ORCA®

HEAT PUMPS FOR HEATING
AIR-TO-WATER

Product catalogue

Decades of cooling.
Decades of comfort.

Are you missing out on life

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.[1]

HIGHEST C.O.P. – UP TO 4.83

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.

EXCEEDING 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.

ENERGY CLASSES FROM A TO A++

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

QUICK AND PROFESSIONAL MAINTENANCE

Our reliable service network ensures quick and professional maintenance.

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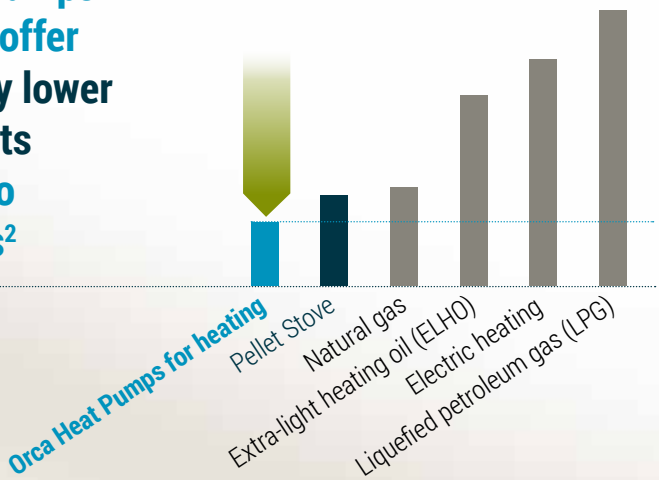
Facts.

Orca Heat Pumps for heating offer significantly lower heating costs compared to alternatives[2]



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 them.[3]

ROOM CONTROLLER

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

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.

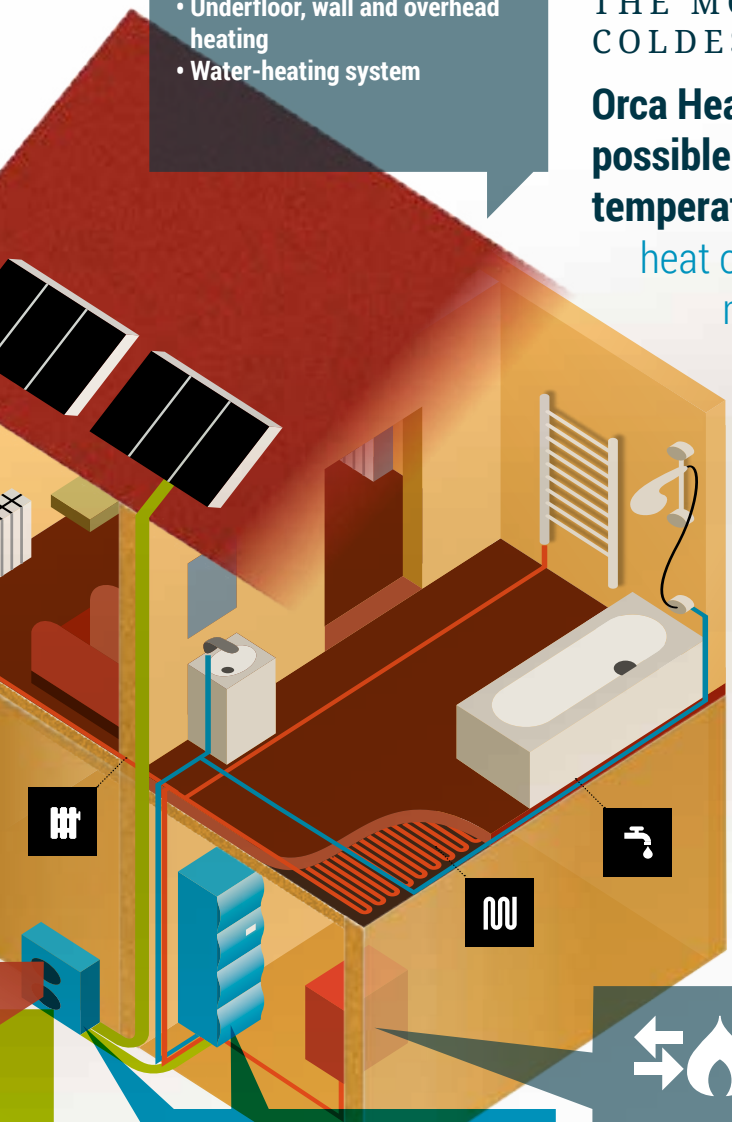
ONLY 1 kWh
IS ACQUIRED FROM ELECTRICITY

2 - 4 kWh
OF REQUIRED ENERGY IS OBTAINED FROM THE AIR, WHICH IS OF COURSE FREE OF CHARGE!

A COMPLETE HEATING SOLUTION

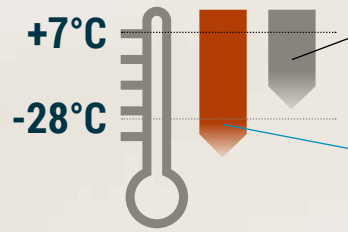
It is possible to connect to a new or existing heating system in a building:

- **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 /Double 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[3].

Perfected.

OUTSIDE UNITS

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

Manufacturer: Mitsubishi and Fujitsu

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.

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 or IMP, Slovenia

WATER HEATERS FOR SANITARY WATER

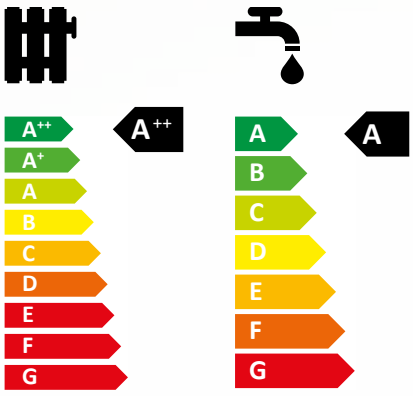
Duo/Double series models have an in-built vacuum enameled water heater with a big heat transmitter that ensures a quick and efficient sanitary water heating and cuts down on heat losses with its insulation. It also comes with a revision opening for a simple clean-up and a long life span.

Manufacturer: Lentherm, Slovenia

- **Our own inside units' production.**
- **Superior and carefully selected components.**
- **Our own development and product optimization.**

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.

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.

RENAME YOUR HEATING CYCLES:
it is definitely easier to remember “Ground floor” as opposed to “Heating cycle 2”, isn’t it?

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

MY ORCA

CONTROLLING THE HEAT PUMP VIA THE INTERNET

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.

OVERVIEW OF PRODUCTS

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

MONO/SINGLE

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/SINGLE 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.

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

DUO/DOUBLE EXCLUSIVE SERIES
HEAT PUMPS WITH AN IN-BUILT WATER HEATER

DUO/DOUBLE 200

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.

DUO/DOUBLE 300

HIGH-TEMPERATURE VERSION
LOW-TEMPERATURE VERSION

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

DUO/DOUBLE 300 SOLAR

HIGH-TEMPERATURE VERSION
LOW-TEMPERATURE VERSION

- 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
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
optional	optional	optional
✓	✓	✓
✓	✓	-
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓
✓	✓	✓

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. It enables heating without an electric heater to as low as -28°C and preserves its heating output with Flash Injection Technology to -15 °C.

