



ENERG

енергия · ενεργεια

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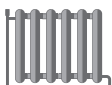
IJA

IE

IA

Ochsner

AIR 11



55 °C

35 °C

A⁺⁺

A⁺

A

B

C

D

E

F

G

A⁺⁺

A⁺⁺



44 dB



52 dB

■ 7

■ 9

■ 9

kW

■ 5

■ 8

■ 9

kW



2015

811/2013

Technische Daten der Wärmepumpe: Heatpump datasheet:			
Hersteller: Manufacturer:	OCHSNER		
Modell: Model:	AIR 11 C11B		
Angaben zur Energieeffizienzklasse und der Nennleistung: Information concerning energy efficiency class and rated heat output:			
	average / low	average / medium	
Energieeffizienzklasse Raumheizung: Energy efficiency class space heater:	A++	A++	-
Wärmenennleistung: Rated heat output:	8	9	kW
Energieeffizienz Raumheizung: Energy efficiency space heater:	166	129	%
Jährlicher Endenergieverbrauch Raumheizung: Annual final energy consumption space heater:	3757	5412	kWh
Schallleistungspegel in Innenräumen Sound power level indoors		44	dB
Besondere Vorkehrungen bei Zusammenbau, Installation oder Wartung: Special precautions concerning assembly, installation or maintenance:			
Sowohl die Auslegung als auch der Anschluss, Aufbau und die Befüllung der Anlage wurde nach gültigen Normen, Vorschriften und Verordnungen durch eine dazu ermächtigte Fachfirma oder Fachhandwerk vorgenommen. Besteht die Anlagen aus mehreren Geräteteilen sind diese mit OCHSNER Originalzubehör aus dem Lieferumfang von OCHSNER zu verbinden und zu errichten. Anlagenteile sind auf kürzestem und direktem Wege miteinander zu verbinden und überschreiten den Verbindungsabstand von 5m nicht. Unter Einhaltung der Bedienungs- und Installationsanleitung wird die Anlage im Rahmen seines bestimmungsgemäßen Gebrauch für eine privat genutzte Gebäudeheizung verwendet. Die Inbetriebnahme hat ausschließlich durch den OCHSNER Werkskundendienst stattzufinden. Wartungen und Inspektionen nach Herstellerangaben sind mindestens alle 12 Monate durchzuführen, sofern nicht Gesetze und Verordnungen zu einem häufigeren Intervall auffordern. The system was sized, connected, laid out and filled in accordance with applicable standards, regulations and ordinances by a qualified contractor. If the system consists of several sections, these must be connected and installed using original OCHSNER accessories as supplied by OCHSNER. System sections must be connected via the shortest route possible and must not exceed a connection distance of 5 m. In accordance with the operating and installation manual, the system is used as intended for a private building heating system. Commissioning must only be carried out by OCHSNER Customer Service. Maintenance and inspection according to the manufacturer's instructions must be carried out at least every 12 months unless legal requirements and ordinances specify a shorter interval.			
Zusätzliche Angaben: Additional information:	low	medium	
Wärmenennleistung kälteres Klima Rated heat output colder climate	5	7	kW
Wärmenennleistung wärmeres Klima Rated heat output warmer climate	9	9	kW
Energieeffizienz Raumheizung kälteres Klima Energy efficiency space heater colder climate	153	122	%
Energieeffizienz Raumheizung wärmeres Klima Energy efficiency space heater warmer climate	185	139	%
Jährl. Energieverbrauch Raumheizung kälteres Klima Annual energy consumption space heater colder climate	3239	5589	kWh
Jährl. Energieverbrauch Raumheizung wärmeres Klima Annual energy consumption space heater warmer climate	2509	3229	kWh
Schallleistungspegel im Außenbereich Sound power level outdoors		52	dB
Technische Daten des Temperaturreglers: Technical data of the temperature controller:			
Hersteller: Manufacturer:	OCHSNER		
Modell: Model:	OTE		
Klasse des Reglers mit Raumfernbedienung Controller class with room remote control		VII	-
Beitrag des Reglers zur Raumheizungs-Energieeffizienz mit Raumfernbedienung Contribution of the controller to the energy efficiency space heater with room remote control		3,5	%
Klasse des Reglers ohne Raumfernbedienung Controller class without room remote control		III	-
Beitrag des Reglers zur Raumheizungs-Energieeffizienz ohne Raumfernbedienung Contribution of the controller to the enerav efficiency space heater without room remote control		1,5	%

Manufacturer:	Ochsner
Model:	AIR 11
Air - to-water heat pump	
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no
Application:	low
Climate:	average

