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alpha innotec

WZSV 42K3M









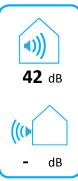


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2019

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alpha innotec

WZSV 42K3M











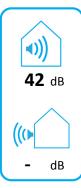
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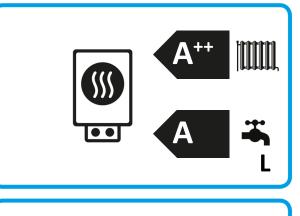


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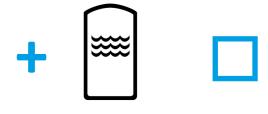
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alpha innotec

WZSV 42K3M + Lux 2.1

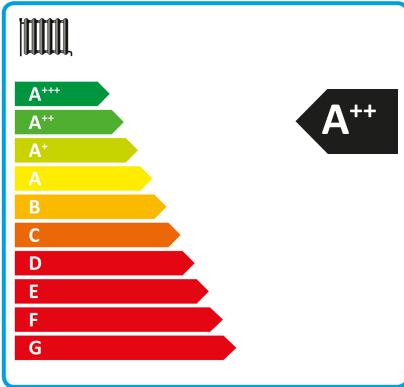


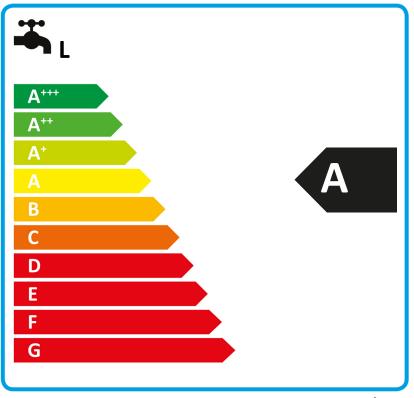


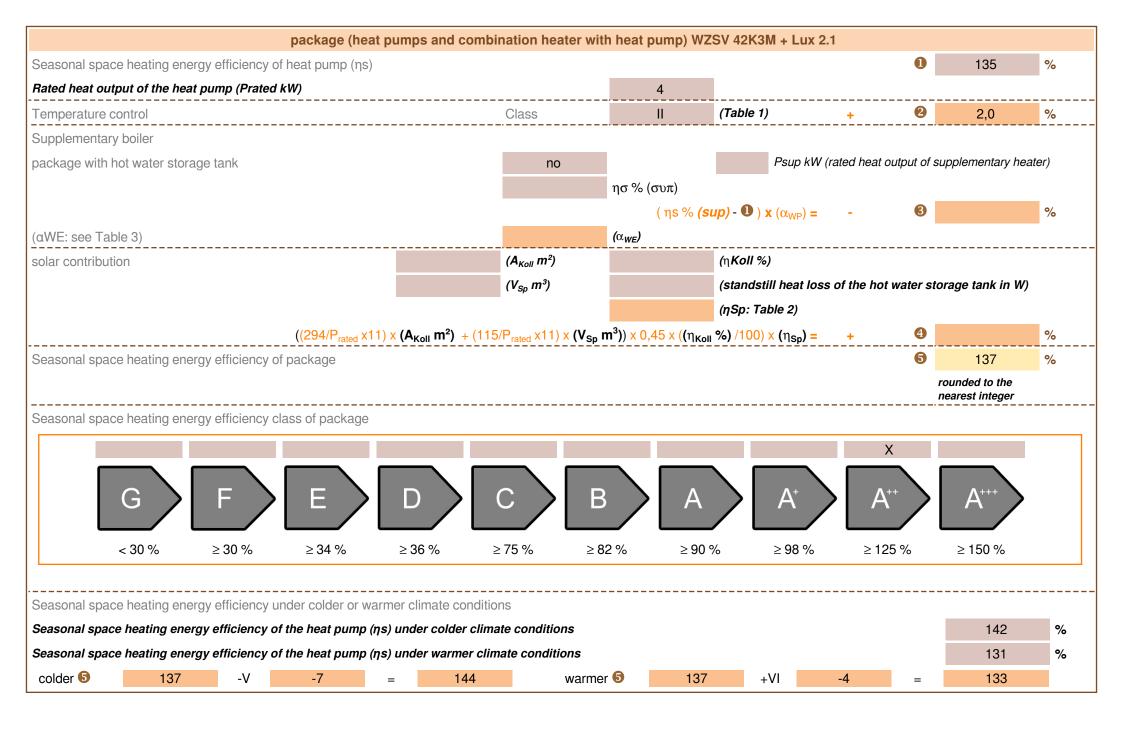












heatpump datasheet:					
manufacturer:	alpha innotec	alpha innotec			
model:	WZSV 42K3M				
Information concerning energy efficiency class and rated	heat output:				
load profile water heating	L	-			
	•				
	average / low	average / medium			
energy efficiency class space heater:	A+++	A++	-		
energy efficiency class waterheating		Ä	-		
rated heat output:	4	4	kW		
annual final energy consumption space heater	1610	2436	kWh		
annual electricity consumption waterheating	1119		kWh		
energy efficiency space heater:	192	135	%		
energy efficiency waterheating	92		%		
			•		
sound power level indoors		42	dB		
			•		
special precautions concerning assembly, installation or n	naintenance				
All instructional work in this manual may only be carried out by qu	ualified specialist personnel in co	ompliance with local regulations	S.		
additional information	low	medium			
rated heat output colder climate	4	4	kW		
rated heat output warmer climate	4	4	kW		
annual energy consumption space heater colder climate	1846	2377	kWh		
annual energy consumption space heater warmer climate	1096	1388	kWh		
ann. Electricity consumption waterheating colder climate	1119		kWh		
ann. Electricity consumption waterheating warmer climate	1119		kWh		
energy effiency space heater colder climate	198	142	%		
energy effiency space heater warmer climate	180	131	%		
energy efficiency waterheating colder climate	92		%		
energy efficiency DHWwarmer climate	92		%		
sound power level outdoors		-	dB		

technical data of the temperature controller							
manufacturer:	alpha innotec Lux 2.1						
model:							
controller class	II	-					
contribution of the controller to the energy efficiency space heater	2,0	%					

