

#### HEAT PUMPS FOR HEATING AIR-TO-WATER



Decades of cooling. Decades of comfort.

# Are you missing for the second sec

because of unnecessary heating costs?

> Have you ever thought about what you're giving up simply because you have to pay so much for heating? Put an end to it with Orca Heat Pumps. *Your heating costs can be reduced by up to 75 %.*



#### WHY CHOOSE ORCA?

#### Orca is already responsible for heating over 15,000 homes.

Orca Heat Pumps exceed the most rigorous European quality standards, certified by some of the most important independent technical institutes in the EU.<sup>1</sup>





C.O.P. (coefficient of performance) is a rating which tells us how much heat is produced compared to the amount of electricity used. We are proud to say that our heat pumps have amongst the highest C.O.P. ratings on the European market.



The energy efficiency of Orca Heat Pumps for heating is amongst the highest on the market.

#### DING EU STANDARDS

Orca Heat Pumps for heating are manufactured in Slovenia using high-quality European and Japanese parts.

#### **INSTALLATION IN** A MERE 14 HOURS

Installation of Orca Heat Pumps takes only 14 hours.

#### **QUICK AND** PROFESSIONAL MAINTENANCE

Our reliable service network ensures quick and professional maintenance.

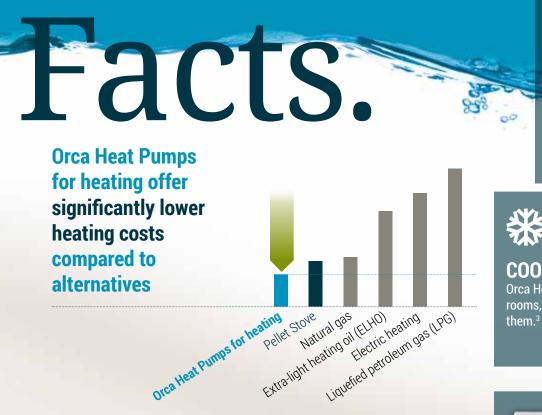
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Ζ4

**BLUEPRINTS** 

#### **ORCA HEAT PUMPS** FOR HEATING



#### **USE SOLAR POWER**

Orca Heat Pumps enable you to connect them to a solar system.

#### COOLING TOO! Orca Heat Pumps not only heat

rooms, but are also able to cool

#### HOW IS THIS POSSIBLE?

Air – which is free of charge – is the main source of energy for heating with an air-to-water heat pump. A very small amount of electricity is merely required to operate the compressor.

#### WHY DO WE RECOMMEND THE **AIR-TO-WATER SYSTEM?**

Air-to-water heat pumps aren't only an elegant, simple solution, they are also the least expensive. Air is all around us and this type of heat pump can be installed in virtually any building without significant costs or inconvenience.

#### The best ratio between investment and savings

Orca Heat Pumps for heating achieve very high C.O.P. values and can be compared with substantially more expensive systems which use ground water or just ground as a heating source.

ONLY 1 kWh IS ACOUIRED FROM ELECTRICITY

- 4 kWh **OF REQUIRED ENERGY IS OBTAINED FROM THE AIR. WHICH IS OF COURSE** FREE OF CHARGE!



**ROOM CONTROLLER** Orca Heat Pumps can be controlled from the comfort of your living room.



## #\* M 📑

#### A COMPLETE Heating solution

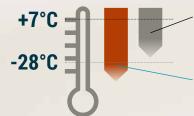
It is possible to connect to a new or existing heating system in a building:

- Heating with radiators
- Underfloor, wall and overhead heating
- Water-heating system

#### THE MOST EFFICIENT SOLUTION IN THE COLDEST WEATHER

Orca Heat Pumps make economical heating possible as they do not require an electric heater in temperatures as low as -28°C and do not lose any

heat output down to -15 °C, which makes them the most efficient solution on the market.



**Regular heat pumps** lose efficiency as the external temperature drops below 7 °C.

**Orca Heat Pumps** continue to heat at external temperatures of -28 °C.

CONNECT WITH ANY HEATING OR COOLING SYSTEM

**Any heating** or cooling system you might have in your home or plan to obtain can be connected to an Orca Heat Pump.

#### ORCA SILENTLY TAKES CARE OF YOUR COMFORT

Orca Heat Pumps take up relatively little space, are easy to regulate, and both the interior and exterior units are silent. The Duo Series includes a hot water tank.



#### OPTION OF BIVALENT HEATING

When the heat pump is unable to heat because of temperatures below -28°C or as a result of a fault, the system is able to automatically switch to a different heating source or to a built-in electric heater. With this, the security of your heating increases significantly.



#### **Radiator heating**

even in older, poorly insulated buildings with high temperature versions.



#### Underfloor, wall and overhead heating

for new buildings with low temperature versions.



Heating of warm water – certain versions include a hot water tank.

\*

**Cooling,** even at +43 °C external temperature<sup>2</sup>.

#### **MY ORCA**

## Simple

#### FROM THE COMFORT OF YOUR LIVINGROOM, OFFICE OR FROM THE BEACH

**Coming home from work early today?** You definitely don't want to be arriving to a cold apartment. Advanced regulation via Cloud enables you to change the settings of your Orca heat pump with the help of a computer, smart phone or tablet. The simple, intuitive user interface will take very little time to master. To simplify the process even further, heat pumps have a built-in touch screen with an identical user interface. This means you only have familiarise yourself with one user interface.

- The desired temperature can be set according to the room or outside temperature.
- Set the day and night heating interval for one, two or three heating cycles.
- Control consumption and maintain your heat pump: an online interface enables you to view all of the settings and time intervals, current state, temperatures and event history, etc.
- Choose from various languages English included.
- Enable 'Party', 'Eco' or 'Holiday' programs.

#### RESPONSIVE

The design of the user interface is automatically adjusted to the device it is used on.

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21.3°

15.5

07

3

#### RENAME YOUR HEATING CYCLES:

it is definitely easier to remember "Ground floor" as opposed to "Heating cycle 2", isn't it?

CONTROLING YOUR DRIVES

24.5

YOUR TIME IS IMPORTANT TO US: Direct access to the most important functions of the home screen.

#### MY ORCA CONTROLLING THE HEAT PUMP VIA THE INTERNET

0

We take care of your complete comfort with our cloud service, 'My Orca'. It enables you to control your heat pump from the comfort of your office, car or even while on holiday, simply via the internet.

- Controllable via web browser on almost all operating systems, such as Microsoft Windows, Android, iOS and others. You don't even need to install an app on your computer or smart phone.
- Access mobile version via an icon on your desktop.
- The design of the interface is automatically adjusted to the device it is used on.
- The ergonomics of the interface are also adjusted for touch screens.



#### ORCA TOUCH Control VIA Built-in Touch Screen

The times of complex operations for setting a simple timer are finally over. Controlling Orca Touch is as simple as controlling a device with your smart phone. The design and functionality of the interface are virtually identical, while outstanding graphic elements on the colour LCD screen make it seem as if you are playing a game rather than doing chores.

Remote control and touch screen are optional accessories. Ask your dealer for details.

#### **ORCA TECHNOLOGY**

## Perfected



#### CONTROLLER

A controller with intelligent regulation makes sure that the heat pump, as well as the entire heating system, perform optimally and adjusts the performance to outside and indoor temperature.

Manufacturer: Carel, Italy

#### **ELECTRICAL HEATER**

In case of extreme low outdoor temperatures or failure, a three-stage electric heater, which is built into the device by default, makes sure the heating runs smoothly.

Manufacturer: Eltra, Germany

#### HEAT TRANSMITTER

An optimized heat transmitter ensures an extraordinary efficient performance of the heat pump.

Manufacturer: Swep, Sweden

#### **CIRCULATING PUMP**

A capable circulating pump with the energy class of A ensures a reliable and stable performance of the entire heating system with minimum energy losses.

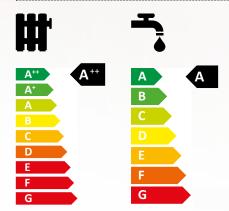
Manufacturer: Wilo, Germany

#### WATER HEATERS FOR SANITARY WATER

Duo series models have an in-built vacuum enameled water heater with a big heat transmitter that ensures a quick and efficient sanitary water heating and cuts down on heat losses with its insulation. It also comes with a revision opening for a simple clean-up and a long life span.

#### **OUR OWN PRODUCTION**

Orca heat pumps are manufactured in Maribor Slovenia, in our own production facilities. This ensures us an extraordinary level of quality control and insures you with decades of uninterrupted performance. If a malfunction does occur, our maintenance services are always near you.



#### **ENERGY CLASS**

Our devices attain the highest energy classes. When heating, the efficiency attains an A++ class and the efficiency of heating the sanitary water attains an A class.



We choose only from superior outside units with evaporators that have the power to counter even the harshest of weather conditions.

Manufacturer: Mitsubishi Electric

#### **SUPERIOR COMPONENTS**

## Our heat pumps are meticulously designed

and intelligently built from components of the world's best manufacturers and are manufactured in our own production facilities by highly professionally skilled personnel.

#### HIGH RELIABILITY

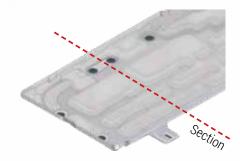
#### OPTIMIZED DEFROSTING AND PREVENTION OF ICE ACCUMULATION

A new design of the base is more reliable than ever before:

- improved drainage
- optimized defrost control
- optimized heat exchanger that prevents the formation of ice on the outdoor unit.

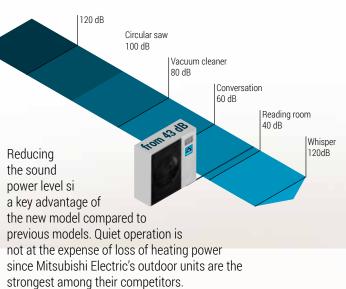
#### New base design

- optimized structure of the base improves drainage flow
- inclination of the base enables smooth and faster drainage



Section

**SILENT OPERATION** NEW FAN AND THE PERIPHERY OF THE COMPRESSOR ENABLE A 10 DB(A) QUIETER OPERATION



#### OVERVIEW OF OUTDOOR UNITS

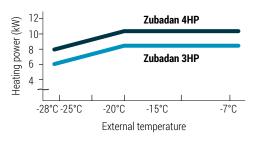
#### HIGH TEMPERATURE VERSIONS

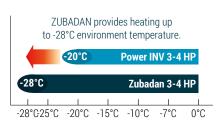


#### Suitable for:

- Radiator and water heating
- Buildings with large heating surfaces
- Older and poorly insulated buildings.





