

## New premium series of heat pumps S-Therm Yukon



S-THERM YUKON heat pumps are inspired by the wild nature of the Yukon Territory in northwestern Canada. They are characterized by majestic performance, high efficiency, reliability, low operating noise and in all aspects, they meet the high demands of sustainable development and the ecology of our world. S-THERM YUKON got a Keymark certification.

#### **WE CHANGE AIR INTO ENERGY**

The worldwide uncertainty of gas availability, the unpredictable turbulence of energy prices, the ever-increasing costs of heating are creating a massive global demand for heat pumps, which so far significantly exceeds the production capabilities of supply companies.

## **NEW TEMPERATURE RANGE**

In winter, temperatures in northern Canada drop very far below zero. S-THERM YUKON heat pumps have operating conditions set down to a temperature of -25 °C. In addition to heating the building, the heat pump also ensures the production of sufficiently warm domestic water. This guarantees, that even in the cold winter, the heat pump will provide heat and you will always feel comfortable.

## **NEW PERFORMANCE SERIES OF HEAT PUMPS**

The YUKON series brings you twice the performance of the S-THERM ONTARIO series. We are now offering monobloc heat pumps with an output of 30 kW. These devices can then be connected to larger assemblies - cascades. In this way, up to 6 units can be connected to achieve a totall power of up to 180 kW. YUKON heat pumps thus become the ideal heat source for larger commercial spaces, apartment buildings, schools, hotels, manufacturing plants or other objects with high heat loss.



## MAIN FEATURES

# NEW DESIGN AND MINIMAL DIMENSIONS OF YUKON HEAT PUMPS

Hydroboxes of the YUKON series are among the smallest on the market.

With a depth of only 270 millimeters for an overall size reduction of 29%. Due to its dimensions, it can easily take a place of a gas boiler.

Outdoor units up to 16 kW have only one fan. Improved fan turbine design reduces flow resistance and noise level.

#### **HIGH EFFICIENCY OF HEAT PUMPS**

The air, water, and even the earth around us contain a huge amount of energy, even in the winter months. S-THERM YUKON heat pumps use 75% of the energy that is provided from the outside environment. The remaining 25% is electricity. This efficiency significantly reduces emissions and harmful substances that are released into the atmosphere. The top technologies used and advanced regulation have created one of the most economical and efficient heat pumps on the European and world market.

S-THERM YUKON heat pumps are controlled by an inverter compressor that ensures precise operation and high performance.

## **QUIET OPERATION**

With S-THERM YUKON heat pumps, you can provide heating, cooling and domestic hot water heating, not only ecologically and economically, but also quietly.

For example, with a 6 kW YUKON heat pump, the sound pressure level at 1 meter reaches only 44 dB(A). For comparison, we present a noise level of 50 dB(A) - at this level of noise, you can imagine falling drops of light rain.

The most powerful machines, which reach a heating power of 30 kW, have a noise level of 66 dB(A) at 1 meter, which corresponds to the volume of normal conversation.

#### **ECOLOGICAL REFRIGERANT R32**

We use R32 refrigerant in our S-THERM YUKON heat pumps. This refrigerant has a better heat capacity and systems need up to 20% less than its predecessor R410a. Due to its lower density, the R32 refrigerant has a 68% lower global warming impact than the previous R410a refrigerant and is cheaper to operate.







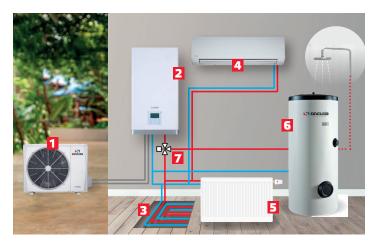
## **ENGAGEMENT EXAMPLES**



- 1 Outdoor unit
- 2 Hydrobox
- 3 Underfloor heating
- 4 Domestic hot water storage tank
- 5 Three-way valve option



- Outdoor unit
- 2 Hydrobox
- 3 Underfloor heating
- 4 Radiator
- 5 Domestic hot water storage tank
- 6 Three-way valve option



- 1 Outdoor unit
- 2 Hydrobox
- 3 Underfloor heating
- 4 Fan Coil
- 5 Radiator
- 6 Domestic hot water storage tank
- 7 Three-way valve option





Hydrobox YUKON is available in three variants with an integrated electric heater. Allows heating into floor systems, radiators or fancoils.

POSSIBILITY OF ADDING A THREE-WAY VALVE FOR YEARLONG WORKING IN WARM WATER MODE, IN SUMMER IN ADDITION, IT IS POSSIBLE COOLING UP TO A WATER OUTLET TEMPERATURE OF 5 °C.