Item	Symbol	Value	Unit
Rated heat output *	<i>Prated</i>	8	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
$T_j = -7\text{ °C}$	<i>Pdh</i>	6,8	kW
$T_j = +2\text{ °C}$	<i>Pdh</i>	8,8	kW
$T_j = +7\text{ °C}$	<i>Pdh</i>	10,4	kW
$T_j = +12\text{ °C}$	<i>Pdh</i>	11,6	kW
$T_j = \text{bivalent temperature}$	<i>Pdh</i>	6,8	kW
$T_j = \text{operation limit}$	<i>Pdh</i>	6,1	kW
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$)	<i>Pdh</i>	5,0	kW
Bivalent temperature	T_{biv}	-7	°C
Power input "compressor off"		0	W
Power consumption in modes other than active mode			
Off mode	P_{OFF}	20	W
Thermostat-off mode	P_{TO}	20	W
Standby mode	P_{SB}	20	W
Crankcase heater mode	P_{CK}	0	W
Other items			
Capacity control	fixed		
Sound power level, indoors/outdoors	L_{WA}	44,5	dB
		52,0	
Annual energy consumption	Q_{HE}	3757	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_S	166	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j			
$T_j = -7\text{ °C}$	COP_d	3,47	
$T_j = +2\text{ °C}$	COP_d	4,22	
$T_j = +7\text{ °C}$	COP_d	4,92	
$T_j = +12\text{ °C}$	COP_d	5,42	
$T_j =$ bivalent temperature	COP_d	3,47	
$T_j =$ operation limit	COP_d	3,17	
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$)	COP_d	2,76	
For air-to-water heat pumps: Operation limit temperature	TOL	-23	°C
Heating water operating limit temperature	$WTOL$	65	°C
Supplementary heater			
Rated heat output *	P_{sup}	1,53	kW
Type of energy input	electricity		
For air-to-water heat pumps: Rated air flow rate, outdoors	-	5700	m³/h
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-		l/h

Contact details:	Ochsner,
* For heat pump space heaters and heat pump combination heaters, the rated heat output <i>Prated</i> is equal to the design load for heating <i>Pdesignh</i> , and the rated heat output of a supplementary heater <i>Psup</i> is equal to the supplementary capacity for heating <i>sup(Tj)</i> .	

The calculation tool was made by Bundesverband Wärmepumpe BWP e.V.

Manufacturer:	Ochsner
Model:	AIR 11
Air - to-water heat pump	
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no
Application:	medium
Climate:	average

Item	Symbol	Value	Unit
Rated heat output *	P_{rated}	9	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T_j			
$T_j = -7\text{ °C}$	P_{dh}	7,2	kW
$T_j = +2\text{ °C}$	P_{dh}	8,7	kW
$T_j = +7\text{ °C}$	P_{dh}	9,9	kW
$T_j = +12\text{ °C}$	P_{dh}	11,3	kW
$T_j = \text{bivalent temperature}$	P_{dh}	7,3	kW
$T_j = \text{operation limit}$	P_{dh}	6,8	kW
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$)	P_{dh}	6,4	kW
Bivalent temperature	T_{biv}	-6	°C
Power input "compressor off"		0	W
Power consumption in modes other than active mode			
Off mode	P_{OFF}	20	W
Thermostat-off mode	P_{TO}	20	W
Standby mode	P_{SB}	20	W
Crankcase heater mode	P_{CK}	0	W
Other items			
Capacity control	fixed		
Sound power level, indoors/outdoors	L_{WA}	44,5	dB
		52,0	
Annual energy consumption	Q_{HE}	5412	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_s	129	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j			
$T_j = - 7\text{ }^{\circ}\text{C}$	COP_d	2,60	
$T_j = + 2\text{ }^{\circ}\text{C}$	COP_d	3,32	
$T_j = + 7\text{ }^{\circ}\text{C}$	COP_d	3,81	
$T_j = + 12\text{ }^{\circ}\text{C}$	COP_d	4,44	
$T_j =$ bivalent temperature	COP_d	2,68	
$T_j =$ operation limit	COP_d	2,38	
For air-to-water heat pumps: $T_j = - 15\text{ }^{\circ}\text{C}$ (if $TOL < - 20\text{ }^{\circ}\text{C}$)	COP_d	2,08	
For air-to-water heat pumps: Operation limit temperature	TOL	-15	$^{\circ}\text{C}$
Heating water operating limit temperature	$WTOL$	65	$^{\circ}\text{C}$
Supplementary heater			
Rated heat output *	P_{sup}	1,83	kW
Type of energy input	electricity		
For air-to-water heat pumps: Rated air flow rate, outdoors	-	5700	m ³ /h
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-		l/h

Contact details:	Ochsner,
* For heat pump space heaters and heat pump combination heaters, the rated heat output P_{rated} is equal to the design load for heating $P_{designh}$, and the rated heat output of a supplementary heater P_{sup} is equal to the supplementary capacity for heating $sup(T_j)$.	