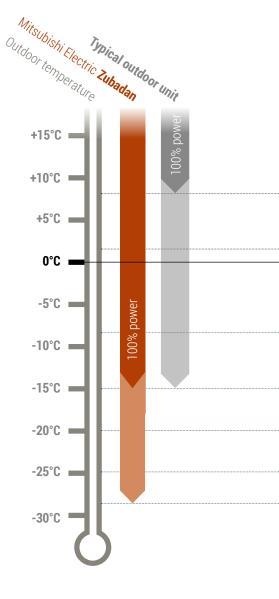


#### MITSUBISHI ELECTRIC ZUBADAN SERIES

#### FOR INDOOR UNITS Mono and Duo

Zubadan is probably the most efficient outdoor unit available on the market.

- Coolant injection enables operation of the heat pump at temperatures of -28 °C.
- 100% heat output is possible at -15°C because of advanced Flash Injection Technology.
- High output water temperature: 60 °C.
- Operation of the outdoor unit is extremely quiet.



#### **Flash Injection Technology**

Flash Injection circulation is made up of a compressor with a bypass and a heat exchanger (HIC) which prevent reduction of flow of the coolant because of the lowered pressure of the coolant on the influx of the compressor. Thus the coolant does not overheat at the outflux from the compressor, which could occur due to pressure increases – consequently there is increased heating performance at lower temperatures, an increased output temperature in the indoor unit and quicker defrosting of the outdoor unit.

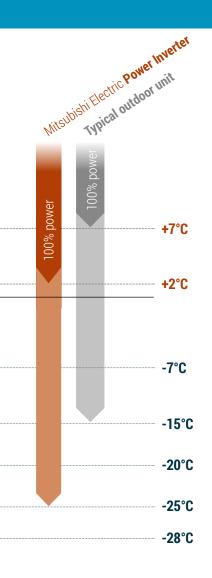
#### **Liquid Injection Technology**

Liquid Injection Technology increases the gas temperature in the condenser without overheating the output gas during compression. This makes it possible to heat output water to 60 °C during external temperatures of -20 °C.



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#### OVERVIEW OF OUTDOOR UNITS



### LOW TEMPERATURE VERSIONS



#### MITSUBISHI ELECTRIC POWER INVERTER SERIES

#### FOR INDOOR UNITS Mono and Duo

The excellent Power Inverter outdoor unit preserves full heating output at external temperatures as low as 2°C and only loses 20% of heating output at external temperatures as low as -15°C, which is an excellent achievement in comparison with other heat pumps.

- Heating at temperatures as low as -25°C.
- High output water temperatures: up to  $60^{\circ}$ C at  $5^{\circ}$ C and even  $55^{\circ}$ C at  $-10^{\circ}$ C.
- The advanced Power Inverter Technology with additional Freon subcooler enables high heat output at lower outside temperatures.
- The above-average dimensions of the heat exchanger use very little electricity.
- Operation of the outdoor unit is extremely quiet.

**Mitsubishi Power Inverter Technology** The outdoor units of the Power Inverter Series are equipped with a Freon subcooler which prevents compressor overheating and the subsequent power reduction.

#### Suitable for:

- Underfloor/wall/overhead heating and water heating,
- new and well insulated buildings,
- · buildings with large heating surfaces

#### **COMPACT DESIGN**

The economy of space is certainly one of the advantages of the new Mitsubishi outdoor units Zubadan. The units occupy significantly less space than competitive units.

Much smaller space is required for the operation in front of the device itself, and takes up only 350 mm with the new Mitsubishi Electric outdoor units.



#### **OUR CONCRETE BASES**

for outdoor units represent a perfect solution which makes maintenance and installation of the outdoor unit a lot easier, and additionally:

- prevents condensate from freezing,
- there is no need for condensate drainage
- there is no dirt build-up because the dimensions of our concrete bases are precisely adapted to the outdoor units.



#### STARTING AT 32 dB(A)<sup>3</sup>

Mitsubishi Electric outdoor units are currently deemed as one of the quietest on the market.

#### OVERVIEW OF PRODUCTS

#### MONO EXCLUSIVE SERIES HEAT PUMPS WITHOUT AN IN-BUILT WATER HEATER



page 14

#### MONO

#### HIGH-TEMPERATURE VERSION LOW-TEMPERATURE VERSION



- Without an integrated hot water tank - for users with an existing hot water tank.
- Wide range of system performance (4-23 kW) and outside units.
- Wall-mounted model for better space economy.



#### **MONO CASCADE**

#### HIGH-TEMPERATURE VERSION LOW-TEMPERATURE VERSION

- High heat output with connections to two, three or four external units of various performance.
- For larger (public) areas: heat up to 2,500  $m^2. \label{eq:public}$

Comfort		
Built-in hot water tank	-	
Built-in switching valve for space heating/water heating	$\checkmark$	-
Setting timers for heat cycles and warm water	✓	$\checkmark$
Option of controlling a second heating source	✓	$\checkmark$
Weather-responsive control.	<ul> <li>✓</li> </ul>	$\checkmark$
Option of automatic and outside switch between heating and cooling	✓	$\checkmark$
Option of connecting a room sensor	$\checkmark$	$\checkmark$
Solar system control	$\checkmark$	$\checkmark$
Built-in expansion vessel	$\checkmark$	-
Circulating pump - energy class A	$\checkmark$	$\checkmark$
Closing valves for simple cleaning of the mechanical filter	-	-
Function PV	$\checkmark$	$\checkmark$
Possibility of heating with a solar system	✓	$\checkmark$
Possibility of internet control	optional	optional
Silent operation	$\checkmark$	$\checkmark$
Additional third heating cycle	$\checkmark$	$\checkmark$
Security		
5 year warranty for the built-in hot water tank	-	-
Anti-freezing and overheating protection	$\checkmark$	$\checkmark$
Anti-legionella program	✓	$\checkmark$
Built-in electric heater	$\checkmark$	-
Built-in mechanical filter, flow switch and safety group	$\checkmark$	Flow switch and safety group, without filter
Safety switch for cut-off	✓	$\checkmark$
Hot water tank corrosion protection with Mg anode	-	-
Revision opening for hot water tank cleaning	-	-

#### **DUO EXCLUSIVE SERIES** HEAT PUMPS WITH AN IN-BUILT WATER HEATER



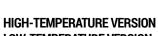


#### **DUO 200**

#### DUO 300

HIGH-TEMPERATURE VERSION LOW-TEMPERATURE VERSION

- Integrated 200 litre hot water tank.
- Appropriate for families of 1-3 people.
- Wide range of system performance (4-16kW) of outside units.



LOW-TEMPERATURE VERSION

#### #\* N 5. \*\*

- Integrated 300 litre hot water tank.
- Appropriate for families of 4 or more.
- Wide range of system performance (4-23kW) of outside units.

#### DUO 300 SOLAR

#### HIGH-TEMPERATURE VERSION LOW-TEMPERATURE VERSION

#### #\* W 5. \*\*

- Integrated 300 litre hot water tank.
- Appropriate for families of 4 or more.
- Wide range of system performance (4-23kW) of outside units.
- Possible connection to solar power system

	•	
200 L	300 L	300 L
$\checkmark$	$\checkmark$	$\checkmark$
✓	✓	$\checkmark$
$\checkmark$	$\checkmark$	$\checkmark$
✓	✓	$\checkmark$
$\checkmark$	$\checkmark$	$\checkmark$
✓	✓	$\checkmark$
✓	✓	✓
✓	✓	✓
✓	✓	$\checkmark$
✓	✓	✓
✓	✓	✓
✓	✓	✓
optional	optional	optional
✓	✓	✓
✓	✓	-
$\checkmark$	$\checkmark$	$\checkmark$
$\checkmark$	✓	$\checkmark$
✓	✓	$\checkmark$
✓	✓	✓
$\checkmark$	$\checkmark$	✓
$\checkmark$	$\checkmark$	$\checkmark$
$\checkmark$	$\checkmark$	$\checkmark$
$\checkmark$	$\checkmark$	$\checkmark$

#### HEAT PUMPS FOR HEATING WITHOUT A BUILT-IN HOT WATER TANK.

WALL-MOUNTED VERSIONS OF THE INDOOR UNIT AVAILABLE FOR GREATER SPACE ECONOMY

HEAT SPACE OF UP TO 2500 m<sup>2</sup> WITH CASCADE VERSIONS.

Mono exclusive. Series Choice the series Choice the series

#### FOR VIRTUALLY EVERY ROOM

C.O.P. 5,06

(A7/₩35) MITSUBISHI (SUHZ-15 SW45 VAH)

**The Orca Mono Series** enables room and water heating in an existing hot water tank. Many high and low temperature versions are available which enable you to connect them to radiators or underfloor, wall or overhead heating in buildings of various sizes and insulation levels. With various versions you can heat from the smallest of rooms to buildings with a surface area of up to 2,500 m<sup>2</sup>.

A

#### **VERSION OVERVIEW**

ΪÌ

**2,500 M<sup>2</sup>** TWO, THREE OR FOUF OUTDOO<u>R UNITS</u> 

#### MONO EXCLUSIVE FOR COMFORTABLE ROOM AND WATER HEATING IN AN

EXISTING HOT WATER TANK.

#### Savings

- Room and water heating without an electric heater to outdoor temperatures as low as -28 °C.
- Complete heating output to -15°C.
- Weather-responsive control.

#### Comfort

- A simple multilingual menu.
- Intelligent control: set up three heating circuits according to the indoor and outdoor temperature.
- Set up multiple time intervals including 'Party', 'Eco' and 'Holiday' programs.
- Room air conditioning.

#### Safety and Security

- Active Legionella protection.
- Option of automatic switchover to a different heating source (bivalent heating).

Orca Mono Heat Pumps are available in a classical and XL version. The latter enables heating of larger areas since it is equipped with a larger heat exchanger with 23 kW of outdoor unit performance. MONO CASCADE FOR HEATING LARGER AREAS WITH A SINGLE INDOOR CONTROL UNIT AND UP TO FOUR OUTDOOR UNITS.

Heat pumps for heating may be connected into cascades. As opposed to most cascade heat pumps on the market, the innovative Mono Cascades only require one indoor and one control unit.

It is possible to connect two, three or four outdoor units of various heating outputs. Using several larger outdoor units, economical heating for areas of up to 2,500m<sup>2</sup> is possible.

## HIGH TEMPERATURE VERSIONS



Suitable for:

Radiator and water heating in an existing hot water tank,
older and poorly-insulated buildings.