Water-to-water heat pump: (yes/no)	Model				WZSV 42K3M			
Mater-to-water heat pump: (yes/no)	Air-to-water heat pump: (yes/no)				no			
Cov-temperature heat pump; (yes/no) yes prombination heater with: (yes/no) yes prombination heater. yes prombination heater with: (yes/no) yes prombination heater. yes prombination heater with: (with the prombination heaters.) yes prombination heater with: (with	Brine-to-water heat pump: (yes/no)				yes			
Equipped with supplementary heater: (yes/ino) yes porbination (low/medium) yes porbination (low/medium) medium porbinate: (colder/average/warmer) average Item	Water-to-water heat pump: (yes/no)				no			
Sembination heater with: (yes/no) Spicial profile (yes/no) Spicial pr	Low-temperature heat pump: (yes/no)				no			
Imitate: (colder/average/warmer) Item Symbol Value Unit Value Seasonal space heating energy efficiency Declared coefficient of performance for part load at Indoor temperature 20°C and outdoor temperature Tj Tj = 7°C Peth 3,6 kW Tj = -7°C COPd 3,04 - Temperature 20°C and outdoor temperature Tj Tj = 7°C Peth 1,5 kW Tj = +2°C Peth 1,5 kW Tj = +1°C Peth 3,6 kW Tj = +1°C COPd 3,98 - Tj = +2°C COPd 3,98 - Tj = +2°C COPd 3,98 - Tj = bivalent temperature Pdh 1,5 kW Tj = ±1°C COPd 3,98 - Tj = bivalent temperature Pdh 3,5 kW Tj = ±1°C COPd 3,98 - Tj = bivalent temperature Pdh 3,5 kW Tj = ±1°C COPd 3,98 - Tj = bivalent temperature Pdh 3,5 kW Tj = ±1°C COPd 3,98 - Tj = −15°C (If ToL < 20°C) Saladant temperature Pdh 3,5 kW Tj = ±1°C COPd 3,04 - Tj = bivalent temperature Pdh 3,5 kW Tj = copration limit temperature COPd 3,04 - Tj = −15°C (If ToL < 20°C) Saladant temperature Pdh 3,5 kW Tj = copration limit temperature COPd 2,81 - Ts - 15°C (If ToL < 20°C) Cycling interval capacity for Pcych	Equipped with supplementary heater: (yes/no)				yes			
Symbol Value Unit Item Symbol Value Unit Unit Value Unit	combination heater with: (yes/no)				yes			
Name	application: (low/medium)				medium			
Rated heat output Prated 4 kW Seasonal space heating energy efficiency energy efficiency Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj Tj = 7°C Pdh 3,6 kW Tj = 7°C OPd 3,04 - Tj = 4°C Pdh 2,2 kW Tj = 4°C OPd 3,04 - Tj = 12°C OPd 3	climate: (colder/average/warmer)				average			
Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature T]	Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
	Rated heat output	Prated	4	kW		ηS	134,5	%
$T_j = +2 ^\circ \text{C} \qquad \text{Pdh} \qquad 2,2 \qquad \text{kW} \qquad T_j = +2 ^\circ \text{C} \qquad \text{COPd} \qquad 3,60 \qquad - \\ T_j = +7 ^\circ \text{C} \qquad \text{Pdh} \qquad 1,5 \qquad \text{kW} \qquad T_j = +7 ^\circ \text{C} \qquad \text{COPd} \qquad 3,98 \qquad - \\ T_j = +12 ^\circ \text{C} \qquad \text{Pdh} \qquad 1,4 \qquad \text{kW} \qquad T_j = +7 ^\circ \text{C} \qquad \text{COPd} \qquad 3,98 \qquad - \\ T_j = \text{bivalent temperature} \qquad \text{Pdh} \qquad 3,6 \qquad \text{kW} \qquad T_j = \text{bivalent temperature} \qquad \text{COPd} \qquad 3,04 \qquad - \\ T_j = \text{operation limit temperature} \qquad \text{Pdh} \qquad 3,5 \qquad \text{kW} \qquad T_j = \text{operation limit temperature} \qquad \text{COPd} \qquad 3,04 \qquad - \\ T_j = \text{operation limit temperature} \qquad \text{Pdh} \qquad 3,5 \qquad \text{kW} \qquad T_j = \text{operation limit temperature} \qquad \text{COPd} \qquad 3,04 \qquad - \\ T_j = \text{operation limit temperature} \qquad \text{Pdh} \qquad 3,5 \qquad \text{kW} \qquad T_j = \text{operation limit temperature} \qquad \text{COPd} \qquad 3,04 \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} < -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} < -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} < -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} < -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} < -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} < -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} < -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} < -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} < -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = -15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = 15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = 15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = 15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = 15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = 15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = 15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = 15 ^\circ \text{C} \text{(if TOL} -20 ^\circ \text{C}) \qquad - \\ T_j = 15 ^\circ \text{C} (if TOL$				indoor				indoor