Effective working in temperatures down to -25 °C. In the heating mode, the energy of the refrigerant is transferred to the water through the heat exchanger in the indoor unit. By this warm water is then supplied to the radiators, underfloor heating and hot domestic water tank.

Devices are executed in one-phase or three-phase versions (units ending with -3).

The indoor unit contains executive plate exchanger, which is characterized by high endurance against corrosion, compact dimensions and high efficiency.

Expansion vessel inside hydrobox has a capacity of 8 liters. The standard pressure inside the tank is 1 bar. It ensures reliable operation of the device and stable pressure in the system.

The energy-efficient and powerful circulation pump ensures smooth water flow in underfloor heating system or radiators.

The split version is suitable if space in the room is limited and there is no need for hot water heating. If a buffer tank or hot domestic water tank is required, these are installed separately.

Connection to hot water, underfloor heating, fancoil units, water tanks, solar panels, gas boilers etc.

Hydrobox includes a circulatory Inverter pump and Weyee plate heat exchanger.



## **INDOOR UNIT HYDROBOX**

## **FEATURES**

- · Possibility of control via internet with Comfort Home application
- · High efficiency
- · Circulatory pump with self-regulation of speed
- · Integrated expansion vessel and safety valve
- · Possibility of equithermal regulation, regulation, according to the reference room temperature or by thermostat
- · Possibility cooling in convector units
- · Preparation of hot domestic water
- · Possibility of adding a 3-way valve not included in the package

Possible combinations								
Indoor	Outdoor							
MSH-60IB/3	MSH-60EB							
MSH-100IB/3	MSH-80EB							
MSH-100IB/3	MSH-100EB							
MSH-160IB/3	MSH-120EB							
MSH-160IB/3	MSH-140EB							
MSH-160IB/3	MSH-160EB							
MSH-100IB-3/9	MSH-80EB							
MSH-100IB-3/9	MSH-100EB							
MSH-160IB-3/9	MSH-120EB-3							
MSH-160IB-3/9	MSH-140EB-3							
MSH-160IB-3/9	MSH-160EB-3							

MSH-60IB/3 MSH-100IB/3 MSH-100IB-3/9 MSH-160IB/3 MSH-160IB-3/9







Model MSH-				60IB/3	100IB/3 100IB-3/9	160IB/3 160IB-3/9			
Power supply V / Ph / Hz				220-240 / 1 / 50 380-415 / 3 / 50					
Connecting pipe (refrigerant) Gas Liquid			5/8" / 16,0						
		inch / mm	1/4" / 6,0 3/8" / 9,5						
Connecting pipe (water) Inlet		inch							
		Outlet	linch	1"					
Safety valve			bar	3					
_eaving water temp	erature	Cooling	- °C	5-25					
Heating		Heating		25 - 65					
	Water pump	Туре	-	Inverter					
		Speed	-	Automatic					
		Max. power	W	90					
	Expansion tank	Volume	l	8					
		Max. pressure	bar	3					
		Pressure	bar	1					
	Auxiliary electric	Mode	-	Automatic					
	heater	Capacity	kW	3	3/9				
		Combination	-	3	3/3+3+3				
		Power supply	V / Ph / Hz	220-240 / 1 / 50	380-415 / 3 / 50				
	Heat exchanger	Туре	-	Brazed plate					
		Amount	-	1					
Level of acoustic pressure in 1m dE		dB (A)	28	30	32				
Dimensions Outline (w x d x h)			420 x 790 x 270						
Packaged (w x d x h)			mm	525 x 1050 x 360					
Veight		Net	kg	3	7	39			
		Gross	, ky	4	45				





## **OUTDOOR UNITS**

#### **FEATURES**

- We offer you outdoor units in a single-propeller version in capacity of 6, 8, 10, 12, 14, 16 kW in single-phase and three-phase versions (units with suffix -3)
- Outdoor units of compact dimensions facilitating problem-free installations and also transportation
- The device uses environmentally friendly refrigerant R32 with low GWP value
- Compressor with added economizer and intermediate stage injection of refrigerant, thanks to which high efficiency and energy saving are achieved
- · Motor control technology by semiconductor frequency converter
- The units are equipped with an inverter control that changes the speed of the compressor. The delivered power of the units is precisely adapted to the heating system
- Energy savings of up to 40 % and temperature fluctuations are avoided
- Between the outdoor unit and the indoor unit, the pipe length can be up to 30 meters. Elevation up to 20 meters