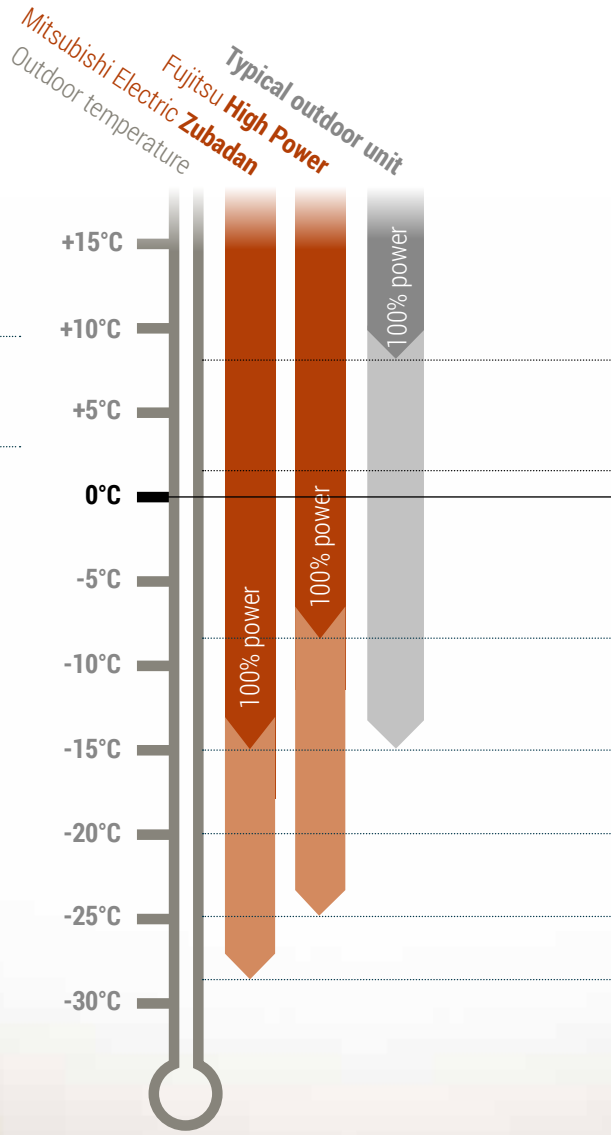
- **Coolant injection enables operation of the heat pump at temperatures of -28 °C.**
- **100% heat output is possible at -15 °C because of advanced Flash Injection Technology.**
- **High output water temperature: 60 °C.**
- **Operation of the outdoor unit is extremely quiet.**

FUJITSU HIGH POWER SERIES

FOR INDOOR UNITS SINGLE AND DOUBLE

High Power outdoor unit enables heating at temperatures as low as -25 °C.

- **Heating at temperatures as low as -25 °C.**
- **High output water temperatures: up to 60° C even at -20 °C.**
- **Liquid Injection Technology increases the output water temperature.**
- **Operation of the outdoor unit is extremely quiet.**



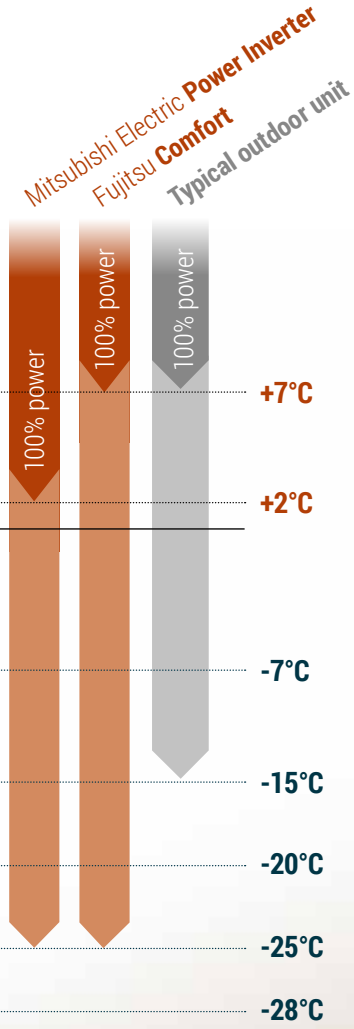
Flash Injection Technology
Flash Injection circulation is made up of a compressor with a bypass and a heat exchanger (HIC) which prevent reduction of flow of the coolant because of the lowered pressure of the coolant on the influx of the compressor. Thus the coolant does not overheat at the outflux from 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.

OVERVIEW OF OUTDOOR UNITS

LOW TEMPERATURE VERSIONS

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



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 °C at 5 °C and even 55 °C at -10 °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.**

FUJITSU
COMFORT SERIES

FOR INDOOR UNITS
SINGLE AND DOUBLE

The Fujitsu Comfort outdoor unit is ideal for new and renovated buildings.

- **Heating at temperatures as low as -25 °C.**
- **Simple and quick installation.**
- **Environmentally friendly technology with an incredible energy yield.**
- **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.

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 41 dB(A)[4]

Mitsubishi Electric and Fujitsu outside units are currently deemed as one of the quietest on the market.

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 m² WITH CASCADE VERSIONS.

Mono/Single exclusive. Series

Choice.

FOR VIRTUALLY EVERY ROOM

The Orca Mono/Single 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 m².

ORCA MONO/SINGLE EXCLUSIVE SERIES

VERSION OVERVIEW

MONO/SINGLE EXCLUSIVE

FOR COMFORTABLE ROOM AND WATER HEATING IN AN EXISTING HOT WATER TANK.

UP TO
2,500 M²
TWO, THREE OR FOUR OUTDOOR UNITS

MONO CASCADE

FOR HEATING LARGER AREAS WITH A SINGLE INDOOR CONTROL UNIT AND UP TO FOUR OUTDOOR UNITS.

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/Single 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.

Heat pumps for heating may be connected into cascades. As opposed to most cascade heat pumps on the market, the innovative Mono/Single 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 2,500m² is possible.

ORCA MONO/SINGLE EXCLUSIVE SERIES

HIGH TEMPERATURE VERSIONS

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

OUTDOOR UNIT	MITSUBISHI ELECTRIC ZUBADAN					FUJITSU HIGH POWER				
Heating	**to -28°C**					**to -25°C**				
Output water temperature	60 °C					60 °C				
Cooling	to +46 °C					to +43 °C				
Outdoor unit	**PUHZ-SHW80 VHA**	**PUHZ-SHW112 VHA**	**PUHZ-SHW112 YHA**	**PUHZ-SHW140 YHA**	**PUHZ-SHW230 YKA**	**WOYG 112LCTA**	**WOYK 112LCTA**	**WOYG 140LCTA**	**WOYK 140LCTA**	**WOYK 160LCTA**
Heat output (kW) Minimal/Nominal/Maximal	4,4/**8**/12,3	5,5/**11,2**/14,8	5,5/**11,2**/14,8	5,5/**14**/16,4	11,4/**23**/27,9	3,9/**11,2**/13,4	3,9/**11,2**/13,4	4,9/**14**/16,8	4,9/**14**/16,8	5,6/**16**/19,2
Heating surface (A-15/W35)[5]	**200 m²**	**280 m²**	**280 m²**	**350 m²**	**575 m²**	**250 m²**	**250 m²**	**280 m²**	**280 m²**	**350 m²**
C.O.P. (A7/W35)	**4,83**	**4,83**	**4,83**	**4,82**	**4,5**	**4,94**	**4,94**	**4,93**	**4,93**	**4,91**
Voltage	1Ph/230 V	1Ph/230 V	3Ph/400 V	3Ph/400 V	3Ph/400 V	1Ph/230 V	3Ph/400 V	1Ph/230 V	3Ph/400 V	3Ph/400 V
Fuse	1×32 A	1×40 A	3×16 A	3×16 A	3×32 A	1×25 A	3×16 A	1×32 A	3×16 A	3×16 A
Power cable	3×6 mm²	3×6 mm²	5×2,5 mm²	5×2,5 mm²	5×6 mm²	3×4 mm²	5×2,5 mm²	3×6 mm²	5×2,5 mm²	5×2,5 mm²
Dimensions of gas connections	3/8", 5/8"	3/8",5/8"	3/8", 5/8"	3/8", 5/8"	1/2", 3/4"	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	15	15	15	15	15
Length of gas connection IU-OU (m)	2 - 75	2 - 75	2 - 75	2 - 75	2-80	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20
Pre-charged gas up to the length of the gas connection (m)	30	30	30	30	30	10	10	10	10	10
Filling of gas above the pre-charged length (g/m)	60	60	60	60	120	50	50	50	50	50
Heating medium's nominal flow (l/min)	22,9	32,1	32,1	40,1	65,9	29,3	29,3	36,5	36,5	41,1
Weight	120 kg	120 kg	134 kg	134kg	148 kg	92 kg	99 kg	92 kg	99 kg	99 kg
Weight W×D×H (cm)	95×33×135	95×33×135	95×33×135	95×33×135	105×33×134	90×33×129	90×33×129	90×33×129	90×33×129	90×33×129