$T] = +7^{\circ}C \qquad Pdh \qquad 1,5 \qquad kW \qquad T] = +7^{\circ}C \qquad COPd \qquad 3,98 \qquad -T] = +12^{\circ}C \qquad Pdh \qquad 1,4 \qquad kW \qquad T] = +12^{\circ}C \qquad COPd \qquad 4,72 \qquad -T] = bivalent temperature \qquad Pdh \qquad 3,6 \qquad kW \qquad T] = +12^{\circ}C \qquad COPd \qquad 4,72 \qquad -T] = bivalent temperature \qquad Pdh \qquad 3,6 \qquad kW \qquad T] = operation limit temperature \qquad COPd \qquad 3,04 \qquad -T] = 0 possible temperature \qquad Pdh \qquad 3,5 \qquad kW \qquad T] = operation limit temperature \qquad COPd \qquad 2,81 \qquad -T] = 0 possible temperature \qquad Pdh \qquad 3,5 \qquad kW \qquad T] = operation limit temperature \qquad COPd \qquad 2,81 \qquad -T] = 0 possible temperature \qquad Pdh \qquad 3,5 \qquad kW \qquad T] = operation limit temperature \qquad COPd \qquad 2,81 \qquad -T] = 0 possible temperature \qquad Pdh \qquad 3,5 \qquad kW \qquad T] = operation limit temperature \qquad COPd \qquad 2,81 \qquad -T] = 0 possible temperature \qquad Possible temperature \qquad COPd \qquad -T] = 0 possible temperature = 0 possible temperatu$	Tj = -7°C	Pdh	3,6	kW	Tj = -7°C	COPd	3,04	-
Tj = +12°C Pdh 1,4 kW Tj = +12°C COPd 4,72 - Tj = bivalent temperature Pdh 3,6 kW Tj = bivalent temperature COPd 3,04 - Tj = operation limit temperature Pdh 3,5 kW Tj = bivalent temperature COPd 2,81 - Tj = operation limit temperature Pdh 3,5 kW Tj = operation limit temperature COPd 2,81 - Tj = operation limit temperature Pdh 3,5 kW Tj = operation limit temperature COPd 2,81 - Tj = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -20°C) Pdh - T = -15°C (if TOL < -0°C Pdh - T = -15°C (if TOL < -0°C Pdh - T = -15°C (if TOL <	Tj = +2°C	Pdh	2,2	kW	Tj = +2°C	COPd	3,60	-
Tj = bivalent temperature Pdh 3,6 kW Tj = bivalent temperature COPd 3,04 - Tj = operation limit temperature Pdh 3,5 kW Tj = operation limit temperature COPd 2,81 - Tj = operation limit temperature Pdh 3,5 kW Tj = operation limit temperature COPd 2,81 - Tor air-to-water heat pumps: Tj	Tj = +7°C	Pdh	1,5	kW	Tj = +7°C	COPd	3,98	-
Tj = operation limit temperature Pdh 3,5 kW Tj = operation limit temperature COPd 2,81 - For air-to-water heat pumps: Tj = 15°C (if TOL < -20°C) Bivalent temperature Tbiw -7 °C For air-to-water heat pumps: Tj = 15°C (if TOL < -20°C) Bivalent temperature Tbiw -7 °C For air-to-water heat pumps: Tj = 15°C (if TOL < -20°C) Cycling interval capacity for Pcych - kW Cycling interval efficiency COPcyc oneating Degradation co-efficient (**) Cdh 1,0 - Heating water operating limit temperature Degradation co-efficient (**) Cdh 1,0 - Heating water operating limit tomperature Defined Poff O,012 kW Rated heat output Psup 0,7 kW Thermostat-off mode Poff O,044 kW Type of energy input electrical Standby mode Psus 0,012 kW Type of energy input electrical Capacity control Variable For air-to-water heat pumps: Rated air flow rate, outdoors Capacity control Variable For air-to-water heat pumps: Rated brine or water flow rate, outdoors Capacity control Variable For air-to-water heat pumps: Rated brine or water flow rate, outdoors Emissions of nitrogen oxides NO _X - mg/kWh For heat pump combination heater: Declared load profile L Water heating energy efficiency Noha 10 mg/km Divider items Air to water heat pumps are flowers and heat pump combination heaters. Declared load profile L Water heating energy efficiency Noha 10 mg/km Type of energy input electrical Emissions of nitrogen oxides NO _X - mg/kWh For heat pump combination heater: Declared load profile L Water heating energy efficiency Noha 10 mg/km Declared load profile L Water heating energy efficiency Noha 10 mg/km Type of energy input electrical energy efficiency Noha 10 mg/km Type of energy input electrical energy efficiency Noha 10 mg/km Type of energy input electrical energy efficiency Noha 10 mg/km Type of energy input electrical energy efficiency Noha 10 mg/km Type of energy input electrical energy	Tj = +12°C	Pdh	1,4	kW	Tj = +12°C	COPd	4,72	-
