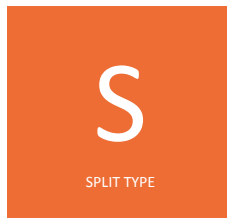


## WATERSTAGE™ – Product News

### ***New Generation of Waterstage Heat Pumps***



We are pleased to inform you about the new Waterstage Indoor- and Outdoor Units for the Compact, Comfort and High Power Series.



Our Air to Water Heat pumps are adapted to the European regulations (EU) 811/2013 and (EU) 813/2013 - also know as Ecodesign directive.



In addition to software-side adjustments in the outdoor unit, the indoor units have been revised.

More information on the following pages.

# WATERSTAGE™ – Product News



Overview about the outdoor and indoor units of High Power and Comfort series.

		Outdoor		Indoor		Indoor DHW Integrated	
		Actual Model	New Model	Actual Model	New Model	Actual Model	New Model
High Power		WO*K112LCT	WO*K112LCTA				
		WO*K140LCT	WO*K140LCTA	WS*K160DC9	WS*K160DG(9)	WG*K160DD9	WG*K160DG(9)
		WO*K160LCT	WO*K160LCTA				
		WO*G112LCT	WO*G112LCTA				
		WO*G140LCT	WO*G140LCTA	WS*G140DC6	WS*G140DG(6)	WG*G140DD6	WG*G140DG(6)
		Outdoor		Indoor		Indoor DHW Integrated	
		Actual Model	New Model	Actual Model	New Model	Actual Model	New Model
Comfort		WO*A060LDC	WO*A060LFCA	WS*A050DD6	WS*A050DG(6)	WG*A050DD6	WG*A050DG(6)
		WO*A060LDC	WO*A060LFCA				
		WO*A080LDC	WO*A080LFCA	WS*A100DD6	WS*A100DG(6)	WG*A100DD6	WG*A100DG(6)
		WO*A100LDT	WO*A100LFTA				

# WATERSTAGE™ – Product News



Overview about the outdoor and indoor units of the compact series.

		Outdoor		Indoor	
Compact	Actual Model	New Model	Actual Model	New Model	
		WP*A050LE	WP*A050LG	WS*P100DF6	WS*P100DG6
		WP*A080LE	WP*A080LG		
		WP*A100LE	WP*A100LG		

## WATERSTAGE™ – Product News

### What's new at Outdoor Unit?

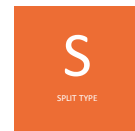
In order to improve the daily operation of our heat pump, the communication method between indoor and outdoor unit was completely renewed. More information can be exchanged and displayed and the capacity control was improved.

#### High Power model

- ErP rating modes added
- Communication changed to 128bit (more information can be exchanged within one telegram)
- Change from collective error code to separate error codes
- More steps are available for the compressor control now

#### Comfort model

- Operation for pipe length up to 30 m and vertical height of 20 m
- Prefilled up to 15 m pipe length
- ErP rating modes
- Communication changed to 128bit (more information can be exchanged within one telegram)
- Change from collective error code to separate error codes
- More steps are available for the compressor control now



## WATERSTAGE™ – Product News

S

SPLIT TYPE

SD

SPLIT DHW INTEGRATED TYPE

### What' new at the Indoor Unit?

#### Fujitsu brand

- New controller generation (RVS21-F)  
Energy meter measurement estimation function  
Consumption (kWh) of electrical energy display
  - New Interface PCB (UART)  
UART is a communication protocol to realize digital serial interface.  
This communication is used to send and receive data  
(in conjunction with RVS21-F)
- 1<sup>st</sup> change: From analog to serial communication between heat pump controller and interface PCB
- 2<sup>nd</sup> change: Interface PCB to outdoor unit (communication change from 48 to 128bit)
- The LCD display shows a “clear text” info for error error codes of indoor and outdoor units
  - SG-Ready controlling possible (see page 12)

## FUJITSU



#### Hydraulic Indoor Unit for High Power / Comfort

WSYK160DG9, WSYA050DG6  
WSYG140DG6, WSYA100DG6  
WGYK160DG9, WGYA050DG6  
WGYG140DG6, WGYA100DG6

# WATERSTAGE™ – Product News

S  
SPLIT TYPE

SD  
SPLIT DHW INTEGRATED TYPE

## What' new at the Indoor Unit?

### General brand

- New controller generation (RVS21-F)  
Energy meter measurement estimation function  
Consumption (kWh) of electrical energy display
  - New Interface PCB (UART)  
UART is a communication protocol to realize digital serial interface.  
This communication is used to send and receive data  
(in conjunction with RVS21-F)
- 1<sup>st</sup> change: From analog to serial communication between heat pump controller and interface PCB
- 2<sup>nd</sup> change: Interface PCB to outdoor unit (communication change from 48 to 128bit)
- The LCD display shows a “clear text” info for error error codes of indoor and outdoor units
  - SG-Ready controlling possible (see page 12)
  - **Please note: General brand has no more backup heater included!**  
**Backup heater optional:**  
**6kW (1-phase) UTW-HS6XG**  
**9kW (3-phase) UTW-HT9XG**