INDOOR UNIT	MONO				MONO XL	SINGLE				
Product number (set)	**11204 +10731**	**10647 +9858**	**10647 +10702**	**10647 +10705**	**10720 +10730**	**10262 +10744**	**10262 +11292**	**10262 +10745**	**10262 +10665**	**10262 +10639**
Dimensions of gas connections	3/8", 5/8"				1/2", 3/4"	3/8", 5/8"				
Dimensions of connections for the heating system	1"				1"	1"				
Built in circulation pump	Circulating pump - energy class A				Circulating pump - energy class A	Circulating pump - energy class A				
Electric heater	3×3 kW				3×3 kW	3×3 kW				
Heat exchanger	Swep				Swep	Swep				
Switchover heating-water heating	Integrated				Integrated	Integrated				
Dimensions (H×W×D)	900×600×400 mm				900×600×400 mm	900×600×400 mm				
Weight	80 kg				85 kg	80 kg				
Device's seasonal efficiency class in average climate conditions W35	A++	A++	A++	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+	A+	A+
Device's seasonal efficiency in average climate conditions W35 (ηs)	171	167	167	164	164	154	154	150	150	149
Device's seasonal efficiency in average climate conditions W55 (ηs)	131	128	128	124	124	112	112	117	117	117

ORCA MONO/SINGLE EXCLUSIVE SERIES

LOW TEMPERATURE VERSIONS

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

OUTDOOR UNIT	MITSUBISHI ELECTRIC POWER INVERTER							FUJITSU COMFORT		
Heating	**to -20 °C**		**to -25 °C**					**to -25 °C**		
Output water temperature	60 °C		60 °C					55 °C		
Cooling	to +46 °C		to +46 °C					to +43 °C		
Outdoor unit	**SUHZ-SW45 VAH**	**PUHZ-SW50 VKA**	**PUHZ-SW75 VHA**	**PUHZ-SW100 VHA**	**PUHZ-SW100 YHA**	**PUHZ-SW120 VHA**	**PUHZ-SW120 YHA**	**WOYA 060LFCA**	**WOYA 080LFCA**	**WOYA 100LFTA**
Heat output (kW) Minimal/Nominal/Maximal	2,2/**4**/6,4	2,3/**5**/7,3	3,8/**7,5**/10,2	5,4/**10**/14,8	5,4/**10**/14,8	5,8/**12**/17,3	5,8/**12**/17,3	1,8/**6**/7,2	2,8/**8**/9,6	3,5/**10**/12
Heating surface (A-15/W35)[5]	**75 m²**	**85 m²**	**150 m²**	**205 m²**	**205 m²**	**235 m²**	**235 m²**	**100 m²**	**135 m²**	**180 m²**
C.O.P. (A7/W35)	**5,02**	**5,01**	**4,97**	**4,96**	**4,96**	**4,96**	**4,96**	**4,27**	**4,08**	**4,02**
Voltage	1Ph/230 V	1Ph/230 V	1Ph/230 V	1Ph/230 V	3Ph/400 V	1Ph/230 V	3Ph/400 V	1Ph/230 V	1Ph/230 V	1Ph/230 V
Fuse	1×16 A	1×16 A	1×25 A	1×32 A	3×16 A	1×32 A	3×16 A	1×16 A	1×20 A	1×25 A
Power cable	3×2,5 mm²	3×2,5 mm²	3×4 mm²	3×6 mm²	5×2,5 mm²	3×6 mm²	5×2,5 mm²	3×4 mm²	3×4 mm²	3×4 mm²
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"	1/4", 1/2"	1/4", 5/8"	3/8", 5/8"
Maximum height difference IU-OU (m)	30	30	30	30	30	30	30	15	15	15
Length of gas connection IU-OU (m)	2 - 30	2 - 40	2 - 40	2 - 75	2 - 75	2 - 75	2 - 75	5 - 20	5 - 20	5 - 20
Pre-charged gas up to the length of the gas connection (m)	5	5	10	10	10	10	10	10	10	10
Filling of gas above the pre-charged length (g/m)	20	20	20	20	20	20	20	20	20	40
Heating medium's nominal flow (l/min)	12,9	17,2	22,9	32,1	32,1	45,9	45,9	16,3	20,3	27,1
Weight	54 kg	43 kg	75 kg	118 kg	130 kg	118 kg	130 kg	41 kg	42 kg	90 kg
Weight W×D×H (cm)	84×33×88	81×30×63	95×33×94,3	95×33×135	95×33×135	95×33×135	95×33×135	79×29×62	79×29×62	90×33×83

INDOOR UNIT	MONO							SINGLE		
Product number (set)	**11204 +11356**	**11204 +10734**	**11204 +10733**	**10647 +7280**	**10647 +10732**	**10647 +11030**	**10647 +10706**	**11208 +10741**	**11208 +11373**	**10262 +10743**
Dimensions of gas connections	3/8", 5/8"							3/8", 5/8"		
Dimensions of connections for the heating system	1"							1"		
Built in circulation pump	Circulating pump - energy class A							Circulating pump - energy class A		
Electric heater	3×3 kW							3×3 kW		
Heat exchanger	Swep							Swep		
Switchover heating-water heating	Integrated							Integrated		
Dimensions (H×W×D)	900×600×400 mm							900×600×400 mm		
Weight	80 kg							80 kg		
Device's seasonal efficiency class in average climate conditions W35	A+	A++	A++	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+	A+	A+
Device's seasonal efficiency in average climate conditions W35 (ηs)	153	163	165	164	164	162	162	169	156	155
Device's seasonal efficiency in average climate conditions W55 (ηs)	116	125	127	125	125	125	125	115	118	113

ORCA MONO/SINGLE EXCLUSIVE SERIES

CASCADES HIGH TEMPERATURE VERSIONS

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

OUTDOOR UNIT	MITSUBISHI ELECTRIC ZUBADAN					FUJITSU HIGH POWER				
Heating	**to -28°C**					**to -25°C**				
Output water temperature	60 °C					60 °C				
Cooling	to +46 °C					to +43 °C				
Outdoor unit	**PUHZ-SHW80 VHA**	**PUHZ-SHW112 VHA**	**PUHZ-SHW112 YHA**	**PUHZ-SHW140 YHA**	**PUHZ-SHW230 YKA**	**WOYG 112LCTA**	**WOYK 112LCTA**	**WOYG 140LCTA**	**WOYK 140LCTA**	**WOYK 160LCTA**
Product number of the outdoor unit	**10731**	**9858**	**10702**	**10705**	**10730**	**10744**	**10641**	**10745**	**10665**	**10639**
Heat output (kW) Minimal/Nominal/Maximal	4,4/**8**/12,3	5,5/**11,2**/14,8	5,5/**11,2**/14,8	5,5/**14**/16,4	11,4/**23**/27,9	3,9/**11,2**/13,4	3,9/**11,2**/13,4	4,9/**14**/16,8	4,9/**14**/16,8	5,6/**16**/19,2
Heating surface (A-15/W35)[5]	**200 m²**	**280 m²**	**280 m²**	**350 m²**	**575 m²**	**250 m²**	**250 m²**	**280 m²**	**280 m²**	**350 m²**
C.O.P. (A7/W35)	**4,83**	**4,83**	**4,83**	**4,82**	**4,5**	**4,94**	**4,94**	**4,93**	**4,93**	**4,91**
Voltage	1Ph/230 V	1Ph/230 V	3Ph/400 V	3Ph/400 V	3Ph/400 V	1Ph/230 V	3Ph/400 V	1Ph/230 V	3Ph/400 V	3Ph/400 V
Fuse	1×32 A	1×40 A	3×16 A	3×16 A	3×32 A	1×25 A	3×16 A	1×32 A	3×16 A	3×16 A
Power cable	3×6 mm²	3×6 mm²	5×2,5 mm²	5×2,5 mm²	5×6 mm²	3×4 mm²	5×2,5 mm²	3×6 mm²	5×2,5 mm²	5×2,5 mm²
Dimensions of gas connections	3/8", 5/8"	3/8",5/8"	3/8", 5/8"	3/8", 5/8"	1/2", 3/4"	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	15	15	15	15	15
Length of gas connection IU-OU (m)	2 - 75	2 - 75	2 - 75	2 - 75	2-80	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20
Pre-charged gas up to the length of the gas connection (m)	30	30	30	30	30	10	10	10	10	10
Filling of gas above the pre-charged length (g/m)	60	60	60	60	120	50	50	50	50	50
Heating medium's nominal flow (l/min)	22,9	32,1	32,1	40,1	65,9	29,3	29,3	36,5	36,5	41,1
Weight	120 kg	120 kg	134 kg	134kg	148 kg	92 kg	99 kg	92 kg	99 kg	99 kg
Weight W×D×H (cm)	95×33×135	95×33×135	95×33×135	95×33×135	105×33×134	90×33×129	90×33×129	90×33×129	90×33×129	90×33×129

