

## The technical documentation

### 1. General description

#### Models:

ASH-13BIS2/W
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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!
- ④ After each test a condition, need to power off and test the next working condition !
- 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

#### Appendix I: information according to clause 3 of NO 206/2012 ANNEX I , for air conditioners, except single duct and double duct air conditioners

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>	3.5	kW	Cooling	SEER	8.60	—
Heating/average	P <sub>designh</sub>	3.5	kW	Heating/average	SCOP/A	5.10	—
Heating/warmer	P <sub>designh</sub>	3.6	kW	Heating/warmer	SCOP/W	5.73	—
Heating/colder	P <sub>designh</sub>	5.0	kW	Heating/colder	SCOP/C	4.11	—
Declared capacity (*) for cooling, at indoor temperature 27(19) °C and outdoor temperature T <sub>j</sub>				Declared energy efficiency ratio (*), at indoor temperature 27(19) °C and outdoor temperature T <sub>j</sub>			
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit

Tj=35°C	Pdc	3.53	kW	Tj=35°C	EERd	5.06	—
Tj=30°C	Pdc	2.56	kW	Tj=30°C	EERd	7.15	—
Tj=25°C	Pdc	1.62	kW	Tj=25°C	EERd	9.89	—
Tj=20°C	Pdc	0.88	kW	Tj=20°C	EERd	15.26	—
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	3.10	kW	Tj=-7°C	COPd	3.33	—
Tj=2°C	Pdh	1.94	kW	Tj=2°C	COPd	5.28	—
Tj=7°C	Pdh	1.25	kW	Tj=7°C	COPd	6.12	—
Tj=12°C	Pdh	0.87	kW	Tj=12°C	COPd	6.49	—
Tj=operating limit	Pdh	4.01	kW	Tj=operating limit	COPd	2.59	—
Tj=bivalent temperature	Pdh	3.10	kW	Tj=bivalent temperature	COPd	3.33	—

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
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	3.76	kW	Tj=2°C	COPd	3.16	—
Tj=7°C	Pdh	2.38	kW	Tj=7°C	COPd	5.56	—
Tj=12°C	Pdh	0.87	kW	Tj=12°C	COPd	6.49	—
Tj=operating limit	Pdh	3.76	kW	Tj=operating limit	COPd	3.16	—
Tj=bivalent temperature	Pdh	3.76	kW	Tj=bivalent temperature	COPd	3.16	—
Declared capacity (*) for heating/Colder season, at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance(*)/Colder season, at indoor temperature 20 °C and outdoor temperature Tj			

T <sub>j</sub> =-7°C	P <sub>dh</sub>	3.10	kW	T <sub>j</sub> =-7°C	COP <sub>d</sub>	3.33	—
T <sub>j</sub> =2°C	P <sub>dh</sub>	1.94	kW	T <sub>j</sub> =2°C	COP <sub>d</sub>	5.28	—
T <sub>j</sub> =7°C	P <sub>dh</sub>	1.25	kW	T <sub>j</sub> =7°C	C-OP <sub>d</sub>	6.12	—
T <sub>j</sub> =12°C	P <sub>dh</sub>	0.87	kW	T <sub>j</sub> =12°C	COP <sub>d</sub>	6.49	—
T <sub>j</sub> =operating limit	P <sub>dh</sub>	3.66	kW	T <sub>j</sub> =operating limit	COP <sub>d</sub>	2.13	—
T <sub>j</sub> =bivalent temperature	P <sub>dh</sub>	4.20	kW	T <sub>j</sub> =bivalent temperature	COP <sub>d</sub>	2.27	—
T <sub>j</sub> =-15°C	P <sub>dh</sub>	4.20	kW	T <sub>j</sub> =-15°C	COP <sub>d</sub>	2.27	—
Bivalent temperature				Operating limit temperature			
Heating/Average	T <sub>biv</sub>	-7	°C	Heating/Average	T <sub>ol</sub>	-10	°C
Heating/Warmer	T <sub>biv</sub>	2	°C	Heating/Warmer	T <sub>ol</sub>	2	°C
Heating/Colder	T <sub>biv</sub>	-15	°C	Heating/Colder	T <sub>ol</sub>	-30	°C
Cycling interval capacity				Cycling interval efficiency			
for cooling	P <sub>cycc</sub>	x,x	kW	for cooling	EER <sub>cycc</sub>	x,x	—
for heating	P <sub>cyhc</sub>	x,x	kW	for heating	COP <sub>cyhc</sub>	x,x	—
Degradation coefficient cooling (**)	C <sub>dc</sub>	0.25	—	Degradation coefficient heating (**)	C <sub>dh</sub>	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>	0.004573	kW	Cooling	Q <sub>CE</sub>	142	kWh/a
Standby mode	P <sub>SB</sub>	0.004573	kW	Heating/Average	Q <sub>HE</sub>	961	kWh/a
Thermostat-off mode	P <sub>TO</sub>	0.00349/0.00765	kW	Heating/Warmer	Q <sub>HE</sub>	880	kWh/a
Crankcase	P <sub>CK</sub>	0	kW	Heating/Colder	Q <sub>HE</sub>	2554	kWh/a

heater mode						
Capacity control (indicate one of three options)			Other items			
fixed	N		Sound power level (indoor/outdoor)	L <sub>WA</sub>	58/62	dB(A)
staged	N		Global warming potential	GWP	675	kgCO <sub>2</sub> eq.
variable	Y		Rated air flow (indoor/outdoor)	—	(800/2400)	m <sup>3</sup> /h

(\* ) For staged capacity units, two values divided by a slash ('/') will be declared in each box in the section 'Declared capacity of the unit' and 'declared EER/COP' of the unit.

(\*\*) If default Cd = 0,25 is chosen then (results from) cycling tests are not required. Otherwise either the heating or cooling cycling test value is required.

For units with capacity control marked 'staged', two values for the highest and lowest, noted 'hi/lo' divided by a slash ('/') will be declared in each box under 'Declared capacity'.

