

# The technical documentation

## 1. General description

### Models:

SIH+SOH-18BIT

## 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	Pdesignc	5.2	kW	Cooling	SEER	7.00	—
Heating/average	Pdesignh	4.2	kW	Heating/average	SCOP/A	4.00	—
Heating/warmer	Pdesignh	4.3	kW	Heating/warmer	SCOP/W	5.10	—
Heating/colder	Pdesignh	5.0	kW	Heating/colder	SCOP/C	3.42	—
Declared capacity (*) for cooling, at indoor temperature 27(19) °C and outdoor temperature Tj				Declared energy efficiency ratio (*), at indoor temperature 27(19) °C and outdoor temperature Tj			
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Tj=35°C	Pdc	5.29	kW	Tj=35°C	EERd	3.39	—
Tj=30°C	Pdc	3.83	kW	Tj=30°C	EERd	5.61	—
Tj=25°C	Pdc	2.46	kW	Tj=25°C	EERd	8.13	—

Tj=20°C	Pdc	1.58	kW	Tj=20°C	EERd	12.76	—
Declared capacity (*) for heating/Average season, at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance(*)/Average season, at indoor temperature 20 °C and outdoor temperature Tj			
Tj=-7°C	Pdh	3.83	kW	Tj=-7°C	COPd	2.80	—
Tj=2°C	Pdh	2.26	kW	Tj=2°C	COPd	4.01	—
Tj=7°C	Pdh	1.49	kW	Tj=7°C	COPd	5.00	—
Tj=12°C	Pdh	1.22	kW	Tj=12°C	COPd	5.28	—
Tj=operating limit	Pdh	3.40	kW	Tj=operating limit	COPd	2.55	—
Tj=bivalent temperature	Pdh	3.83	kW	Tj=bivalent temperature	COPd	2.80	—

Function (indicate if present)				Only for heating mode, if applicable			
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Declared capacity (*) for heating/Warmer season, at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance(*)/Warmer season, at indoor temperature 20 °C and outdoor temperature Tj			
Tj=2°C	Pdh	4.42	kW	Tj=2°C	COPd	3.37	—
Tj=7°C	Pdh	2.77	kW	Tj=7°C	COPd	5.09	—
Tj=12°C	Pdh	1.57	kW	Tj=12°C	COPd	5.82	—
Tj=operating limit	Pdh	4.42	kW	Tj=operating limit	COPd	3.37	—
Tj=bivalent temperature	Pdh	4.42	kW	Tj=bivalent temperature	COPd	3.37	—
Declared capacity (*) for heating/Colder season, at				Declared coefficient of performance(*)/Colder			

indoor temperature 20 °C and outdoor temperature Tj				season, at indoor temperature 20 °C and outdoor temperature Tj			
Tj=-7°C	Pdh	3.17	kW	Tj=-7°C	COPd	3.11	—
Tj=2°C	Pdh	1.85	kW	Tj=2°C	COPd	4.31	—
Tj=7°C	Pdh	1.20	kW	Tj=7°C	C-OPd	4.63	—
Tj=12°C	Pdh	1.22	kW	Tj=12°C	COPd	5.46	—
Tj=operating limit	Pdh	2.49	kW	Tj=operating limit	COPd	1.31	—
Tj=bivalent temperature	Pdh	4.12	kW	Tj=bivalent temperature	COPd	1.81	—
Tj=-15°C	Pdh	4.12	kW	Tj=-15°C	COPd	1.81	—
Bivalent temperature				Operating limit temperature			
Heating/Average	Tbiv	-7	°C	Heating/Average	Tol	-10	°C
Heating/Warmer	Tbiv	2	°C	Heating/Warmer	Tol	2	°C
Heating/Colder	Tbiv	-15	°C	Heating/Colder	Tol	-22	°C
Cycling interval capacity				Cycling interval efficiency			
for cooling	Pcycc	x,x	kW	for cooling	EERcyc	x,x	—
for heating	Pcych	x,x	kW	for heating	COPcy c	x,x	—
Degradation co-efficient cooling (**)	Cdc	0.25	—	Degradation co-efficient 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>	0.0049518	kW	Cooling	Q <sub>CE</sub>	260	kWh/a
Standby mode	P <sub>SB</sub>	0.0049518	kW	Heating/Average	Q <sub>HE</sub>	1468	kWh/a
Thermostat -off mode	P <sub>TO</sub>	0.0029916/0.0122416	kW	Heating/Warmer	Q <sub>HE</sub>	1180	kWh/a
Crankcase heater mode	P <sub>CK</sub>	0	kW	Heating/Colder	Q <sub>HE</sub>	3066	kWh/a
Capacity control (indicate one of three options)				Other items			
fixed	N			Sound power level (indoor/outdoor )	L <sub>WA</sub>	59/64	dB(A)
staged	N			Global warming potential	GWP	675	kgCO <sub>2</sub> eq.
variable	Y			Rated air flow (indoor/outdoor )	—	800/3200	m <sup>3</sup> /h