

# **Heat pumps**

air/water







TermoPlus® **Hydrotank** TERMO TermoPlus® **Hydrobox** TERMOT



# Why choose TermoPlus®



TermoPlus focuses on overall installation performance, not just the performance of individual components.



In-house customer support with a guaranteed 24 hour response time.\*



One of the longest lasting heat pump brands on the market with units built in 1992 still operational and a 99.5 % reliability score among heat pump owners.



Optional extended warranty available for up to 6 years. \*\*/\*\*\*



Every single heat pump unit is individually and thoroughly tested before installation.



Tailored support is always available for custom systems.



R&D labs, production facilities and quality control are all based under one roof within the EU with more than 35 heat pump experts and the experience of more than 50.000 heat pumps manufactured to date.



Assistance available for obtaining eco funding through national and other EU schemes.\*\*\*

- \* For maintenance contracts.
- \*\* In addition to a 3 year guarantee, we also offer an exclusive 3 year warranty!
- \*\*\* Limited availability in selected markets.

# TermoPlus air-source heat pump benefits

## + Incredible efficiency and savings

With a heaterless design there is no power requirement for an electric heater. You will enjoy the same comfort without a heating element which would use more energy. The TermoPlus – Mitsubishi combination with energy efficient inverter technology delivers significant efficiency and unmatched real savings.

### \* Flexible and compatible

The combination is suitable for floor, radiator and fan coil heating in new buildings or as a renovation of existing heating systems. The units can also work in conjunction with an external heat source such as a biomass, a boiler or a woodstove and take up very little space.

### Optimized performance

Performance is boosted in our indoor units but not at the expense of compatibility – the original Mitsubishi weather compensated control is retained along with all features (see in detail below\*). Switching between water and space heating is automatic and adequate capacity is ensured so that a storage tank is not required.

## → Constant availability

You will have uninterrupted hot water with our Hydrotank as it uses an external large-surface condenser that heats water up faster due to its larger heat transfer surface.

#### :: All-season use

The outdoor units can function at temperatures as low as -20 °C for the Power Inverters and -28 °C for Zubadans (with full heating capacity even at -15 °C for the Zubadan).



## Function-packed but easy to use

A multi-functional controller provides optimal management with programmes such as automatic anti-legionella, screed drying, holiday mode and a weekly timer. Web control via app is optionally available and includes an efficiency monitoring feature. Two-zone heating is also available as an option.

#### ✓ Reliable and durable

TermoPlus units can operate longer than others in harsher conditions due to their larger evaporator and optimized fin spacing. Mitsubishi outdoor units have a proven record of reliability in tough conditions.

# Long lasting and easy to maintain

Maintenance is easy to perform since all components are easily accessible. TermoPlus Hydrotanks also feature complete anti-corrosion protection through the use of a top quality enamelled water tank with a build-in MG anode.

# Quiet and unobtrusive

Both the indoor and outdoor units are extremely quiet and compact. Using a TermoPlus Hydrotank to replace a Hydrobox / hot water heater also saves space and makes for a seamless, out-of-sight solution.

All original Mitsubishi control features are retained: Auto-defrost, automatic switching between DHW and heating / cooling, automatic anti-legionella program, control of external heating source, DHW and heating timers \*, 2 zone control \*, floor dry function\*, monitoring of consumed and produced energy (COP)\*, access via web and mobile app\*, master for cascade connection.\* (Features followed by \* are optional)

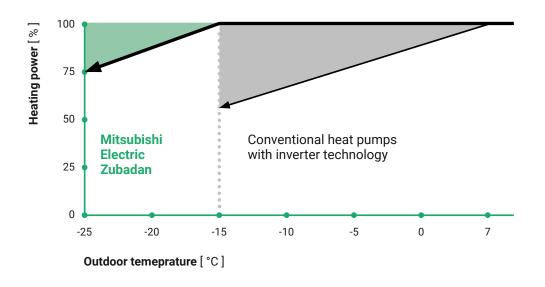


## High heating efficiency

All TermoPlus air / water heat pumps score the highest existing energy efficiency classes, whether for radiators or floor heating. The Coefficient Of Performance (COP) is an indicator of the efficiency of the heat pump, as it is the ratio between the amount of heat generated by the heat pump and the energy it consumes for operation. The proper selection and installation of a TermoPlus heat pump will effectively cover all heating requirements without the need for additional electric heaters.

