
Leaving water temp	erature range	Max	°C				5	5								
		Flow/Return	mm				Ø 25.4/	Ø 25.4								
Backup heater		Capacity	kW				6.0(3.0k)	W×2pcs.)								
Outdoor unit specif	ication	· · · · ·						1 /								
Power source							Single-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 × 9	00 × 330					
Weight (Net)			kg		4	1		4	2	6	0					
Refrigerant		Type (Global Warming I					R410A									
Kerrigerani		Charge	kg		1.	10		1.4	40	1.	80					
Additional refrigera	nt charge amount		g/m				25				-0					
	Diamotor		mm				6.35				9.52					
	Diameter	Gas	1111111		Ø 1	2.7			Ø 1	5.88						
Connection pipe			m				5/									
	Length(Pre-charge	)	m				1									
										10.1 2.4 4.0 7.7 2.4 3.1 7.4 2.5 2.4 2.5 55 A+ 8 8 113 5,415 68  18.1/						
	Height difference	Max	m				2	0								

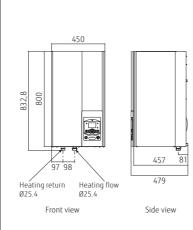
<sup>\*1:</sup>The values of heating capacity/input power/COP are based on measurement of EN14511 standard. Usage environment, such as operation of the heating equipment, room temperature, and controller adjustments, may cause disparities between practically determined values and

#### Dimensions

292







Hydraulic Indoor Unit:

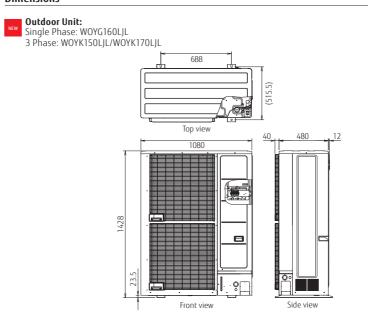
# for Split DHW Integrated Type Super High Power Series

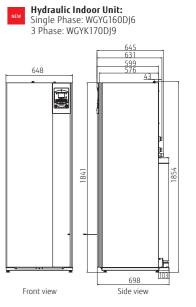
pecifications						Tent	ative		
Madal Name		Hydraulic indoor unit		WGYO	i160DJ6	WGYK	170DJ9	WGYK	170DJ9
		Outdoor unit		WOY	i160LJL	WOYK	150LJL	WOYK	170LJL
Capacity range					16		15	1	
		Heating capacity	LAM	10	5.00	15	.00	17	.00
7°C/35°C floor heat	ing *1	Input power	- kW -	3	.86	3.	46	4.	10
		COP		4	.15	4.	.33	4.	.15
		Heating capacity	134/	1:	3.30	13	.20	13	.50
2°C/35°C floor heat	ing *1	Input power	- kW -		.25	4.	.06	4.	27
	,	COP		3	.13	3.	.25	3.	16
		Heating capacity	T		4.50		.20		.00
-7°C/35°C floor heal	tina*¹	Input power	- kW	5	.27	4.	.55	5.	32
	,	COP			.75		.90		82
Space heating cha	racteristics*2	·				'		•	
Temperature applic			°C	55	35	55	35	55	35
Energy efficiency cl			•	A++	A++	A++	A++	A++	A++
Rated heat output			kW	14	16	16	17	17	18
	ating energy efficiency	/(η <sub>s</sub> )	%	125	163	130	164	130	161
Annual energy con			kWh	8,757	8,014	9,915	8,606	10,232	9,05
	Hydraulic indoor ur	nit		45	45	45	45	45	45
Sound power level	Outdoor unit		dB(A)	67	66	67	66	67	68
Domestic hot water	er characteristics*2								
Load profile							L		
Energy efficiency cl	lass						A		
Energy efficiency(n	wh)		%			1	09		
Annual electricity of	consumption		kWh			9	41		
Hydraulic indoor u	nit Specification								
Power source				Single-phas	e, 230 V 50 Hz		3-phase,	400 V 50 Hz	
Dimensions H×W×[	)		mm			1,841 × 6	548 × 698		
Weight (Net)			kg			1	66		
Water circulation			L/min	26.4	4/57.8	24.0	/54.2	27.3	/61.4
DHW capacity			L			1	90		
Hot water heater ca	apacity		kW			1	.5		
Expansion vessel c			L				12		
Leaving water tem		Max	°C			6	50		
Water pipe connect		Flow/Return	mm			Ø 25.4	/Ø 25.4		
Hot water pipe con			mm				9.05		
Backup heater		Capacity	kW	6.0(3.0	«W×2pcs.)		9.0(3.0	(W×3pcs.)	
Outdoor unit speci	ification						,,,,,,		
Power source				Single-phas	e, 230 V 50 Hz		3-phase,	400 V 50 Hz	
Current		Max	A		8.0		1	4.0	
Dimensions H × W	× D		mm	1,428 × 1	,080 × 480		1,428 × 1	,080 × 480	
Weight (Net)			kg		137			38	
Refrigerant		Type (Global Warming I	Potential)		(2,088)			(2,088)	
		Charge	kg		.80		3	.80	
Additional refrigera	ant charge amount		g/m		50			50	
	Diameter	Liquid			9.52			9.52	
	Diameter	Gas	mm		15.88			5.88	
Connection pipe	Length	Min/Max	m	5	/30		5.	/30	
	Length(Pre-charge	)	m		15			15	
	Height difference	Max	m		15			15	
Operation range		Heating	°C	-25	to 35		-25	to 35	

