



**ENERG**  
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10777041

CTA

127510 Aeroheat AH CI 8is

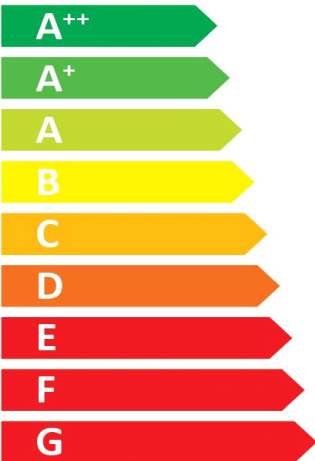


55 °C

35 °C

**A++**

**A++**



**48 dB**

**44 dB**

■ 5	■ 7
■ <b>6</b>	■ <b>7</b>
■ 6	■ 4
kW	kW

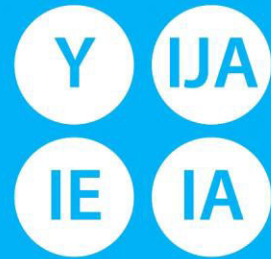
2015

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# ENERG

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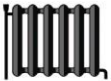




55°C





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**Package (heat pumps and combination heater with heat pump)**

Seasonal space heating energy efficiency of heat pump ( $\eta_S$ ) ① 137 %

Rated output of the heat pump ( $P_{rated}$  kW) 5.70

Temperature control Class VII (Table 1) + ② 3.5 %

Supplementary boiler

Package with hot water storage tank no  $P_{sup}$  kW (rated output of supplementary heater)

$\eta_S$  % (sup) = - ③ %

$(\eta_S \% (sup) - ①) \times (\alpha_{WE})$

$(\alpha_{WE})$

Solar contribution  $(A_{Koll} m^2)$   $(\eta_{Koll} \%)$

$(V_{Sp} m^3)$  **(standstill heat loss of the storage tank in W)**

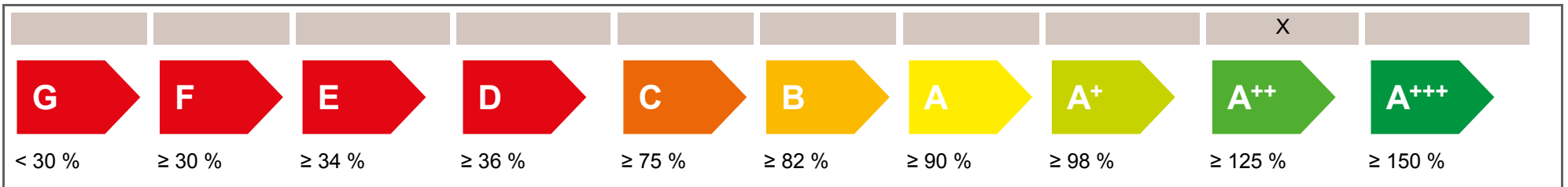
$(\eta_{Sp})$

$((294/(P_{rated} \times 11)) \times (A_{Koll} m^2) + (115/(P_{rated} \times 11)) \times (V_{Sp} m^3)) \times 0.45 \times ((\eta_{Koll} \%) / 100) \times (\eta_{Sp})$  = + ④ %

Seasonal space heating energy efficiency of package under average climate ⑤ 141 %

*rounded to the nearest integer*


Seasonal space heating energy efficiency class of package under average climate





Seasonal space heating energy efficiency under colder and warmer climate conditions

colder	95 %		colder	⑤	141	-V	42	=	99 %
warmer	164 %		warmer	⑤	141	+VI	27	=	168 %

The energy efficiency of the package of products provided for in this fiche may not correspond to its actual energy efficiency once installed in a building, as the efficiency is influenced by further factors such as heat loss in the distribution system and the dimensioning of the products in relation to building size and characteristics.

<b>Product fiche</b>		 <b>AC Cooling Heating</b>	
<b>Manufacturer</b>	CTA AG		
<b>Model</b>	AH CI 8is		
<b>Information on energy efficiency class and rated output</b>			
	Average / Low temperature	Average / Medium temperature	
Space heating energy efficiency class	A++	A++	-
Rated heat output	6.70	5.70	kW
Seasonal space heating energy efficiency	183	137	%
Annual final energy consumption space heating	2949	3321	kWh
Sound power level indoors	48		dB
<b>Special precautions during assembly, installation or maintenance</b>			
see installation and maintenance instructions			
<b>Additional information</b>			
	Low temperature	Medium temperature	
Rated heat output colder climate	6.50	5.00	kW
Rated heat output warmer climate	4.10	5.50	kW
Seasonal space heating energy efficiency colder climate	160	95	%
Seasonal space heating energy efficiency warmer climate	236	164	%
Annual final energy consumption colder climate	3945	5036	kWh
Annual final energy consumption warmer climate	915	1761	kWh
Sound power level outdoors	44		dB
<b>Technical data of the temperature controller</b>			
<b>Manufacturer</b>	ait		
<b>Model</b>	Aeroplus 2.1		
Class of the controller	VII		-
Contribution of the controller to seasonal space heating energy efficiency	3.5		%
<b>Contact</b>	CTA AG, Hunzigenstrasse 2, CH-3110 Münsingen		

