



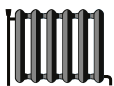
# ENERG

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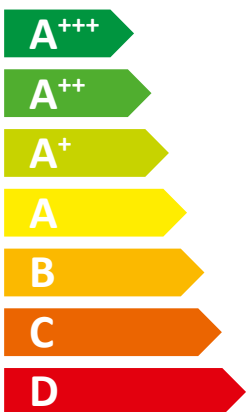
OCHSNER

AQUA 22 HSTA



55 °C

35 °C



49 dB



■ 19 kW

■ 19 kW

■ 19 kW

■ 22 kW

■ 22 kW

■ 22 kW



2019

811/2013

**Heatpump datasheet:**

Manufacturer:	OCHSNER
Model:	AQUA 22 HSTA

**Information concerning energy efficiency class and rated heat output:**

	average/low	average/medium
Energy efficiency class space heater:	A+++	A+++
Rated heat output:	22 kW	19 kW
Energy efficiency space heater:	253.0 %	159.0 %
Annual final energy consumption space heater:	6911 kWh	9259 kWh
Sound power level indoors	49 dB(A)	

**Special precautions concerning assembly, installation or maintenance:**

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.

<b>Additional information:</b>	low	medium
Rated heat output colder climate:	22 kW	19 kW
Rated heat output warmer climate:	22 kW	19 kW
Energy efficiency space heater colder climate:	263.0 %	165.0 %
Energy efficiency space heater warmer climate:	255.0 %	160.0 %
Annual energy consumption space heater colder climate:	7944 kWh	10717 kWh
Annual energy consumption space heater warmer climate:	4443 kWh	5980 kWh

**Technical data of the temperature controller:**

Manufacturer:	OCHSNER	
Model:	OTE controller	
Controller class with room remote control:	VII	-
Contribution of the controller to the energy efficiency space heater with room remote control:	3.5	%
Controller class without room remote control:	III	-
Contribution of the controller to the energy efficiency space heater without room remote control:	1.5	%

Model:	AQUA 22 HSTA
	Water heating heat pump
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no
Temperature application:	low
Climate conditions:	colder

Item	Symbol	Value
Rated heat output (*)	Prated	22 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>		
T <sub>j</sub> = -7 °C	Pdh	22.5 kW
T <sub>j</sub> = +2 °C	Pdh	22.8 kW
T <sub>j</sub> = +7 °C	Pdh	23.0 kW
T <sub>j</sub> = +12 °C	Pdh	23.0 kW
T <sub>j</sub> = bivalent temperature	Pdh	22.1 kW
T <sub>j</sub> = operation limit temperature	Pdh	22.1 kW
For air-to-water heat pumps: T <sub>j</sub> = -15 °C (if TOL < -20 °C)	Pdh	22.4 kW
Bivalent temperature	T <sub>biv</sub>	-22 °C
Power input „compressor off“		0 W
Power consumption in modes other than active mode		
Off mode	P <sub>OFF</sub>	20 W
Thermostat-off mode	P <sub>TO</sub>	20 W
Standby mode	P <sub>SB</sub>	20 W
Crankcase heater mode	P <sub>CK</sub>	0 W
Other items		
Capacity control		fixed
Sound power level	indoors	L <sub>WA</sub> 49 dB
	outdoors	-
Annual energy consumption	Q <sub>HE</sub>	7944 kWh
For heat pump combination heater:		
Declared load profile		-
Daily electricity consumption	Q <sub>elec</sub>	-

Item	Symbol	Value
Seasonal space heating energy efficiency	η <sub>s</sub>	263.0 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>		
T <sub>j</sub> = -7 °C	COPd	6.63
T <sub>j</sub> = +2 °C	COPd	7.08
T <sub>j</sub> = +7 °C	COPd	7.45
T <sub>j</sub> = +12 °C	COPd	7.55
T <sub>j</sub> = bivalent temperature	COPd	5.97
T <sub>j</sub> = operation limit temperature	COPd	5.97
For air-to-water heat pumps: T <sub>j</sub> = -15 °C (if TOL < -20 °C)	COPd	6.41
For air-to-water heat pumps: Operation limit temperature	TOL	-22 °C
Heating water operating limit temperature	WTOL	68 °C
Supplementary heater		
Rated heat output (*)	P <sub>sup</sub>	0.00 kW
Type of energy input		electricity
For air-to-water heat pumps:		
Rated air flow rate, outdoors	-	-
For water-/brine-to-water heat pumps:		
Rated brine or water flow rate, outdoor heat exchanger	-	3900 l/h
Water heating energy efficiency		
	η <sub>wh</sub>	-
Daily fuel consumption		
	Q <sub>fuel</sub>	-

Contact details OCHSNER Wärmepumpen GmbH, Ochsner-Straße 1, A-3350 Haag

(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating-Pde-signh, and the rated heat output of a supplementary heater P<sub>sup</sub> is equal to the supplementary capacity for heating sup(T<sub>j</sub>).