For air-to-water heat pumps: Tj = -15° C (if TOL < -20°C) Bivalent temperature T biv	Tj = bivalent temperature	Pdh	3,6	kW	Tj = bivalent temperature	COPd	3,04	-
= -15 °C (if TOL < -20 °C) Bivalent temperature T _{biv} -7 °C For air-to-water heat pumps: Operation limit temperature Cycling interval capacity for electing Degradation co-efficient (**) Cycling interval efficiency Explose interval efficiency Cycling interval efficiency Cycling interval efficiency Explose interval efficiency Cycling interval efficiency Explose interval efficiency Cycling interval efficiency Explose interval efficienc	Tj = operation limit temperature	Pdh	3,5	kW	Tj = operation limit temperature	COPd	2,81	-
Operation limit temperature Operation limit limitalis Operature Operature Operature Operature Operature Operature Operature Operature	For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C)	Pdh	-	kW		COPd	-	-
Degradation co-efficient (**) Cdh 1,0	Bivalent temperature	T _{biv}	-7	°C	• •	TOL	-10	°C
Power consumption in modes other than active mode Off mode Poff Off energy input Poff energy inp	Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-
Off mode	Degradation co-efficient (**)	Cdh	1,0	-		WTOL	55	°C
Thermostat-off mode	Power consumption in modes	other than	n active mod	e	Supplementary heater			
Thermostat-off mode	Off mode	P _{OFF}	0,012	kW	Rated heat output	Psup	0,7	kW
Standby mode	Thermostat-off mode		0,044	kW	Type of energy input		electrical	
Capacity control Variable Rated air flow rate, outdoors Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors NO _X Mater heating energy efficiency Poally electricity consumption Qelec S,250 RWh Daily fuel consumption Qfuel Ait deutschland GmbH, Industriestr. 3, 95359 Kasendorf, Germany Poesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).	Standby mode		0,012	kW				
Capacity control Variable For air-to-water heat pumps: Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors NO _X Maked air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated air flow rate, outdoors NO _X Maked air flow rate, outdoors NO _X Maked air flow rate, outdoors NO _X	Crankcase heater mode	P _{CK}	-	kW				
Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile L Water heating energy efficiency April 1 m³/h Water heating energy efficiency April 2 mg/kWh Daily fuel consumption Ofuel KWh Contact details Ait deutschland GmbH, Industriestr. 3, 95359 Kasendorf, Germany Pedesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).	Other items							
pumps: Rated brine or water flow rate, outdoor heat exchanger Emissions of nitrogen oxides NO _X - mg/kWh For heat pump combination heater: Declared load profile L Water heating energy efficiency η_{wh} 92 % Daily electricity consumption Q_{elec} 5,250 kWh Daily fuel consumption Qfuel - 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).	Capacity control	variable				-	-	m ³ /h
For heat pump combination heater: Declared load profile L Water heating energy efficiency \$\emptyreup \text{M} \text{92} \text{%} \text{Daily fuel consumption} \text{Qfuel} - \text{kWh} \text{Contact details} \text{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).	sound power level, indoors/outdoors	L _{WA}	42 / -	dB	pumps: Rated brine or water flow rate, outdoor heat	-	1	m ³ /h
Declared load profile L Water heating energy efficiency \$\emptyreup \text{Number of the profile} \text{Wh} \text{ Water heating energy efficiency} \text{Number of the profile} Numbe	Emissions of nitrogen oxides	NO _X	-	mg/kWh				
Daily electricity consumption Qelec 5,250 kWh Daily fuel consumption Qfuel - 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).	For heat pump combination h	eater:						
Daily electricity consumption Q _{elec} 5,250 kWh Daily fuel consumption Qfuel - 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).	Declared load profile		L		Water heating energy efficiency	η_{wh}	92	%
(*) 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).	Daily electricity consumption	Q _{elec}	5,250	kWh		<u> </u>	-	kWh
Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).	Contact details	ait deutsch	land GmbH, I	ndustriestr. 3	3, 95359 Kasendorf, Germany	•	-	-
								eating
	<u> </u>		-					

