ORCA®

HEAT PUMPS FOR HEATING
AIR-TO-WATER

Product catalogue 2015

A small change.
Big savings.

Are you missing out on li

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 %.*

CONTENTS

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.

ENERGY CLASSES FROM A TO A+++

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

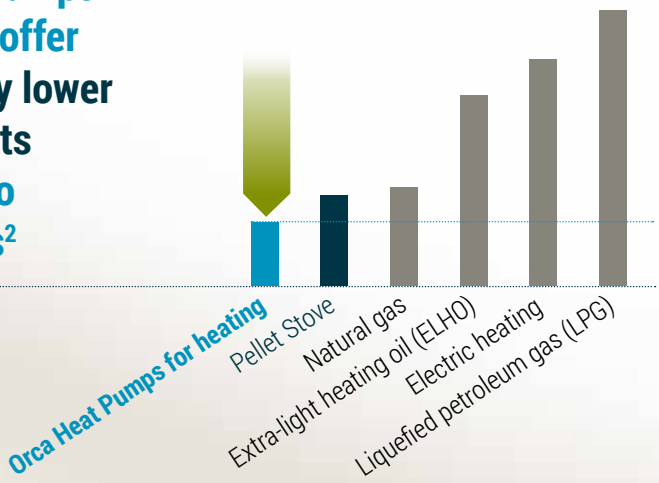
Installation of Orca Heat Pumps takes only 14 hours.

QUICK AND PROFESSIONAL MAINTENANCE

Our reliable service network ensures quick and professional maintenance.

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 (Duo Solar).

COOLING TOO!

Orca Heat Pumps not only heat rooms, but are also able to cool them.

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.

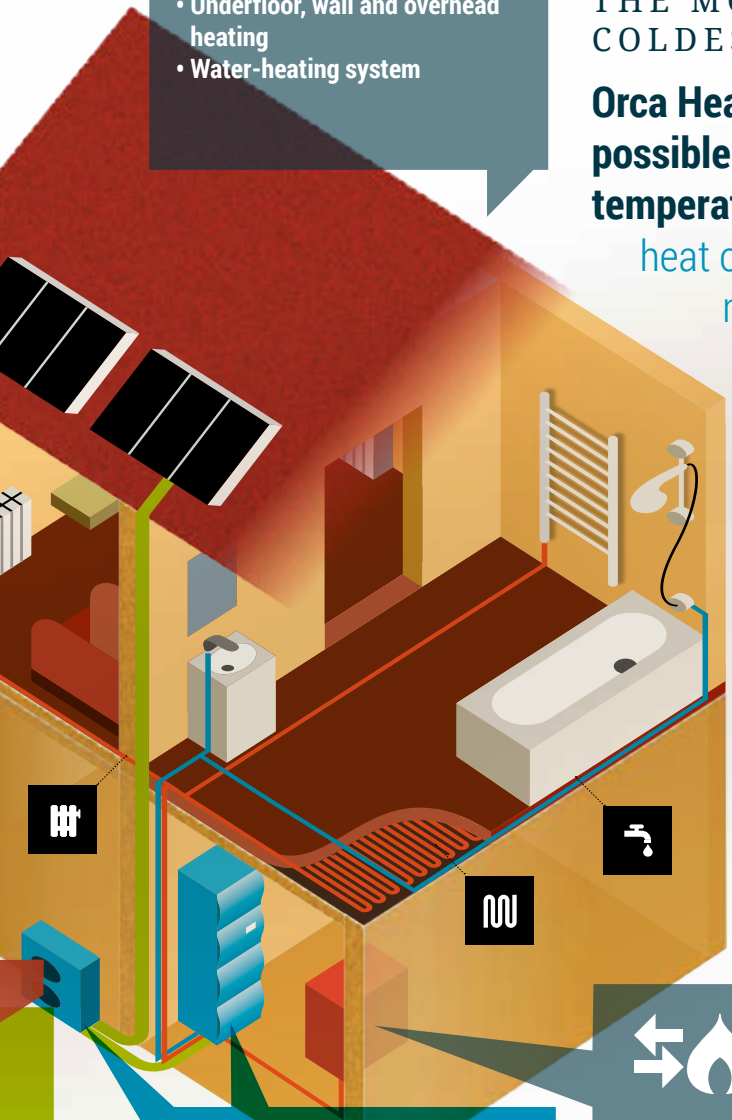
ONLY 1 kWh
IS ACQUIRED FROM ELECTRICITY

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

A COMPLETE HEATING SOLUTION

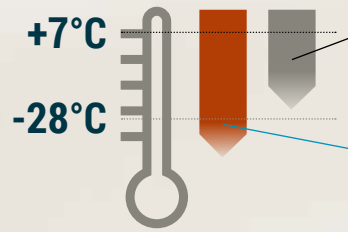
It is possible to connect to a new or existing heating system in a building:

- **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 (or - extremely quiet). The Duo Series includes a hot water tank, whereas the Trio Series has an integrated evaporator (which means that the outdoor unit is not required).

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.
- **Air conditioning,** even at +43 °C external temperature[3].

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, certain models of heat pumps have a built-in touch screen with an identical user interface to the one on your heat pump. This means you only have familiarise yourself with one user interface.

- **The desired temperature can be set according to the thermostat or outside temperature.**
- **Set the day and night heating interval for one, two or three (optional) 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' 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

HEAT PUMPS FOR HEATING WITH A SEPARATE OUTDOOR UNIT

MONO/SINGLE SERIES

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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 HYBRID

HIGH-TEMPERATURE VERSION
LOW-TEMPERATURE VERSION

- Hybrid - gas stove/heat pump.
- Automatic switching between both heat sources according to your needs and outside temperature.
- Constant preparation of hot water.