<sup>\*1:</sup>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 https://www.fujitsu-general.com/global/support/downloads/search/index.html

## Dimensions





these values.

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

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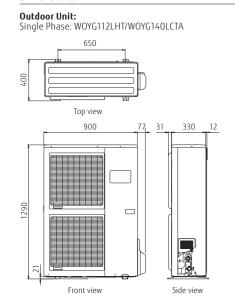
# for Split DHW Integrated Type High Power Series

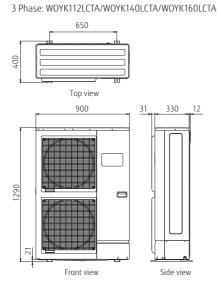
#### Specifications

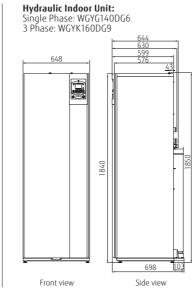
Model Name		Hydraulic indoor unit			40DG6		40DG6	WGYK1			160DG9		60DG9			
		Outdoor unit		WOYG1			40LCTA	WOYK1			40LCTA		60LCTA			
Capacity range	Heating capace   Input power			1			4	1			14		6			
	Type (Global War  Name  Outdoor unit  ty range  C floor heating *1  Toput power  COP  Heating capacit Input power  COP  Heating capacit In				.80		.50	10.			.50		.17			
7°C/35°C floor heating	3 * 1		kW	2.			23	2.			.20		70			
		COP		4.			18	4.			.22		10			
		Heating capacity	kW	10.			.00	10.			.00		.50			
2°C/35°C floor heating	g *¹	Input power	N V V		44	3.	87	3.4			.15		34			
	Name  ty range  C floor heating *1  Input power  C floor  Heating capacity Input power  Input power  C floor  Heating capacity Input power  C floor  Heating capacity Input power  Input power  C floor  Heating capacity Input power  Input powe			3.			10	3.			.13		.11			
		Heating capacity	kW	10.	.38	11	.54	10.	38	12	.20	13	.50			
-7°C/35°C floor heatin	g*1	Input power	7 KVV	4.	32	5.	08	4	28	5.	.13	5.	40			
	-	COP		2.4	40	2.	27	2.4	43	2.	38	2.	50			
Space heating charac	cteristics*2															
Temperature applicat			°C	55	35	55	35	55	35	55	35	55	35			
Energy efficiency clas				A+	A++	A+	A+	A+	A++	A+	A++	A+	A+			
Rated heat output(P,			kW	9	11	11	13	9	11	11	13	13	14			
		(n <sub>c</sub> )	%	112	151	113	148	112	154	117	150	117	149			
		1 137	kWh	6,704	6,062	8,041	6,824	6.669	5,930	7,803 6,738		9,062	7.408			
3,		nit			6		6	4			+6		6			
Sound power level	Outdoor unit		dB(A)		8		9	69	68	70	68		1			
Domestic hot water o							-									
Load profile																
	is.							F	١							
