

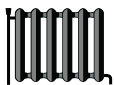


ENERG

енергия · ενεργεια



| Klima · Kälte · Wärme || B11113 OH 1-44e Duo S/W



55 °C

35 °C



68 dB



--- dB


■ 40
■ **40**
■ 40
kW


■ 44
■ **44**
■ 44
kW




Package (heat pumps and combination heater with heat pump)											
Seasonal space heating energy efficiency of heat pump (η_S)							1	147	%		
Rated output of the heat pump (P_{rated} kW)							40.00				
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											
				$(A_{Koll} \text{ m}^2)$			$(\eta_{Koll} \text{ %})$				
				$(V_{Sp} \text{ m}^3)$			$(standstill \text{ heat loss of the storage tank in W})$				
							(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	151	%		
<i>rounded to the nearest integer</i>											
Seasonal space heating energy efficiency class of package under average climate											
X											
G	F	E	D	C	B	A	A+	A++	A+++		
< 30 %	≥ 30 %	≥ 34 %	≥ 36 %	≥ 75 %	≥ 82 %	≥ 90 %	≥ 98 %	≥ 125 %	≥ 150 %		
Seasonal space heating energy efficiency under colder and warmer climate conditions											
colder	148	%		colder	5	151	-V	-1	=	152	%
warmer	143	%		warmer	5	151	+VI	-4	=	147	%

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	OH 1-44e Duo B/W		
Information on energy efficiency class and rated output			
	Average / Low temperature	Average / Medium temperature	
Space heating energy efficiency class	A+++	A++	-
Rated heat output	43.50	40.00	kW
Seasonal space heating energy efficiency	191	147	%
Annual final energy consumption space heating	17977	21271	kWh
Sound power level indoors	68		dB
Special precautions during assembly, installation or maintenance			
All instructional work in the installation and maintenance manual may only be carried out by qualified specialist personnel in compliance with local regulations. Any special precautions can be found in the manual on the website www.cta.ch			
Additional information			
	Low temperature	Medium temperature	
Rated heat output colder climate	43.50	40.00	kW
Rated heat output warmer climate	43.50	40.00	kW
Seasonal space heating energy efficiency colder climate	200	148	%
Seasonal space heating energy efficiency warmer climate	195	143	%
Annual final energy consumption colder climate	20587	25302	kWh
Annual final energy consumption warmer climate	11388	14105	kWh
Sound power level outdoors	-		dB
Technical data of the temperature controller			
Manufacturer	Siemens		
Model	RVS 61		
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				OH 1-44e Duo B/W						
Brine-to-water heat pump: (Yes/No)				Yes						
Water-to-water heat pump: (Yes/No)				No						
Air-to-water heat pump: (Yes/No)				No						
Low temperature heat pump: (Yes/No)				No						
Equipped with supplementary heater: (Yes/No)				No						
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	40.00	kW	Seasonal space heating energy efficiency	η_S	147	%			
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	40.40	kW	Tj = -7°C	COPd	3.04	-			
Tj = +2°C	Pdh	21.10	kW	Tj = +2°C	COPd	3.86	-			
Tj = +7°C	Pdh	21.50	kW	Tj = +7°C	COPd	4.32	-			
Tj = +12°C	Pdh	21.90	kW	Tj = +12°C	COPd	4.88	-			
Tj = biv	Pdh	40.00	kW	Tj = biv	COPd	2.91	-			
Tj = TOL	Pdh	40.00	kW	Tj = TOL	COPd	2.91	-			
Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	Tj = -15°C if TOL < -20°C)	COPd	-	-			
Bivalent temperature	T _{biv}	-10	°C	Operation limit temperature	TOL	-10	°C			
Cycling interval capacity for heating	P _{cy}	-	kW	Cycling interval efficiency	COP _{cy}	-	-			
Degradation co-efficient	Cdh	0.9	-	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}	-	kW			
Thermostat-off mode	P _{TO}	0.015	kW	Type of energy input	-					
Standby mode	P _{SB}	0.015	kW							
Crankcase heater mode	P _{CK}	0	kW							
Other items										
Capacity control	fixed			Rated air flow rate, outdoors	-	-	m ³ /h			
Sound power level, indoors/outdoors	L _{WA}	68 / -	dB	Rated brine or water flow rate, outdoor heat exchanger	-	8.9	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				OH 1-44e Duo B/W						
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Water-to-water heat pump: (Yes/No)				No						
Air-to-water heat pump: (Yes/No)				No						
Low temperature heat pump: (Yes/No)				No						
Equipped with supplementary heater: (Yes/No)				No						
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	43.50	kW	Seasonal space heating energy efficiency	η_S	191	%			
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	43.70	kW	Tj = -7°C	COPd	4.76	-			
Tj = +2°C	Pdh	43.90	kW	Tj = +2°C	COPd	4.90	-			
Tj = +7°C	Pdh	22.10	kW	Tj = +7°C	COPd	5.20	-			
Tj = +12°C	Pdh	22.30	kW	Tj = +12°C	COPd	5.53	-			
Tj = biv	Pdh	43.50	kW	Tj = biv	COPd	4.63	-			
Tj = TOL	Pdh	43.50	kW	Tj = TOL	COPd	4.63	-			
Tj = -15°C (if TOL < -20°C)	Pdh	-	kW	Tj = -15°C if TOL < -20°C)	COPd	-	-			
Bivalent temperature	T _{biv}	-10	°C	Operation limit temperature	TOL	-10	°C			
Cycling interval capacity for heating	P _{cy}	-	kW	Cycling interval efficiency	COP _{cy}	-	-			
Degradation co-efficient	Cdh	0.9	-	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}	-	kW			
Thermostat-off mode	P _{TO}	0.015	kW	Type of energy input	-					
Standby mode	P _{SB}	0.015	kW							
Crankcase heater mode	P _{CK}	0	kW							
Other items										
Capacity control	fixed			Rated air flow rate, outdoors	-	-	m ³ /h			
Sound power level, indoors/outdoors	L _{WA}	68 / -	dB	Rated brine or water flow rate, outdoor heat exchanger	-	8.9	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									