OUTDOOR UNIT	MITSUBISHI I	ELECTRIC ZUBADAN				
Heating	to -28°C				to -25°C	
2	60 °C				60 °C	- (653)
Output water temperature Coolina	to +46 °C				to +46 °C	Manual .
Voltage [V]	1/230		3/400		10 +40 C	3/400
Outdoor unit	PUHZ	PUHZ	PUHZ	PUHZ	PUHZ	PUHZ
	SHW80 VAA	SHW112 VAA	SHW80 YAA	SHW112 YAA	SHW140 YHA	SHW230 YKA
Nominal heat output [kW]	9	12.7	9	12.7	14	23
C.O.P. (A7/W35)	4.65	4.46	4.65	4.46	4.22	4.45
S.C.O.P. (W35)	4.35	4.16	4.14	4.24	3.59	
Fuse [No.×A]	1×25	1×32	3×16	3×16	3×16	3×32
Power cable [No.×mm²]					5×2.5	5×6
Dimensions of gas connections	3/8", 5/8"	3/8", 5/8"	3/8", 5/8"	3/8", 5/8"	3/8", 5/8"	1/2", 3/4"
Maximum height difference IU-OU [m]	30	30	30	30	30	30
_ength of gas connection IU-OU [m]	75	75	75	75	2 - 75	2-80
Pre-charged gas up to the length of the gas connection [m]	30	30	30	30	30	30
Heating medium's nominal flow [l/min]					35.8	65.9
Sound power level [dB(A)]	59	60	59	60	70	75
Weight [kg]	116	116	128	128	134	148
Dimensions (W×D×H) [cm]	105×48×102	105×48×102	105×48×102	105×48×102	95×33×135	105×33×134
NDOOR UNIT	MONO					MONO XL
						MONO AL
Product number (set)					10647 +10705	10720 +10730
Dimensions of gas connections	3/8", 5/8"		L			1/2", 3/4"
Dimensions of connections for the heating	1"					1"
Built in circulation pump	Circulating pump -	energy class A				Circulating pump - energy class A
lectric heater	3×3 kW					3×3 kW
leat exchanger	Swep	-				Swep
Switchover heating-water heating	Integrated					Integrated
Dimensions (H×W×D) [cm]	90×60×40					90×60×40
Veight [kg]	80	<b>.</b>				85
Device's seasonal efficiency class in average climate conditions W35	A++	A**	A**	A**	A**	A**
Device's seasonal efficiency class in average climate conditions W55	A**	A**	A**	A**	A**	A**
Device's seasonal efficiency in average climate conditions W35 (ηs)					164	164
Device's seasonal efficiency in average climate conditions W55 (ηs)					124	124



## LOW TEMPERATURE VERSIONS



#### Suitable for:

- Underfloor/wall/overhead heating and water heating,
  new and well-insulated buildings
  buildings with large heating surfaces

OUTDOOR UNIT	MITSUBISI	HI ELECTRICPO	OWER INVERT	ER				
		-200. 8						Allh
Heating	to -15°C		to -20°C		4		to -25°C	
Output water temperature	60 °C	JULY	60 °C				60 °C	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Cooling	to +46 °C		to +46 °C	-	-		to +46 °C	
Voltage [V]	1/230		1/230		3/400		1/230	3/400
Outdoor unit	SUHZ SW45 VAH	PUHZ SW50 VKA	PUHZ SW75 VAA	PUHZ SW100 VAA	PUHZ SW75 YAA	PUHZ SW100 YAA	PUHZ SW120 VHA	PUHZ SW120 YHA
Nominal heat output [kW]	4	5	7.1	10	7.1	10	12	12
C.O.P. (A7/W35)	5.06	4.42	4.40	4.45	4.40	4.45	4.10	4.10
S.C.O.P. (W35)		4.16	3.51	3.46	3.51	3.46	4.13	3.27
Fuse [No.×A]	1×20	1×16	1×25	1×32	3×16	3×16	1×40	3×16
Power cable [No.×mm <sup>2</sup> ]	3×2.5	3×2.5	3×2.5	3×4			3×6	5×1.5
Dimensions of gas connections	1/4", 1/2"	1/4", 1/2"	3/8", 5/8"	3/8",5/8"	3/8", 5/8"	3/8", 5/8"	3/8",5/8"	3/8", 5/8"
Maximum height difference IU-OU [m]	30	30	30	30	30	30	30	30
Length of gas connection IU-OU [m]	2 - 30	2 - 40	40	75	40	75	75	75
Pre-charged gas up to the length of the gas connection [m]	5	5	10	10	10	10	10	10
Heating medium's nominal flow [I/min]	11.8	17.2					45.9	45.9
Sound power level [dB(A)]	42	46	58	60	58	60	51	51
Weight [kg]	54	43	92	114	104	126	118	130
Dimensions W×D×H [cm]	84×33×88	81×30×63	105×48×102	105×48×102	105×48×102	105×48×102	95×33×135	95×33×135
INDOOR UNIT	MONO							
Product number (set)	11204 +11356	11204 +10734					10647 +11030	10647 +10706
Dimensions of gas connections	3/8". 5/8"				·····		1.11000	1.10100
Dimensions of connections for the heating system	1"			·····				
Built in circulation pump	Circulating pur	mp - energy class A						
Electric heater	3×3 kW		•	•				
Heat exchanger	Swep		•	•				
Switchover heating-water heating	Integrated	•••••	•	•••••				
Dimensions (H×W×D) [cm]	90×60×40			•••••				•••••
Weight [kg]	80 kg			·····				<b>-</b>
Device's seasonal efficiency class in average climate conditions W35	A <sup>+</sup>	A**	A**	A**	A**	A**	A**	A**
Device's seasonal efficiency class in	A*	A**	A**	A**	A**	A**	A**	A**
average climate conditions W55 Device's seasonal efficiency in average climate conditions W35 (ŋs)	153	163	165	164		164	162	162
Device's seasonal efficiency in average climate conditions W55 (ŋs)	116	125	127	125		125	125	125



#### CASCADES HIGH TEMPERATURE VERSIONS



#### Suitable for:

radiator heating in larger buildings
larger, older and poorly-insulated buildings.

OUTDOOR UNIT	MITSUBISHI I	ELECTRIC ZUBADAN				•
Heating	to -28°C to -25°C					
Output water temperature	60 °C				60 °C	
Cooling	to +46 °C				to +46 °C	THE TOP OF THE T
Voltage [V]	1/230		3/400	-		3/400
Outdoor unit	PUHZ SHW80 VAA	PUHZ SHW112 VAA	PUHZ SHW80 YAA	PUHZ SHW112 YAA	PUHZ SHW140 YHA	PUHZ SHW230 YKA
Nominal heat output [kW]	9	12.7	9	12.7	14	23
C.O.P. (A7/W35)	4.65	4.46	4.65	4.46	4.22	4.45
S.C.O.P. (W35)	4.35	4.16	4.14	4.24	3.59	
Fuse [No.×A]	1×25	1×32	3×16	3×16	3×16	3×32
Power cable [No.×mm²]					5×2.5	5×6
Dimensions of gas connections	3/8", 5/8"	3/8", 5/8"	3/8", 5/8"	3/8", 5/8"	3/8", 5/8"	1/2", 3/4"
Maximum height difference IU-OU [m]	30	30	30	30	30	30
Length of gas connection IU-OU [m]	75	75	75	75	2 - 75	2-80
Pre-charged gas up to the length of the gas connection [m]	30	30	30	30	30	30
Heating medium's nominal flow [I/min]					35.8	65.9
Sound power level [dB(A)]	59	60	59	60	70	75
Weight [kg]	116	116	128	128	134	148
Dimensions (W×D×H) [cm]	105×48×102	105×48×102	105×48×102	105×48×102	95×33×135	105×33×134
SELECTION OF INDOOR AND OUTDOOR	MONO M VERSIO					MONO L VERSION
UNITS	2-4×8-14 kW	лю				2-4×8-23 kW
INDOOR UNIT For 2 Outdoor Units	MONO 2 M					MONO 2 L
Product number (set)	10721 + 2 outdoo	r units				10722 + 2 outdoor units
Overall heat output [kW] (sum of output of outdoor units)	16-28					31-46
Heating surface [m <sup>2</sup> ]	400-700					775-1,150
Dimensions of gas connections	2× 3/8", 5/8"					2× 1/2", 3/4"
Dimensions of connections for the heating	6/4"					6/4"
system Built in circulation pump	2× Circulating pur					2× Circulating pump
Built in circulation pump	2^ Circulating pur	ip - energy class A				energy class A
Heat exchanger	2× Swep					2× Swep
Dimensions (HxWxD) [cm]	90×60×40	-				90×60×40
Weight [kg]	95					105
INDOOR UNIT For 3 Outdoor Units	MONO 3 M					MONO 3 L
Product number (set)	10723 + 3 outdoo	r units				10724 + 3 outdoor units
Overall heat output [kW] (sum of output of outdoor units)	24-42					39-69
Heating surface [m <sup>2</sup> ]	600-1,050					975-1,725
Dimensions of gas connections	3× 3/8", 5/8"					3× 1/2", 3/4"
Dimensions of connections for the heating system	2"					2"
Built in circulation pump	3× Circulating pur	np - energy class A				3× Circulating pump energy class A
Heat exchanger	3× Swep					3× Swep
Dimensions (HxWxD) [cm]	90×120×40					90×120×40
Weight [kg]	160					175
INDOOR UNIT FOR 4 OUTDOOR UNITS	MONO 4 M					MONO 4 L
Product number (set)	10725 + 4 outdoo	r units				10726 + 4 outdoor units
Overall heat output [kW] (sum of output of outdoor units)	32-56					47-92
Heating surface [m <sup>2</sup> ]	800-1,400					1,175-2,300
Dimensions of gas connections	4× 3/8", 5/8"					4× 1/2", 3/4"
Dimensions of connections for the heating	2"					2"
system Built in circulation pump	4× Circulating pur	np - energy class A				4× Circulating pump energy class A
Heat exchanger	4× Swep					4× Swep
Dimensions (HxWxD) [cm]	90×120×40					90×120×40
Weight [kg]	190					210

## CASCADES LOW TEMPERATURE VERSIONS



#### Suitable for:

- Underfloor/wall/overhead heating and water heating,
  new and well-insulated buildings
  buildings with large heating surfaces