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	✓	**Direct hot 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	optional	optional	optional
Built-in expansion vessel	✓	✓	-
Circulating pump - energy class A	✓	✓	✓
Closing valves for simple cleaning of the mechanical filter	-	-	-
Function PV	✓	✓	✓
Protocol MODBUS	optional	optional	optional
Possibility of heating with a solar system	optional	optional	optional
Possibility of internet control	optional	optional	optional
Silent operation	✓	✓	✓
An additional third heating cycle	optional	optional	optional
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	-	-	-

HEAT PUMPS FOR HEATING WITH A SEPARATE OUTDOOR UNIT

HEAT PUMPS FOR HEATING WITH AN INTEGRATED EVAPORATOR (WITHOUT OUTSIDE UNIT)

DUO/DOUBLE SERIES

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TRIO SERIES

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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 200 HYBRID

HIGH-TEMPERATURE VERSION
LOW-TEMPERATURE VERSION

- Hybrid - gas stove/heat pump.
- Automatic switch between both heating sources
- according to your needs and outside temperature.
- Integrated 200 litre hot water tank.

DUO/DOUBLE 300 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

TRIO (HPA07)

LOW-TEMPERATURE VERSION

- Integrated evaporator (without outside unit)
- Suitable for new buildings and passive houses.
- Integrated 200 litre hot water tank.

200 L	**200 L**	**300 L**	**200 L**
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
optional	optional	optional	optional
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
optional	optional	optional	optional
optional	optional	optional	optional
optional	optional	optional	optional
✓	✓	✓	✓
optional	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.

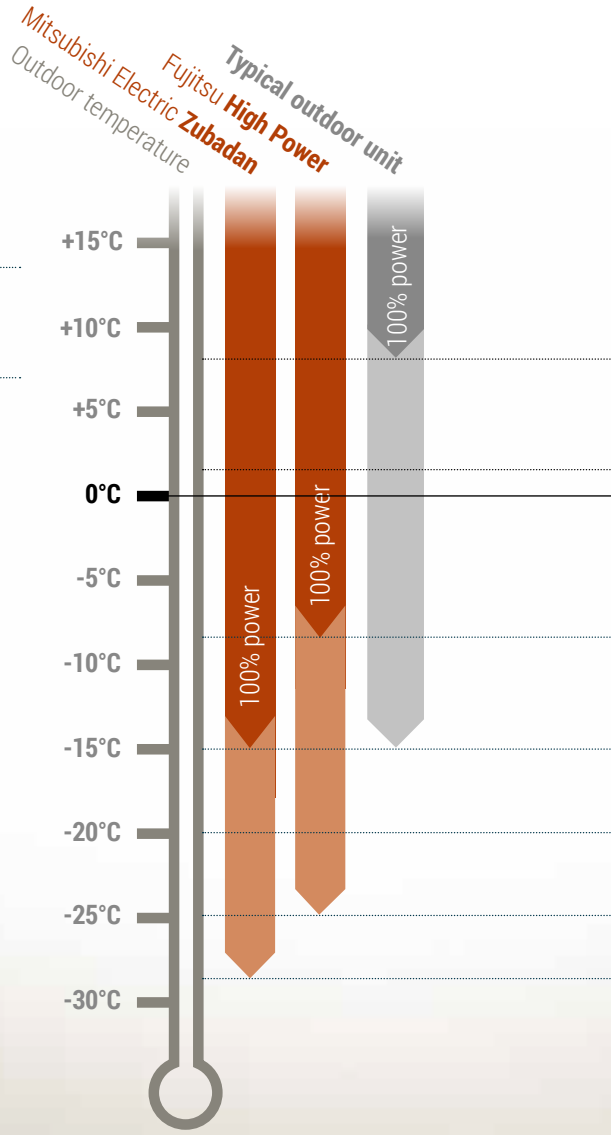
- **Coolant injection enables operation of the heat pump at temperatures of -28 °C.**
- **100% heat output is possible at -15 °C because of advanced Flash Injection Technology.**
- **High output water temperature: 65 °C[6].**
- **Operation of the outdoor unit is extremely quiet**

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 65° C[6] even at -20 °C.**
- **Liquid Injection Technology increases the output water temperature.**
- **Operation of the outdoor unit is extremely quiet**



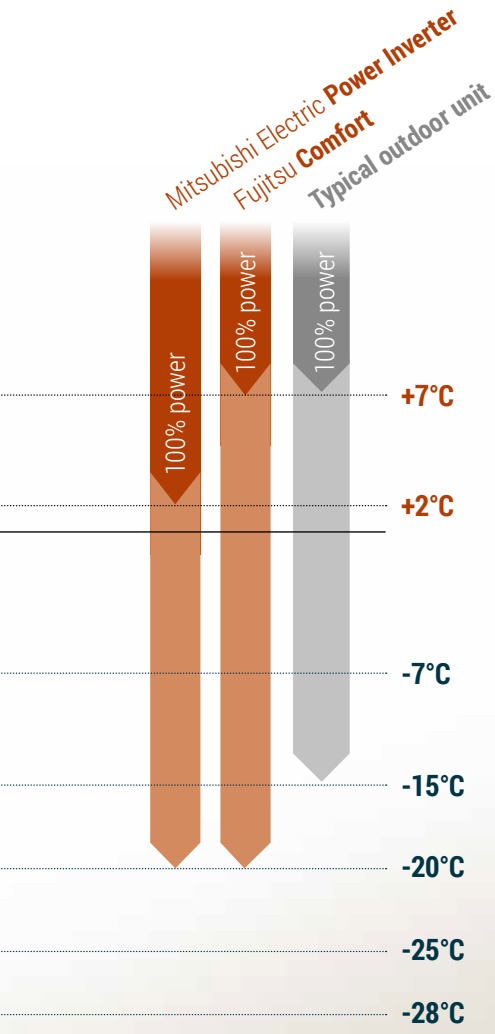
Flash Injection Technology
Flash Injection circulation is made up of a compressor with a bypass and a heat exchanger (HIC) which prevent reduction of flow of the coolant because of the lowered pressure of the coolant on the influx of the compressor. Thus the coolant does not overheat at the outflux from 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 55 °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 -20 °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 -20 °C.**
- **Simple and quick installation.**
- **Environmentally friendly technology with an incredible energy yield**
- **Operation of the outdoor unit is extremely quiet.**

STARTING AT 36 dB(A)

The Mitsubishi Electric and Fujitsu outdoor units are currently some of the quietest units on the market.