SELECTION OF INDOOR AND OUTDOOR UNITS	**MONO M VERSIONS** 2-4x8 Circulating pump - energy class A-16 kW	**MONO L VERSIONS** 2-4x8-23 kW	**SINGLE M VERSIONS** 2-4x11.2-do 16 kW
INDOOR UNIT **FOR 2 OUTDOOR UNITS**	**MONO 2 M**	**MONO 2 L**	**SINGLE 2 M**
Product number (set)	**10721 + 2 outdoor units**	**10722 + 2 OU**	**10727 + 2 outdoor units**
Overall heat output (sum of output of outdoor units)	**16-28 kW**	**31-46 kW**	**22-32 kW**
Heating surface (A-15/W35)[5]	**400-700 m²**	**775-1.150 m²**	**500-700 m²**
Dimensions of gas connections	2× 3/8", 5/8"	2× 1/2", 3/4"	2× 3/8", 5/8"
Dim. ensions of connections for the heating system	6/4"	6/4"	6/4"
Built in circulation pump	2× Circulating pump - energy class A	2× Circulating pump - energy class A	2× Circulating pump - energy class A
Heat exchanger	2× Swep	2× Swep	2× Swep
Indoor unit dimensions (HxWxD)	900×600×400 mm	900×600×400 mm	900×600×400 mm
Weight	95 kg	105 kg	95 kg
INDOOR UNIT **FOR 3 OUTDOOR UNITS**	**MONO 3 M**	**MONO 3 L**	**SINGLE 3 M**
Product number (set)	**10723 + 3 outdoor units**	**10724 + 3 OU**	**10728 + 3 outdoor units**
Overall heat output (sum of output of outdoor units)	**24-42 kW**	**39-69 kW**	**33-48 kW**
Heating surface (A-15/W35)[5]	**600-1.050 m²**	**975-1.725 m²**	**750-1.050 m²**
Dimensions of gas connections	3× 3/8", 5/8"	3× 1/2", 3/4"	3× 3/8", 5/8"
Dim. ensions of connections for the heating system	2"	2"	2"
Built in circulation pump	3× Circulating pump - energy class A	3× Circulating pump - energy class A	3× Circulating pump - energy class A
Heat exchanger	3× Swep	3× Swep	3× Swep
Indoor unit dimensions (HxWxD)	900×1200×400 mm	900×1200×400 mm	900×1200×400 mm
Weight	160 kg	175 kg	160 kg
INDOOR UNIT **FOR 4 OUTDOOR UNITS**	**MONO 4 M**	**MONO 4 L**	**SINGLE 4 M**
Product number (set)	**10725 + 4 outdoor units**	**10726 + 4 OU**	**10729 + 4 outdoor units**
Overall heat output (sum of output of outdoor units)	**32-56 kW**	**47-92 kW**	**44-64 kW**
Heating surface (A-15/W35)[5]	**800-1.400 m²**	**1.175-2.300 m²**	**1.000-1.400 m²**
Dimensions of gas connections	4× 3/8", 5/8"	4× 1/2", 3/4"	4× 3/8", 5/8"
Dim. ensions of connections for the heating system	2"	2"	2"
Built in circulation pump	4× Circulating pump - energy class A	4× Circulating pump - energy class A	4× Circulating pump - energy class A
Heat exchanger	4× Swep	4× Swep	4× Swep
Indoor unit dimensions (HxWxD)	900×1200×400 mm	900×1200×400 mm	900×1200×400 mm
Weight	190 kg	210 kg	190 kg

ORCA MONO/SINGLE EXCLUSIVE SERIES

CASCADES LOW TEMPERATURE VERSIONS

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

OUTDOOR UNIT	MITSUBISHI ELECTRIC POWER INVERTER							FUJITSU COMFORT		
Heating	**to -20 °C**		**to -25 °C**					**to -25 °C**		
Output water temperature	60 °C		60 °C					55 °C		
Cooling	to +46 °C		to +46 °C					to +43 °C		
Outdoor unit	**SUHZ-SW45 VAH**	**PUHZ-SW50 VKA**	**PUHZ-SW75 VHA**	**PUHZ-SW100 VHA**	**PUHZ-SW100 YHA**	**PUHZ-SW120 VHA**	**PUHZ-SW120 YHA**	**WOYA 060LFCA**	**WOYA 080LFCA**	**WOYA 100LFTA**
Product number of the outdoor unit	**10735**	**10734**	**10733**	**7280**	**10732**	**11030**	**10706**	**10741**	**10742**	**10743**
Heat output (kW) Minimal/Nominal/Maximal	2,2/**4**/6,4	2,3/**5**/7,3	3,8/**7,5**/10,2	5,4/**10**/14,8	5,4/**10**/14,8	5,8/**12**/17,3	5,8/**12**/17,3	1,8/**6**/7,2	2,8/**8**/9,6	3,5/**10**/12
Heating surface (A-15/W35)[5]	**75 m²**	**85 m²**	**150 m²**	**205 m²**	**205 m²**	**235 m²**	**235 m²**	**100 m²**	**135 m²**	**180 m²**
C.O.P. (A7/W35)	**5,02**	**5,01**	**4,97**	**4,96**	**4,96**	**4,96**	**4,96**	**4,27**	**4,08**	**4,02**
Voltage	1Ph/230 V	1Ph/230 V	1Ph/230 V	1Ph/230 V	3Ph/400 V	1Ph/230 V	3Ph/400 V	1Ph/230 V	1Ph/230 V	1Ph/230 V
Fuse	1×16 A	1×16 A	1×25 A	1×32 A	3×16 A	1×32 A	3×16 A	1×16 A	1×20 A	1×25 A
Power cable	3×2,5 mm²	3×2,5 mm²	3×4 mm²	3×6 mm²	5×2,5 mm²	3×6 mm²	5×2,5 mm²	3×4 mm²	3×4 mm²	3×4 mm²
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"	1/4", 1/2"	1/4", 5/8"	3/8", 5/8"
Maximum height difference IU-OU (m)	30	30	30	30	30	30	30	15	15	15
Length of gas connection IU-OU (m)	2 - 30	2 - 40	2 - 40	2 - 75	2 - 75	2 - 75	2 - 75	5 - 20	5 - 20	5 - 20
Pre-charged gas up to the length of the gas connection (m)	5	5	10	10	10	10	10	10	10	10
Filling of gas above the pre-charged length (g/m)	20	20	20	20	20	20	20	20	20	40
Heating medium's nominal flow (l/min)	12,9	17,2	22,9	32,1	32,1	45,9	45,9	16,3	20,3	27,1
Weight	54 kg	43 kg	75 kg	118 kg	130 kg	118 kg	130 kg	41 kg	42 kg	90 kg
Weight W×D×H (cm)	84×33×88	81×30×63	95×33×94,3	95×33×135	95×33×135	95×33×135	95×33×135	79×29×62	79×29×62	90×33×83