Carries a

OUTDOOR UNIT	MITSUBISHI ELECTRICPOWER INVERTER							
Heating	to -15°C	<b>A</b>	to -20°C				to -25°C	
Output water temperature	60 °C	SIL	60 °C				60 °C	A ATT
Cooling Noteens M	to +46 °C 1/230		to +46 °C		2/400		to +46 °C	2/400
Voltage [V] Outdoor unit	SUHZ SW45 VAH	PUHZ SW50 VKA	1/230 PUHZ SW75 VAA	PUHZ SW100 VAA	3/400 PUHZ SW75 YAA	PUHZ SW100 YAA	1/230 PUHZ SW120 VHA	3/400 PUHZ SW120 YH/
Nominal heat output [kW]	4	5	7.1	10	7.1	10	12	12
C.O.P. (A7/W35)	5.06	4.42	4.40	4.45	4.40	4.45	4.10	4.10
S.C.O.P. (W35)	1,20	4.16	3.51	3.46	3.51	3.46	4.13 1×40	3.27
Fuse [No.×A] Power cable [No.×mm²]	1×20 3×2.5	1×16 3×2.5	1×25 3×2.5	1×32 3×4	3×16	3×16	3×6	3×16 5×1.5
Dimensions of gas connections	1/4", 1/2"	1/4", 1/2"	3/8". 5/8"	3/8",5/8"	3/8". 5/8"	3/8", 5/8"	3/8",5/8"	3/8", 5/8"
Maximum height difference IU-OU [m]	30	30	30	30	30	30	30	30
Length of gas connection IU-OU [m]	2 - 30	2 - 40	40	75	40	75	75	75
Pre-charged gas up to the length	5	5	10	10	10	10	10	10
of the gas connection [m]	11.0	17.0					45.9	45.0
Heating medium's nominal flow [l/min] Sound power level [dB(A)]	11.8 42	17.2 46	58	60	58	60	45.9 51	45.9 51
Weight [kg]	54	43	92	114	104	126	118	130
Dimensions W×D×H [cm]	84×33×88	81×30×63	105×48×102	105×48×102	105×48×102	105×48×102	95×33×135	95×33×135
SELECTION OF INDOOR AND OUTDOOR	MONO M VER		100 10 102	100 10 102	1.00 10 102	100 10 102		1.00.00.100
UNITS	2-4×4-12 kW	1310113						
INDOOR UNIT	MONO 2 M	1						
FOR 2 OUTDOOR UNITS								
Product number (set)	10721 + 2 out	door units						
	10/21 + 2 000							
Overall heat output [kW]	8-24							
sum of output of outdoor units)								
leating surface [m <sup>2</sup> ]	150-470							
		••••••	•	•••••				·····•
H	2× 3/8", 5/8"	-						
Dimensions of connections for the heating								
Dimensions of connections for the heating system	6/4"	pump - energy class	s A					
Dimensions of gas connections Dimensions of connections for the heating system Built in circulation pump	6/4" 2× Circulating	pump - energy class	s A					
Dimensions of connections for the heating system Built in circulation pump Heat exchanger	6/4" 2× Circulating 2× Swep	pump - energy class	s A					
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm]	6/4" 2× Circulating   2× Swep 90×60×40	pump - energy class	sA					
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg]	6/4" 2× Circulating   2× Swep 90×60×40 95		sA					
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT	6/4" 2× Circulating   2× Swep 90×60×40		s A					
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS	6/4" 2× Circulating   2× Swep 90×60×40 95	1	s A					
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set)	6/4" 2× Circulating   2× Swep 90×60×40 95 MONO 3 M 10723 + 3 out	1	s A					
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW]	6/4" 2× Circulating   2× Swep 90×60×40 95 MONO 3 M	1	s A					
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units)	6/4" 2× Circulating ( 2× Swep 90×60×40 95 MONO 3 M 10723 + 3 outr 12-36	1	s A					
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m <sup>2</sup> ]	6/4" 2× Circulating   2× Swep 90×60×40 95 MONO 3 M 10723 + 3 outo 12-36 225-705	1	s A					
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m <sup>2</sup> ] Dimensions of gas connections Dimensions of connections for the heating	6/4" 2× Circulating   2× Swep 90×60×40 95 MONO 3 M 10723 + 3 outo 12-36 225-705 3× 3/8", 5/8"	1	s A					
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] NDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Dverall heat output [kW] sum of output of outdoor units) Heating surface [m²] Dimensions of gas connections Dimensions of connections for the heating system	6/4" 2× Circulating   2× Swep 90×60×40 95 MONO 3 M 10723 + 3 out 12-36 225-705 3× 3/8", 5/8" 2"	l door units						
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m²] Dimensions of gas connections Dimensions of connections for the heating system	6/4" 2× Circulating   2× Swep 90×60×40 95 MONO 3 M 10723 + 3 out 12-36 225-705 3× 3/8", 5/8" 2"	1						
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m <sup>2</sup> ] Dimensions of gas connections Dimensions of connections for the heating system Built in circulation pump Heat exchanger	6/4" 2× Circulating   2× Swep 90×60×40 95 MONO 3 M 10723 + 3 out 12-36 225-705 3× 3/8", 5/8" 2"	l door units						
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] sum of output of outdoor units) Heating surface [m <sup>2</sup> ] Dimensions of gas connections Dimensions of gas connections Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm]	6/4" 2× Circulating   2× Swep 90×60×40 95 MONO 3 M 10723 + 3 outo 12-36 225-705 3× 3/8", 5/8" 2" 3× Circulating   3× Swep 90×120×40	l door units						
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m <sup>2</sup> ] Dimensions of gas connections Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg]	6/4" 2× Circulating   90×60×40 95 MONO 3 M 10723 + 3 out 12-36 225-705 3× 3/8", 5/8" 2" 3× Circulating   3× Swep 90×120×40 160	door units						
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m²] Dimensions of gas connections Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] NDOOR UNIT	6/4" 2× Circulating   2× Swep 90×60×40 95 MONO 3 M 10723 + 3 outo 12-36 225-705 3× 3/8", 5/8" 2" 3× Circulating   3× Swep 90×120×40	door units						
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m?] Dimensions of gas connections Dimensions of gas connections Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] INDOOR UNIT FOR 4 OUTDOOR UNITS	6/4" 2× Circulating p 90×60×40 95 MONO 3 M 10723 + 3 outr 12-36 225-705 3× 3/8", 5/8" 2" 3× Circulating p 3× Swep 90×120×40 160 MONO 4 M	door units pump - energy class						
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m?] Dimensions of gas connections Dimensions of gas connections Dimensions of gas connections Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWxD) [cm] Weight [kg] INDOOR UNIT FOR 4 OUTDOOR UNITS Product number (set)	6/4" 2× Circulating   90×60×40 95 MONO 3 M 10723 + 3 out 12-36 225-705 3× 3/8", 5/8" 2" 3× Circulating   3× Swep 90×120×40 160	door units pump - energy class						
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Dimensions of connections for the heating system Suilt in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] NDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Deverall heat output [kW] sum of output of outdoor units) Heating surface [m?] Dimensions of gas connections Dimensions of gas connections Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] NDOOR UNIT FOR 4 OUTDOOR UNITS Product number (set) Deverall heat output [kW] sum of output of outdoor units)	6/4" 2× Circulating   2× Swep 90×60×40 95 MONO 3 M 10723 + 3 outo 12-36 225-705 3× 3/8", 5/8" 2" 3× Circulating   3× Swep 90×120×40 160 MONO 4 M 10725 + 4 outo 16-48	door units pump - energy class						
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m²] Dimensions of gas connections Dimensions of gas connections Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] INDOOR UNIT FOR 4 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m²]	6/4" 2× Circulating I 2× Swep 90×60×40 95 MONO 3 M 10723 + 3 outo 12-36 225-705 3× 3/8", 5/8" 2" 3× Circulating I 3× Swep 90×120×40 160 MONO 4 M 10725 + 4 outo 16-48 300-940	door units pump - energy class						
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m <sup>2</sup> ] Dimensions of gas connections Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] INDOOR UNIT FOR 4 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m <sup>2</sup> ] Dimensions of gas connections	6/4" 2× Circulating I 2× Swep 90×60×40 95 MONO 3 M 10723 + 3 outo 12-36 225-705 3× 3/8", 5/8" 2" 3× Circulating I 3× Swep 90×120×40 160 MONO 4 M 10725 + 4 outo 16-48 300-940 4× 3/8", 5/8"	door units pump - energy class						
Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] INDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m <sup>2</sup> ] Dimensions of gas connections Dimensions of connections for the heating system Built in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] INDOOR UNIT FOR 4 OUTDOOR UNITS Product number (set) Overall heat output [kW] (sum of output of outdoor units) Heating surface [m <sup>2</sup> ] Dimensions of gas connections Dimensions of gas connections Dimensions of gas connections Dimensions of gas connections Dimensions of gas connections	6/4" 2× Circulating I 2× Swep 90×60×40 95 MONO 3 M 10723 + 3 outo 12-36 225-705 3× 3/8", 5/8" 2" 3× Circulating I 3× Swep 90×120×40 160 MONO 4 M 10725 + 4 outo 16-48 300-940 4× 3/8", 5/8"	door units pump - energy class						
Dimensions of connections for the heating system Suilt in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] NDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Diverall heat output [kW] sum of output of outdoor units) Heating surface [m <sup>2</sup> ] Dimensions of gas connections Dimensions of connections for the heating system Dimensions (HXWXD) [cm] Weight [kg] NDOOR UNIT FOR 4 OUTDOOR UNITS Product number (set) Diverall heat output [kW] sum of output of outdoor units) Heating surface [m <sup>2</sup> ] Dimensions of gas connections	6/4" 2× Circulating   2× Swep 90×60×40 95 MONO 3 M 10723 + 3 out 12-36 225-705 3× 3/8", 5/8" 2" 3× Circulating   3× Swep 90×120×40 160 MONO 4 M 10725 + 4 out 16-48 300-940 4× 3/8", 5/8" 2"	l door units pump - energy class l door units	s A					
imensions of connections for the heating ystem will in circulation pump leat exchanger imensions (HxWxD) [cm] Veight [kg] NDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Deverall heat output [kW] sum of output of outdoor units) leating surface [m <sup>2</sup> ] bimensions of gas connections bimensions of connections for the heating ystem will in circulation pump leat exchanger bimensions (HxWxD) [cm] Veight [kg] NDOOR UNIT FOR 4 OUTDOOR UNITS Product number (set) Deverall heat output [kW] sum of output of outdoor units) leating surface [m <sup>2</sup> ] bimensions of gas connections product number (set) Deverall heat output [kW] sum of output of outdoor units) leating surface [m <sup>2</sup> ] bimensions of connections for the heating ystem imensions of connections for the heating ystem intensions of connections for the heating ystem iuit in circulation pump	6/4"         2× Circulating I         2× Swep         90×60×40         95         MONO 3 M         10723 + 3 outor         12-36         225-705         3× 3/8", 5/8"         2"         3× Circulating I         3× Swep         90×120×40         160         MONO 4 M         10725 + 4 outor         16-48         300-940         4× 3/8", 5/8"         2"	door units pump - energy class	s A					
Dimensions of connections for the heating system Suilt in circulation pump Heat exchanger Dimensions (HxWxD) [cm] Weight [kg] NDOOR UNIT FOR 3 OUTDOOR UNITS Product number (set) Diversall heat output [kW] sum of output of outdoor units) Heating surface [m²] Dimensions of gas connections Dimensions of connections for the heating system Suilt in circulation pump Heat exchanger Dimensions (HXWXD) [cm] Weight [kg] NDOOR UNIT FOR 4 OUTDOOR UNITS Product number (set) Dverall heat output [kW] sum of output of outdoor units) Heating surface [m²] Dimensions of gas connections Simensions of gas connections Dimensions of connections for the heating system	6/4" 2× Circulating   2× Swep 90×60×40 95 MONO 3 M 10723 + 3 out 12-36 225-705 3× 3/8", 5/8" 2" 3× Circulating   3× Swep 90×120×40 160 MONO 4 M 10725 + 4 out 16-48 300-940 4× 3/8", 5/8" 2"	l door units pump - energy class l door units	s A					

