



ENERG

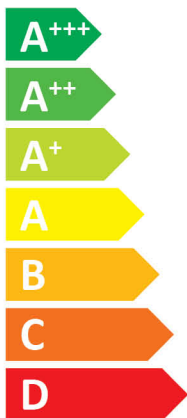
енергия · ενεργεια



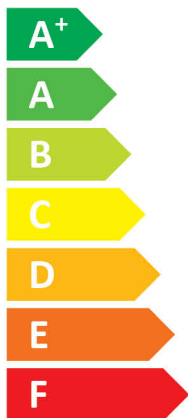
10066241

alpha innotec

WZS 82H3M



A++



A

43 dB

- dB



- 7 kW
- 8 kW**
- 8 kW

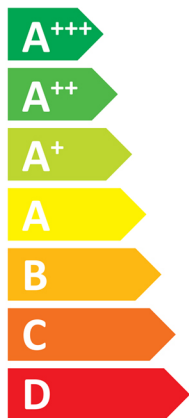


ENERGY

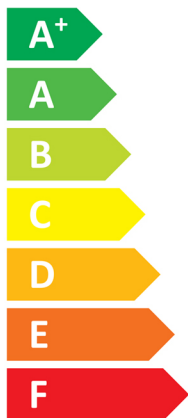
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alpha innotec

WZS 82H3M



A++



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43 dB

- dB



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Y

IJA

IE

IA

10066241

alpha innotec

WZS 82H3M + Luxtronik 2.1

Energy label for heating system showing a boiler icon, a radiator icon, and a tap icon with 'XL' label. The label features two black arrow-shaped boxes: the top one contains 'A++' and the bottom one contains 'A'.

Energy scale for heating system with a radiator icon at the top. The scale consists of horizontal bars of varying lengths, colored from green (A+++) to red (G). A black arrow-shaped box on the right contains 'A++', indicating the system's energy class.

Energy label for hot water system showing a solar panel icon, a hot water tank icon, a control panel icon, and a boiler icon. Each icon is preceded by a blue plus sign and followed by a blue square box. The control panel icon is followed by a blue square box containing a black 'X'.

Energy scale for hot water system with a tap icon and 'XL' label at the top. The scale consists of horizontal bars of varying lengths, colored from green (A+++) to red (G). A black arrow-shaped box on the right contains 'A', indicating the system's energy class.

package (heat pumps and combination heater with heat pump) WZS 82H3M + Luxtronik 2.1

Seasonal space heating energy efficiency of heat pump (η_s)

① 140 %

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

8

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} m²)

(η_{Koll} %)

(V_{Sp} m³)

(standstill heat loss of the hot water storage tank in W)

(η_{Sp} : Table 2)

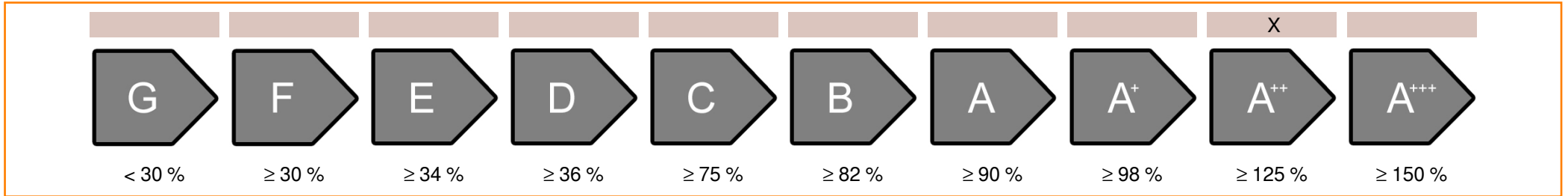
$((294/P_{rated} \times 11) \times (A_{Koll} \text{ m}^2) + (115/P_{rated} \times 11) \times (V_{Sp} \text{ m}^3)) \times 0,45 \times ((\eta_{Koll} \%) / 100) \times (\eta_{Sp}) = +$ ④ %

Seasonal space heating energy efficiency of package

⑤ 144 %

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

145 %

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

140 %

colder ⑤ 144 -V -5 = 149 warmer ⑤ 144 +VI 0 = 144

heatpump datasheet:			
manufacturer:	alpha innotec		
model:	WZS 82H3M		
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:	9	8	kW
annual final energy consumption space heater	3468	4190	kWh
annual electricity consumption waterheating	1566		kWh
energy efficiency space heater:	198	140	%
energy efficiency waterheating	107		%
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	9	7	kW
rated heat output warmer climate	9	8	kW
annual energy consumption space heater colder climate	3991	4813	kWh
annual energy consumption space heater warmer climate	2329	2815	kWh
ann. Electricity consumption waterheating colder climate	1566		kWh
ann. Electricity consumption waterheating warmer climate	1566		kWh
energy efficiency space heater colder climate	204	145	%
energy efficiency space heater warmer climate	198	140	%
energy efficiency waterheating colder climate	107		%
energy efficiency DHWarmer climate	107		%
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 82H3M			
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	8	kW	Seasonal space heating energy efficiency	η_S	140,3	%
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	6,7	kW	Tj = -7°C	COPd	3,13	-
Tj = +2°C	Pdh	7,1	kW	Tj = +2°C	COPd	3,76	-
Tj = +7°C	Pdh	7,3	kW	Tj = +7°C	COPd	4,21	-
Tj = +12°C	Pdh	7,6	kW	Tj = +12°C	COPd	4,63	-
Tj = bivalent temperature	Pdh	6,7	kW	Tj = bivalent temperature	COPd	3,13	-
Tj = operation limit temperature	Pdh	6,5	kW	Tj = operation limit temperature	COPd	2,91	-
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	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0,015	kW	Rated heat output	P _{sup}	1,0	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	-	2	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}	107	%
Daily electricity consumption	Q _{elec}	7,129	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 82H3M			
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	9	kW	Seasonal space heating energy efficiency	η_S	198,1	%
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	7,7	kW	Tj = -7°C	COPd	5,02	-
Tj = +2°C	Pdh	7,8	kW	Tj = +2°C	COPd	5,29	-
Tj = +7°C	Pdh	7,9	kW	Tj = +7°C	COPd	5,54	-
Tj = +12°C	Pdh	8,0	kW	Tj = +12°C	COPd	5,65	-
Tj = bivalent temperature	Pdh	7,7	kW	Tj = bivalent temperature	COPd	5,02	-
Tj = operation limit temperature	Pdh	7,6	kW	Tj = operation limit temperature	COPd	4,88	-
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}	1,1	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	-	2	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.							