

The technical documentation

1. General description

Models: AST-24BI2

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

Information requirements

(the number of decimals in the box indicates the precision of reporting)

Information to identify the model(s) to which the information relates to:

Function (indicate to which function information applies)				If function includes heating: Indicate the heating season the information relates to. Indicated values should relate to one heating season at a time. Include at least the heating season 'Average'.			
cooling	Y			Average (mandatory)	Y		
heating	Y			Warmer (if designated)	N		
				Colder (if designated)	N		
Item	symbol	value	unit	Item	symbol	value	unit
Design load				Seasonal efficiency			
cooling	Pdesign _c	7.2	kW	cooling	Test SEER	6.178	—
heating/Average	Pdesign _h	5.6	kW	heating/Average	SCOP(A)	3.887	—
heating/Warmer	Pdesign _h	x,x	kW	heating/Warmer	SCOP(W)	x,xx	—
heating/Colder	Pdesign _h	x,x	kW	heating/Colder	SCOP(C)	x,xx	—

Tested capacity (*) for cooling, at indoor temperature 27(19) °C and outdoor temperature Tj				Tested energy efficiency ratio (*), at indoor temperature 27(19) °C and outdoor temperature Tj			
Tj = 35 °C	Ptc	7.21	kW	Tj = 35 °C	EER	3.51	—
Tj = 30 °C	Ptc	5.10	kW	Tj = 30 °C	EER	5.02	—
Tj = 25 °C	Ptc	3.31	kW	Tj = 25 °C	EER	7.27	—
Tj = 20 °C	Ptc	2.41	kW	Tj = 20 °C	EER	10.06	—
Tested capacity (*) for heating/Average season, at indoor temperature 20 °C and outdoor temperature Tj				Tested coefficient of performance (*)/Average season, at indoor temperature 20 °C and outdoor temperature Tj			
Tj = – 7 °C	Pth	5.04	kW	Tj = – 7 °C	COP	2.61	—
Tj = 2 °C	Pth	3.03	kW	Tj = 2 °C	COP	3.71	—
Tj = 7 °C	Pth	1.98	kW	Tj = 7 °C	COP	5.33	—
Tj = 12 °C	Pth	2.01	kW	Tj = 12 °C	COP	5.58	—
Tj = bivalent temperature	Pth	5.69	kW	Tj = bivalent temperature	COP	2.36	—
Tj = operating limit	Pth	5.69	kW	Tj = operating limit	COP	2.36	—
Tested capacity (*) for heating/Warmer season, at indoor temperature 20 °C and outdoor temperature Tj				Tested coefficient of performance (*)/Warmer season, at indoor temperature 20 °C and outdoor temperature Tj			
Tj = 2 °C	Pth	x,x	kW	Tj = 2 °C	COP	x,x	—
Tj = 7 °C	Pth	x,x	kW	Tj = 7 °C	COP	x,x	—
Tj = 12 °C	Pth	x,x	kW	Tj = 12 °C	COP	x,x	—
Tj = bivalent temperature	Pth	x,x	kW	Tj = bivalent temperature	COP	x,x	—
Tj = operating limit	Pth	x,x	kW	Tj = operating limit	COP	x,x	—
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	Pth	x,x	kW	Tj = – 7 °C	COP	x,x	—
Tj = 2 °C	Pth	x,x	kW	Tj = 2 °C	COP	x,x	—
Tj = 7 °C	Pth	x,x	kW	Tj = 7 °C	COP	x,x	—
Tj = 12 °C	Pth	x,x	kW	Tj = 12 °C	COP	x,x	—
Tj = bivalent temperature	Pth	x,x	kW	Tj = bivalent temperature	COP	x,x	—
Tj = operating limit	Pth	x,x	kW	Tj = operating limit	COP	x,x	—
Tj = – 15 °C	Pth	x,x	kW	Tj = – 15 °C	COP	x,x	—
Bivalent temperature				Operating limit temperature			

heating/Average	T _{biv}	-10	°C	heating/Average	Tol	-10	°C
heating/Warmer	T _{biv}	x	°C	heating/Warmer	Tol	x	°C
heating/Colder	T _{biv}	x	°C	heating/Colder	Tol	x	°C
Power consumption of cycling				Efficiency of cycling			
cooling	P _{cycc}	x,x	kW	cooling	EER _{cyc}	x,x	—
heating	P _{ych}	x,x	kW	heating	COP _{cyc}	x,x	—
Degradation co-efficient cooling (**)	C _{dc}	0.25	—	Degradation co-efficient heating (**)	C _{dh}	0.25	—
Electric power input in power modes other than 'active mode'				Seasonal electricity consumption			
off mode	P _{OFF}	0.00846	kW	cooling	Q _{CE}	413	kWh/a
standby mode	P _{SB}	0.00846	kW	heating/Average	Q _{HE}	2017	kWh/a
thermostat-off mode	P _{TO}	0.00202/0.01278	kW	heating/Warmer	Q _{HE}	x	kWh/a
crankcase heater mode	P _{CK}	0.0	kW	heating/Colder	Q _{HE}	x	kWh/a
Capacity control (indicate one of three options)				Other items			
fixed	N			Sound power level (indoor/outdoor)	LWA	56/70	dB(A)
staged	N			Global warming potential	GWP	675	kgCO ₂ eq.
variable	Y			Rated air flow (indoor/outdoor)	—	1250/3600	m ³ /h