MSH-60EB MSH-80EB MSH-100EB

MSH-120EB MSH-120EB-3 MSH-140EB MSH-140EB-3 MSH-160EB MSH-160EB-3





Model MSH-				60EB	80EB	100EB	120EB/120EB-3	140EB/140EB-3	160EB/160EB-3	
Power supply			V / Ph / Hz		220-240 / 1 /50		380-415 / 3 /50			
Capacity		Heating	kW	6,2	8,3	10	12,1	14,5	16	
Cooling			kW	6,55	8,4	10	12	13,5	14,2	
Power		Heating	kW	1,24	1,6	2,0	2,4	3,1	3,6	
		Cooling	kW	1,34	1,66	2,08	3,0	3,7	3,9	
COP		Heating	-	5	5,2	5	4,95	4,7	4,5	
EER		Cooling	-	4,9	5,05	4,8	4	3,61	3,61	
Technical	Level of acoustic pressure	Max.	dB (A)	44	46	49	50	51	55	
parameters	Energy class	Heating (55 °C / 35 °C)	-	A++ / A+++						
	SCOP	Heating (55 °C / 35 °C)	-	3,52 / 4,95	3,37 / 5,22	3,47 / 5,2	3,45 / 4,81	3,47 / 4,72	3,41 / 4,62	
	Refrigerant	Туре	-	R32						
		Amount	kg	1,5	1,65					
	Domestic hot water temperature °C			12-60						
	Refrigerant pipes	Gas	inch / mm	5/8" / 16,0						
		Liquid	inch / mm	1/4" / 6,0	3/8" / 9,5					
	Unit Dimension	(w x h x d)	mm	1008 x 712 x 426	1118 x 865 x 523					
	Package Dimension	(w x h x d)	mm	1065 x 810 x 485			1190 x 970 x 560			
	Weight netto/brutto		kg	58 / 63,5	75 / 89 112 / 125,5					
	Operating temperature range		°C	-25 - 43						
	Standard pipe length		m	15						
	Max. pipe length		m	30						
	Max. elevation		m	20						
	Additional refrigeration		g/m	20 38						

CAPACITIES AND POWER INPUTS ARE BASED ON THE FOLLOWING CONDITIONS:

COOLING conditions: Indoor Water Temperature 23  $^{\circ}$ C / 18  $^{\circ}$ C. Outdoor Air Temperature 35  $^{\circ}$ C DB / 24  $^{\circ}$ C WB. HEATING conditions: Indoor Water Temperature 30  $^{\circ}$ C / 35  $^{\circ}$ C. Outdoor Air Temperature 7  $^{\circ}$ C DB / 6  $^{\circ}$ C WB.

The specification of products is subject to change based on further development of the units by the producer and can be changed without prior notice. Refer to rating label. Contains fluorinated greenhouse gases covered by the Kyoto Protocol. R32 (100% HFC-32), GWP of refrigerant used: 675. Sound pressure level is tested in a soundless chamber, actual values may be affected by local conditions.









# INDOOR UNIT ALL IN ONE

Heat Pump SINCLAIR ALL IN ONE belongs to a new generation of heat pumps designated for heating, cooling and heating of hot domestic water in homes.







Units are in one-phase or three-phase version (devices with suffix -3).

We offer you ALL IN ONE solutions with performances of 6, 8, 10, 12, 14, 16 kW. Units are in one-phase or three-phase (devices with suffix -3).

## **SAVE SPACE IN THE HOUSE**

Thanks to the connection of the hydro unit and the tank, you only need a small space for this heat pump. Indoor unit ALL IN ONE includes circulatory pump and plate heat exchanger Weyee.

TECHNOLOGY THAT COMBINES AN INDOOR HYDROBOX AND AN INTEGRATED 190 OR 240 LITER STAINLESS STEEL HOT WATER TANK



## INDOOR UNIT ALL IN ONE

## **FEATURES**

- Possibility of control via internet with Comfort Home application
- · High efficiency
- · Integrated expansion vessel and safety valve
- · Circulatory pump with self-regulation of speed
- Possibility of the equitherm control, control by reference room temperature or thermostat
- · Silent mode
- · Built-in electric cartridge with 3 or 9 kW capacity

