

# S-Therm Monoblock DC Inverter Heat Pumps

## ALL-IN-ONE DEVICE

- Cooling & heating
- Water heating
- Cooling + water heating
- Heating + water heating
- Emergency mode
- Quick water heating
- Holiday mode
- Forced operation mode
- Disinfection mode
- Water-dependent heating mode



## EASY CONTROL

Wired controller can be placed inside the building. Controller is user friendly and easy to operate.

## TWO STAGE ROTARY COMPRESSOR

New two-stage compressor with inverter achieves high efficiency even at low temperatures. On the other hand at high temperatures it can lower its speed to prevent cycling of the unit.

## MONOBLOCK DESIGN

Due to the monoblock design of the unit installation is very easy. You can simply connect unit to the electricity and to heating system and it is done. Because of this installation costs are lower than for split units.

## WATER PUMP WITH REGULATED SPEED

In this unit WILO water pump with regulated speed is used. Because of this heat pump can keep requested temperature difference between inlet and outlet water. This water pump has also high efficiency and meets all requirements for energy efficiency.

## EC FAN MOTOR

Unit is equipped with EC fan motor (motors) with high efficiency. Speed of the fan is regulated according to the refrigerant pressure. Due to this type of control high efficiency of the system is achieved in various conditions.

## EXPANSION VALVES CONTROL BASED ON REFRIGERANT PRESSURE

Electronic expansion valves which provide better regulation than thermostatic expansion valves are used in the unit. Valve opening is based on information from sensors in refrigerant circuit to provide optimal capacity and efficiency of the unit.

# MONOBLOCK UNITS

NEW

## SMH-100IRA SMH-140IRA

Model			SMH-100IRA	SMH-140IRA	
Capacity1	Heating (underfloor)	kW	9,5	14,2	
	Cooling (underfloor)	kW	9,8	14,5	
Power input1	Heating (underfloor)	kW	2,2	3,35	
	Cooling (underfloor)	kW	2,5	3,70	
COP1	Heating (underfloor)	-	4,3	4,24	
EER1	Cooling (underfloor)	-	3,92	3,92	
Capacity2	Heating (fan coils, radiators)	kW	9,5	13,0	
	Cooling (fan coils)	kW	7,4	10,3	
Power input2	Heating (fan coils, radiators)	kW	2,69	3,60	
	Cooling (fan coils)	kW	2,38	3,3	
COP2	Heating (fan coils, radiators)	-	3,53	3,61	
EER2	Cooling (fan coils)	-	3,11	3,12	
Energy class		-	A+	A+	
SCOP		-	3,7	4,3	
Voltage / phase / frequency		V / Ph / Hz	210-240 / 1 / 50	380-415 / 3 / 50	
Max. power input (without e-heater)	Heating	kW	3,1	4,3	
	Cooling	kW	4,0	4,8	
Max. current (without e-heater)	Heating	A	14,0	8,1	
	Cooling	A	16,5	8,9	
Refrigerant	Type	-	R410A	R410A	
	Charge	-	3,5 / 7,3	4,0 / 8,4	
Water pipes	Inlet	mm		DN25	
	Outlet	mm		DN25	
Water temperatures range	Heating	°C		25-60	
	Cooling	°C		7-25	
Main components	Water pump	Number of speeds	-	externally controlled	
		Power input	W	140	
	Water flow switch	Minimum flow	l / min		9,2
		Expansion tank	Volume	l	
	Maximum pressure		Bar		3
	Precharged pressure		Bar		1
	Electric heater	Mode	-		automatic
		Steps	-		2
		Capacity	kW		6
		Combination	kW		3+3
	Heat exchanger	Volume	l		6
		Quantity	-		1
Safety valve	Pressure	bar		3	
	Sound pressure level LpA	Heating	dB	56	57
Cooling		dB	53	54	
Unit dimensions	W*D*H	mm	1390 x 412 x 890	1350 x 384 x 1438	
Package dimension	W*D*H	mm	1463 x 428 x 1020	1440 x 430 x 1500	
Weight	Net / Gross	kg	148 / 161	205 / 220	
Operating temperature range	Cooling	°C	10-48	10-48	
	Heating	°C	-20-35	-20-35	
	Water Heating	°C	-20-45	-20-45	

**1 Capacities and power inputs are based on the following conditions:**

Cooling conditions:  
 Indoor Water Temperature 23°C / 18°C;  
 Outdoor Air Temperature 35°CDB / 24°CWB  
 Heating conditions:  
 Indoor Water Temperature 30°C / 35°C  
 Outdoor Air Temperature 7°CDB / 6°CWB

**2 Capacities and power inputs are based on the following conditions:**

Cooling conditions:  
 Indoor Water Temperature 12°C / 7°C;  
 Outdoor Air Temperature 35°CDB / 24°CWB  
 Heating conditions:  
 Indoor Water Temperature 40°C / 45°C;  
 Outdoor Air Temperature 7°CDB / 6°CWB

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. R410A (50% HFC-32, 50% HFC-125), GWP of refrigerant used: 2088.