

## The technical documentation

### 1. General description

#### Models:

SIH-SOH-24BIT2
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**2. Reference to harmonised standards:** EN 14825:2016、EN 14511-2:2013、EN 14511-3:2013、EN 12102-1:2017

#### 3. Specific precautions that shall be taken when the model is assembled, installed, maintained or tested:

- ① According to the directions of Operating Instruction Manual.
- ② Set the guide vane of air outlet at middle position by hand to achieve maximum air volume.
- ③ Set upper guide louver at the appropriate position to achieve maximum air volume.
- ④ Press any button during the testing mode, the unit will exit the lock frequency, you need repeat the process to enter testing mode if needed!
- ⑤ After each test a condition, need to power off and test the next working condition !

#### 4. Measured technical parameters & 5. The calculations performed with the measured parameters & 6. Testing conditions

Function (indicate if present)				Only for heating mode, if applicable			
Cooling	Y			Average(mandatory)	Y		
Heating	Y			Warmer(if designed)	Y		
				Colder(if designed)	Y		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Design load				Seasonal efficiency			
Cooling	P <sub>designc</sub>	7.1	kW	Cooling	SEER	7.016	—
Heating/average	P <sub>designh</sub>	5.6	kW	Heating/average	SCOP/A	4.213	—
Heating/warmer	P <sub>designh</sub>	5.7	kW	Heating/warmer	SCOP/W	5.411	—
Heating/colder	P <sub>designh</sub>	6.3	kW	Heating/colder	SCOP/C	3.409	—
Tested capacity (*) for cooling, at indoor temperature 27(19) °C and outdoor temperature T <sub>j</sub>				Tested energy efficiency ratio (*), at indoor temperature 27(19) °C and outdoor temperature T <sub>j</sub>			
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
T <sub>j</sub> =35°C	P <sub>dc</sub>	7.11	kW	T <sub>j</sub> =35°C	EERd	3.58	—
T <sub>j</sub> =30°C	P <sub>dc</sub>	5.06	kW	T <sub>j</sub> =30°C	EERd	5.29	—

T <sub>j</sub> =25°C	P <sub>dc</sub>	3.33	kW	T <sub>j</sub> =25°C	EER <sub>d</sub>	8.46	—
T <sub>j</sub> =20°C	P <sub>dc</sub>	2.79	kW	T <sub>j</sub> =20°C	EER <sub>d</sub>	12.42	—
Tested capacity (*) for heating/Average season, at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Tested coefficient of performance(*)/Average season, at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> =-7°C	P <sub>dh</sub>	4.71	kW	T <sub>j</sub> =-7°C	COP <sub>d</sub>	2.85	—
T <sub>j</sub> =2°C	P <sub>dh</sub>	2.93	kW	T <sub>j</sub> =2°C	COP <sub>d</sub>	4.07	—
T <sub>j</sub> =7°C	P <sub>dh</sub>	1.85	kW	T <sub>j</sub> =7°C	COP <sub>d</sub>	5.53	—
T <sub>j</sub> =12°C	P <sub>dh</sub>	2.28	kW	T <sub>j</sub> =12°C	COP <sub>d</sub>	6.81	—
T <sub>j</sub> =operating limit	P <sub>dh</sub>	5.66	kW	T <sub>j</sub> =operating limit	COP <sub>d</sub>	2.01	—
T <sub>j</sub> =bivalent temperature	P <sub>dh</sub>	5.66	kW	T <sub>j</sub> =bivalent temperature	COP <sub>d</sub>	2.01	—

Function (indicate if present)				Only for heating mode, if applicable			
Cooling	Y			Average(mandatory)	Y		
Heating	Y			Warmer(if designed)	Y		
				Colder(if designed)	Y		
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Tested capacity (*) for heating/Warmer season, at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Tested coefficient of performance(*)/Warmer season, at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>			
T <sub>j</sub> =2°C	P <sub>dh</sub>	5.71	kW	T <sub>j</sub> =2°C	COP <sub>d</sub>	2.69	—
T <sub>j</sub> =7°C	P <sub>dh</sub>	3.60	kW	T <sub>j</sub> =7°C	COP <sub>d</sub>	5.17	—
T <sub>j</sub> =12°C	P <sub>dh</sub>	2.28	kW	T <sub>j</sub> =12°C	COP <sub>d</sub>	6.81	—
T <sub>j</sub> =operating limit	P <sub>dh</sub>	5.71	kW	T <sub>j</sub> =operating limit	COP <sub>d</sub>	2.69	—
T <sub>j</sub> =bivalent temperature	P <sub>dh</sub>	5.71	kW	T <sub>j</sub> =bivalent temperature	COP <sub>d</sub>	2.69	—

Tested capacity (*) for heating/Colder season, at indoor temperature 20 °C and outdoor temperature Tj				Tested coefficient of performance(*)/Colder season, at indoor temperature 20 °C and outdoor temperature Tj			
Tj=-7°C	Pdh	3.73	kW	Tj=-7°C	COPd	2.93	—
Tj=2°C	Pdh	2.26	kW	Tj=2°C	COPd	4.13	—
Tj=7°C	Pdh	1.85	kW	Tj=7°C	C-OPd	5.53	—
Tj=12°C	Pdh	2.28	kW	Tj=12°C	COPd	6.81	—
Tj=operating limit	Pdh	4.83	kW	Tj=operating limit	COPd	1.82	—
Tj=bivalent temperature	Pdh	5.20	kW	Tj=bivalent temperature	COPd	1.86	
Tj=-15°C	Pdh	/	kW	Tj=-15°C	COPd	/	—
Bivalent temperature				Operating limit temperature			
Heating/Average	Tbiv	-10	°C	Heating/Average	Tol	-10	°C
Heating/Warmer	Tbiv	2	°C	Heating/Warmer	Tol	2	°C
Heating/Colder	Tbiv	-15	°C	Heating/Colder	Tol	-20	°C
Cycling interval capacity				Cycling interval efficiency			
for cooling	Pcycc	x,x	kW	for cooling	EERcyc	x,x	—
for heating	Pcyh	x,x	kW	for heating	COPcyc	x,x	—
Degradation coefficient cooling (**)	Cdc	0.25	—	Degradation coefficient heating (**)	Cdh	0.25	—

Function (indicate if present)				Only for heating mode, if applicable			
Cooling		Y		Average(mandatory)		Y	
Heating		Y		Warmer(if designed)		Y	
				Colder(if designed)		Y	
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Electric power input in power modes other than 'active mode'				Annual electricity consumption			
Off mode	P <sub>OFF</sub>	0.00509	kW	Cooling	Q <sub>CE</sub>	354	kWh/

							a
Standby mode	$P_{SB}$	0.00509	kW	Heating/Average	$Q_{HE}$	1861	kWh/a
Thermostat-off mode	$P_{TO}$	0.00211/0.01388	kW	Heating/Warmer	$Q_{HE}$	1475	kWh/a
Crankcase heater mode	$P_{CK}$	0	kW	Heating/Colder	$Q_{HE}$	3881	kWh/a
Capacity control (indicate one of three options)				Other items			
fixed	N			Sound power level (indoor/outdoor)	$L_{WA}$	64/70	dB(A)
staged	N			Global warming potential	GWP	675	kgCO <sub>2</sub> eq.
variable	Y			Rated air flow (indoor/outdoor)	—	1250/3600	m <sup>3</sup> /h