Possible combinations							
Indoor	Outdoor						
MSH-190TB/3	MSH-60EB						
MSH-240TB/3	MSH-120EB						
MSH-240TB/3	MSH-140EB						
MSH-240TB/3	MSH-160EB						
MSH-190TB-3/9	MSH-80EB						
MSH-190TB-3/9	MSH-100EB						
MSH-240TB-3/9	MSH-120EB-3						
MSH-240TB-3/9	MSH-140EB-3						
MSH-240TB-3/9	MSH-160EB-3						



Model MSH-				190TB/3	240TB/3	190TB-3/9	240TB-3/9				
Power supply			V / Ph / Hz	220 - 240 / 1 /50 380 - 415 / 3 /50							
Connecting pipe (refrige	erant)	Gas	inch / mm	5/8" / 16,0							
		Liquid		3/8*/9,5							
Connecting pipe (water	)	Inlet	inch	11							
		Outlet	IIIUI	]" 							
Safety valve			bar			3					
Leaving water tempera	ture	Cooling	°C	5 - 25							
Heating			oC.	25 - 65							
Main components	Water pump	Туре	-	Inverter							
		Speed	-	Automatic							
		Max. power	W	90							
	Hot water tank	Volume	l	190	240	190	240				
		El. heater	kW	1,5+1,5							
	Expansion tank	Volume	l	8							
		Max. pressure	bar	3							
		Pressure	bar	1							
	Auxiliary electric heater	Mode	-		matic						
		Capacity	kW	3 9							
		Combination	-	3 3+3+			3+3				
		Power supply	V / Ph / Hz	220 - 240 / 1 /50 380 - 415 / 3 /50			5 / 3 /50				
	Heat exchanger	Туре	-		Braze	d plate					
		Amount		1							
Level of acoustic pressure in 1m dB			dB (A)	29							
Dimensions	Outline (w x d x h)		mm	600 x 600 x 1683	600 x 600 x 1943	600 x 600 x 1683	600 x 600 x 1943				
	Packaged (w x d x h)	·	mm	730 x 730 x 1920	730 x 730 x 2180	730 x 730 x 1920	730 x 730 x 2180				
Weight	Netto		kg	140	157	140	157				
	Brutto		kg	161	178	161	178				





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MSH-60EB MSH-80EB MSH-100EB

MSH-120EB MSH-140EB-3 MSH-120EB-3 MSH-160EB MSH-140EB MSH-160EB-3





Model MSH-				60EB	80EB	100EB	120EB/120EB-3	140EB/140EB-3	160EB/160EB-3
Power supply			220-240 / 1 /50		380-415 / 3 /50				
Capacity		Heating	kW	6,2	8,3	10	12,1	14,5	16
		Cooling	kW	6,55	8,4	10	12	13,5	14,2
Power		Heating	kW	1,24	1,6	2,0	2,4	3,1	3,6
		Cooling	kW	1,34	1,66	2,08	3,0	3,7	3,9
COP		Heating	-	5	5,2	5	4,95 4,7		
EER		Cooling	-	4,9	5,05	4,8	4	3,61	3,61
Technical	Level of acoustic pressure	Max.	dB (A)	44	46	49	50	51	55
parameters	Energy class	Heating (55 °C / 35 °C)	-	A++ / A+++					
	SCOP	Heating (55 °C / 35 °C)	-	3,52 / 4,95	3,37 / 5,22	3,47 / 5,2	3,45 / 4,81	3,47 / 4,72	3,41 / 4,62
	Refrigerant	Туре	-	R32					
		Amount	kg	1,5	1,65 1,84				
	Domestic hot water temperature		0C	12-60					
	Refrigerant pipes	Gas	inch / mm	5/8" / 16,0					
		Liquid	inch / mm	1/4" / 6,0 3/8" / 9,5					
	Unit Dimension	(w x h x d)	mm	1008 x 712 x 426 1118 x 865 x 523					
	Package Dimension	(w x h x d)	mm	1065 x 810 x 485	0 x 485 1190 x 970 x 560				
	Weight netto/brutto		kg	58 / 63,5	75 / 89 112 / 125,5				
	Operating temperature range	Operating temperature range °C		-25 - 43					
	Standard pipe length		m	15					
	Max. pipe length		m	30			· ·		
	Max. elevation		m	20					
	Additional refrigeration		g/m	20 38					

CAPACITIES AND POWER INPUTS ARE BASED ON THE FOLLOWING CONDITIONS:

COOLING conditions: Indoor Water Temperature 23 °C / 18 °C. Outdoor Air Temperature 35 °C DB / 24 °C WB. HEATING conditions: Indoor Water Temperature 30 °C / 35 °C. Outdoor Air Temperature 7 °C DB / 6 °C WB.

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