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107601HMD02

CTA

127579 Aeroheat CN 5A-HM1

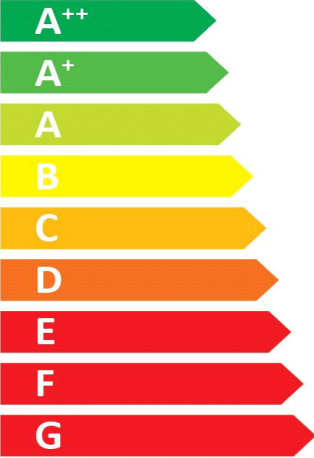


55 °C

35 °C

A++

A++



44 dB



57 dB

■ 5
■ 5
■ 7

kW

■ 6
■ 6
■ 7

kW



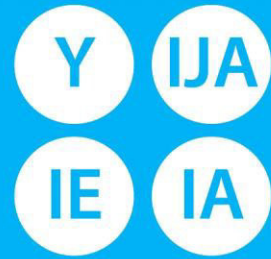
2015

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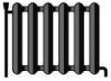




55°C


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127579 Aeroheat CN 5A-HM1








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Package (heat pumps and combination heater with heat pump)										
Seasonal space heating energy efficiency of heat pump (η_S)							1	125	%	
Rated output of the heat pump (P_{rated} kW)								5.00		
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)				
				η_S % (sup)						
				$(\eta_S \text{ % (sup)} - 1) \times (\alpha_{WE})$		=	-	3	%	
				(α_{WE})						
Solar contribution										
		$(A_{Koll} \text{ m}^2)$		$(\eta_{Koll} \text{ %})$						
		$(V_{Sp} \text{ m}^3)$		(standstill heat loss of the storage tank in W)						
				(η_{Sp})						
				$((294/(P_{rated} \times 11)) \times (A_{Koll} \text{ m}^2) + (115/(P_{rated} \times 11)) \times (V_{Sp} \text{ m}^3)) \times 0.45 \times ((\eta_{Koll} \text{ %}) / 100) \times (\eta_{Sp})$		=	+	4	%	
Seasonal space heating energy efficiency of package under average climate							5	129	%	
<i>rounded to the nearest integer</i>										
Seasonal space heating energy efficiency class of package under average climate										
Seasonal space heating energy efficiency under colder and warmer climate conditions										
colder	113	%	colder	5	129	-V	12	=	117	%
warmer	160	%	warmer	5	129	+VI	35	=	164	%

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.

Product fiche		 AC Cooling Heating	
Manufacturer	CTA AG		
Model	AH CN 5a and HM1		
Information on energy efficiency class and rated output			
	Average / Low temperature	Average / Medium temperature	
Space heating energy efficiency class	A++	A++	-
Rated heat output	6.00	5.00	kW
Seasonal space heating energy efficiency	163	125	%
Annual final energy consumption space heating	2981	3226	kWh
Sound power level indoors	44		dB
Special precautions during assembly, installation or maintenance			
see installation and maintenance instructions			
Additional information			
	Low temperature	Medium temperature	
Rated heat output colder climate	6.00	5.00	kW
Rated heat output warmer climate	7.00	7.00	kW
Seasonal space heating energy efficiency colder climate	146	113	%
Seasonal space heating energy efficiency warmer climate	197	160	%
Annual final energy consumption colder climate	3958	4270	kWh
Annual final energy consumption warmer climate	1872	2287	kWh
Sound power level outdoors	57		dB
Technical data of the temperature controller			
Manufacturer	ait		
Model	Aeroplus 2.1		
Class of the controller	VII		-
Contribution of the controller to seasonal space heating energy efficiency	3.5		%
Contact	CTA AG, Hunzigenstrasse 2, CH-3110 Münsingen		

Model				AH CN 5a and HM1				
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				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output	Prated	5.00	kW	Seasonal space heating energy efficiency	η_S	125	%	
Declared capacity for heating 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	4.00	kW	Tj = -7°C	COPd	1.99	-	
Tj = +2°C	Pdh	5.40	kW	Tj = +2°C	COPd	3.18	-	
Tj = +7°C	Pdh	7.10	kW	Tj = +7°C	COPd	4.65	-	
Tj = +12°C	Pdh	7.90	kW	Tj = +12°C	COPd	5.97	-	
Tj = biv	Pdh	4.30	kW	Tj = biv	COPd	2.24	-	
Tj = TOL	Pdh	3.60	kW	Tj = TOL	COPd	1.74	-	
Tj = -15°C (if TOL < -20°C)	Pdh	2.90	kW	Tj = -15°C if TOL < -20°C)	COPd	1.38	-	
Bivalent temperature	T _{biv}	-5	°C	Operation limit temperature	TOL	-20	°C	
Cycling interval capacity for heating	P _{cy}	-	kW	Cycling interval efficiency	COP _{cy}	-	-	
Degradation co-efficient	Cdh	1	-	Heating water operating limit temperature	WTOL	62	°C	
Power consumption in modes other than active mode				Supplementary heater				
Off mode	P _{OFF}	0.015	kW	Rated heat output	P _{sup}	1.8	kW	
Thermostat-off mode	P _{TO}	0.015	kW	Type of energy input	electric			
Standby mode	P _{SB}	0.015	kW					
Crankcase heater mode	P _{CK}	0	kW					
Other items								
Capacity control	fixed			Rated air flow rate, outdoors	-	3000	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	44/57	dB	Rated brine or water flow rate, outdoor heat exchanger	-	-	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	CTA AG, Hunzigenstrasse 2, CH-3110 Münsingen							

Model				AH CN 5a and HM1				
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				
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit	
Rated heat output	Prated	6.00	kW	Seasonal space heating energy efficiency	η_S	163	%	
Declared capacity for heating 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	4.70	kW	Tj = -7°C	COPd	3.27	-	
Tj = +2°C	Pdh	5.60	kW	Tj = +2°C	COPd	4.20	-	
Tj = +7°C	Pdh	7.20	kW	Tj = +7°C	COPd	5.29	-	
Tj = +12°C	Pdh	8.00	kW	Tj = +12°C	COPd	6.14	-	
Tj = biv	Pdh	4.90	kW	Tj = biv	COPd	3.51	-	
Tj = TOL	Pdh	4.20	kW	Tj = TOL	COPd	2.96	-	
Tj = -15°C (if TOL < -20°C)	Pdh	3.60	kW	Tj = -15°C if TOL < -20°C)	COPd	2.48	-	
Bivalent temperature	T _{biv}	-5	°C	Operation limit temperature	TOL	-20	°C	
Cycling interval capacity for heating	P _{cy}	-	kW	Cycling interval efficiency	COP _{cy}	-	-	
Degradation co-efficient	Cdh	1	-	Heating water operating limit temperature	WTOL	62	°C	
Power consumption in modes other than active mode				Supplementary heater				
Off mode	P _{OFF}	0.015	kW	Rated heat output	P _{sup}	1.8	kW	
Thermostat-off mode	P _{TO}	0.015	kW	Type of energy input	electric			
Standby mode	P _{SB}	0.015	kW					
Crankcase heater mode	P _{CK}	0	kW					
Other items								
Capacity control	fixed			Rated air flow rate, outdoors	-	3000	m ³ /h	
Sound power level, indoors/outdoors	L _{WA}	44/57	dB	Rated brine or water flow rate, outdoor heat exchanger	-	-	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	CTA AG, Hunzigenstrasse 2, CH-3110 Münsingen							