Mitsubishi Power Inverter Technology
The outdoor units of the Power Inverter Series are equipped with a Freon subcooler which prevent 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.

ORCA MONO/SINGLE SERIES

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

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

HEAT ROOMS OF UP TO 2500 m² WITH CASCADE VERSIONS.

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

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

Mono/Single 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.

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 two heating circuits according to the indoor and outdoor temperature.
- Set up multiple time intervals including 'Party' and 'Eco' programs.
- Room air conditioning.

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

ORCA MONO/SINGLE SERIES

VERSION OVERVIEW

MONO/SINGLE

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

MONO/SINGLE HYBRID

MONO CASCADE

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

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.

If energy requirements exceed the capabilities of the heat pump, the gas heater can take over, or they can operate simultaneously. The intelligent control operates this switch which is designed to be as comfortable and cost-effective as possible. And if you happen to be a person who cannot possibly cook without a gas stove – then the Hybrid is ideal for you.

- **Option of heating radiators with output water of 65°C at -30°C outside temperature (simultaneous operation).**
- Continuous water heating with a gas heater (a boiler is not required).

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 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 112LCT**	**WOYK 112LCT**	**WOYG 140LCT**	**WOYK 140LCT**	**WOYK 160LCT**
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) [5]	**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"	3/8", 3/4"	3/8", 5/8"	3/8", 5/8"	3/8", 5/8"	3/8", 5/8"	3/8", 5/8"
Weight	120 kg	120 kg	134 kg	134kg	148 kg	92 kg	99 kg	92 kg	99 kg	99 kg
Dimensions (mm)	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 1050 D: 330 H: 1340	W: 900 D: 330 H: 1290	W: 900 D: 330 H: 1290	W: 900 D: 330 V:1290	W: 900 D: 330 H: 1290	W: 900 D: 330 H: 1290

INDOOR UNIT	MONO				MONO XL	SINGLE				
Product number (set)	**11204 +10731**	**10647 +9858**	**10647 +10702**	**10647 +10705**	**10720 +10730**	**10262 +10744**	**10262 +10641**	**10262 +10745**	**10262 +10665**	**10262 +10639**
Dimensions of gas connections	3/8", 5/8"				3/8", 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 (V×Š×G)	900×600×400 mm				900×600×400 mm	900×600×400 mm				
Weight	80 kg				85 kg	80 kg				

INDOOR UNIT	MONO HYBRID				MONO XL HYBRID	SINGLE HYBRID				
Product number (set)	**11229 +10731**	**11185 +9858**	**11185 +10702**	**11185 +10705**	**11186 +10730**	**11188 +10744**	**11188 +10641**	**11188 +10745**	**11188 +10665**	**11188 +10639**
Dimensions of gas connections	3/8", 5/8"				3/8", 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				
Switchover heating – water heating	Ongoing water heating with a gas oven				Continuous water heating with a gas stove	Ongoing water heating with a gas oven				
Power of the built-in gas stove	36 kW				36 kW	36 kW				
Heat exchanger	Swep				Swep	Swep				
Dimensions (V×Š×G)	900×420×520 mm				900×420×520 mm	900×420×520 mm				
Weight	125 kg				130 kg	125 kg				

ORCA MONO/SINGLE 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 -20 °C**		
Output water temperature	60 °C		60 °C					55 °C		
Cooling	to +46 °C		to +46 °C					to +43 °C		
Outdoor unit	**PUHZ-SW40 VHA**	**PUHZ-SW50 VHA**	**PUHZ-SW75 VHA**	**PUHZ-SW100 VHA**	**PUHZ-SW100 YHA**	**PUHZ-SW120 VHA**	**PUHZ-SW120 YHA**	**WOYA 060LDC**	**WOYA 080LDC**	**WOYA 100LDT**
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**	**180 m²**	**205 m²**	**205 m²**	**235 m²**	**235 m²**	**100 m²**	**135 m²**	**180 m²**
C.O.P. (A7/W35) [5]	**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"
Weight	42 kg	42 kg	75 kg	118 kg	130 kg	118 kg	130 kg	41 kg	42 kg	60 kg
Dimensions (mm)	W: 800 D: 300 H: 600	W: 800 D: 300 H: 600	W: 950 D: 330 H: 943	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 881 D: 364 H: 588	W: 881 D: 364 H: 588	W: 798 D: 364 H: 900

INDOOR UNIT	MONO							SINGLE		
Product number (set)	**11204 +10735**	**11204 +10734**	**11204 +10733**	**10647 +7280**	**10647 +10732**	**10647 +11030**	**10647 +10706**	**11208 +10741**	**11208 +10742**	**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 (V×Š×G)	900×600×400 mm							900×600×400 mm		
Weight	80 kg							80 kg		

INDOOR UNIT	MONO HYBRID							SINGLE HYBRID		
Product number (set)	**11229 +10735**	**11229 +10734**	**11229 +10733**	**11185 +7280**	**11185 +10732**	**11185 +11030**	**11185 +10706**	**11231 +10741**	**11231 +10742**	**11188 +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		
Switchover heating – water heating	Ongoing water heating with a gas oven							Ongoing water heating with a gas oven		
Power of the built-in gas stove	36 kW							36 kW		
Heat exchanger	Swep							Swep		
Dimensions (V×Š×G)	900×420×520 mm							900×420×520 mm		
Weight	125 kg							125 kg		