	red heat output(P <sub>rated</sub> )  sonal space heating energy efficiency(η <sub>S</sub> )  mual energy consumption  unal energy consumption  dudoor unit  mestic hot water characteristics*  and profile  ergy efficiency class  ergy efficiency class  ergy efficiency onsumption  draulic indoor unit Specification  wer source  mensions H*W*D  light (Net)  ter circulation  W capacity  t water heater capacity  soning water temperature range  Max  ter pipe connection diameter  Flow/Return							8								
			% kWh					11								
			1 111111													
Power source				S	ingle-phase	230 V 50 F	7			3-phase, 4	00 V 50 Hz					
Dimensions H×W×D			mm				-	1,840× 6	48 × 698	- peee/						
Weight (Net)			kg					15								
Water circulation			L/min	19.5	/39.0	24.4	/28.7	19.5/		24.4	/48.7	27.4	/54.8			
DHW capacity			1	13.3	190											
	acity		kW		1.5											
								1								
		Max	1 %					6								
			mm					Ø 25.4								
		o.wiketain	mm					Ø 19								
Backup heater	.c.o.r didiricter	Canacity	kW		6.0(3.0k	Wx2ncs 1		, J 1.		9 0(3 01	:W×3pcs.)					
	ation	Capacity	I KW		0.0(3.08	****Zpc3./				J.U[J.U	.wspcs./					
Power source	Johnson			S	ingle-phase	230 V 50 F	7			3-nhase 4	+00 V 50 Hz					
Current		May	A		1.0		5.0	9	n		1.5	10	).5			
Dimensions H × W × D	)	IMOX	mm			Z.	7.0	1,290 × 9		1 3		10	,			
Weight (Net)	,		kg		C	12		1,230	100 330	C	99					
		Type (Clobal Warming B				12		R410A	2 0887		13					
Refrigerant			kg					2.								
Additional refrigerant	t charge amount	Charge	q/m					5								
Auditional reingerani	i charge amount	Liquid	9/111													
	Diameter		mm													
Connection sine			H					Ø 15								
Connection pipe			m													
-			m					1								
0 .:	neight difference		m													
	source  sions H×W×D  (Net)  circulation  apacity  ter heater capacity  sion vessel capacity  grace temperature range  pipe connection diameter  ter pipe connection diameter  ter pipe connection diameter  or unit specification  source  i. Max  sions H × W × D  (Net)  rant  Diameter  Diameter  Liquid  Gas		l °C	-25 to 35												

<sup>\*1.</sup>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

#### Dimensions







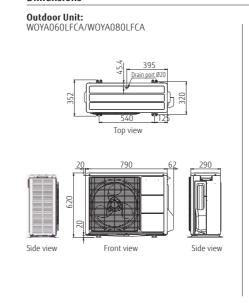
# for Split DHW Integrated Type Comfort Series