### GENERAL



**Hydraulic Indoor Unit for High Power / Comfort**  
 WSHK160DG, WSHA050DG  
 WSHG140DG, WSHA100DG  
 WGHK160DG, WGHA050DG  
 WGHG140DG, WGHA100DG



## **WATERSTAGE™** – Product News

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### **What's new at Outdoor Unit?**

All Monobloc units are now adapted to the Ecodesign directive

#### **Compact model**

- ErP rating modes added
- 8 & 10 kW Monobloc have high efficiency hydraulic pumps now, (5kW Monobloc is already equipped with)
- Small changes at safety group





## WATERSTAGE™ – Product News



### What's new at Indoor Unit?

- The new compact Hydraulic Indoor Unit has two electrical heaters: each with 3kW power and for each heater a separate power supply is necessary
- Only two pipe connections in the flow pipe necessary (see system diagram page 8)
- New controller generation (RVS21-F). Connection to Modbus building management systems (optional part required)
- Space-saving installation of the DHW kit within the hydraulic unit. Boiler-Kit is foreseen for future (same Kit)
- Integrated heat meter measurement by integrated volume flow sensor. Produced heat energy will be displayed on demand
- 12 l expansion vessel integrated
- SG-Ready controlling possible (see page 12)
- Pulse input for power energy meter integrated. Consumption (kWh) of electrical energy display



Hydraulic Indoor Unit for  
Monobloc WS\*P100DG6

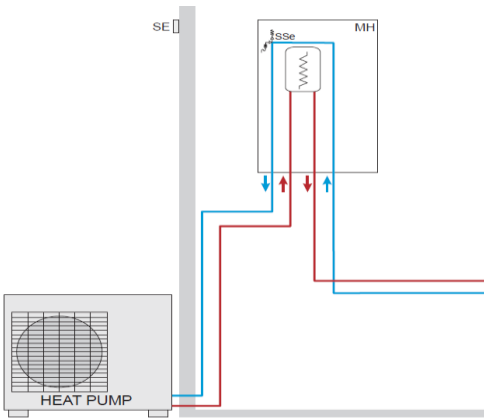




Actual: Indoor Unit WSYP100DF6



- Necessary to install flow and return pipes
- External heat meter can be retrofitted

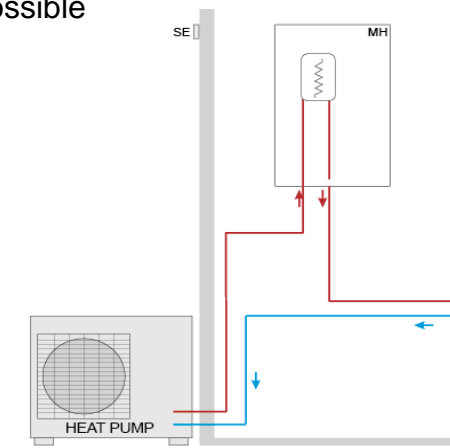


Piping Indoor Unit WSYP100DF6

New: Indoor Unit WSYP100DG6

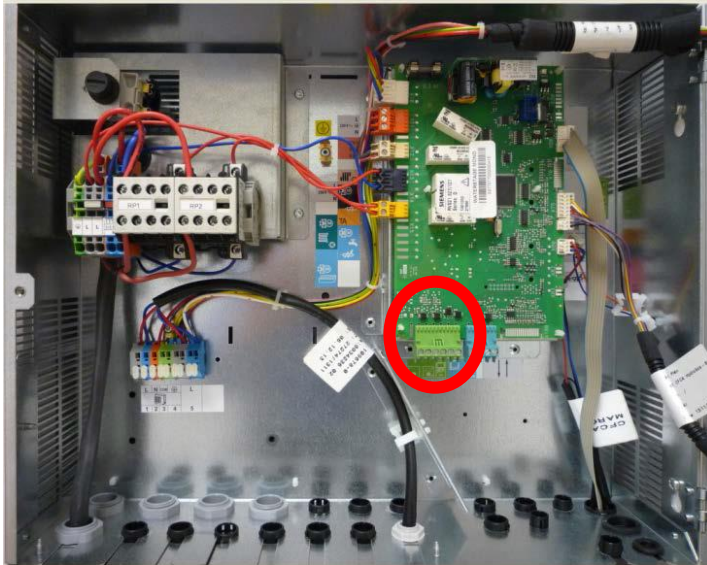


- Connection only in flow pipe, return pipe directly to the heat pump
- Integrated flow sensor and heat meter display
- Modbus possible