ORCA MONO/SINGLE 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-SH112 YHA**	**PUHZ-SHW140 YHA**	**PUHZ-SHW230 YKA**	**WOYG 112LCT**	**WOYK 112LCT**	**WOYG 140LCT**	**WOYK 140LCT**	**WOYK 160LCT**
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) [5]	**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"	3/8", 3/4"	3/8",5/8"	3/8", 5/8"	3/8",5/8"	3/8", 5/8"	3/8", 5/8"
Weight (mm)	120 kg	120 kg	134 kg	134 kg	148 kg	92 kg	99 kg	92 kg	99 kg	99 kg
Dimensions (mm)	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 1050 D: 330 H: 1340	W: 900 D: 330 H: 1290	W: 900 D: 330 H: 1290	W: 900 D: 330 V:1290	W: 900 D: 330 H: 1290	W: 900 D: 330 H: 1290
SELECTION OF INDOOR AND OUTDOOR UNITS	**MONO M VERSIONS** 2-4x8-16 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 outdoor units**	**10727 + 2 outdoor units**				
Overall heat output (sum of output of outdoor units)	**16-28 kW**				**31-46 kW**	**22.4-32 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× 3/8", 3/4"	2× 3/8", 5/8"				
Dimensions 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 outdoor units**	**10728 + 3 outdoor units**				
Overall heat output (sum of output of outdoor units)	**24-42 kW**				**39-69 kW**	**33.6-48 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× 3/8", 3/4"	3× 3/8", 5/8"				
Dimensions 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 outdoor units**	**10729 + 4 outdoor units**				
Overall heat output (sum of output of outdoor units)	**32-56 kW**				**47-92 kW**	**36.4-64 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× 3/8", 3/4"	4× 3/8", 5/8"				
Dimensions 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 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 -20 °C**		
Output water temperature	60 °C		60 °C					55 °C		
Cooling	to +46 °C		to +46 °C					to +43 °C		
Outdoor unit	**PUHZ-SW40 VHA**	**PUHZ-SW50 VHA**	**PUHZ-SW75 VHA**	**PUHZ-SW100 VHA**	**PUHZ-SW100 YHA**	**PUHZ-SW120 VHA**	**PUHZ-SW120 YHA**	**WOYA 060LDC**	**WOYA 080LDC**	**WOYA 100LDT**
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**	**180 m²**	**205 m²**	**205 m²**	**235 m²**	**235 m²**	**100 m²**	**135 m²**	**180 m²**
C.O.P. (A7/W35) [5]	**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"
Weight (mm)	42 kg	42 kg	75 kg	118 kg	130 kg	118 kg	130 kg	41 kg	42 kg	60 kg
Dimensions (mm)	W: 800 D: 300 H: 600	W: 800 D: 300 H: 600	W: 950 D: 330 H: 943	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 881 D: 364 H: 588	W: 881 D: 364 H: 588	W: 798 D: 364 H: 900

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**	**10-15.4 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"
Dimensions 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**	**15 kW-23.1 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"
Dimensions 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**	**20-30.8 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"
Dimensions 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

ORCA DUO/DOUBLE SERIES

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

Duo/Double. 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 anything from living spaces to older or new buildings. Versions with the possibility of connections to solar power systems are also available.

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 two heating circuits according to the indoor and outdoor temperature.
- Set up multiple time intervals and 'Party' / 'Eco' 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 SERIES

VERSION OVERVIEW

DUO/DOUBLE 200

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 200 HYBRID

HEAT PUMP FOR HEATING + GAS OVEN

In cases of extreme temperatures the 18 kW gas heater can take over heating from the heat pump or they can both run simultaneously. Intelligent control ensures that the switchover is as comfortable and cost-effective as possible. This gives you two different heat sources and additional savings and security.

- **Option of heating with radiators with output water of 65 °C at -30 °C outside temperature (simultaneous operation).**
- Built-in 200 L hot water tank.
- Built-in 18 kW condensation boiler.

DUO/DOUBLE 300
DUO/DOUBLE 300 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.

ORCA DUO/DOUBLE 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-SH112 YHA**	**PUHZ-SHW140 YHA**	**PUHZ-SHW230 YKA**	**WOYG 112LCT**	**WOYK 112LCT**	**WOYG 140LCT**	**WOYK 140LCT**	**WOYK 160LCT**
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) [5]	**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"	3/8", 3/4"	3/8",5/8"	3/8", 5/8"	3/8",5/8"	3/8", 5/8"	3/8", 5/8"
Weight	120 kg	120 kg	134 kg	134 kg	148 kg	92 kg	99 kg	92 kg	99 kg	99 kg
Dimensions (mm)	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 1050 D: 330 H: 1340	W: 900 D: 330 H: 1290	W: 900 D: 330 H: 1290	W: 900 D: 330 V:1290	W: 900 D: 330 H: 1290	W: 900 D: 330 H: 1290

INDOOR UNIT	DUO 200					DOUBLE 200				
Product number (set)	**11205 +10731**	**10714 +9858**	**10714 +10702**	**10714 +10705**		**10716 +10744**	**10716 +10641**	**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)	1420×600×760 mm				-	1420×600×760 mm				
Weight	180 kg				-	180 kg				

INDOOR UNIT	DUO 200 HYBRID					DOUBLE 200 HYBRID				
Product number (set)	**11230 +10731**	**11187 +9858**	**11187 +10702**	**11187 +10705**		**11189 +10744**	**11189 +10641**	**11189 +10745**	**11189 +10665**	**11189 +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				
Power of the built-in gas stove	18 kW				-	18 kW				
Heat exchanger	Swep				-	Swep				
Dimensions (H×W×D)	1820×600×760 mm				-	1820×600×760 mm				
Weight	225 kg				-	225 kg				