SELECTION OF INDOOR AND OUTDOOR UNITS	**MONO M VERSIONS** 2-4x4-12 kW	**SINGLE M VERSIONS** 2-4x5-7.7kW
INDOOR UNIT **FOR 2 OUTDOOR UNITS**	**MONO 2 M**	**SINGLE 2 M**
Product number (set)	**10721 + 2 outdoor units**	**10727 + 2 outdoor units**
Overall heat output (sum of output of outdoor units)	**8-24 kW**	**12-20 kW**
Heating surface (A-15/W35)[5]	150-470 m²	200-360 m²
Dimensions of gas connections	2× 3/8", 5/8"	2× 3/8", 5/8"
Dim. ensions of connections for the heating system	6/4"	6/4"
Built in circulation pump	2× Circulating pump - energy class A	2× Circulating pump - energy class A
Heat exchanger	2× Swep	2× Swep
Indoor unit dimensions (HxWxD)	900×600×400 mm	900×600×400 mm
Weight	95 kg	95 kg
INDOOR UNIT **FOR 3 OUTDOOR UNITS**	**MONO 3 M**	**SINGLE 3 M**
Product number (set)	**10723 + 3 outdoor units**	**10728 + 3 outdoor units**
Overall heat output (sum of output of outdoor units)	**12-36 kW**	**18 kW-30 kW**
Heating surface (A-15/W35)[5]	225-705 m²	300-540 m²
Dimensions of gas connections	3× 3/8", 5/8"	3× 3/8", 5/8"
Dim. ensions of connections for the heating system	2"	2"
Built in circulation pump	3× Circulating pump - energy class A	3× Circulating pump - energy class A
Heat exchanger	3× Swep	3× Swep
Indoor unit dimensions (HxWxD)	900×1200×400 mm	900×1200×400 mm
Weight	160 kg	160 kg
INDOOR UNIT **FOR 4 OUTDOOR UNITS**	**MONO 4 M**	**SINGLE 4 M**
Product number (set)	**10725 + 4 outdoor units**	**10729 + 4 outdoor units**
Overall heat output (sum of output of outdoor units)	**16-48 kW**	**24-40 kW**
Heating surface (A-15/W35)[5]	300-940 m²	400-720 m²
Dimensions of gas connections	4× 3/8", 5/8"	4× 3/8", 5/8"
Dim. ensions of connections for the heating system	2"	2"
Built in circulation pump	4× Circulating pump - energy class A	4× Circulating pump - energy class A
Heat exchanger	4× Swep	4× Swep
Indoor unit dimensions (HxWxD)	900×1200×400 mm	900×1200×400 mm
Weight	190 kg	190 kg

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

BUILT-IN
HOT WATER
TANK

C.O.P. 4.83
(A7/W35)
ORCA EXCLUSIVE+
MITSUBISHI ZUBADAN
(PUHZ-SHW80VHA)

OPERATE IN OUTSIDE TEMPERATURES AS
LOW AS -28°C
WITHOUT AN ELECTRIC HEATERHEATER

Duo/Double exclusive Series

Comfort.

A COMPLETE HEATING SOLUTION

Orca Duo/Double Series enables you to heat space and water. Warm water of the Duo/Double 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.

ORCA DUO/DOUBLE EXCLUSIVE SERIES

VERSION OVERVIEW

DUO/DOUBLE 200 EXCLUSIVE

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

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

DUO/DOUBLE 300 DUO/DOUBLE 300 EXCLUSIVE SOLAR

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

Orca Duo/Double 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/Double 300 Solar

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

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/DOUBLE EXCLUSIVE SERIES

HIGH TEMPERATURE VERSIONS

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

OUTDOOR UNIT	MITSUBISHI ELECTRIC ZUBADAN					FUJITSU HIGH POWER				
Heating	**to -28°C**					**to -25°C**				
Output water temperature	60 °C					60 °C				
Cooling	to +46 °C					to +43 °C				
Outdoor unit	**PUHZ-SHW80 VHA**	**PUHZ-SHW112 VHA**	**PUHZ-SHW112 YHA**	**PUHZ-SHW140 YHA**	**PUHZ-SHW230 YKA**	**WOYG 112LCTA**	**WOYK 112LCTA**	**WOYG 140LCTA**	**WOYK 140LCTA**	**WOYK 160LCTA**
Heat output (kW) Minimal/Nominal/Maximal	4,4/**8**/12,3	5,5/**11,2**/14,8	5,5/**11,2**/14,8	5,5/**14**/16,4	11,4/**23**/27,9	3,9/**11,2**/13,4	3,9/**11,2**/13,4	4,9/**14**/16,8	4,9/**14**/16,8	5,6/**16**/19,2
Heating surface (A-15/W35)[5]	**200 m²**	**280 m²**	**280 m²**	**350 m²**	**575 m²**	**250 m²**	**250 m²**	**280 m²**	**280 m²**	**350 m²**
C.O.P. (A7/W35)	**4,83**	**4,83**	**4,83**	**4,82**	**4,5**	**4,94**	**4,94**	**4,93**	**4,93**	**4,91**
Voltage	1Ph/230 V	1Ph/230 V	3Ph/400 V	3Ph/400 V	3Ph/400 V	1Ph/230 V	3Ph/400 V	1Ph/230 V	3Ph/400 V	3Ph/400 V
Fuse	1×32 A	1×40 A	3×16 A	3×16 A	3×32 A	1×25 A	3×16 A	1×32 A	3×16 A	3×16 A
Power cable	3×6 mm²	3×6 mm²	5×2,5 mm²	5×2,5 mm²	5×6 mm²	3×4 mm²	5×2,5 mm²	3×6 mm²	5×2,5 mm²	5×2,5 mm²
Dimensions of gas connections	3/8", 5/8"	3/8",5/8"	3/8", 5/8"	3/8", 5/8"	1/2", 3/4"	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	15	15	15	15	15
Length of gas connection IU-OU (m)	2 - 75	2 - 75	2 - 75	2 - 75	2-80	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20
Pre-charged gas up to the length of the gas connection (m)	30	30	30	30	30	10	10	10	10	10
Filling of gas above the pre-charged length (g/m)	60	60	60	60	120	50	50	50	50	50
Heating medium's nominal flow (l/min)	22,9	32,1	32,1	40,1	65,9	29,3	29,3	36,5	36,5	41,1
Weight	120 kg	120 kg	134 kg	134kg	148 kg	92 kg	99 kg	92 kg	99 kg	99 kg
Weight W×D×H (cm)	95×33×135	95×33×135	95×33×135	95×33×135	105×33×134	90×33×129	90×33×129	90×33×129	90×33×129	90×33×129

INDOOR UNIT	DUO 200					DOUBLE 200				
Product number (set)	**11205 +10731**	**10714 +9858**	**10714 +10702**	**10714 +10705**		**10716 +10744**	**10716 +11292**	**10716 +10745**	**10716 +10665**	**10716 +10639**
Hot water tank volume	200 L				-	200 L				
Dimensions of gas connections	3/8", 5/8"				-	3/8", 5/8"				
Dimensions of heating system connections	1"				-	1"				
Dimensions of hot water connections	1" (3/4 circulation)				-	1" (3/4 circulation)				
Built in circulation pump	Circulating pump - energy class A				-	Circulating pump - energy class A				
Switchover heating – hot water	Integrated				-	Integrated				
Electric heater	3×3 kW				-	3×3 kW				
Heat exchanger	Swep				-	Swep				
Dimensions (H×W×D)	142×60×78				-	142×60×78				
Weight	180 kg				-	180 kg				
Device's seasonal efficiency class in average climate conditions W35	A++	A++	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+	A+
Device's seasonal efficiency in average climate conditions W35 (ηs)	171	167	167	164	-	154	154	150	150	149
Device's seasonal efficiency in average climate conditions W55 (ηs)	131	128	128	124	-	112	112	117	117	117
Use of hot water cycle	L	L	L	L	-	L	L	L	L	L
Sanitary water heating energy class	A	A	A	A	-	A	A	A	A	A