HEAT PUMPS FOR HEATING WITH A BUILT-IN HOT WATER TANK

## Duo exclusive Series Comfort.

#### A COMPLETE HEATING SOLUTION

**Orca Duo Series** enables you to heat space and water. Warm water of the Duo heat pump is heated in the built-in 200 or 300 litre hot water tank, which means that an additional room is not required for it. A wide range of versions enables you to heat any kind of living spaces, from older or new buildings. Versions with the possibility of connections to solar power systems are also available.

BUILT-IN HOT WATER

C.O.P. 5,06

(A7/W35) MITSUBISHI (SUHZ-15 SW45 VAH)

PERATE IN OUTSIDE Emperatures as

LOW AS **-28°C** WITHOUT AN ELECTRIC HEATERHEATER

MILLION N

TANK

#### VERSION OVERVIEW



## 

**DUO 200 EXCLUSIVE** SPACE AND WATER HEATING IN A BUILT-IN 200 L HOT WATER TANK.

#### **Savings**

- Space and water heating without an electric heater in outdoor temperatures as low as -28 °C
- Complete heating output to -15°C.
- Weather-responsive control.

#### Comfort

- Simple control menu.
- Intelligent control: set up three heating circuits according to the indoor and outdoor temperature.
- Set up multiple time intervals including 'Party', 'Eco' and 'Holiday' programs.
- Room air conditioning.

#### **Safety and Security**

- Active Legionella protection.
- 5-year hot water tank warranty.
- Possibility of automatic switchover to different heating source (bivalent heating).

Orca Duo 200 is ideal for households of two to four people, because of its 200 litre hot water tank.



#### DUO 300 DUO 300 EXCLUSIVE SOLAR

SPACE AND WATER HEATING IN A BUILT-IN 300 L HOT WATER TANK.

Orca Duo 300 is a very capable heating system intended for households with more than four family members. The built-in 300L hot water tank will ensure that there is enough hot water for the entire family, while there are various versions for different heating systems and living areas.

#### Orca Duo 300 Solar

The Solar Version has the same properties as the Duo 300, however, it also enables connection to solar panels with an additional heat exchanger with a surface area of 1.3 m<sup>2</sup>. Thus heating costs can be further reduced.

### HIGH TEMPERATURE VERSIONS



#### Suitable for:

Radiator and water heating in a built-in hot water tank,
older and poorly-insulated buildings