Model:	AQUA 22 HSTA
	Water heating heat pump
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no
Temperature application:	medium
Climate conditions:	colder

Item	Symbol	Value
Rated heat output (*)	Prated	19 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>		
T <sub>j</sub> = -7 °C	Pdh	20.2 kW
T <sub>j</sub> = +2 °C	Pdh	20.9 kW
T <sub>j</sub> = +7 °C	Pdh	21.5 kW
T <sub>j</sub> = +12 °C	Pdh	21.9 kW
T <sub>j</sub> = bivalent temperature	Pdh	19.1 kW
T <sub>j</sub> = operation limit temperature	Pdh	19.1 kW
For air-to-water heat pumps: T <sub>j</sub> = -15 °C (if TOL < -20 °C)	Pdh	19.7 kW
Bivalent temperature	T <sub>biv</sub>	-22 °C
Power input „compressor off“		0 W
Power consumption in modes other than active mode		
Off mode	P <sub>OFF</sub>	20 W
Thermostat-off mode	P <sub>TO</sub>	20 W
Standby mode	P <sub>SB</sub>	20 W
Crankcase heater mode	P <sub>CK</sub>	0 W
Other items		
Capacity control		fixed
Sound power level	indoors	L <sub>WA</sub> 49 dB
	outdoors	-
Annual energy consumption	Q <sub>HE</sub>	10717 kWh
For heat pump combination heater:		
Declared load profile		-
Daily electricity consumption	Q <sub>elec</sub>	-

Item	Symbol	Value
Seasonal space heating energy efficiency	η <sub>s</sub>	165.0 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>		
T <sub>j</sub> = -7 °C	COPd	4.05
T <sub>j</sub> = +2 °C	COPd	4.65
T <sub>j</sub> = +7 °C	COPd	5.21
T <sub>j</sub> = +12 °C	COPd	5.71
T <sub>j</sub> = bivalent temperature	COPd	3.32
T <sub>j</sub> = operation limit temperature	COPd	3.32
For air-to-water heat pumps: T <sub>j</sub> = -15 °C (if TOL < -20 °C)	COPd	3.71
For air-to-water heat pumps: Operation limit temperature	TOL	-22 °C
Heating water operating limit temperature	WTOL	68 °C
Supplementary heater		
Rated heat output (*)	P <sub>sup</sub>	0.00 kW
Type of energy input		electricity
For air-to-water heat pumps:		
Rated air flow rate. outdoors	-	-
For water-/brine-to-water heat pumps:		
Rated brine or water flow rate. outdoor heat exchanger	-	3900 l/h
Water heating energy efficiency		
	η <sub>wh</sub>	-
Daily fuel consumption		
	Q <sub>fuel</sub>	-

Contact details OCHSNER Wärmepumpen GmbH, Ochsner-Straße 1, A-3350 Haag

(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating-Pde-signh, and the rated heat output of a supplementary heater P<sub>sup</sub> is equal to the supplementary capacity for heating sup(T<sub>j</sub>).

Model:	AQUA 22 HSTA
	Water heating heat pump
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no
Temperature application:	low
Climate conditions:	average

Item	Symbol	Value
Rated heat output (*)	Prated	22 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature $T_j$		
$T_j = -7\text{ °C}$	Pdh	22.2 kW
$T_j = +2\text{ °C}$	Pdh	22.5 kW
$T_j = +7\text{ °C}$	Pdh	22.8 kW
$T_j = +12\text{ °C}$	Pdh	23.1 kW
$T_j =$ bivalent temperature	Pdh	22.1 kW
$T_j =$ operation limit temperature	Pdh	22.1 kW
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$ )	Pdh	22.1 kW
Bivalent temperature	$T_{biv}$	-10 °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	LWA 49 dB
	outdoors	-
Annual energy consumption	$Q_{HE}$	6911 kWh
For heat pump combination heater:		
Declared load profile		-
Daily electricity consumption	$Q_{elec}$	-