INDOOR UNIT	DUO 300 / DUO 300 SOLAR				DUO 300 XL / DUO 300 XL SOLAR	DOUBLE 300 / DOUBLE 300 SOLAR				
Product number (set)	**11206 +10731**	**10514 +9858**	**10514 +10702**	**10514 +10705**	**10718 +10730**	**10261 +10744**	**10261 +11292**	**10261 +10745**	**10261 +10665**	**10261 +10639**
Product number - solar (set)	**11207 +10731**	**10591 +9858**	**10591 +10702**	**10591 +10705**	**10719 +10730**	**10667 +10744**	**10667 +11292**	**10667 + 10745**	**10667 +10665**	**10667 +10639**
Hot water tank volume	300 L				300 L	300 L				
Dimensions of gas connections	3/8", 5/8"				1/2", 3/4"	3/8", 5/8"				
Dimensions of heating system connections	1"				1"	1"				
Dimensions of hot water connections	1" (3/4 circulation)				1" (3/4 circulation)	1" (3/4 circulation)				
Built in circulation pump	Circulating pump - energy class A				A energijska o. č.	Circulating pump - energy class A				
Switchover heating – hot water	Integrated				Integrated	Integrated				
Electric heater	3×3 kW				3×3 kW	3×3 kW				
Heat exchanger	Swep				Swep	Swep				
Dimensions (H×W×D)	182×60×78				182×60×78	182×60×78				
Weight	235 kg				240 kg	235 kg				
Weight (Solar)	255 kg				260 kg	255 kg				
Device's seasonal efficiency class in average climate conditions W35	A++	A++	A++	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+	A+	A+
Device's seasonal efficiency in average climate conditions W35 (ηs)	171	167	167	164	164	154	154	150	150	149
Device's seasonal efficiency in average climate conditions W55 (ηs)	131	128	128	124	124	112	112	117	117	117
Use of hot water cycle	XL	XL	XL	XL	XL	XL	XL	XL	XL	XL
Sanitary water heating energy class	A	A	A	A	A	A	A	A	A	A

ORCA DUO / DOUBLE EXCLUSIVE SERIES

LOW TEMPERATURE VERSIONS

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

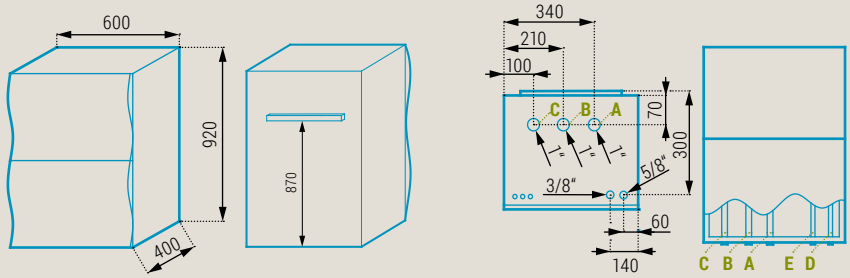
OUTDOOR UNIT	MITSUBISHI ELECTRIC POWER INVERTER							FUJITSU COMFORT		
Heating	**to -20 °C**		**to -25 °C**					**to -25 °C**		
Output water temperature	60 °C		60 °C					55 °C		
Cooling	to +46 °C		to +46 °C					to +43 °C		
Outdoor unit	**SUHZ-SW45 VAH**	**PUHZ-SW50 VKA**	**PUHZ-SW75 VHA**	**PUHZ-SW100 VHA**	**PUHZ-SW100 YHA**	**PUHZ-SW120 VHA**	**PUHZ-SW120 YHA**	**WOYA 060LFCA**	**WOYA 080LFCA**	**WOYA 100LFTA**
Heat output (kW) Minimal/Nominal/Maximal	2,2/**4**/6,4	2,3/**5**/7,3	3,8/**7,5**/10,2	5,4/**10**/14,8	5,4/**10**/14,8	5,8/**12**/17,3	5,8/**12**/17,3	1,8/**6**/7,2	2,8/**8**/9,6	3,5/**10**/12
Heating surface (A-15/W35)[5]	**75 m²**	**85 m²**	**150 m²**	**205 m²**	**205 m²**	**235 m²**	**235 m²**	**100 m²**	**135 m²**	**180 m²**
C.O.P. (A7/W35)	**5,02**	**5,01**	**4,97**	**4,96**	**4,96**	**4,96**	**4,96**	**4,27**	**4,08**	**4,02**
Voltage	1Ph/230 V	1Ph/230 V	1Ph/230 V	1Ph/230 V	3Ph/400 V	1Ph/230 V	3Ph/400 V	1Ph/230 V	1Ph/230 V	1Ph/230 V
Fuse	1×16 A	1×16 A	1×25 A	1×32 A	3×16 A	1×32 A	3×16 A	1×16 A	1×20 A	1×25 A
Power cable	3×2,5 mm²	3×2,5 mm²	3×4 mm²	3×6 mm²	5×2,5 mm²	3×6 mm²	5×2,5 mm²	3×4 mm²	3×4 mm²	3×4 mm²
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"	1/4", 1/2"	1/4", 5/8"	3/8", 5/8"
Maximum height difference IU-OU (m)	30	30	30	30	30	30	30	15	15	15
Length of gas connection IU-OU (m)	2 - 30	2 - 40	2 - 40	2 - 75	2 - 75	2 - 75	2 - 75	5 - 20	5 - 20	5 - 20
Pre-charged gas up to the length of the gas connection (m)	5	5	10	10	10	10	10	10	10	10
Filling of gas above the pre-charged length (g/m)	20	20	20	20	20	20	20	20	20	40
Heating medium's nominal flow (l/min)	12,9	17,2	22,9	32,1	32,1	45,9	45,9	16,3	20,3	27,1
Weight	54 kg	43 kg	75 kg	118 kg	130 kg	118 kg	130 kg	41 kg	42 kg	90 kg
Weight W×D×H (cm)	84×33×88	81×30×63	95×33×94,3	95×33×135	95×33×135	95×33×135	95×33×135	79×29×62	79×29×62	90×33×83

INDOOR UNIT	DUO 200							DOUBLE 200		
Product number (set)	**11205 +11356**	**11205 +10734**	**11205 +10733**	**10714 +7280**	**10714 +10732**	**10714 +11030**	**10714 +10706**	**11209 +10741**	**11209 +11373**	**10716 +10743**
Hot water tank volume	200 L							200 L		
Dimensions of gas connections	3/8", 5/8"							3/8", 5/8"		
Dimensions of heating system connections	1"							1"		
Dimensions of hot water connections	1" (3/4 circulation)							1" (3/4 circulation)		
Built in circulation pump	Circulating pump - energy class A							Circulating pump - energy class A		
Switchover heating – hot water	Integrated							Integrated		
Electric heater	3×3 kW							3×3 kW		
Heat exchanger	Swep							Swep		
Dimensions (H×W×D)	142×60×78							142×60×78		
Weight	180 kg							180 kg		
Device's seasonal efficiency class in average climate conditions W35	A+	A++	A++	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+	A+	A+
Device's seasonal efficiency in average climate conditions W35 (ηs)	153	163	165	164	164	162	162	169	156	155
Device's seasonal efficiency in average climate conditions W55 (ηs)	116	125	127	125	125	125	125	115	118	113
Use of hot water cycle	L	L	L	L	L	L		L	L	L
Sanitary water heating energy class	A	A	A	A	A	A	A	A	A	A