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 +10641**	**10261 +10745**	**10261 +10665**	**10261 +10639**
Product number - solar (set)	**11207 +10731**	**10591 +9858**	**10591 +10702**	**10591 +10705**	**10719 +10730**	**10667 +10744**	**10667 +10641**	**10667 + 10745**	**10667 +10665**	**10667 +10639**
Hot water tank volume	300 L				300 L	300 L				
Dimensions of gas connections	3/8", 5/8"				3/8", 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				Circulating pump - energy class A	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)	1820×600×760 mm				1820×600×760 mm	1820×600×760 mm				
Weight	235 kg				240 kg	235 kg				
Weight (Solar)	255 kg				260 kg	255 kg				

ORCA DUO / DOUBLE 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 -20 °C**		
Output water temperature	60 °C		60 °C					55 °C		
Cooling	to +46 °C		to +46 °C					to +43 °C		
Outdoor unit	**PUHZ-SW40 VHA**	**PUHZ-SW50 VHA**	**PUHZ-SW75 VHA**	**PUHZ-SW100 VHA**	**PUHZ-SW100 YHA**	**PUHZ-SW120 VHA**	**PUHZ-SW120 YHA**	**WOYA 060LDC**	**WOYA 080LDC**	**WOYA 100LDT**
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**	**180 m²**	**205 m²**	**205 m²**	**235 m²**	**235 m²**	**100 m²**	**135 m²**	**180 m²**
C.O.P. (A7/W35) [5]	**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"
Weight	42 kg	42 kg	75 kg	118 kg	130 kg	118 kg	130 kg	41 kg	42 kg	60 kg
Dimensions (mm)	W: 800 D: 300 H: 600	W: 800 D: 300 H: 600	W: 950 D: 330 H: 943	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 950 D: 330 H: 1350	W: 881 D: 364 H: 588	W: 881 D: 364 H: 588	W: 798 D: 364 H: 900
INDOOR UNIT	**DUO 200**							**DOUBLE 200**		
Product number (set)	**11205 +10735**	**11205 +10734**	**11205 +10733**	**10714 +7280**	**10714 +10732**	**10714 +11030**	**10714 +10706**	**11209 +10741**	**11209 +10742**	**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)	1420×600×760 mm							1420×600×760 mm		
Weight	180 kg							180 kg		
INDOOR UNIT	**DUO 200 HYBRID**							**DOUBLE 200 HYBRID**		
Product number (set)	**11230 +10735**	**11230 +10734**	**11230 +10733**	**11187 +7280**	**11187 +10732**	**11187 + +11030**	**11187 +10706**	**11232 +10741**	**11232 +10742**	**11189 +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		
Power of the built-in gas stove	18 kW							18 kW		
Heat exchanger	Swep							Swep		
Dimensions (H×W×D)	1820×600×760 mm							1820×600×760 mm		
Weight	225 kg							225 kg		
INDOOR UNIT	**DUO 300 / DUO 300 SOLAR**							**DOUBLE 300 / DOUBLE 300 SOLAR**		
Product number (set)	**11206 +10735**	**11206 +10734**	**11206 +10733**	**10514 +7280**	**10514 +10732**	**10514 +11030**	**10514 +10706**	**11210 +10741**	**11210 +10742**	**10261 +10743**
Product number - solar (set)	**11207 +10735**	**11207 +10734**	**11207 +10733**	**10591 +7280**	**10591 +10732**	**10591 +11030**	**10591 +10706**	**11211 +10741**	**11211 +10742**	**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)	1820×600×760 mm							1820×600×760 mm		
Weight	235 kg							235 kg		
Weight (Solar)	255 kg							255 kg		

ORCA TRIO SERIES

C.O.P. 4,0
TRIO (HPA07)
A7/W35 - EN 14511

COMPACT UNIT ALL-IN-ONE (OUTDOOR UNIT BUILD-IN INSIDE)

SUITABLE FOR NEW BUILDINGS, APARTMENTS AND PASSIVE HOUSES

THE HEAT PUMP SERIES WITH AN INTEGRATED EVAPORATOR (WITHOUT AN OUTDOOR UNIT) AND A HOT WATER TANK

Trio Series.

Serenity.

FOR A COMFORTABLE APARTMENT AND A PEACEFUL GARDEN

Orca Trio Series has an integrated evaporator, meaning that an outdoor unit is not required. Thus only two ventilation grills are installed in the building and its exterior is not spoiled. These heat pumps are virtually inaudible.

ORCA TRIO 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

Savings
- **Heats and cools at temperatures as low as -20 °C.**
- **Weather-responsive control with a control unit that adjusts heating and cooling output.**
- **Simple set-up: The Trio is installed in a room, resulting in only two ventilation grills visible on the building exterior.**
- **Space for an outdoor unit, a base, water drainage and other procedures are not required.**

Comfort
- **Does not disrupt the appearance of the surroundings of the building.**
- **Is virtually inaudible and suitable for semi-detached buildings and other areas where neighbours might be inconvenienced by the noise of an outdoor unit.**
- **Integrated 200 litre hot water tank.**
- **Simple control menu.**
- **Intelligent control: set up two heating circuits according to the indoor and outdoor temperature.**
- **Set up multiple time intervals and 'Party' / 'Eco' programs.**
- **Room air conditioning.**

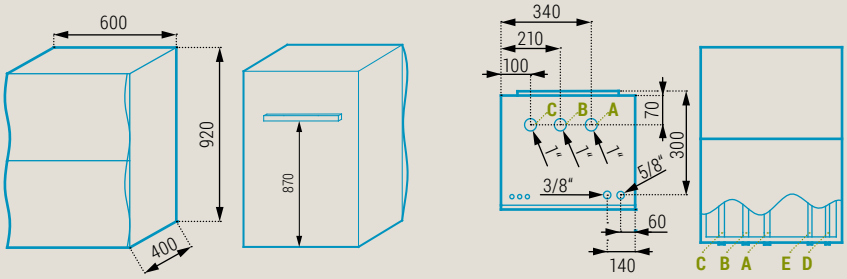
Security
- **Active Legionella protection.**
- **5-year hot water tank warranty.**
- **Option of automatic switchover to a different heating system**

The best choice for new buildings and passive houses
- Buildings built to latest standards with heat grid losses below 40 W/m^2
- may heat surfaces up to 120 m^2.
- Passive houses may heat surfaces up to 200 m^2.