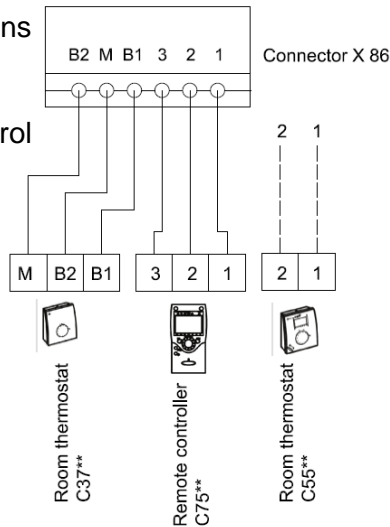
Piping Indoor Unit WSYP100DG6

## Actual: Hydraulic Indoor Unit WSYP100DF6

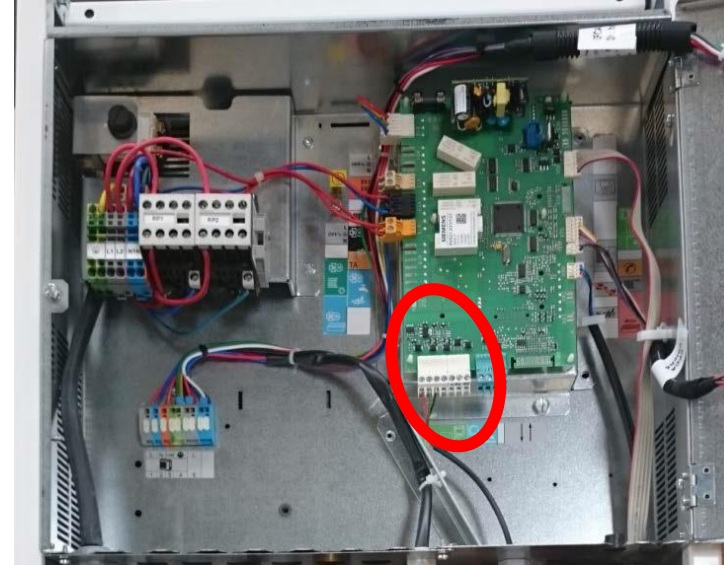


### WSYP100DF6: Siemens Controller RVS21-E

- „normal“ remote control slot (green connector X86)

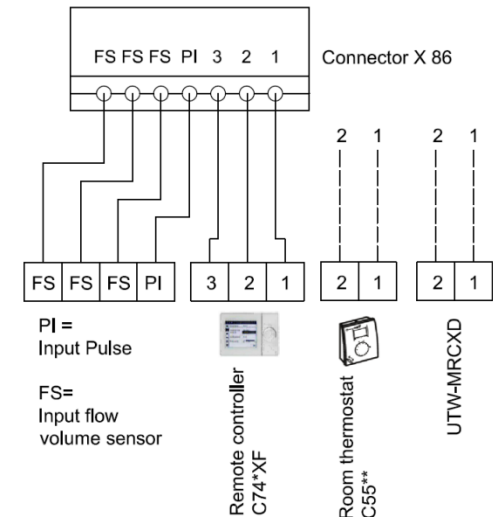


## New: Hydraulic Indoor Unit WSYP100DG6



### WSYP100DG6: Siemens Controller RVS21-F

- New connection (white connector X86) for volume flow sensor



M

MONOBLOC TYPE



## Summary

- Integrated heat energy metering (through flow volume sensor and built-in temperature sensor)
- Piping in the device significantly simplified and improved
- Distance between the pipes significantly increased (facilitated installation of DHW kits and cable connection)
- “SG-Ready” compatible
- Modbus functionality (Modbus clip UTW-KMBXE necessary)
- Latest display software version for full display of all new parameters (heat meter measurement, Modbus configuration, Smart Grid parameterization, EX-contacts setting, ...)
- Manual air vent eliminated
- Pulse input for electricity meter integrated

## WATERSTAGE™ – Product News

### All heat pumps are SG-Ready compatible now

SG-Ready is a defined standard by BWP (the Federal German Heat Pump Association) which makes it possible that the device is controlled into a smart grid.

Heat pumps which are equipped with the SG-Ready label, can get the info via a signal that at a moment (and if applicable for a certain time) self-produced and less expensive electricity is available. System will operate to higher temperature limits than or load the buffer tank. It doesn't matter for the heat pump where the info comes from

- whether from the energy supplier or the own PV system.





