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1007994101

alpha innotec

Jersey 7-1



A+



A

Two icons showing sound power levels. The top icon shows a speaker inside a house with the text '40 dB'. The bottom icon shows a speaker outside a house with the text '55 dB'.



A legend for power consumption with three colored squares: dark blue for '10 kW', medium blue for '7 kW', and light blue for '8 kW'.

An icon showing a clock face with a dashed line and a coin with an arrow pointing to it, symbolizing energy saving or cost reduction.

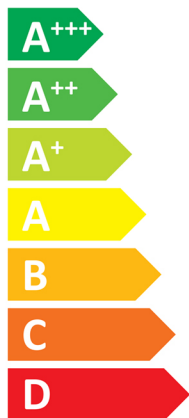


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Jersey 7-1



A+



A



40 dB



55 dB



10 kW

7 kW

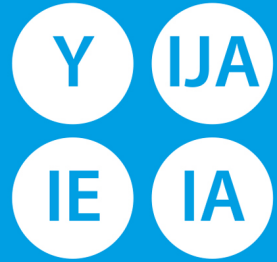
8 kW





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Jersey 7-1 + HPC

Energy label for heating system showing a boiler icon, a radiator icon, and a tap icon. The label includes two energy efficiency classes: A+ for the radiator and A for the tap.

Energy label for water heating system showing a radiator icon and a tap icon. The label includes a single energy efficiency class: A++ for the radiator.

Energy label for hot water system showing a solar panel icon, a hot water tank icon, a control panel icon, and a boiler icon. The label includes four energy efficiency classes: A+ for the solar panel, A for the hot water tank, A for the control panel, and A for the boiler.

Energy label for hot water tap showing a tap icon. The label includes a single energy efficiency class: A for the tap.

package (heat pumps and combination heater with heat pump) Jersey 7-1 + HPC

Seasonal space heating energy efficiency of heat pump (η_s) ① 123 %

Rated heat output of the heat pump (P_{rated} kW) 7

Temperature control Class II (Table 1) + ② 2 %

Supplementary boiler
package with hot water storage tank no P_{sup} kW (rated heat output of supplementary heater)

η_s % (σ_{π}) $(\eta_s \% (sup) - ①) \times (\alpha_{WP}) =$ - ③

(α_{WE} : see Table 3) (α_{WE})

solar contribution $(A_{Koll} m^2)$ $(\eta_{Koll} \%)$
 $(V_{Sp} m^3)$ $(standstill\ heat\ loss\ of\ the\ hot\ water\ storage\ tank\ in\ W)$
 $(\eta_{Sp}: Table\ 2)$

$((294/P_{rated} \times 11) \times (A_{Koll} m^2) + (115/P_{rated} \times 11) \times (V_{Sp} m^3)) \times 0,45 \times ((\eta_{Koll} \%) / 100) \times (\eta_{Sp}) =$ + ④

Seasonal space heating energy efficiency of package ⑤ 125 %

rounded to the nearest integer

Seasonal space heating energy efficiency class of package



Seasonal space heating energy efficiency under colder or warmer climate conditions

Seasonal space heating energy efficiency of the heat pump (η_s) under colder climate conditions 116 %

Seasonal space heating energy efficiency of the heat pump (η_s) under warmer climate conditions 165 %

colder ⑤ 125 -V 7 = 118 warmer ⑤ 125 +VI 42 = 167

heatpump datasheet:			
manufacturer:	alpha innotec		
model:	Jersey 7-1		
Information concerning energy efficiency class and rated heat output:			
load profile water heating	L		-
	average / low	average / medium	
energy efficiency class space heater:	A++	A+	-
energy efficiency class waterheating	A		-
rated heat output:	8	7	kW
annual final energy consumption space heater	4102	4917	kWh
annual electricity consumption waterheating	1188		kWh
energy efficiency space heater:	162	123	%
energy efficiency waterheating	86		%
sound power level indoors	40		dB
special precautions concerning assembly, installation or maintenance			
All instructional work in this manual may only be carried out by qualified specialist personnel in compliance with local regulations.			
additional information	low	medium	
rated heat output colder climate	9	10	kW
rated heat output warmer climate	8	8	kW
annual energy consumption space heater colder climate	6116	8289	kWh
annual energy consumption space heater warmer climate	1995	2540	kWh
ann. Electricity consumption waterheating colder climate	1299		kWh
ann. Electricity consumption waterheating warmer climate	1031		kWh
energy efficiency space heater colder climate	142	116	%
energy efficiency space heater warmer climate	211	165	%
energy efficiency waterheating colder climate	79		%
energy efficiency DHWarmer climate	99		%
sound power level outdoors	55		dB

technical data of the temperature controller		
manufacturer:	alpha innotec	
model:	HPC	
controller class	II	-
contribution of the controller to the energy efficiency space heater	2	%