	TRIO (HPA07)
Product number	8493
Heating output (kW) Minimal/Nominal/Maximal	2,5/**7**/8,4
Nominal colling output	**5,5 kW**
C.O.P. (EN14511-2: A7/W35)	**4**
Operational area – heating	-20 ~ 35 °C
Operational area – cooling	+8 ~ 38 °C
Warm water tank	200 L
Airflow	2800 m^3/h
Diameter of pipe for separated air	350 mm
Max. length of pipe for separated air	5 m
Sound level	45 dB(A)
Power supply*	1 / 50 / 230 Ph/Hz/V
Nominal current	8,1 A
Fuse*	1×20 A
Power cable**	3×4 mm^2
Max. temperature of output water (HP)	55 °C
Max. pressure in the heating system	2,5 bar
Dimensions of connections for the heating system	1"
Dimensions of connections for the hot water tank	1", (3/4"-circulation)
Built in circulation pump	Circulating pump - energy class A
Electric heater	3×3 kW
Heat exchanger	Swep
Weight	225 kg
Dimensions (H×W×D)	1820×650×930 mm

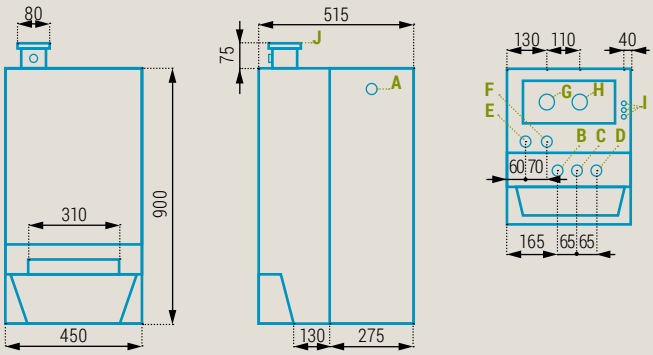
ORCA MONO/SINGLE SERIES

MONO / SINGLE / MONO XL



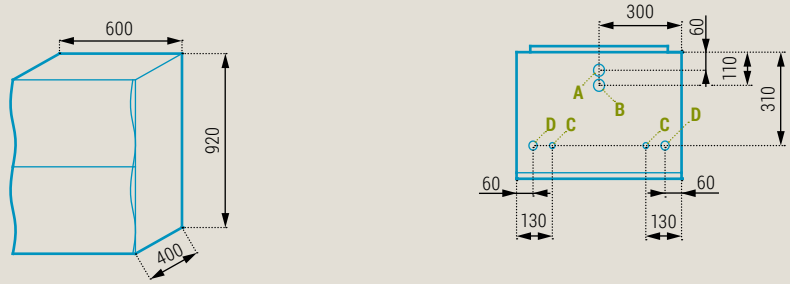
A	Heating water inlet (return line) - 1" outside thread
B	Heating water outlet (riser) - 1" outside thread
C	Heating water outlet (hot water) - 1" outside thread
D	Liquid connection 3/8"
E	Gas connection 5/8" (MONO XL 3/4")

MONO/SINGLE HYBRID



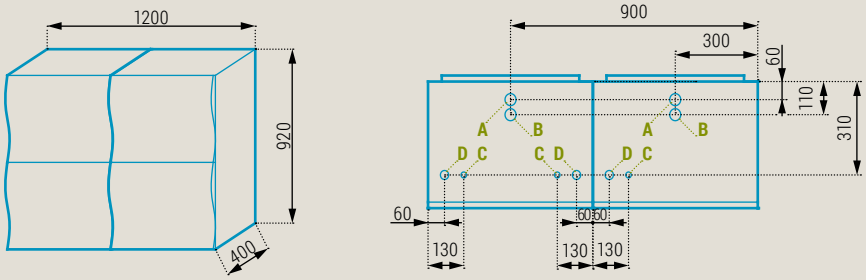
A	Safety group
B	Hot water outlet 3/4"
C	Gas inlet 3/4"
D	Cold water inlet 3/4"
E	Gas connection 5/8"
F	Gas connection 3/8"
G	Hot water outlet 1"
H	Cold water inlet 1"
I	Openings for electrical connection
J	Bleed container for gas stove

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



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

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



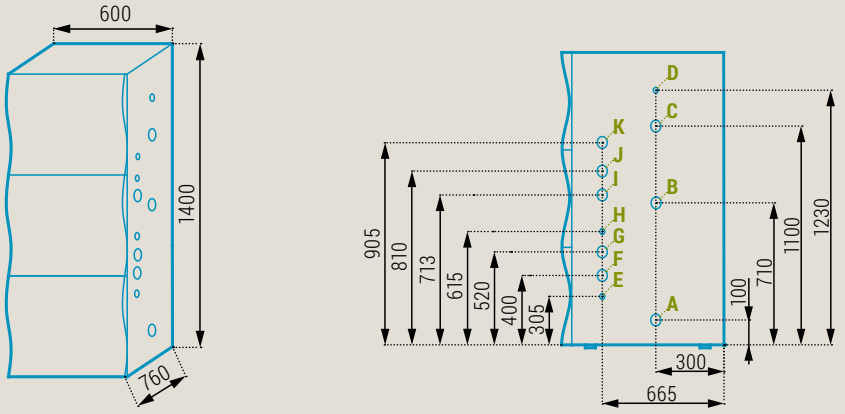
A	MONO 2M has a 5/8" connection	Outside thread
B	Water inlet (return line) 6/4"	Outside thread
C	Gas connection 3/8"	MONO / SINGLE M and L
D	Gas connection 3/4" - MONO L	M has a 5/8" connection