<b>Model</b>				<b>AH CI 8is</b>				
Brine-to-water heat pump: (Yes/No)				No				
Water-to-water heat pump: (Yes/No)				No				
Air-to-water heat pump: (Yes/No)				Yes				
Low temperature heat pump: (Yes/No)				No				
Equipped with supplementary heater: (Yes/No)				Yes				
Heat pump combination heater: (Yes/No)				No				
Application: (Low temperature/Medium temperature)				Medium temperature				
Climate: (Colder/Average/Warmer)				Average				
<b>Item</b>	<b>Symbol</b>	<b>Value</b>	<b>Unit</b>	<b>Item</b>	<b>Symbol</b>	<b>Value</b>	<b>Unit</b>	
Rated heat output	Prated	5.70	kW	Seasonal space heating energy efficiency	$\eta_S$	137	%	
<b>Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj</b>				<b>Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj</b>				
Tj = -7°C	Pdh	5.00	kW	Tj = -7°C	COPd	2.31	-	
Tj = +2°C	Pdh	3.50	kW	Tj = +2°C	COPd	3.43	-	
Tj = +7°C	Pdh	3.00	kW	Tj = +7°C	COPd	4.86	-	
Tj = +12°C	Pdh	3.40	kW	Tj = +12°C	COPd	6.56	-	
Tj = biv	Pdh	5.00	kW	Tj = biv	COPd	2.31	-	
Tj = TOL	Pdh	4.20	kW	Tj = TOL	COPd	2.12	-	
Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	Tj = -15°C if TOL < -20°C)	COPd	-	-	
Bivalent temperature	T <sub>biv</sub>	-7	°C	Operation limit temperature	TOL	-10	°C	
Cycling interval capacity for heating	P <sub>cy</sub>	-	kW	Cycling interval efficiency	COP <sub>cy</sub>	-	-	
Degradation co-efficient	Cdh	1	-	Heating water operating limit temperature	WTOL	60	°C	
<b>Power consumption in modes other than active mode</b>				<b>Supplementary heater</b>				
Off mode	P <sub>OFF</sub>	0.02	kW	Rated heat output	P <sub>sup</sub>	1.5	kW	
Thermostat-off mode	P <sub>TO</sub>	0.02	kW	Type of energy input	electric			
Standby mode	P <sub>SB</sub>	0.02	kW					
Crankcase heater mode	P <sub>CK</sub>	0	kW					
<b>Other items</b>								
Capacity control	variable			Rated air flow rate, outdoors	-	2500	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	48/44	dB	Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h	
Emissions of nitrogen oxides	NO <sub>x</sub>	-	mg/kWh					
<b>For heat pump combination heater</b>								
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%	
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh	
<b>Contact</b>	CTA AG, Hunzigenstrasse 2, CH-3110 Münsingen							

<b>Model</b>				<b>AH CI 8is</b>				
Brine-to-water heat pump: (Yes/No)				No				
Water-to-water heat pump: (Yes/No)				No				
Air-to-water heat pump: (Yes/No)				Yes				
Low temperature heat pump: (Yes/No)				No				
Equipped with supplementary heater: (Yes/No)				Yes				
Heat pump combination heater: (Yes/No)				No				
Application: (Low temperature/Medium temperature)				Low temperature				
Climate: (Colder/Average/Warmer)				Average				
<b>Item</b>	<b>Symbol</b>	<b>Value</b>	<b>Unit</b>	<b>Item</b>	<b>Symbol</b>	<b>Value</b>	<b>Unit</b>	
Rated heat output	Prated	6.70	kW	Seasonal space heating energy efficiency	$\eta_S$	183	%	
<b>Declared capacity for heating for part load at indoor temperature 20°C and outdoor temperature Tj</b>				<b>Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj</b>				
Tj = -7°C	Pdh	5.90	kW	Tj = -7°C	COPd	3.26	-	
Tj = +2°C	Pdh	3.80	kW	Tj = +2°C	COPd	4.70	-	
Tj = +7°C	Pdh	3.30	kW	Tj = +7°C	COPd	5.96	-	
Tj = +12°C	Pdh	3.40	kW	Tj = +12°C	COPd	7.92	-	
Tj = biv	Pdh	5.90	kW	Tj = biv	COPd	3.26	-	
Tj = TOL	Pdh	5.10	kW	Tj = TOL	COPd	3.18	-	
Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	Tj = -15°C if TOL < -20°C)	COPd	-	-	
Bivalent temperature	T <sub>biv</sub>	-7	°C	Operation limit temperature	TOL	-10	°C	
Cycling interval capacity for heating	P <sub>cy</sub>	-	kW	Cycling interval efficiency	COP <sub>cy</sub>	-	-	
Degradation co-efficient	Cdh	1	-	Heating water operating limit temperature	WTOL	60	°C	
<b>Power consumption in modes other than active mode</b>				<b>Supplementary heater</b>				
Off mode	P <sub>OFF</sub>	0.02	kW	Rated heat output	P <sub>sup</sub>	1.6	kW	
Thermostat-off mode	P <sub>TO</sub>	0.02	kW	Type of energy input	electric			
Standby mode	P <sub>SB</sub>	0.02	kW					
Crankcase heater mode	P <sub>CK</sub>	0	kW					
<b>Other items</b>								
Capacity control	variable			Rated air flow rate, outdoors	-	2500	m <sup>3</sup> /h	
Sound power level, indoors/outdoors	L <sub>WA</sub>	48/44	dB	Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h	
Emissions of nitrogen oxides	NO <sub>x</sub>	-	mg/kWh					
<b>For heat pump combination heater</b>								
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%	
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh	
<b>Contact</b>	CTA AG, Hunzigenstrasse 2, CH-3110 Münsingen							