INDOOR UNIT	DUO 300 / DUO 300 SOLAR							DOUBLE 300 / DOUBLE 300 SOLAR		
Product number (set)	**11206 +11356**	**11206 +10734**	**11206 +10733**	**10514 +7280**	**10514 +10732**	**10514 +11030**	**10514 +10706**	**11210 +10741**	**11210 +11373**	**10261 +10743**
Product number - solar (set)	**11207 +11356**	**11207 +10734**	**11207 +10733**	**10591 +7280**	**10591 +10732**	**10591 +11030**	**10591 +10706**	**11211 +10741**	**11211 +11373**	**10667 +10743**
Hot water tank volume	300 L							300 L		
Dimensions of gas connections	3/8", 5/8"							3/8", 5/8"		
Dimensions of heating system connections	1"							1"		
Dimensions of hot water connections	1" (3/4 circulation)							1" (3/4 circulation)		
Built in circulation pump	Circulating pump - energy class A							Circulating pump - energy class A		
Switchover heating – hot water	Integrated							Integrated		
Electric heater	3×3 kW							3×3 kW		
Heat exchanger	Swep							Swep		
Dimensions (H×W×D)	182×60×78							182×60×78		
Weight	235 kg							235 kg		
Weight (Solar)	255 kg							255 kg		
Device's seasonal efficiency class in average climate conditions W35	A+	A++	A++	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+	A+	A+
Device's seasonal efficiency in average climate conditions W35 (ηs)	153	163	165	164	164	162	162	169	156	155
Device's seasonal efficiency in average climate conditions W55 (ηs)	116	125	127	125	125	125	125	115	118	113
Use of hot water cycle	XL	XL	XL	XL	XL	XL	XL	XL	XL	XL
Sanitary water heating energy class	A	A	A	A	A	A	A	A	A	A

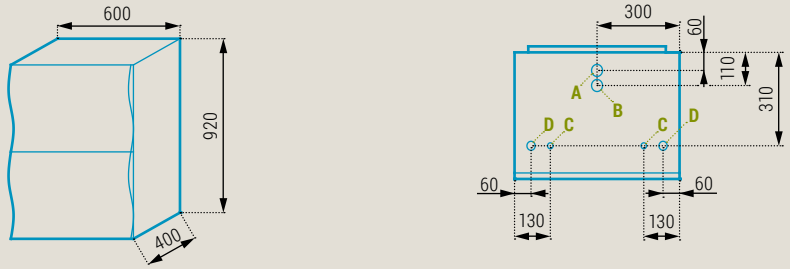
ORCA MONO / SINGLE SERIES

MONO / SINGLE / MONO XL



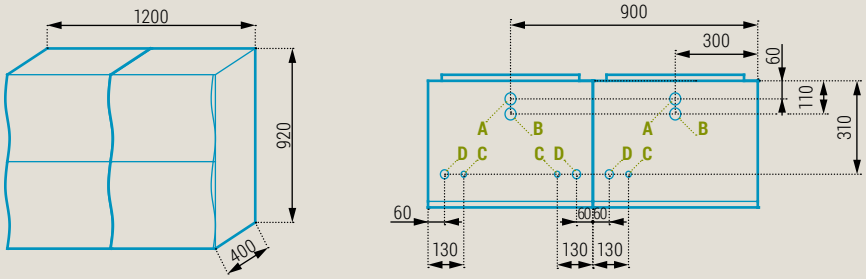
A	Heating water outlet (hot water) - 1" outside thread
B	Heating water outlet (riser) - 1" outside thread
C	Heating water inlet (return line) - 1" outside thread
D	Liquid connection 3/8" (MONO XL 1/2")
E	Gas connection 5/8" (MONO XL 3/4")

MONO / SINGLE CASCADE: MONO 2M, MONO 2L, SINGLE 2M



A	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

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



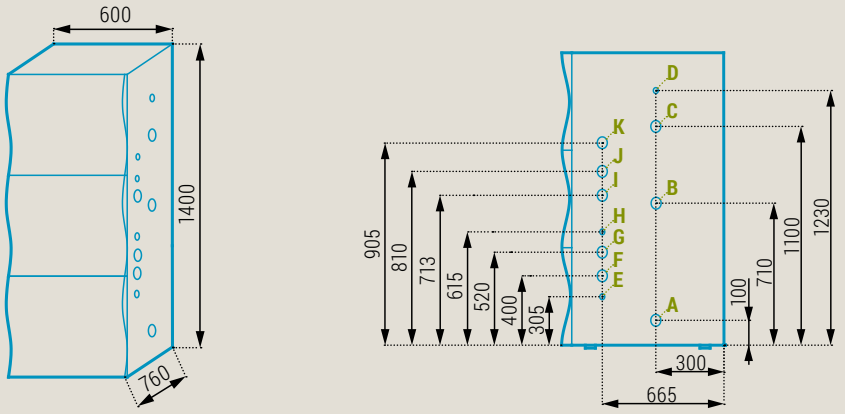
A	Water outlet (riser) 6/4"	Outside thread
B	Water inlet (return line) 6/4"	Outside thread
C	Gas connection 1/2" - MONO 2L	MONO 2M has a 3/8" connection
D	Gas connection 3/4" - MONO 2L	MONO 2M has a 5/8" connection

BLUEPRINTS OF DIMENSIONS AND CONNECTIONS

INDOOR UNITS

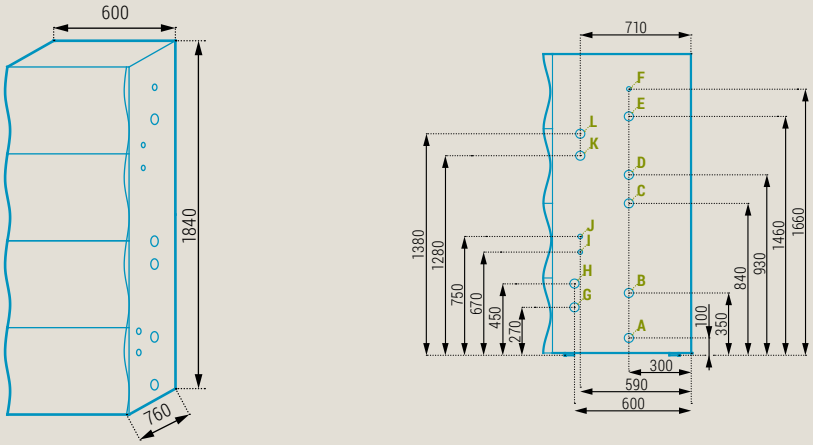
ORCA DUO / DOUBLE SERIES

DUO 200 / DOUBLE 200



A	Cold heating water inlet - 1" outside thread
B	Circuit connection of hot water - 3/4" inside thread
C	Hot heating water outlet - 1" outside thread
D	Safety group connection
E	Gas connection 3/8"
F	Heating water inlet (return line) - 1" inside thread
G	Heating water outlet (riser) - 1" inside thread
H	Gas connection 5/8"
I	Opening for maintenance of electric heater
J	Opening for laying electric cables
K	

DUO 300 / DOUBLE 300 / DUO 300 SOLAR / DOUBLE 300 SOLAR



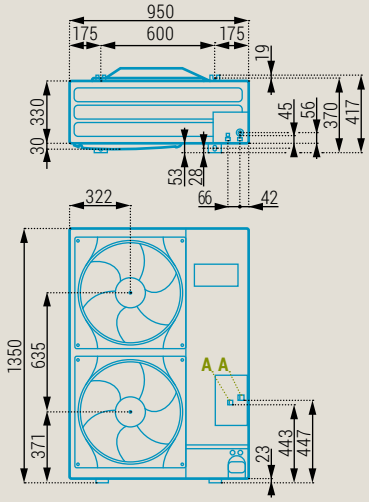
A	Cold heating water inlet - 1" outside thread
B	Solar outlet (only DUO/DOUBLE SOLAR) - 1" inside thread
C	Solar inlet (only DUO/DOUBLE SOLAR) - 1" inside thread
D	Circuit connection of hot water - 3/4" inside thread
E	Hot heating water outlet - 1" outside thread
F	Safety group connection
G	Heating water inlet (return line) - 1" inside thread
H	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