Through the new UART Communication, some compatibilities of options have changed. Here is a overview about options for different controller and interface generations:

Option	Interface PCB		RVS-21			Option	Interface PCB		RVS-21		
	UART	Analog	D	E	F		UART	Analog	D	E	F
UTW-KZ*XE/D	X	X	X	X	X	UTW-KLNXE	X	X	X	X	X
UTW-KB*XD	X	X	X	X	X	UTW-C75XA**** UTW-C75XA-E*	X X	X X	X X	X X	X X
UTW-KDWXD	X	X	X	X	X	UTW-C78XD	X	X	X	X	X
UTW-KDWXF*	X	X	X	X	X	UTW-C78XD-E	X	X	X	X	X
UTW-KDWXG*	X	X	X	X	X	UTW-MOSXD	X	X	X	X	X
UTW-KSPXD	X	X	X	X	X	UTW-M60XD****	-	X	X	X	-
UTW-KCLXD**	X	X	X	X	X	UTW-MRCXD	X	X	X	X	X
UTW-KREXD	X	X	X	X	X	UTW-KW*XD UTW-KWSXD****	X X	X X	X X	X X	X X
UTW-KSRXE	X	X	X	X	X	UTW-KL1XD	X	X	X	X	X
UTW-KMBXE***	-	X	X	X	X	UTW-KHMXE	X	X	X	X	X
UTW-KMEXE	-	X	X	X	X	UTW-C74*XF	X	X	X	X	X
UTW-KCMXE	X	X	X	X	X	UTW-C55XA	X	X	X	X	X
UTW-KCSXE	X	X	X	X	X	UTW-C58XD	X	X	X	X	X

\* only Monobloc  
 \*\* integrated wire no longer necessary for UART units  
 \*\*\* interface UART must be changed to standard IF **9708302034**  
 \*\*\*\* Discontinued

X Compatible  
 - Not compatible

# WATERSTAGE™ – Product News



Overview about the different Interface PCB's

Interface PCB	Software version	Communication Protocol	For models	Partnumber
<b>Old Interface PCB's</b>				
UTZ-AT30AA	K04CW-0701HSE-P0 (Filter PCB) K03BZ-0703HSE-C1 (Controller PCB) Transformer	V1	Comfort V1, High Power V1	9705668096 9705246263 9704129017
UTZ-AT30AB	K08DO-0900YHE-C0	V1	Comfort V1, High Power V1	9708302010
UTZ-AT30AC-v.1	K08DO-1000YHE-C0	V1/V2 - 48bit	Comfort & High Power V1/2	9708302027
<b>Actual and new Interface PCB's</b>				
UTZ-AT30AC-v.2	K08DO-1200YHE-C0 (with analog communication)	V1/V2 - 48 & 128bit	Comfort & High Power V1/2, LCTA, LFCA, LFTA	9708302034
UTZ-AT30AE	K13SB-1300YHE-C0 (with serial communication)	V1/V2 - 48 & 128bit – UART	Comfort & High Power V1/2, LCTA, LFCA, LFTA	9709660010

**The UART communication and the UART Interface is only compatible to the Siemens controller RVS21-F!**

## WATERSTAGE™ – Product News

### Compatibility of old and new units (HighPower & Comfort Series)



If an exchange of outdoor- or indoor unit is necessary, it can be done without any problems. The compatibility among themselves is secured.

This means, a new indoor unit will work with an old outdoor unit and vice versa. Only the exchange of the interface PCB can be necessary in this case, to ensure that the communication protocol is the same (see page 14).

The compatibility and function about all models will be possible through an exchange to the latest analog interface PCB 9708302034. Please note, for using UART the Siemens controller RVS21-F is mandatory.

Older units with analog communication protocol can be upgraded by Interface PCB exchange (to 9708302034) while keeping the heat pump controller version.

### Compatibility of old and new units (Compact Series)



All existing indoor units (control box, hydraulic indoor units WSYP100DF6, WSYP100DG6) are using the same Interface PCB (20612051 (or 700712)) and all outdoor units (Series LA, LE, LG) are fully compatible.

## WATERSTAGE™ – Product News

### Compatibility with the heat pump controller RVS21-F



To realize some new functions inside the controller and also inside the HMIs and remote controllers, the software of those devices had to be updated. Due to this unfortunately some of the old HMIs and remote controller are incompatible to the new RVS21-F controller.

The following units are incompatible:

- UTW-C75XA/E (successor: UTW-C74xXF)
- UTW-C78XA/E (software older than 6.7, manufactured before 06.2014)
- AVS37.294/xxx (HMI) (software older than 6.7, manufactured before 06.2014)
- UTW-KWSXD (successor: UTW-KW1XD und UTW-KW4XD)

The software version of the above shown devices, can be checked in Parameter 70 of it's own "Operator section" level.