# High heating output at very low outside temperatures

TermoPlus heat pumps, combined with the Zubadan outdoor unit are also suitable for colder regions as they provide full heating power at an outdoor air temperature of -15 °C. This is due to the unique "Flash Injection" patented technology, which ensures optimal operation even at extreme air temperatures as low as -28 °C. This allows for reliable and comfortable heating even in the case of extremely cold winters.





# NEW MODEL

Width	105 cm
Height	102 cm
Depth	48 cm
Volume	0,51 m <sup>3</sup>

# **Outdoor unit**

### Contemporary, compact design

The visually upgraded design of the new outdoor unit uses only  $0.5\ m^2$  of space.



## Silent operation (new model)

The new generation of external heat pump units by Mitsubishi introduces innovations that achieve extremely quiet operation. Outdoor air / water heat pump units are usually installed along the outer wall of buildings, so it is especially important that they operate quietly in urban areas. Key improvements in compressor volume reduction, air flow optimization through the outdoor unit and vibration absorption have resulted in a 50 % reduction in the units noise levels.



# **EASY INTEGRATION**

- 1. Outdoor unit: Zubadan or Power Inverter
- 2. Indoor Hydrotank unit
- 3. Indoor Hydrobox unit + domestic hot water heater (if needed)
- 4. Floor / wall heating
- 5. Radiators
- 6. Domestic hot water



when using Zubadan external units.



Additional heaters are not required when using the right unit size.

# Internal units





# **Hydrobox**

# Internal wall unit heating and cooling (without DHW)

- Built-in weather-compensated Mitsubishi Electric control.
- Efficient operation without additional internal heaters.
- Automatic switching between hot water and heating water (up to 60 °C).
- In addition to heating, cooling is possible with fan coils.
- Multi-functional controller with programmes such as automatic anti-legionella, floor drying, holiday mode and weekly timer.
- Flexible installation, ideal when space is limited.





# **Hydrotank**

Heating and cooling with domestic hot water (DHW)

In addition to the advantages of the Hydrobox model, the Hydrotank model also offers:

- · Domestic hot water heating.
- · Convenient installation: all key components are in one unit.
- Easy and clean installation: the installation of the unit requires little space and integrated connection management means less clutter.
- · Easy access maintenance.

# **External units**



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#### MITSUBISHI ELECTRIC POWER INVERTER

- Suitable for cold climates, the system works down to -20 °C.
- There is no risk of the system freezing, even in the event of a power failure.
- Also suitable for renovation of older heating systems (using existing radiators).
- Compatible with all heating systems (floor, wall, fan coil or radiator heating).
- Energy-efficient inverter technology provides optimum power.
- The output thermal power is adapted to 100 % of the heat losses of the building, minimizing surpluses and the need for thermal storage.
- The system can be combined with a boiler or a solar system.
- No additional heaters are necessary resulting in greater savings.
- · Lower consumption due to optimized defrosting.
- Weather-compensated control optimizes performance depending on the outside temperature.





#### MITSUBISHI ELECTRIC ZUBADAN

- Suitable for colder climates, the system works down to -28 °C and offers constant heating power at down to -15 °C.
- There is no risk of the system freezing, even in the event of a power failure.
- Also suitable for renovation of older heating systems (using existing radiators).
- · Compatible with all heating systems (floor, wall, fan coil or radiator heating).
- Energy-efficient inverter technology provides optimum power.
- The output thermal power is adapted to 100 % of the heat losses of the building, minimizing surpluses and the need for thermal storage.
- The system can be combined with a boiler or a solar system.
- No additional heaters are necessary resulting in greater savings.
- · Lower consumption due to optimized defrosting.
- Weather-compensated control optimizes performance depending on the outside temperature.