Item	Symbol	Value
Seasonal space heating energy efficiency	$\eta_s$	253.0 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature $T_j$		
$T_j = -7\text{ °C}$	COPd	6.06
$T_j = +2\text{ °C}$	COPd	6.55
$T_j = +7\text{ °C}$	COPd	7.05
$T_j = +12\text{ °C}$	COPd	7.62
$T_j =$ bivalent temperature	COPd	5.97
$T_j =$ operation limit temperature	COPd	5.97
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$ )	COPd	5.97
For air-to-water heat pumps: Operation limit temperature	TOL	-10 °C
Heating water operating limit temperature	WTOL	68 °C
Supplementary heater		
Rated heat output (*)	$P_{sup}$	0.00 kW
Type of energy input		electricity
For air-to-water heat pumps: Rated air flow rate. outdoors	-	-
For water-/brine-to-water heat pumps: Rated brine or water flow rate. outdoor heat exchanger	-	3900 l/h
Water heating energy efficiency	$\eta_{wh}$	-
Daily fuel consumption	$Q_{fuel}$	-

Contact details OCHSNER Wärmepumpen GmbH, Ochsner-Straße 1, A-3350 Haag

(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating-Pde-signh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup( $T_j$ ).

Model:	AQUA 22 HSTA
	Water heating heat pump
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no
Temperature application:	medium
Climate conditions:	average

Item	Symbol	Value
Rated heat output (*)	Prated	19 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>		
T <sub>j</sub> = -7 °C	Pdh	19.4 kW
T <sub>j</sub> = +2 °C	Pdh	20.4 kW
T <sub>j</sub> = +7 °C	Pdh	21.0 kW
T <sub>j</sub> = +12 °C	Pdh	21.7 kW
T <sub>j</sub> = bivalent temperature	Pdh	19.1 kW
T <sub>j</sub> = operation limit temperature	Pdh	19.1 kW
For air-to-water heat pumps: T <sub>j</sub> = -15 °C (if TOL < -20 °C)	Pdh	19.1 kW
Bivalent temperature	T <sub>biv</sub>	-10 °C
Power input „compressor off“		0 W
Power consumption in modes other than active mode		
Off mode	P <sub>OFF</sub>	20 W
Thermostat-off mode	P <sub>TO</sub>	20 W
Standby mode	P <sub>SB</sub>	20 W
Crankcase heater mode	P <sub>CK</sub>	0 W
Sonstige Elemente		
Capacity control		fixed
Sound power level	indoors	L <sub>WA</sub> 49 dB
	outdoors	-
Annual energy consumption	Q <sub>HE</sub>	9259 kWh
For heat pump combination heater:		
Declared load profile		-
Daily electricity consumption	Q <sub>elec</sub>	-

Item	Symbol	Value
Seasonal space heating energy efficiency	η <sub>s</sub>	159.0 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>		
T <sub>j</sub> = -7 °C	COPd	3.49
T <sub>j</sub> = +2 °C	COPd	4.21
T <sub>j</sub> = +7 °C	COPd	4.76
T <sub>j</sub> = +12 °C	COPd	5.43
T <sub>j</sub> = bivalent temperature	COPd	3.32
T <sub>j</sub> = operation limit temperature	COPd	3.32
For air-to-water heat pumps: T <sub>j</sub> = -15 °C (if TOL < -20 °C)	COPd	3.32
For air-to-water heat pumps: Operation limit temperature	TOL	-10 °C
Heating water operating limit temperature	WTOL	68 °C
Supplementary heater		
Rated heat output (*)	P <sub>sup</sub>	0.00 kW
Type of energy input		electricity
For air-to-water heat pumps:		
Rated air flow rate. outdoors	-	-
For water-/brine-to-water heat pumps:		
Rated brine or water flow rate. outdoor heat exchanger	-	3900 l/h
Water heating energy efficiency		
	η <sub>wh</sub>	-
Daily fuel consumption		
	Q <sub>fuel</sub>	-

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Model:	AQUA 22 HSTA
	Water heating heat pump
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no
Temperature application:	low
Climate conditions:	warmer