BLUEPRINTS OF DIMENSIONS AND CONNECTIONS

INDOOR UNITS

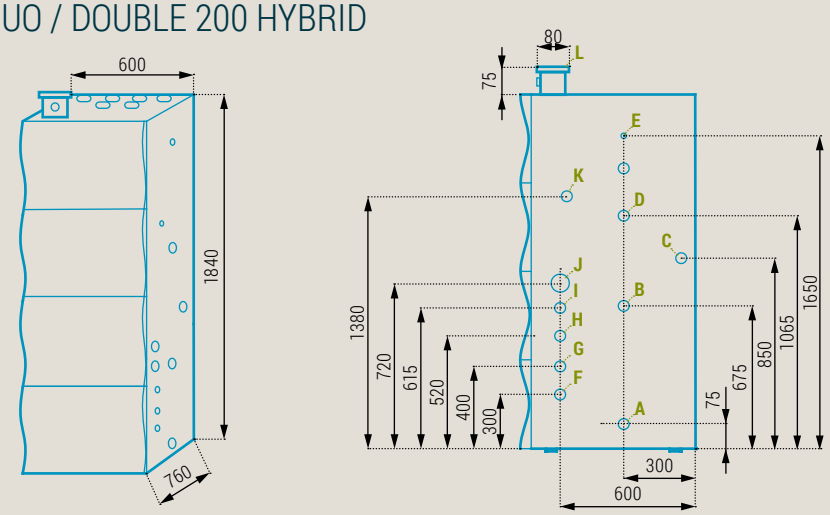
ORCA DUO/DOUBLE SERIES

DUO 200 / DOUBLE 200



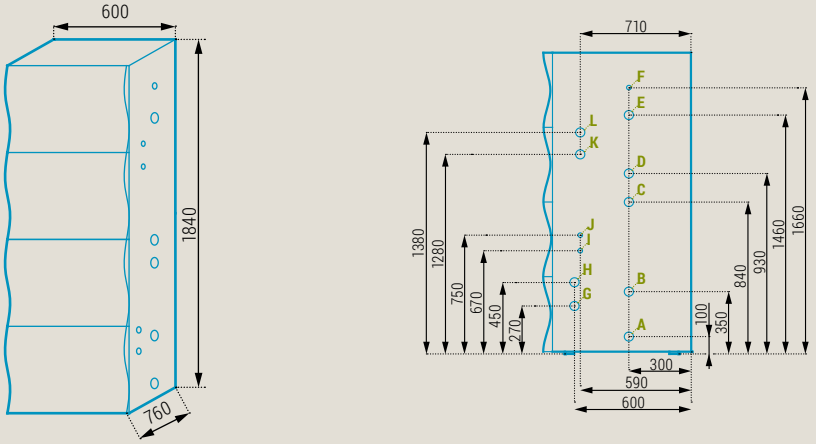
A	Cold heating water inlet - 1" outside thread
B	Circuit connection of hot water - 3/4" inside thread
C	Hot heating water outlet - 1" outside thread
D	Safety group connection
E	Gas connection 3/8"
F	Heating water inlet (return line) - 1" inside thread
G	Heating water outlet (riser) - 1" inside thread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

DUO / DOUBLE 200 HYBRID



A	Cold water inlet 1"
B	Circuit connection 3/4"
C	Condensate outlet
D	Hot water outlet 1"
E	Safety group
F	Gas connection 5/8
G	Cold water inlet 1"
H	Hot water outlet 1"
I	Gas connection 5/8
J	Openings for electrical connection
K	Gas inlet
L	Bleed container for gas stoves

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"
J	Gas connection 5/8"
K, L	Opening for laying electric cables

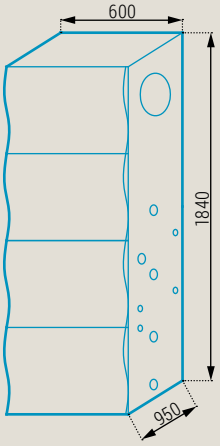
BLUEPRINTS OF DIMENSIONS AND CONNECTIONS

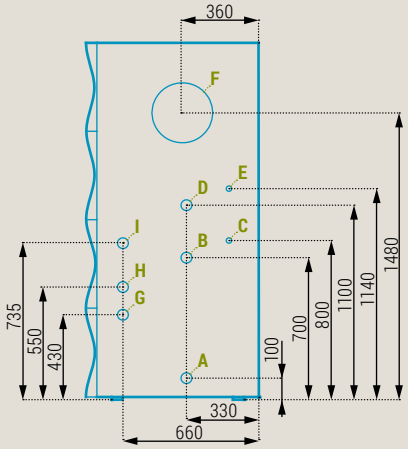
INTEGRATED INDOOR UNITS

OUTDOOR UNITS

ORCA TRIO (HPA07) SERIES

HPA07

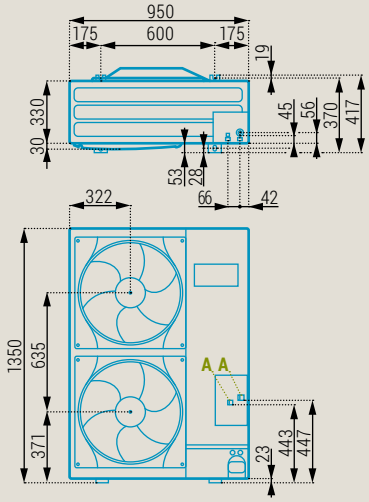




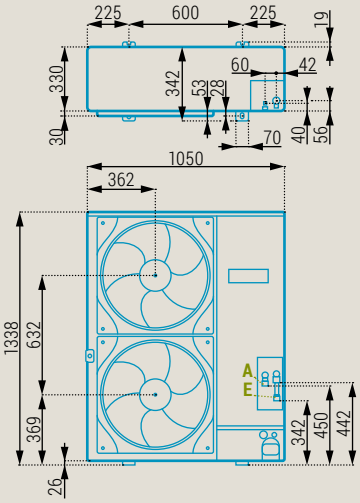
A	Cold heating water inlet - 1" outside thread
B	Circuit connection of hot water - 3/4" inside thread
C	Condensate outlet for the heat pump
D	Hot heating water outlet - 1" outside thread
E	Safety group connection
F	Air inlet for the heat pump (right side of the device)
F	Air outlet from the heat pump (left side of the device)
G	Heating water inlet (return line) - 1" inside thread
H	Heating water outlet (riser) - 1" inside thread
I	Opening for laying electric cables