# Great solutions for renovations. Keep existing radiators.

#### ADITIONAL ADVANTAGES OF THE NEW MODEL:

- · Compact, modern design.
- Extremely quiet operation.

# **Models and properties**



	POWER INVERTER	Energy class W35	Energy class W55	Energy class DHW	Heating Power A7/ W35 kW/COP	Heating Power A2/W35 kW/COP	Heating Power A-15/W35 kW/COP	Cooling Power A35/W18 kW/COP	Operating range °C	Recommended fuse	Power Supply	Unit dimensions H x W x D [mm]
	PUHZ-SW50VKA	A++	A++	Α	5,5 / 4,42	5,0 / 2,97	3,8 / 2,04	5,0 / 4,60	-15 / 35	1 x 16 A	1F/230V/50Hz	600 x 800 x 300
NEW	PUHZ-SW75VAA	A++	A++	Α	8,0 / 4,40	7,5 / 3,40	7,30 / 2,30	7,1 / 4,43	-20 / 35	1 x 25 A	1F/230V/50Hz	1020 x 1050 x 480
NEW	PUHZ-SW75YAA	A++	A++	Α	8,0 / 4,40	7,5 / 3,40	7,30 / 2,30	7,1 / 4,43	-20 / 35	3 x 16 A	3F/400V/50Hz	1020 x 1050 x 480
NEW	PUHZ-SW100VAA	A++	A++	Α	11,2 / 4,46	10,0 / 3,32	8,8 / 2,13	10,0 / 4,74	-20 / 35	1 x 32 A	1F/230V/50Hz	1020 x 1050 x 480
NEW	PUHZ-SW100YAA	A++	A++	Α	11,2 / 4,46	10,0 / 3,32	8,8 / 2,13	10,0 / 4,74	-20 / 35	3 x 16 A	3F/400V/50Hz	1020 x 1050 x 480
	PUHZ-SW120YHA	A++	A++	Α	12,8 / 4,43	12,0 / 3,24	9,6 / 2,10	14,0 / 4,08	-20 / 35	3 x 16 A	3F/400V/50Hz	1350 x 950 x 330
	PUHZ-SW200YKA	A++	A++	Α	20,0 / 4,40	20,0 / 2,80	13,5 / 2,30	22,0 / 4,10	-20 / 35	3 x 32 A	3F/400V/50Hz	1350 x 1050 x 330

	ZUBADAN	Energy class W35	Energy class W55	Energy class DHW	Heating Power A7/ W35 kW/COP	Heating Power A2/W35 kW/COP	Heating Power A-15/W35 kW/COP	Cooling Power A35/W18 kW/COP	Operating range °C	Recommendec fuse	Power Supply	Unit dimensions H x W x D [mm]
NEW	PUHZ-SHW80VAA	A++	A++	Α	8,0 / 4,65	8,0 / 3,55	8,0 / 2,74	7,1 / 4,52	-28 / 35	1 x 25 A	1F/230V/50Hz	1020 x 1050 x 480
NEW	PUHZ-SHW80YAA	A++	A++	Α	8,0 / 4,65	8,0 / 3,55	8,0 / 2,74	7,1 / 4,52	-28 / 35	3 x 16 A	3F/400V/50Hz	1020 x 1050 x 480
NEW	PUHZ-SHW112VAA	A++	A++	Α	11,2 / 4,46	11,2 / 3,22	11,2 / 2,37	10,00 / 4,74	-28 / 35	1 x 32 A	1F/230V/50Hz	1020 x 1050 x 480
NEW	PUHZ-SHW112YAA	A++	A++	Α	11,2 / 4,46	11,2 / 3,22	11,2 / 2,37	10,00 / 4,74	-28 / 35	3 x 16 A	3F/400V/50Hz	1020 x 1050 x 480
	PUHZ-SHW140YHA	A++	A++	Α	14,0 / 4,22	14,0 / 2,96	14,0 / 2,15	12,5 / 4,26	-28 / 35	3 x 16 A	3F/400V/50Hz	1350 x 950 x 330
	PUHZ-SHW230YKA2	A++	A++	Α	23,0 / 3,65	23,0 / 2,37	22,9 / 2,20	20,00 / 3,55	-25 / 35	3 x 32 A	3F/400V/50Hz	1350 x 1050 x 330

