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10066041

alpha innotec

WZS 42H3M



A++



A

43 dB

- dB



- 5 kW
- 5 kW
- 5 kW

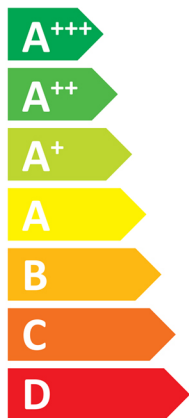


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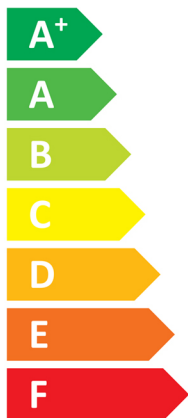
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WZS 42H3M



A++



A

Two icons showing sound power level: a speaker inside a house with the value 43 dB, and a speaker outside a house with a dash and dB. In the background, a map of Europe is shown with various shades of blue.

Legend for power consumption: three squares of increasing size and intensity (dark blue, medium blue, light blue) next to the text '5 kW'.

Icon representing energy saving: a clock face with a dashed line and a coin with an arrow pointing to it.



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Y

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WZS 42H3M + Luxtronik 2.1

Energy label for heating system components. It features a central icon of a boiler. To its right are two black arrow-shaped boxes: the top one contains 'A++' and the bottom one contains 'A'. Further right are icons for a radiator and a tap with 'XL' below it.

Energy scale for heating system components. It shows a vertical stack of colored bars representing energy classes from A+++ (green) to G (red). A large black arrow-shaped box on the right points to the A++ class.

Energy label for system features. It lists four features, each with a plus sign, an icon, and a checkbox:

- Solar panel icon with a sun:
- Water tank icon:
- Control panel icon with a hand:
- Boiler icon:

Energy scale for system features. It shows a vertical stack of colored bars representing energy classes from A+++ (green) to G (red). A large black arrow-shaped box on the right points to the A class. A tap icon with 'XL' is positioned above the scale.

package (heat pumps and combination heater with heat pump) WZS 42H3M + Luxtronik 2.1

Seasonal space heating energy efficiency of heat pump (η_s) ① 127 %

Rated heat output of the heat pump (P_{rated} kW) 5

Temperature control Class VII (Table 1) + ② 3,5 %

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})

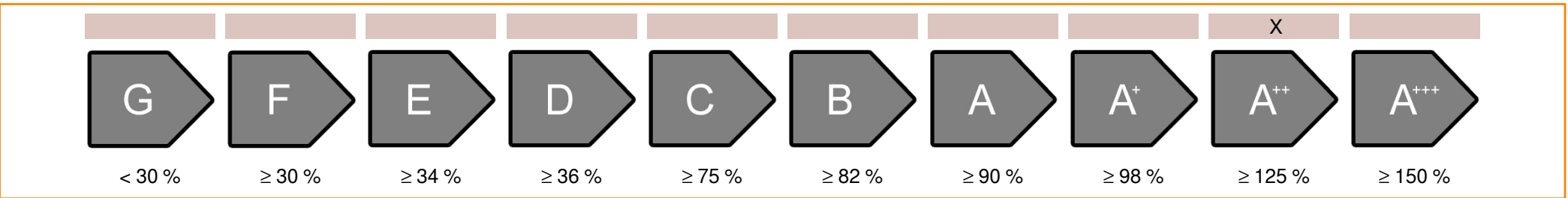
solar contribution $(A_{Koll} m^2)$ $(\eta_{Koll} \%)$
 $(V_{Sp} m^3)$ $(standstill\ heat\ loss\ of\ the\ hot\ water\ storage\ tank\ in\ W)$
 $(\eta_{Sp}: Table\ 2)$