BLUEPRINTS OF DIMENSIONS AND CONNECTIONS

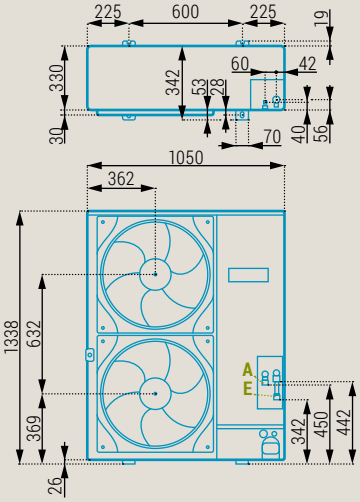
OUTDOOR UNITS

MISUBISHI ELECTRIC ZUBADAN

PUHZ-SHW80VHA
PUHZ-SHW112YHA/VHA
PUHZ- SHW140YHA

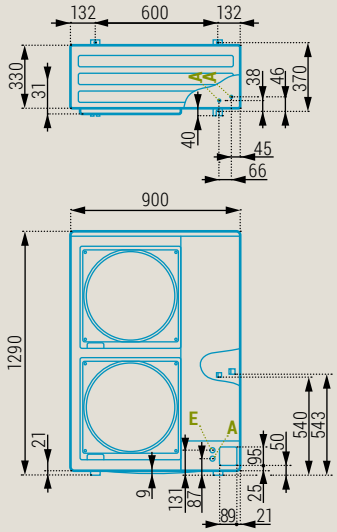


PUHZ-SHW230YKA



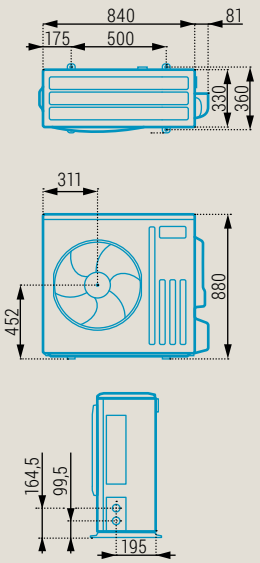
FUJITSU HIGH POWER

WOYK(G)112LCTA
WOYK(G)140LCTA
WOYK160LCTA

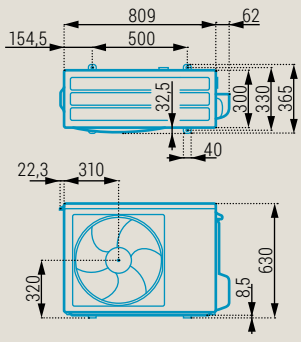


MISUBISHI ELECTRIC POWER INVERTER

SUHZ-SW45VAH



PUHZ-SW50VKA

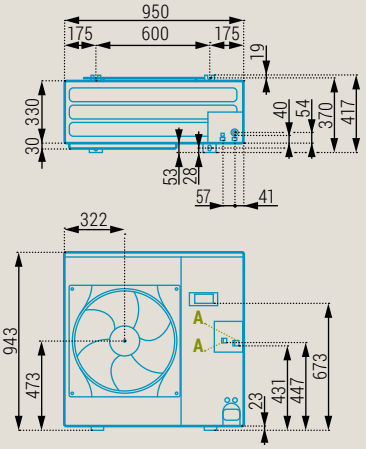


BLUEPRINTS OF DIMENSIONS AND CONNECTIONS

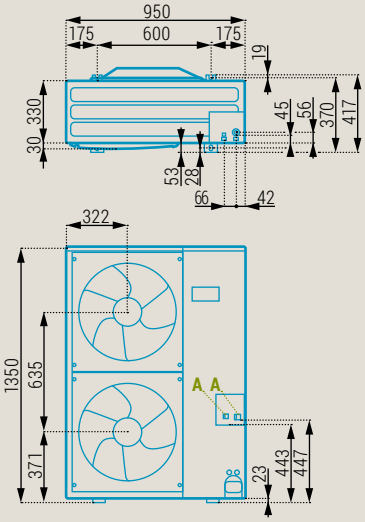
OUTDOOR UNITS

CONCRETE BASES

PUHZ-SW75VHA

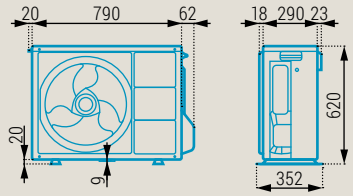


PUHZ-SW100YHA/VHA
PUHZ-SW120YHA/VHA

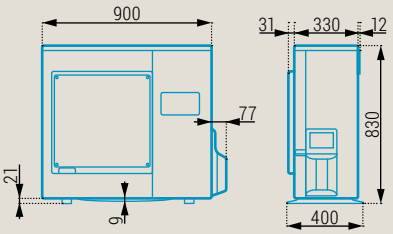


FUJITSU COMFORT

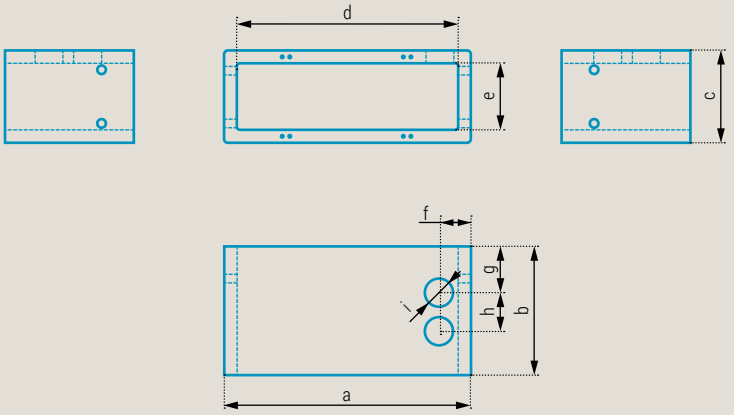
WOYA060LFCA
WOYA080LFCA



WOYA100LFTA



CONCRETE BASES



(cm)	Small **SW 45/50 WOYA 060/080**	Medium **SW 75/100/120 SHW 80/112/140 WOYK 112/140/160, WOYA 100, WOYG 112/140**	Large **SHW 230**
a	98	105	115
b	60	60	60
c	40	43	43
d	86	93	103
e	28	31	31
f	15	15	15
g	21.5	21.5	21.5
h	18	18	18
i	ø13	ø13	ø13

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.

Remarks

1. 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 Strojírenský zkušební ústav;
2. Comparison of heating costs: The basis for calculations are approximate costs of individual sources of energy for 1 kWh of acquired heat on 22. 12. 2014. Extra-light heating oil: 0.13 €/kWh, gas (LPG): 0.154 €/kWh, natural gas: 0.061 €/kWh, electric heating: 0.127 €/kWh, pellets heating: 0.063 €/kWh, electricity used for the heat pump (C.O.P. 3): 0.04 €/kWh.
3. Option of cooling: Our devices have an option of cooling (preparation of cold 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 radiator heating.
4. Sound level of outside unit: The described sound level is valid for Mitsubishi PUHZ-SW50 at a distance of 5 metres, unhindered in open air, with temperature regime A7/W35.
5. Heating surface: Calculation of the heating surface is made according to heating capacity required for temperature regime A-15/W35 and heat losses of 40 W/m².

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.

Eko sklad
Slovenski okoljski javni sklad

Eco Fund
Slovenian Environmental Public Fund

Fördergemeinschaft Wärmepumpen Schweiz FWS

TC-ENG-016-06-28

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