Heating         to -28°C         60°C           Order unit         19-46°C         3440           Sitvita UAA	OUTDOOR UNIT	MITSUBISHI ELECTRIC ZUBADAN					
Digit of segmentary         OPT         NUMBER of the segment of the	Heating	to -28°C				to -25°C	-
Doting         IP-48° T         Sector         Secto			-				- (E)))
Vibility IV         22/3         24/0         Part 2 van Par							THE .
DefaultPlaff Signal Plaff Signal Plaff <b< th=""><th>2</th><th></th><th></th><th>3/400</th><th></th><th>10 740 0</th><th>2/400</th></b<>	2			3/400		10 740 0	2/400
Serve VA			PUH7		PUH7	PUH7	
CAP (UNYR3)     465     446     457     445     446     457     358       Fige [box]     125     102     316     316     316     316     362       Dimension of gas connection     36°. 56°     102°. 56°     32°. 56°. 56°. 56°. 56°. 56°. 56°. 56°. 56							
Sk.D.P. (NS)     4.35     4.16     4.14     4.24     3.39       Diver cale (Poxm1)     252     172     3-16     3-16     3-72       Diver cale (Poxm1)     37     37     37     37     37     37       Marrun heige contraction     37     37     75     75     75     37       Marrun heige contraction     37     37     75     75     75     75     75       Marrun heige contraction     37     37     75     75     75     75     75       Marrun heige contraction     37     37     75     75     75     75     75       Marrun heige contraction     37     37     37     37     37     37       Marrun heige contraction     106     116     128     128     134     145       Minoria heige contraction     106     116     128     128     134     156       NDOOD UNIT     OUO 200     1077     1077     1077     1077     1077       Minoria heige contractions     36     36     37     1077     1077     1077       Minoria heige contractions     36     36     36     36     107     1077       Minoria heige contractions     36 <td< td=""><td>Nominal heat output [kW]</td><td>9</td><td>12.7</td><td>9</td><td>12.7</td><td>14</td><td>23</td></td<>	Nominal heat output [kW]	9	12.7	9	12.7	14	23
Func No.         Add         No.2         Set 0         Set 0 <th< td=""><td>C.O.P. (A7/W35)</td><td>4.65</td><td>4.46</td><td>4.65</td><td>4.46</td><td>4.22</td><td>4.45</td></th<>	C.O.P. (A7/W35)	4.65	4.46	4.65	4.46	4.22	4.45
Description of procession of procesing procession of procession of procession of procession	S.C.O.P. (W35)	4.35	4.16	4.14	4.24	3.59	
Dimension of par. connection         Set		1×25	1×32	3×16	3×16	·····	
National neight difference UO()         30         30         30         30         30         30         30         30           Technologia up to the length         30						·····	
Jampbed grounovector ULU [m]         75         75         75         75         75         2.75         2.80           of the space connector (m]         30			·····				
Sector gas up to here equination for any all of the gas of metal of the gas					•••••••••••••••	······	
other gal order for star and the left (BLA)         Fig.         Fi	······································		•••••••••••••••••••••••••••••••••••••••		······		
Hearing normal		30	30	30	30	30	30
Samp Grown Free (BB(R))         99         60         70         75           Direction Free (BB(R))         116         116         128         128         134         148           Direction Free (BB(R))         105-48/102         105-48						35.8	65.9
Weight [ig]         116         116         128         128         124         144         148           Dimensions (Work-H) [m]         105x46x102         105x46x102         95x33152         105x36x134           NDOOR UNIT         DUO 200         Immensions (Work-H) [m]         107         Immensions (Work-H) [m]         107         Immensions (Work-H) [m]         Immen	·······	59	60	59	60		
Dimensions (WRD-Hr) [cm]         D544b102         D544b102 <thd544b102< th="">         D544b102         <thd544b10< td=""><td></td><td>116</td><td>116</td><td>128</td><td>128</td><td>134</td><td>148</td></thd544b10<></thd544b102<>		116	116	128	128	134	148
Interstore         Image of the second s			······		······	·····	
Interstore         Image of the second s				L			
Image Series         Image Series<	NDOOR UNIT	DUO 200					
iet varset rank volume III 200	roduct number (set)						
Jinenes of gas connections         Jife State         -	Hot water tank volume [1]	200				+10705	_
Intersoor of heating setem connections         I*         I							-
Interestion of hat water connections       11/14/4 circulation)       1         With Crowell hours promp       Circulating promp-energy class A       1         With Crowell hours promp       Soag       1         State acchange       3       1         Michower heating - hot water       1       1         Identified acchange       3       1       1         Minestore (HWM-0) [cm]       12/2 for 78       1       1         Verter Sessonal efficiency class in watere clinite conditions W35       A**       A**       A**       A**         Device Sessonal efficiency class in watere clinite conditions W35 (h)       A**       A**       A**       A**       -         Device Sessonal efficiency class in watere clinite conditions W55 (h)       A**       A**       A**       -       -         Set of the water cycle       I       I       L       L       L       L       L       L       L       -       -         NDDOR UNIT       DUO 300 / DUO 300 SOL AR       Immension of pass connections       3%*       -       10/31       -       10/31       -       10/31       0.00 300 / DUO 300 SOL AR       DUO 300 SOL AR       Sold AL COL AR       -       10/32       10/31       10		•••••					-
Init in circulation pump.         Circulation pump.         Integrated         Integrated         Integrated           ischich heater [M]         3-3         Swep         Image: Swep		1" (3/4 circulation	)				-
ilectric heater [w]         3-3         -         -         -         -           interactors (H-W+D) [cm]         142×50×78         -         -         -           Verice's second efficiency class in versage climate conditions WSS         A*         A*         -         -           Versite's second efficiency class in versage climate conditions WSS         A*         A*         -         -           Versite's second efficiency class in versage climate conditions WSS         A*         A*         -         -           Versite's second efficiency class in versage climate conditions WSS         A*         A*         A*         -         -           Versite's second efficiency class in versage climate conditions WSS (sig)         I         I         -			۸				-
Index conductors         Swep         -         -         -           Derice's easonal efficiency class in verge climate conditions wills         A*         A*         A*         A*         -         -           Derice's easonal efficiency class in verge climate conditions wills         A*         A*         A*         A*         -         -           Derice's easonal efficiency in average intract conditions wills (n) werge climate conditions will (n	Switchover heating – hot water	Integrated					-
Jinnerstong (H-WV-D) [cm]       142-60/78       -       -       -         Derice's cassonal efficiency class in versus elimate conditions W35       A*       A*       A*       -         Derice's cassonal efficiency class in versus elimate conditions W35       A*       A*       A*       -         Derice's cassonal efficiency in versus elimate conditions W35       A*       A*       A*       -         Versite's seasonal efficiency in versus elimate conditions W35 (ip).       T1       Iffe       -       -         Versite's seasonal efficiency in versus elimate conditions W35 (ip).       Iffe       -       -       -         Jinnate conditions W35 (ip).       Iffe       L       L       L       -       -         Secolar Seasonal efficiency in versus elimate conditions W35 (ip).       Iffe       -       -       -         Secolar Seasonal efficiency in versus elimate conditions W35 (ip).       L       L       L       L       L       L       -							-
Viejnik [a]         180         -         -         -         -           werage climate conditions WS         A*         A*         A*         A*         -         -           Device's seasonal efficiency class in werage climate conditions WS         A*         A*         A*         A*         -         -           Device's seasonal efficiency in average intrace conditions WS (p)         A*         A*         A*         A*         -         -           werage climate conditions WS (p)         average climate conditions WS (p)         average climate conditions WS (p)         -         -         -           werage climate conditions WS (p)         average climate conditions WS (p)         average climate conditions WS (p)         -         -         -           see of how tater cycle         L         L         L         L         L         -         -           NDOOR UNIT         DUO 300 / DUO 300 SOLAR         A*         A*         A*         DUO 300 XL SOLAR         SOLAR           roduct number (set)         11206         10514         10718         10718         10718           vietors of pas connections         3/8 / 5/8*         -         -         17         1/2 / 3/4*           intensions of fas connections         3/8 /		•••••				·····	-
Device's seasonal efficiency class in werzeg climate conditions W55         A*         A* <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td></t<>							-
verage climate conditions W35         M <thm< th="">         M         M</thm<>							-
Image: conditions W05	average climate conditions W35	A**	A**	A**	A**	A**	_
During conditions WoS         Image officiency in average limited conditions WoS (ng)         Image officiency in average (ng)         Image officiency in average (ng) <td>Device's seasonal efficiency class in</td> <td>Δ++</td> <td>Δ++</td> <td>Λ++</td> <td>Δ++</td> <td>Δ++</td> <td>-</td>	Device's seasonal efficiency class in	Δ++	Δ++	Λ++	Δ++	Δ++	-
Imme conditions W35 (ng)         Imme conditions W35 (ng)         Imme conditions W35 (ng)         Imme conditions W35 (ng)           Jace of hot water cycle         L         L         L         L         L         Imme conditions W35 (ng)         -           See of hot water cycle         L         L         L         L         L         L         -           Sontary water heating energy class         M         M*         M*         M         -           NDOOR UNIT         DU0 300 // DU0 300 SOLAR         M*         M*         M         DU0 300 XL DU0 300 XL SOLAR           'roduct number (set)         11206 +10731         11206 +10730         10514 +10730         10718 +10730         +10730 +10730           'roduct number - solar (set)         11207 +10731         1000         -         10719 +10730         10719 +10730         +10730 +10730         10719 +10730         +10730 +10730         10719 +10730         10718 +10730         +10730 +10730         10719 +10730         +10730 +10730         10719 +10730         1171111111111111111111111111111111111							
Device's seasonal efficiency in average climate conditions W55 (ng)         131         L         <		171				164	-
Jace on ditions W55 (rg)       L       DU0 300 XL SUS       SUS <td></td> <td>131</td> <td></td> <td></td> <td></td> <td>124</td> <td>-</td>		131				124	-
Sanitary water heating energy class         A	climate conditions W55 (ŋs)	101					
Image: Second		L	L	L	L	L	-
DUO 300 SOLAR     DUO 300 SOLAR     DUO 300 XL SOLAR       Product number (set)     11206     10514     10718       +10731     10591     +10730     +10730       Product number - solar (set)     11207     +10730     +10730       11207     100300 XL     10591     +10730       Product number - solar (set)     11207     +10730     +10730       11207     300     300     300     300       Dimensions of past connections     3/6", 5/6"     1/2", 3/4"     300       Dimensions of heating system connections     1" (3/4 circulation)     1" (3/4 circulation)     1" (3/4 circulation)       Dimensions of hot water connections     1" (3/4 circulation)     1" (3/4 circulation)     1" (3/4 circulation)       Dift eater (kW)     3x3	Sanitary water heating energy class	Α	A**	A**	A**	Α	-
DUO 300 SOLAR     DUO 300 SOLAR     DUO 300 XL SOLAR       Product number (set)     11206 +10731     10514 +10730     10718 +10730       Product number - solar (set)     11207 +10731     10591 +10730     10718 +10730       Product number - solar (set)     11207 +10730     10718 +10730     10718 +10730       Intensions of gas connections     3/6", 5/6"     300     300       Dimensions of hasting system connections     1/2", 3/4"     11"       Dimensions of hot water connections     1" (3/4 circulation)     1" (3/4 circulation)       Diff circulation pump     Circulating pump - energy class A     Circulating pump - energy class A       East exchanger     Swep     Svep     Svep       Device's seasonal efficiency class in werage climate conditions W35     A**     A**     A**       Device's seasonal efficiency class in werage climate conditions W35     A**     A**     A**       Device's seasonal efficiency class in werage climate conditions W35 (ns)     A**     A**     A**       Device's seasonal efficiency in average climate conditions W35 (ns)     A**     A**     A**     A**       Device's seasonal efficiency in average climate conditions W35 (ns)     A**     A**     A**     A**       Device's seasonal efficiency in average climate conditions W35 (ns)     A**     A**     A**     A**	NDOOR UNIT	DUO 300 /					DUO 300 XL /
Product number (set)         11206 +10731         10514 +10705         10718 +10730           Product number - solar (set)         11207 +10731         10591 +10705         10719 +10730           Ot water tank volume [L]         300         300         1/2", 3/4"           Dimensions of gas connections         3/8", 5/8"         1/2", 3/4"         1/2", 3/4"           Dimensions of heating system connections         1"         1" (3/4 circulation)         1" (3/4 circulation)           Dimensions of heating system connections         1" (3/4 circulation)         1" (3/4 circulation)         1" (3/4 circulation)           Dimensions of hot water connections         1" (3/4 circulation)         1" (3/4 circulation)         Circulating pump - energy class A           Switchover heating - hot water         Integrated         1         1         Sx3           Ieatr exchanger         Svep         Svep         3x3         Svep           Device's seasonal efficiency class in average climate conditions W35 (ps)         A**         A**         A**         260           Device's seasonal efficiency class in average climate conditions W35 (ps)         A**         A**         A**         A**           Device's seasonal efficiency class in average climate conditions W35 (ps)         A**         A**         A**         A**         A**		DUO 300 SOI	_AR				
H0731         H0730         H10705         H10705         H10730           international system         11207         11207         10591         10719           iot water tank volume [L]         300         300         300         300         300           immensions of gas connections         3/8", 5/8"         1/2", 3/4"         1/2", 3/4"         1/2", 3/4"           immensions of hot water connections         1" (3/4 circulation)         1" (3/4 circulation)         1" (3/4 circulation)         1" (3/4 circulation)           Circulating pump energy class A         1" (3/4 circulation)         1" (3/4 circulati	Product number (set)	11206				10514	
H0731H0733H0730lot water tank volume [L]300300imensions of gas connections3/8", 5/8"3/0imensions of heating system connections1"1/2", 3/4"imensions of hot water connections1"1"imensions of hot water connections1" (3/4 circulation)1"Circulating pumpCirculating pump - energy class A1' (3/4 circulation gump energy class Awitchover heating - hot waterIntegrated1' (3/4 circulation)lectric heater [kW]3×33×3leat exchangerSwepSwepsepandic leght (Solar) [kg]255182×60×78Verige's seasonal efficiency class in werage climate conditions W35 (ns)At*At*Nerge climate conditions W35 (ns)At*At*At*Device's seasonal efficiency in average limate conditions W35 (ns)171ItalItalLevice's seasonal efficiency in average limate conditions W35 (ns)131ItalItalLevice's seasonal efficiency in average limate conditions W35 (ns)131ItalItalLevice's seasonal efficiency in average limate conditions W35 (ns)131ItalItalItalLevice's seasonal efficiency in average131ItalItalItalItalLevice's seasonal efficiency in average131ItalItalItalItalItalLevice's seasonal efficiency in average131ItalItalItalItalItalLevice's seasonal efficiency in average131ItalItal<		+10731				+10705	+10730
ioit water tank volume [L]       300       300       1/2", 3/4"         immensions of gas connections       3/8", 5/8"       1/2", 3/4"       1/2", 3/4"         immensions of heating system connections       1"       1"       1"       1"         immensions of heating system connections       1"       1"       1"       1"       1"         immensions of hot water connections       1" <td< td=""><td>Product number - solar (set)</td><td></td><td></td><td></td><td></td><td>10591</td><td></td></td<>	Product number - solar (set)					10591	
Jimensions of gas connections     3/8", 5/8"     1/2", 3/4"       Jimensions of heating system connections     1"     1"       Integrated     1"     1"       Switchover heating – hot water     Integrated     Integrated       Jimensions (H×W×D) [cm]     3×3     3×3       Leat exchanger     Swep     Swep       Jimensions (H×W×D) [cm]     182×60×78     Swep       Veight [kg]     235     260       Device's seasonal efficiency class in werage climate conditions W35     A**     A**       Device's seasonal efficiency in average     171     A**     A**       Device's seasonal efficiency in average     171     171     164       Jimate conditions W35 (ns)     171     XL     XL     XL	lot water tank volume [1]					T10/00	
Immensions of heating system connections       1*       1*       1*         Dimensions of hot water connections       1* (3/4 circulation)       1* (3/4 circulation)       1* (3/4 circulation)         Unit in circulation pump       Circulating pump - energy class A       Circulating pump       Circulating pump         witchover heating – hot water       Integrated       Integrated       Integrated         Swep       3×3       3×3       3×3         leat exchanger       Swep       Swep       Swep         primensions (H×W×D) [cm]       182×60×78       182×60×78       182×60×78         Veight (kg]       255       240       240         Device's seasonal efficiency class in werage climate conditions W35       A**       A**       A**         Device's seasonal efficiency class in werage climate conditions W35       A**       A**       A**       A**         Device's seasonal efficiency in average limate conditions W35 (ns)       Integrated       Integrated       Integrated       Integrated         Jimensions (H×W×D) [cm]       131       Imate conditions W35 (ns)       Imate conditions W35 (ns							
Integrated       1* (3/4 circulation)       Circulating pump         Witchover heating – hot water       Integrated       Circulating pump         Witchover heating – hot water       Integrated       Integrated         Swep       3×3       3×3         Ideat exchanger       Swep       Swep         Swep keight (Stalar) [kg]       235       Swep         Device's seasonal efficiency class in werage climate conditions W35       A**       A**         A**       A**       A**         Device's seasonal efficiency in average       171       Integrated         Ilmate conditions W35 (ns)       171       Integrated         Jail       XL       XL       XL       XL	imensions of heating system connections						
Arthory     Arthory     Arthory     Arthory       Switchover heating - hot water     Integrated     Integrated       Swep     3×3       Silectric heater [kW]     3×3       Swep     Swep       Jimensions (H×W×D) [cm]     182×60×78       Veight [kg]     235       Veight (Solar) [kg]     255       Device's seasonal efficiency class in average climate conditions W35     Arthory       Device's seasonal efficiency in average     171       Device's seasonal efficiency in average     171       Device's seasonal efficiency in average     131       Jimet conditions W55 (ns)     XL       XL     XL		1" (3/4 circulation	)				1" (3/4 circulation)
Switchover heating - hot water         Integrated           Switchover heating - hot water         3×3           Electric heater [kW]         3×3           Swep         Swep           Dimensions (H×W×D) [cm]         182×60×78           Veight [kg]         235           Device's seasonal efficiency class in average climate conditions W35         A**           Device's seasonal efficiency class in average climate conditions W35         A**           Device's seasonal efficiency class in average climate conditions W35         A**           Device's seasonal efficiency class in average climate conditions W35         A**           Device's seasonal efficiency class in average climate conditions W35         A**           Device's seasonal efficiency class in average climate conditions W35         A**           Device's seasonal efficiency class in average climate conditions W35         A**           Device's seasonal efficiency in average climate conditions W35 (ns)         Integrated           Device's seasonal efficiency in average climate conditions W35 (ns)         Integrated           Device's seasonal efficiency in average climate conditions W35 (ns)         Integrated           Device's seasonal efficiency in average climate conditions W35 (ns)         Integrated           Device's seasonal efficiency in average climate conditions W35 (ns)         Integrated           D	Built in circulation pump	Circulating pump	- energy class A				Circulating pump
Identification (IM)       3×3       3×3         Ideat exchanger       Swep       Swep         Dimensions (H×WxD) [cm]       182×60×78       182×60×78         Veight [kg]       235       240         Veight [kg]       255       260         Device's seasonal efficiency class in average climate conditions W35       A**       A**       A**         Device's seasonal efficiency class in average climate conditions W55       I**       A**       A**       A**         Device's seasonal efficiency in average       171       I**       A**       I**       I**         Device's seasonal efficiency in average       131       I**       I** <td>Switchover heating – hot water</td> <td>Integrated</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Switchover heating – hot water	Integrated					
Iteat exchanger         Swep         Swep           Dimensions (H×WxD) [cm]         182×60×78         182×60×78           Veight [kg]         235         240           Veight [kg]         255         260           Device's seasonal efficiency class in werage climate conditions W35         A++							
Name		•••••					
Veight (Solar) [kg]     255     260       Device's seasonal efficiency class in werage climate conditions W35     A**	······						
Device's seasonal efficiency class in verage climate conditions W35       A++       A++       A++       A++       A++       A++         Device's seasonal efficiency class in verage climate conditions W55       A++       A++       A++       A++       A++       A++       A++         Device's seasonal efficiency class in verage climate conditions W55       A++       A++       A++       A++       A++       A++       A++         Device's seasonal efficiency in average climate conditions W35 (ns)       171       A++							
Average climate conditions W35     A     A     A       Device's seasonal efficiency class in average climate conditions W55     A**     A**     A**       Device's seasonal efficiency in average climate conditions W35 (ns)     171     Image: Climate conditions W35 (ns)     164       Device's seasonal efficiency in average climate conditions W35 (ns)     131     Image: Climate conditions W35 (ns)     124       Device's seasonal efficiency in average climate conditions W55 (ns)     XL     XL     XL     XL							
average climate conditions W55     March     March     March     March       Device's seasonal efficiency in average climate conditions W55 (ns)     171     164     164       Device's seasonal efficiency in average climate conditions W55 (ns)     131     124     124       Jse of hot water cycle     XL     XL     XL     XL     XL	average climate conditions W35	A**	A**	A**	A**	A**	A**
Device's seasonal efficiency in average climate conditions W35 (ns)     171     164     164       Device's seasonal efficiency in average climate conditions W55 (ns)     131     124     124       Jase of hot water cycle     XL     XL     XL     XL     XL	Device's seasonal efficiency class in average climate conditions W55	A**	A**	A**	A**	A**	A**
Device's seasonal efficiency in average         131         124         124           climate conditions W55 (ns)         XL         XL <td< td=""><td>Device's seasonal efficiency in average</td><td>171</td><td></td><td></td><td></td><td>164</td><td>164</td></td<>	Device's seasonal efficiency in average	171				164	164
Use of hot water cycle XL XL XL XL XL XL XL	Device's seasonal efficiency in average	131				124	124
				VI		VI	
			·····				
	Sanitary water neating energy class	Α	A**	A**	<b>A</b> **	Α	