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

Seasonal space heating energy efficiency of package ⑤ 130 %

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 132 %

Seasonal space heating energy efficiency of the heat pump (η_s) under warmer climate conditions 126 %

colder ⑤ 130 -V -5 = 135 warmer ⑤ 130 +VI -1 = 129

heatpump datasheet:			
manufacturer:	alpha innotec		
model:	WZS 42H3M		
Information concerning energy efficiency class and rated heat output:			
load profile water heating	XL		-
	average / low	average / medium	
energy efficiency class space heater:	A+++	A++	-
energy efficiency class waterheating	A		-
rated heat output:	6	5	kW
annual final energy consumption space heater	2304	2954	kWh
annual electricity consumption waterheating	1782		kWh
energy efficiency space heater:	191	127	%
energy efficiency waterheating	94		%
sound power level indoors	43		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	6	5	kW
rated heat output warmer climate	6	5	kW
annual energy consumption space heater colder climate	2634	3382	kWh
annual energy consumption space heater warmer climate	1556	1993	kWh
ann. Electricity consumption waterheating colder climate	1782		kWh
ann. Electricity consumption waterheating warmer climate	1782		kWh
energy efficiency space heater colder climate	198	132	%
energy efficiency space heater warmer climate	190	126	%
energy efficiency waterheating colder climate	94		%
energy efficiency DHWarmer climate	94		%
sound power level outdoors	-		dB

technical data of the temperature controller		
manufacturer:	alpha innotec	
model:	Luxtronik 2.1	
controller class	VII	-
contribution of the controller to the energy efficiency space heater	3,5	%

Model				WZS 42H3M			
Air-to-water heat pump: (yes/no)				no			
Brine-to-water heat pump: (yes/no)				yes			
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	5	kW	Seasonal space heating energy efficiency	η_S	126,8	%
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	4,3	kW	Tj = -7°C	COPd	2,79	-
Tj = +2°C	Pdh	4,5	kW	Tj = +2°C	COPd	3,45	-
Tj = +7°C	Pdh	4,7	kW	Tj = +7°C	COPd	3,93	-
Tj = +12°C	Pdh	4,9	kW	Tj = +12°C	COPd	4,35	-
Tj = bivalent temperature	Pdh	4,3	kW	Tj = bivalent temperature	COPd	2,79	-
Tj = operation limit temperature	Pdh	4,2	kW	Tj = operation limit temperature	COPd	2,58	-
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	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient (**)	Cdh	1,0	-	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0,015	kW	Rated heat output	P _{sup}	0,7	kW
Thermostat-off mode	P _{TO}	0,015	kW	Type of energy input	electrical		
Standby mode	P _{SB}	0,015	kW				
Crankcase heater mode	P _{CK}	-	kW				
Other items							
Capacity control	fixed			For air-to-water heat pumps: Rated air flow rate, outdoors	-	-	m ³ /h
sound power level, indoors/outdoors	L _{WA}	43 / -	dB	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	1	m ³ /h
Emissions of nitrogen oxides	NO _x	-	mg/kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	η_{wh}	94	%
Daily electricity consumption	Q _{elec}	8,115	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				WZS 42H3M			
Air-to-water heat pump: (yes/no)				no			
Brine-to-water heat pump: (yes/no)				yes			
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	6	kW	Seasonal space heating energy efficiency	η_S	190,7	%
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	4,9	kW	Tj = -7°C	COPd	4,87	-
Tj = +2°C	Pdh	5,0	kW	Tj = +2°C	COPd	5,17	-
Tj = +7°C	Pdh	5,0	kW	Tj = +7°C	COPd	5,46	-
Tj = +12°C	Pdh	5,1	kW	Tj = +12°C	COPd	5,54	-
Tj = bivalent temperature	Pdh	4,9	kW	Tj = bivalent temperature	COPd	4,87	-
Tj = operation limit temperature	Pdh	4,9	kW	Tj = operation limit temperature	COPd	4,70	-
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	P _{cyh}	-	kW	Cycling interval efficiency	COP _{cyh}	-	-
Degradation co-efficient (**)	Cdh	1,0	-	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0,015	kW	Rated heat output	P _{sup}	0,7	kW
Thermostat-off mode	P _{TO}	0,015	kW	Type of energy input	electrical		
Standby mode	P _{SB}	0,015	kW				
Crankcase heater mode	P _{CK}	-	kW				
Other items							
Capacity control	fixed			For air-to-water heat pumps: Rated air flow rate, outdoors	-	-	m ³ /h
sound power level, indoors/outdoors	L _{WA}	43 / -	dB	For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	1	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.							