Item	Symbol	Value
Rated heat output (*)	Prated	22 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>		
T <sub>j</sub> = -7 °C	Pdh	22.1 kW
T <sub>j</sub> = +2 °C	Pdh	22.1 kW
T <sub>j</sub> = +7 °C	Pdh	22.4 kW
T <sub>j</sub> = +12 °C	Pdh	22.9 kW
T <sub>j</sub> = bivalent temperature	Pdh	22.1 kW
T <sub>j</sub> = operation limit temperature	Pdh	22.1 kW
For air-to-water heat pumps: T <sub>j</sub> = -15 °C (if TOL < -20 °C)	Pdh	22.1 kW
Bivalent temperature	T <sub>biv</sub>	2 °C
Power input „compressor off“		0 W
Power consumption in modes other than active mode		
Off mode	P <sub>OFF</sub>	20 W
Thermostat-off mode	P <sub>TO</sub>	20 W
Standby mode	P <sub>SB</sub>	20 W
Crankcase heater mode	P <sub>CK</sub>	0 W
Sonstige Elemente		
Capacity control		fixed
Sound power level	indoors	L <sub>WA</sub> 49 dB
	outdoors	-
Annual energy consumption	Q <sub>HE</sub>	4443 kWh
For heat pump combination heater:		
Declared load profile		-
Daily electricity consumption	Q <sub>elec</sub>	-

Item	Symbol	Value
Seasonal space heating energy efficiency	η <sub>s</sub>	255.0 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>		
T <sub>j</sub> = -7 °C	COPd	5.97
T <sub>j</sub> = +2 °C	COPd	5.97
T <sub>j</sub> = +7 °C	COPd	6.44
T <sub>j</sub> = +12 °C	COPd	7.24
T <sub>j</sub> = bivalent temperature	COPd	5.97
T <sub>j</sub> = operation limit temperature	COPd	5.97
For air-to-water heat pumps: T <sub>j</sub> = -15 °C (if TOL < -20 °C)	COPd	5.97
For air-to-water heat pumps: Operation limit temperature	TOL	2 °C
Heating water operating limit temperature	WTOL	68 °C
Supplementary heater		
Rated heat output (*)	P <sub>sup</sub>	0.00 kW
Type of energy input		electricity
For air-to-water heat pumps:		
Rated air flow rate. outdoors	-	-
For water-/brine-to-water heat pumps:		
Rated brine or water flow rate. outdoor heat exchanger	-	3900 l/h
Water heating energy efficiency		
	η <sub>wh</sub>	-
Daily fuel consumption		
	Q <sub>fuel</sub>	-

Contact details OCHSNER Wärmepumpen GmbH, Ochsner-Straße 1, A-3350 Haag

(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating-Pde-signh, and the rated heat output of a supplementary heater P<sub>sup</sub> is equal to the supplementary capacity for heating sup(T<sub>j</sub>).

Model:	AQUA 22 HSTA
	Water heating heat pump
Low-temperature heat pump:	no
Equipped with a supplementary heater:	no
Heat pump combination heater:	no
Temperature application:	medium
Climate conditions:	warmer

Item	Symbol	Value
Rated heat output (*)	Prated	19 kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature $T_j$		
$T_j = -7\text{ °C}$	Pdh	19.1 kW
$T_j = +2\text{ °C}$	Pdh	19.1 kW
$T_j = +7\text{ °C}$	Pdh	20.0 kW
$T_j = +12\text{ °C}$	Pdh	21.3 kW
$T_j =$ bivalent temperature	Pdh	19.1 kW
$T_j =$ operation limit temperature	Pdh	19.1 kW
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$ )	Pdh	19.1 kW
Bivalent temperature	$T_{biv}$	2 °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	LWA 49 dB
	outdoors	-
Annual energy consumption	$Q_{HE}$	5980 kWh
For heat pump combination heater:		
Declared load profile		-
Daily electricity consumption	$Q_{elec}$	-

Item	Symbol	Value
Seasonal space heating energy efficiency	$\eta_s$	160.0 %
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature $T_j$		
$T_j = -7\text{ °C}$	COPd	3.32
$T_j = +2\text{ °C}$	COPd	3.32
$T_j = +7\text{ °C}$	COPd	3.87
$T_j = +12\text{ °C}$	COPd	4.97
$T_j =$ bivalent temperature	COPd	3.32
$T_j =$ operation limit temperature	COPd	3.32
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$ )	COPd	3.32
For air-to-water heat pumps: Operation limit temperature	TOL	2 °C
Heating water operating limit temperature	WTOL	68 °C
Supplementary heater		
Rated heat output (*)	$P_{sup}$	0.00 kW
Type of energy input		electricity
For air-to-water heat pumps: Rated air flow rate. outdoors	-	-
For water-/brine-to-water heat pumps: Rated brine or water flow rate. outdoor heat exchanger	-	3900 l/h
Water heating energy efficiency	$\eta_{wh}$	-
Daily fuel consumption	$Q_{fuel}$	-

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(\*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating-Pde-signh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup( $T_j$ ).