

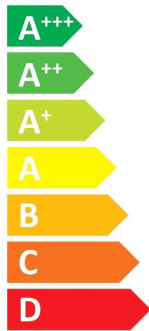
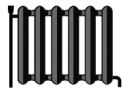


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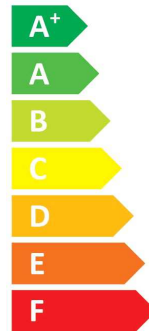
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ALPHA INNOTEC WZSV 122H3M



A+++



A

44 dB

- dB

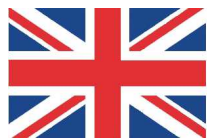


- 12 kW
- 12 kW
- 12 kW



2019

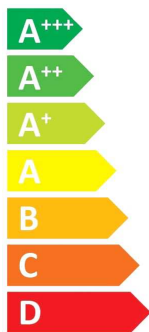
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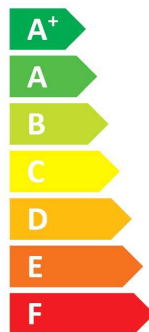
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- 12 kW
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2019

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alpha innotec WZSV 122H3M + Luxtronik 2.1

Energy label for heating system showing a radiator icon, a boiler icon, and a tap icon with 'XL' label. The energy efficiency class is A+++ and the climate class is A.

Energy efficiency scale for heating system. The scale ranges from A+++ (green) to G (red). The current rating is A+++.

Energy label for smart features showing icons for solar panels, water tank, touch control, and boiler. The climate class is X.

Energy efficiency scale for smart features. The scale ranges from A+++ (green) to G (red). The current rating is A.

package (heat pumps and combination heater with heat pump) - WZSV 122H3M + Luxtronik 2.1

Seasonal space heating energy efficiency of heat pump (η_s) ① 157 %

Rated heat output of the heat pump (Prated kW) 12

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

Supplementary boiler package with hot water storage tank no Psup kW (rated heat output of supplementary heater)

η % (sup) $(\eta_s \% (\text{sup}) - ①) \times (\alpha_{WP}) =$ ③

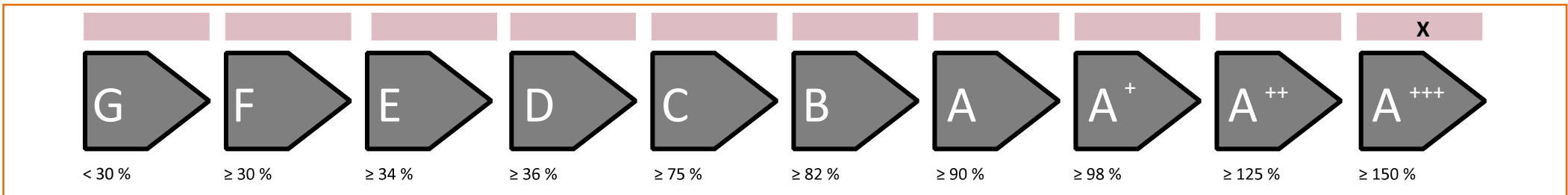
(α_{WE} : see Table 3) (α_{WE})

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 ⑤ 160 %
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 162 %

Seasonal space heating energy efficiency of the heat pump (η_s) under warmer climate conditions 158 %

colder ⑤ 160 -V -6 = 166 warmer ⑤ 160 +VI 1 = 161

heatpump datasheet:			
manufacturer:	alpha innotec		
model:	WZSV 122H3M		
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 water heating	A		
rated heat output:	12	12	kW
annual final energy consumption space heater	4588	6220	kWh
annual electricity consumption water heating	1709		kWh
energy efficiency space heater:	201	157	%
energy efficiency water heating	98		%
sound power level indoors	44		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 under colder climate conditions	12	12	kW
rated heat output under warmer climate conditions	12	12	kW
annual energy consumption space heater under colder climate conditions	5293	7177	kWh
annual energy consumption space heater under warmer climate conditions	2924	3995	kWh
annual electricity consumption water heating under colder climate conditions	1709		kWh
annual electricity consumption water heating under warmer climate conditions	1709		kWh
energy efficiency space heater under colder climate conditions	208	162	%
energy efficiency space heater under warmer climate conditions	204	158	%
energy efficiency water heating under colder climate conditions	98		%
energy efficiency water heating under warmer climate conditions	98		%
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	WZSV 122H3M
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 application: (low/medium)	yes medium
climate: (colder/average/warmer)	average

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output	Prated	12	kW	Seasonal space heating energy efficiency	η_S	156,7	%
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	11,1	kW	Tj = -7°C	COPd	3,18	-
Tj = +2°C	Pdh	6,8	kW	Tj = +2°C	COPd	4,12	-
Tj = +7°C	Pdh	4,4	kW	Tj = +7°C	COPd	4,67	-
Tj = +12°C	Pdh	2,6	kW	Tj = +12°C	COPd	5,06	-
Tj = bivalent temperature	Pdh	12,3	kW	Tj = bivalent temperature	COPd	2,91	-
Tj = operation limit temperature	Pdh	12,3	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}	-10	°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	65	°C

Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0,005	kW	Rated heat output	P _{sup}	0	kW
Thermostat-off mode	P _{TO}	0,015	kW				
Standby mode	P _{SB}	0,007	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Type of energy input				electrical			

Other items				For air-to-water heat pumps: Rated air flow rate, outdoors			
Capacity control	variable			For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger			
sound power level, indoors/outdoors	L _{WA}	44/-	dB	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}	98	%
Daily electricity consumption	Q _{elec}	7,784	kWh	Daily fuel consumption	Q _{fuel}	0	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 s

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model	WZSV 122H3M
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
application: (low/medium)	low
climate: (colder/average/warmer)	average

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output	Prated	12	kW	Seasonal space heating energy efficiency	η_s	200,9	%
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	10,3	kW	Tj = -7°C	COPd	4,52	-
Tj = +2°C	Pdh	6,3	kW	Tj = +2°C	COPd	5,27	-
Tj = +7°C	Pdh	4,1	kW	Tj = +7°C	COPd	5,6	-
Tj = +12°C	Pdh	2,7	kW	Tj = +12°C	COPd	5,78	-
Tj = bivalent temperature	Pdh	11,5	kW	Tj = bivalent temperature	COPd	4,26	-
Tj = operation limit temperature	Pdh	11,5	kW	Tj = operation limit temperature	COPd	4,26	-
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}	-10	°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	-	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0,005	kW	Rated heat output	P _{sup}	0	kW
Thermostat-off mode	P _{TO}	0,015	kW	Type of energy input	electrical		
Standby mode	P _{SB}	0,007	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other items							
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors			m ³ /h
sound power level, indoors/outdoors	L _{WA}	44/-	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 s

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.