Model				WZSV 42K3M				
Air-to-water heat pump: (yes/no)				no	no			
Brine-to-water heat pump: (yes/no)				yes	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	low			
climate: (colder/average/warmer))			average				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output	Prated	4	kW	Seasonal space heating energy efficiency	ηS	192,2	%	
Declared coefficient of perfor temperature 20°C and outdoor			indoor	Declared coefficient of perfor temperature 20°C and outdoor			indoor	
Tj = -7°C	Pdh	3,5	kW	Tj = -7°C	COPd	4,44	-	
Tj = +2°C	Pdh	2,1	kW	Tj = +2°C	COPd	5,18	-	
Tj = +7°C	Pdh	1,4	kW	Tj = +7°C	COPd	5,59	-	
Tj = +12°C	Pdh	1,4	kW	Tj = +12°C	COPd	5,85	-	
Tj = bivalent temperature	Pdh	3,9	kW	Tj = bivalent temperature	COPd	4,34	-	
Tj = operation limit temperature	Pdh	3,9	kW	Tj = operation limit temperature	COPd	4,34	-	
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	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-	
Degradation co-efficient (**)	Cdh	1,0	-	Heating water operating limit temperature	WTOL	55	°C	
Power consumption in modes	other than	active mod	e	Supplementary heater	•			
Off mode	P _{OFF}	0,012	kW	Rated heat output	Psup	-	kW	
Thermostat-off mode	P _{TO}	0,044	kW	Type of energy input		electrical	•	
Standby mode	P _{SB}	0,012	kW					
Crankcase heater mode	P _{CK}	-	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}	42 / -	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 h	eater:							
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%	
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Qfuel	-	kWh	
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				the rated heat output Prated is equ equal to the supplementary capac			eating	
				tion coefficient is Cdh = 0,9.				