# STEP 2 Choose the right internal unit

	Model	Unit dimensions H x W x D [mm]	Circulation pump	Expansion Vessel	Expansion Vessel DHW	DWH Tank	Pipe connection for watter [mm]
NEW	Hydrobox N7	830 x 510 x 330	25 / 1-7	✓	Х	Х	28
NEW	Hydrobox N14	830 x 510 x 330	25 / 1-7	✓	х	х	28
NEW	Hydrobox N23	830 x 510 x 330	25 / 1-8	Х	х	х	35
NEW	Hydrotank N7 180	1550 x 720 x 720	25 / 1-7	✓	<b>✓</b>	180 L	28
NEW	Hydrotank N7 230	1800 x 720 x 720	25 / 1-7	<b>~</b>	<b>✓</b>	230 L	28
NEW	Hydrotank N14 180	1550 x 720 x 720	25 / 1-7	$\checkmark$	<b>✓</b>	180 L	28
NEW	Hydrotank N14 230	1800 x 720 x 720	25 / 1-7	<b>✓</b>	<b>✓</b>	230 L	28

# STEP 3 Check that the units can be combined

Model	PUHZ-SW50VKA	PUHZ-SW75VAA	PUHZ-SW75YAA	PUHZ-SW100VAA	PUHZ-SW100YAA	PUHZ-SW120YHA	PUHZ-SW200YKA	PUHZ-SHW80VAA	PUHZ-SHW80YAA	PUHZ-SHW112VAA	PUHZ-SHW112YAA	PUHZ-SHW140YHA	PUHZ-SHW230YKA2
Hydrobox N7	•	•	•										
Hydrobox N14				•	•	•		•	•	•	•	•	
Hydrobox N23							•						•
Hydrotank N7 180	•	•	•										
Hydrotank N7 230	•	•	•										
Hydrotank N14 180				•	•	•		•	•	•	•	•	
Hydrotank N14 230				•	•	•		•	•	•	•	•	





### Wi-Fi module

With the wireless adapter installed, the heat pump can be operated with the MELCloud app even when you are not at home. The application enables control of the basic settings of the heat pump's operation. Optionally, the amounts of heat and power can be monitored along with the efficiency of the heat pump.



# **Cascade operation**

The cascade operation allows the connection and operation of up to six heat pumps into one heating system. Doing this can achieve a maximum heating power of up to 138 kW. This large amount of heating power is ideally suited for multi-apartment buildings, hotels, industrial plants and other business facilities.



#### **Remote Control**

The wireless remote control makes it easy to operate the heat pump from the comfort of your armchair. The device is portable and can be operated from any space without the need for wiring. The built-in sensor tracks the room temperature, constantly ensuring comfort.



# 2019 WINNER DESIGN PLUS powered by: ISH





# The Quick Guide to Heat Pumps

Download our free 22-page introductory guide to heat pumps for home or business owners

Heat pumps don't need to be complicated or confusing. If you are new to heat pumps you may want to download our guide to heat pumps for home or business owners. It's a useful introduction to the technology and your options as a buyer.

# Download this guide to find out:

- · What savings and returns are realistic, with real examples.
- What types of heat pumps are best for each situation.
- Tips for making the most out of a heat pump investment.
- A basic introduction to how heat pumps work.
- What a typical installation process looks like.

# The Quick Guide to Heat Pumps

An easy introduction to heat pumps for the home or business owner.



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