Model				Jersey 7-1			
Air-to-water heat pump: (yes/no)				yes			
Brine-to-water heat pump: (yes/no)				no			
Water-to-water heat pump: (yes/no)				no			
Low-temperature heat pump: (yes/no)				no			
Equipped with supplementary heater: (yes/no)				yes			
combination heater with: (yes/no)				yes			
application: (low/medium)				medium			
climate: (colder/average/warmer)				average			
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output	Prated	7	kW	Seasonal space heating energy efficiency	η_S	122,9	%
Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	6,5	kW	Tj = -7°C	COPd	2,03	-
Tj = +2°C	Pdh	3,7	kW	Tj = +2°C	COPd	3,00	-
Tj = +7°C	Pdh	2,5	kW	Tj = +7°C	COPd	4,25	-
Tj = +12°C	Pdh	2,2	kW	Tj = +12°C	COPd	5,60	-
Tj = bivalent temperature	Pdh	6,5	kW	Tj = bivalent temperature	COPd	2,03	-
Tj = operation limit temperature	Pdh	5,3	kW	Tj = operation limit temperature	COPd	1,75	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T _{biv}	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	1,0	-	Heating water operating limit temperature	WTOL	58	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0,041	kW	Rated heat output	P _{sup}	2,2	kW
Thermostat-off mode	P _{TO}	0,045	kW	Type of energy input	electrical		
Standby mode	P _{SB}	0,045	kW				
Crankcase heater mode	P _{CK}	-	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	3.000	m ³ /h
sound power level, indoors/outdoors	L _{WA}	40 / 55	dB	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Emissions of nitrogen oxides	NO _x	-	mg/kWh				
For heat pump combination heater:							
Declared load profile	L			Water heating energy efficiency	η_{wh}	86	%
Daily electricity consumption	Q _{elec}	5,817	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	ait deutschland GmbH, Industriestr. 3, 95359 Kasendorf, Germany						
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).							
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							

Model				Jersey 7-1			
Air-to-water heat pump: (yes/no)				yes			
Brine-to-water heat pump: (yes/no)				no			
Water-to-water heat pump: (yes/no)				no			
Low-temperature heat pump: (yes/no)				no			
Equipped with supplementary heater: (yes/no)				yes			
combination heater with: (yes/no)				yes			
application: (low/medium)				low			
climate: (colder/average/warmer)				average			
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output	Prated	8	kW	Seasonal space heating energy efficiency	η_S	162,2	%
Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj				Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj			
Tj = -7°C	Pdh	7,2	kW	Tj = -7°C	COPd	2,65	-
Tj = +2°C	Pdh	4,1	kW	Tj = +2°C	COPd	3,99	-
Tj = +7°C	Pdh	2,6	kW	Tj = +7°C	COPd	5,34	-
Tj = +12°C	Pdh	2,2	kW	Tj = +12°C	COPd	7,15	-
Tj = bivalent temperature	Pdh	7,2	kW	Tj = bivalent temperature	COPd	2,59	-
Tj = operation limit temperature	Pdh	7,9	kW	Tj = operation limit temperature	COPd	2,56	-
For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	COPd	-	-
Bivalent temperature	T _{biv}	-8	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	1,0	-	Heating water operating limit temperature	WTOL	58	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0,041	kW	Rated heat output	P _{sup}	-	kW
Thermostat-off mode	P _{TO}	0,045	kW	Type of energy input	electrical		
Standby mode	P _{SB}	0,045	kW				
Crankcase heater mode	P _{CK}	-	kW				
Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	3.000	m ³ /h
sound power level, indoors/outdoors	L _{WA}	40 / 55	dB	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Emissions of nitrogen oxides	NO _x	-	mg/kWh				
For heat pump combination heater:							
Declared load profile	-			Water heating energy efficiency	η_{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	ait deutschland GmbH, Industriestr. 3, 95359 Kasendorf, Germany						
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).							
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.							