## LOW TEMPERATURE VERSIONS



Suitable for:

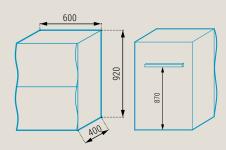
- Underfloor/wall/overhead heating and water heating in a built-in hot water tank,
- new and well-insulated buildingsbuildings with large heating surfaces

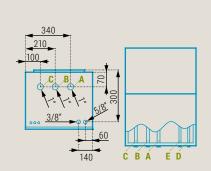
OUTDOOR UNIT	MITSUBISH	II ELECTRICP	OWER INVERTI	ER				
				0				Alla.
Heating	to -15°C	_ (B) ``	to -20°C		1		to -25°C	
Dutput water temperature	60 °C	JUL	60 °C				60 °C	S atta
Cooling Voltage [V]	to +46 °C 1/230		to +46 °C 1/230		3/400		to +46 °C 1/230	3/400
Outdoor unit	SUHZ	PUHZ	PUHZ	PUHZ	PUHZ	PUHZ	PUHZ	PUHZ
	SW45 VAH	SW50 VKA	SW75 VAA	SW100 VAA	SW75 YAA	SW100 YAA	SW120 VHA	SW120 YHA
Nominal heat output [kW]	4	5	7.1	10	7.1	10	12	12
C.O.P. (A7/W35) S.C.O.P. (W35)	5.06	4.42 4.16	4.40 3.51	4.45 3.46	4.40 3.51	4.45 3.46	4.10	4.10 3.27
Fuse [No.×A]	1×20	1×16	1×25	1×32	3×16	3×16	1×40	3×16
Power cable [No.×mm²]	3×2.5	3×2.5	3×2.5	3×4			3×6	5×1.5
Dimensions of gas connections	1/4", 1/2"	1/4", 1/2"	3/8", 5/8"	3/8",5/8"	3/8", 5/8"	3/8", 5/8"	3/8",5/8"	3/8", 5/8"
Maximum height difference IU-OU [m]	30	30	30	30	30	30	30	30
Length of gas connection IU-OU [m] Pre-charged gas up to the length of the gas connection [m]	2 - 30 5	2 - 40 5	40 10	75 10	40 10	75 10	75 10	75 10
Heating medium's nominal flow [I/min]	11.8	17.2					45.9	45.9
Sound power level [dB(A)]	42	46	58	60	58	60	51	51
Weight [kg]	54	43	92	114	104	126	118	130
Dimensions W×D×H [cm]	84×33×88	81×30×63	105×48×102	105×48×102	105×48×102	105×48×102	95×33×135	95×33×135
NDOOR UNIT	DUO 200							
Product number (set)	11205	11205					10714	10714
	+11356	+10734					+11030	+10706
Hot water tank volume [L] Dimensions of gas connections	200 3/8", 5/8"							
Dimensions of heating system connections	1"							
Dimensions of hot water connections	1" (3/4 circulati				·····			
Built in circulation pump Switchover heating – hot water	Integrated	np - energy class A			·····			
Electric heater [kW]	3×3		-					
leat exchanger	Swep							
Dimensions (H×W×D) [cm]	142×60×78			•		•		
Veight [kg] Device's seasonal efficiency class in	180							
average climate conditions W35	A <sup>+</sup>	A++	A**	A**	A**	A**	A**	A**
Device's seasonal efficiency class in average climate conditions W55	A+	A**	A**	A**	A**	A**	A**	A**
Device's seasonal efficiency in average	153	163	165	164		164	162	162
climate conditions W35 (ηś)	100	100	100				102	102
Device's seasonal efficiency in average climate conditions W55 (ns)	116	125	127	125		125	125	125
Jse of hot water cycle	L	L			L		<b>f</b>	
Sanitary water heating energy class	A	A	A	A	A	A	A	A
NDOOR UNIT	DUO 300 /							
	DUO 300 /	OLAR						
Product number (set)	11206	11206	11206			10514	10514	10514
	+11356	+10734	+10733			+10732	+11030	+10706
Product number - solar (set)	11207 +11356	11207 +10734	11207 +10733			10591 +10732	10591 +11030	10591 +10706
Hot water tank volume [L]	300							
Dimensions of gas connections	3/8", 5/8"							
Dimensions of heating system connections Dimensions of hot water connections	1" (3/4 circulati	on)			•	•		
		np - energy class A						
Built in circulation pump Switchover heating – hot water	Integrated	•••••						
uilt in circulation pump witchover heating – hot water lectric heater [kW]	3×3							
uilt in circulation pump witchover heating – hot water lectric heater [kW] leat exchanger	3×3 Swep				•			
uilt in circulation pump witchover heating – hot water lectric heater [kW] leat exchanger imensions (H×W×D) [cm]	3×3							
uilt in circulation pump witchover heating – hot water lectric heater [kW] leat exchanger Jimensions (H×W×D) [cm] Veight [kg] Veight (Solar) [kg]	3×3 Swep 182×60×78							
uilt in circulation pump witchover heating – hot water lectric heater [kW] leat exchanger imensions (H×W×D) [cm] /eight [kg] evice's seasonal efficiency class in	3×3 Swep 182×60×78 235	A**	A++	A**	A**	A**	A++	A**
uilt in circulation pump witchover heating – hot water lectric heater [kW] leat exchanger imensions (H×W×D) [cm] Veight [kg] veight (Solar) [kg] Device's seasonal efficiency class in verage climate conditions W35	3×3 Swep 182×60×78 235 255 A*	A** A**						
Built in circulation pump Bwitchover heating – hot water Electric heater [kW] Heat exchanger Dimensions (H×W×D) [cm] Veight [kg] Veight [kg] Device's seasonal efficiency class in average climate conditions W35	3×3 Swep 182×60×78 235 255 A* A*	A**	A**	A**	A**>	A**	A**	A**
tuilt in circulation pump witchover heating – hot water lectric heater [kW] leat exchanger bimensions (H×W×D) [cm] Veight [kg] Pevice's seasonal efficiency class in werage climate conditions W35 Device's seasonal efficiency in average Device's seasonal efficiency in average	3×3 Swep 182×60×78 235 255 A*							
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Built in circulation pump Bwitchover heating – hot water Electric heater [kW] leat exchanger Dimensions (H×W×D) [cm] Veight [kg] Veight [kg] Device's seasonal efficiency class in average climate conditions W35 Device's seasonal efficiency in average climate conditions W35 (ns) Device's seasonal efficiency in average climate conditions W35 (ns)	3×3 Swep 182×60×78 235 255 A <sup>+</sup> A <sup>+</sup> 153 116	A**) 163 125	A** 165 127	A**) 164 125	A**)	A**) 164 125	A** 162 125	A** 162 125
Built in circulation pump Switchover heating – hot water Electric heater [kW] Heat exchanger Dimensions (H×W×D) [cm] Weight [kg] Device's seasonal efficiency class in average climate conditions W35 Device's seasonal efficiency in average climate conditions W55 Device's seasonal efficiency in average climate conditions W55 (ns) Device's seasonal efficiency in average climate conditions W56 (ns) Device's seasonal efficiency in average climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal efficiency in average Climate conditions W56 (ns) Device's seasonal	3×3 Swep 182×60×78 235 255 A* 153	A** 163	A** 165	A**>		A**>	<b>A</b> ** 162	A** 162