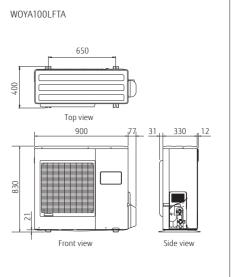
#### Specifications

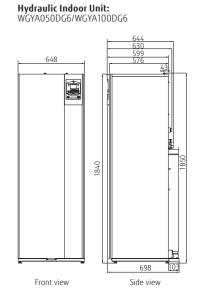
Model Name	Heating capacit   Input power   COP   Input power   Input power   COP   Input power   Inp	Hydraulic indoor unit			)50DG6		00DG6		100DG6		100DG6	
		Outdoor unit			60LFCA	WOYA0			80LFCA			
Capacity range					5		6		8		10	
	. 1		- kw		50	6.0			50		0.00	
7°C/35°C floor heati	ing *'		KW		996	1.4			84			
					52	4.2			08		.02	
			kW		50	4.9			65	WOYA  100 22 44 77 22 33 77 22 25 55 A+ 8 113 5,415 68  18.1	.70	
2°C/35°C floor heati	ing *1		KVV		39	1.5			78		.47	
		COP		3.	24	3.2	24	3.	.17	3.	.12	
	Name  Outdoor unit  ty range  (C floor heating *1  C floor heating *1  (C floor heating *1  (D Heating capacity Input power (COP)  Heating capacity Input power Input po	Heating capacity	kW	4.	10	4.6	60		.70	7.	.40	
-7°C/35°C floor heat		Input power	] KW [	1.	47	1.7			23	2.	.97	
		COP		2.	79	2.6	64	2.	56	2.	.49	
Space heating cha												
		°C	55	35	55	35	55	35	55	35		
				A+	A++	A+	A++	A+	A++	A+	A++	
			kW	4	4	5	5	6	7		8	
		v(n <sub>c</sub> )	%	115	169	115	169	118	156		155	
		/ 1 12/	kWh	3,026	2,160	3,180	2,505	3,886	3,375		4,41	
	Outdoor unit	nit			6	3,100			6		46	
Sound power level	Outdoor unit		dB(A)	65	60	65	63	65	69		69	
Domestic hot water	Heating capacity Input power COP  The heating characteristics*2  Deriature application gy efficiency class d heat output(P <sub>nated</sub> ) onal space heating energy efficiency(n <sub>s</sub> ) ual energy consumption Ind power level The discovery of the specific of the spec			- 03	- 55	- 03	- 55	- 03		- 00	- 03	
Load profile	i characteristics							I				
	200							\+				
		1 %					20					
	ual electricity consumption					-		80				
			kWh				- 00	30				
Power source	int specification						Single-phase	e 230 V 50 Hz				
	)		mm					648 × 698				
	,							52				
				0.1/	16.2	10.8/		13.5	/27.1	10.1	/26.1	
			kg   L/min   8.1/1		10.2	10.0/		90	121.1	10.1	130.1	
			kW									
								.5				
		M	L					12				
			°C					55				
		riow/Keturn	mm	<u> </u>				/Ø 25.4				
	nection diameter	16 "	mm	<b></b>				9.05				
Backup heater	6	Lapacity	kW				6.0(3.0k	w×2pcs.)				
	rication						C:II	2201/5011				
		1		<b></b>		2.5	Single-phase	230 V 50 Hz	7.5		0.5	
Current		Max	A	<u> </u>	12	2.5	00 200	1	7.5			
	× D		mm	<b></b>		620 × 79	JU ×290		2			
Weight (Net)		T (6) 1 1111 -	kg		4	41			12	6	50	
Refrigerant						10	R410A	(2,088)	10		00	
		Lnarge	kg		1.	.10	-	1.	40			
Additional refrigera	ant charge amount	Tree et	g/m				.5				40	
	Diameter		mm			Ø 6	.35				1.52	
					Ø 1.	2.70			Ø 1:	5.88		
Connection pipe			m					30				
			m					15				
	Height difference	Max	m					20		W0YA1 1 100 2. 4. 7. 2. 3. 7. 2. 55 A+ 8 113 5,415 4 68  18.1. 18.1. 4 68		
			°C			-20 to 35						

<sup>\*1:</sup>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.

#### Dimensions







these values.

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

<sup>\*2:</sup>All information of ErP can be available for downloaded from https://www.fujitsu-general.com/global/support/downloads/search/index.html