MISUBISHI ELECTRIC ZUBADAN

PUHZ-SHW80VHA
PUHZ-SHW112YHA
PUHZ- SHW140YHA

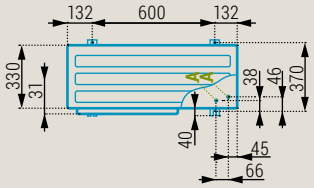


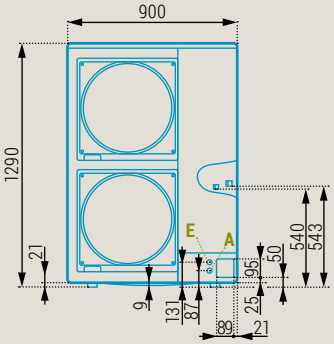
PUHZ-SHW230YKA



FUJITSU HIGH POWER

WOYK112LCT
WOYK140LCT
WOYK160LCT



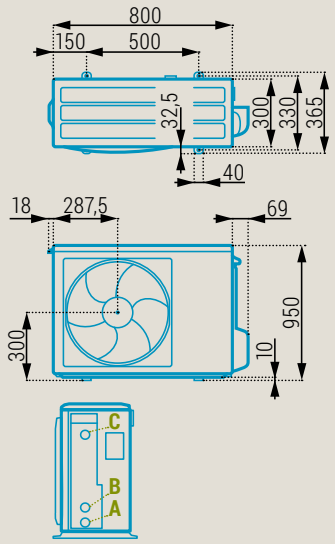


BLUEPRINTS OF DIMENSIONS AND CONNECTIONS

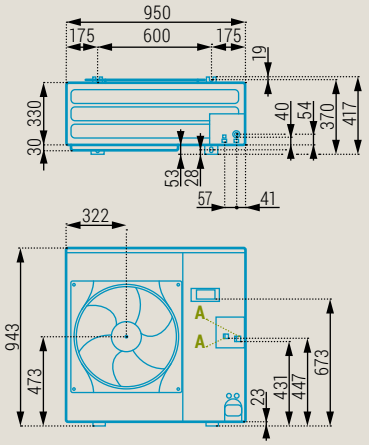
OUTDOOR UNITS

MISUBISHI ELECTRIC POWER INVERTER

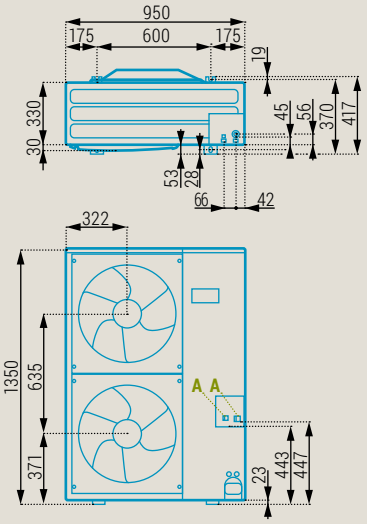
PUHZ-SW40VHA
PUHZ-SW50VHA



PUHZ-SW75VHA

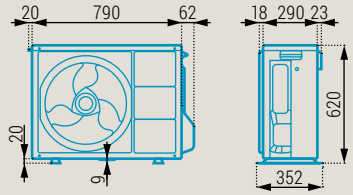


PUHZ-SW100YHA/VHA
PUHZ-SW120YHA/VHA

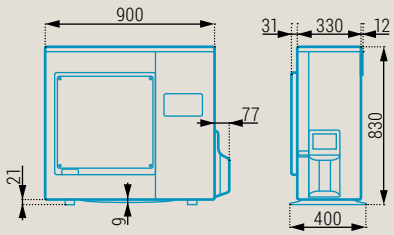


FUJITSU COMFORT

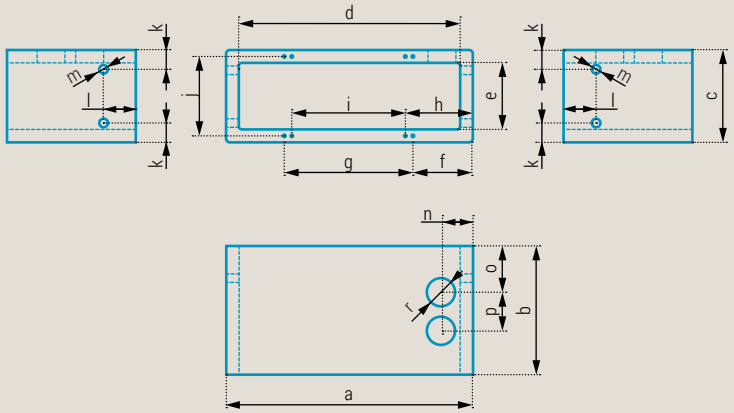
WOYA060LDC
WOYA080LDC



WOYA100LTD



CONCRETE BASE



(cm)	Small **SW 40/50 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	20	14	22
g	54	65	60
h	22	16,5	-
i	50	60	-
j	33	37	37
k	8	9	9
l	15	15	15
m	ø4	ø4	ø4
n	15	15	15
o	21,5	21,5	21,5
p	18	18	18
r	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-SW75VHA 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-015-03-02T

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