**INDOOR UNITS** 

#### **ORCA MONO SERIES**

#### MONO / MONO XL

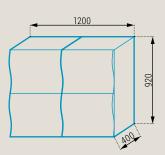


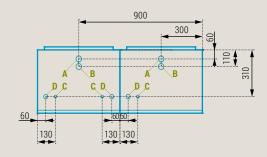


A	Heating water outlet (hot water) - 1" outside thread
B	Heating water outlet (riser) - 1" outside thread
C	Heating water inlet (return line) - 1" outside thread
D	Liquid connection 3/8" (MONO XL 1/2")
E	Gas connection 5/8" (MONO XL 3/4")
••••••	-

#### Water outlet (riser) 6/4" Outside thread A MONO CASCADE: MONO 2M, MONO 2L В Water inlet (return Outside thread line) 6/4" С Gas connection MONO 2M has a 3/8" 1/2" - MONO 2L connection Gas connection 3/4" - MONO 2L MONO 2M has a 5/8" D 600 300 connection 110 ŧ A 310 D 920 D C Ċ 60 60 130 130 400

MONO CASCADE: MONO 3M, MONO 3L, MONO 4M, MONO 4L

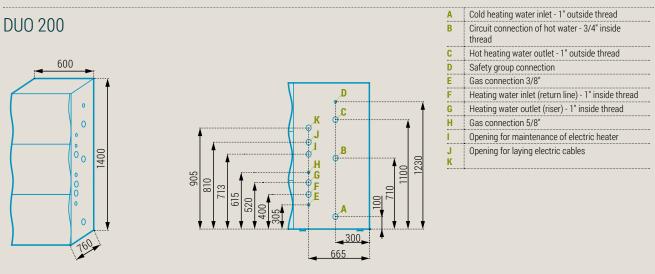




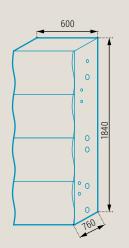
Α	Water outlet (riser) 6/4"	Outside thread	
B	Water inlet (return line) 6/4"	Outside thread	
C	Gas connection 1/2" - MONO 2L	MONO 2M has a 3/8" connection	
D	Gas connection 3/4" - MONO 2L	MONO 2M has a 5/8" connection	

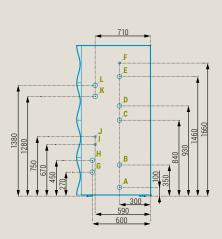
#### INDOOR UNITS

#### **ORCA DUO SERIES**



#### DUO 300 / DUO 300 SOLAR

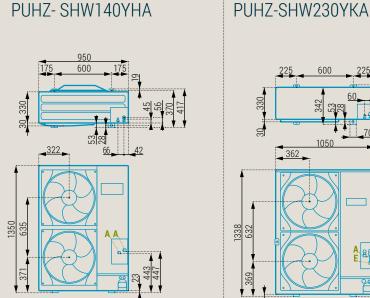


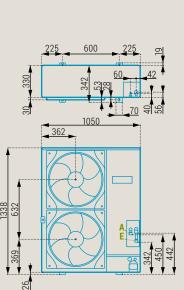


Α	Cold heating water inlet - 1" outside thread				
B	Solar outlet (only DUO SOLAR) - 1" inside thread				
C	Solar inlet (only DUO SOLAR) - 1" inside thread				
D	Circuit connection of hot water - 3/4" inside thread				
E	Hot heating water outlet - 1" outside thread				
F	Safety group connection				
G	Heating water inlet (return line) - 1" inside thread				
Η	Heating water outlet (riser) - 1" inside thread				
I	Gas connection 3/8" (DUO XL 1/2")				
J	Gas connection 5/8" (DUO XL 3/4")				
K, L	Opening for laying electric cables				

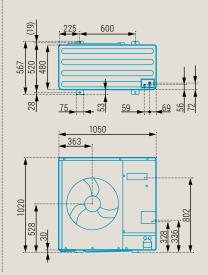
#### **OUTDOOR UNITS**

#### **MISUBISHI ELECTRIC ZUBADAN**



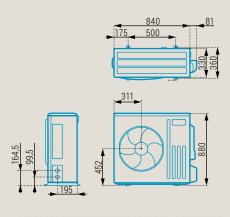


#### PUHZ-SHW80VAA/YAA PUHZ-SHW112VAA/YAA

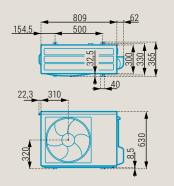


#### **MISUBISHI ELECTRIC POWER INVERTER**

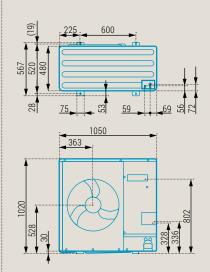
#### SUHZ-SW45VAH



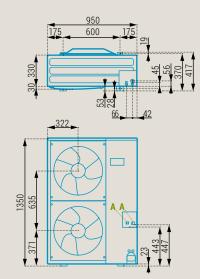
#### PUHZ-SW50VKA



PUHZ-SW75VAA/YAA PUHZ-SW100VAA/YAA



#### PUHZ-SW100YHA/VHA

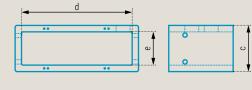


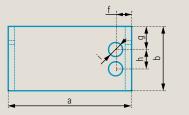
#### CONCRETE BASES

#### SENSORS

#### **CONCRETE BASES**







(cm)	Small SW 45/50	Medium SW 75/100/120 SHW 80/112/140	Veliki SHW 230	Large - for new units SHW 80/112 VAA SHW 80/112 YAA SHW 75/100 VAA SHW 75/100 YAA
а	98	105	115	117
b	60	60	60	60
С	40	43	43	60
d	86	93	103	105
е	28	31	31	48
f	15	15	15	15
g	21.5	21.5	21.5	21.5
ĥ	18	18	18	18
<u>.</u>	ø13	ø13	ø13	ø13

#### **SENSORS**

#### NTC

- Precision ±0.5°C
- 2-wire connection
- Product number: 9678+9859

#### DWPT010000 - CAREL

- Precision ±0.3°C
- 3-wire connection
- Product number: 9680

#### TH-TUNE – CAREL

- Precision ±1.0°C
- Temperature settings5-wire connection
- Product number: 11941





#### 

#### ON-OFF WIRELESS THERMOSTAT EMOS

- Range up to 70m
- 4-wire connection
- Product number: 10663



#### ORCA IS ALREADY RESPONSIBLE FOR HEATING OVER 15,000 HOMES IN EUROPE.

Orcas are sociable animals which take great care of their families. They behave so very much like humans that certain tribes believed that human souls were trapped in these beautiful animals. Orcas don't mind the heat or the cold. They live in the extreme cold of the Arctic Sea as well as in the tropical seas near the equator. Despite the cold or the heat, they hunt, socialize and love.

#### FREEDOM

You and your family wish to be just as free and independent from weather conditions. And financially as well? Because we share your wishes and values we have given our company the name of this powerful and free sea creature.

#### QUALITY

We have top experts from the field of cost-efficient heating working in our development labs, designing the flawless production of heating and cooling systems with advanced technologies and pinpoint precision. To consistently maintain quality, our systems are manufactured in the EU, except for certain components supplied by Mitsubishi Electric and Fujitsu, both high quality manufacturers from Japan. We are aware that purchasing our heating and cooling systems represents a long term investment for you, and that is why we keep the flawless operation of our devices in mind, from the first sketch to the final product.

#### ENVIRONMENT

We use green energy sources for our products, and we are very responsible towards the local and global environment. Together we can make a small step towards fighting climate change, which endangers humanity and the oceans of our symbol – the orca.

Your seller

#### Remarks

- Certificates confirming the quality of heat pumps Orca: EHPA Certificate given by Swiss national EHPA Quality Label Commision; Seal of Approval given by Fachvereinigung Wärmepumpen Schweiz; LVD, EMC, C.O.P. certificates made by Stroifenský zkuřební (stav)
- Dy Stroijrenský zkušební ústav;
   Option of cooling: Our devices have an option of cooling (preparation of coold water). However, cooling requires an existing appropriate system in the building: overhead heating, wall heating or convection heating. Cooling is not possible with heating systems such as underfloor or radiaton heating.
- Sound level of outside unit: The described sound level is valid for Mitsubishi 75-YAA at a distance of 5 metres, unhindered in open air, with temperature regime A7/W35.

Orca Energija d.o.o. (Orca Energy Ltd.) states that it selected the outdoor units of manufacturers Mitsubishi Electric and Fujitsu without consulting the manufacturers and bares sole responsibility for the inclusion of these units in its integrated systems.

Decades of cooling. Decades of comfort. orcaenergy.eu