

Manufacturer: AWE WÄRMEPUMPEN
Model: ESW 13
Brine - to-water heat pump
Low-temperature heat pump: yes
Equipped with a supplementary heater: no
Heat pump combination heater: no
Application: medium
Climate: average

Item	Symbol	Value	Unit
Rated heat output *	<i>Prated</i>	12	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>	12,3	kW
$T_j = +2\text{ °C}$	<i>Pdh</i>	13,1	kW
$T_j = +7\text{ °C}$	<i>Pdh</i>	13,6	kW
$T_j = +12\text{ °C}$	<i>Pdh</i>	14,1	kW
$T_j =$ bivalent temperature	<i>Pdh</i>	12,1	kW
$T_j =$ operation limit	<i>Pdh</i>	12,1	kW
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$)	<i>Pdh</i>	12,1	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}	0	W
Thermostat-off mode	P_{TO}	0	W
Standby mode	P_{SB}	0	W
Crankcase heater mode	P_{CK}	0	W
Other items			
Capacity control		fixed	
Sound power level, indoors/outdoors	L_{WA}	40	dB
		-	
Annual energy consumption	Q_{HE}	5671	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_S	168	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j			
$T_j = -7\text{ °C}$	<i>COPd</i>	3,24	
$T_j = +2\text{ °C}$	<i>COPd</i>	4,77	
$T_j = +7\text{ °C}$	<i>COPd</i>	6,38	
$T_j = +12\text{ °C}$	<i>COPd</i>	9,29	
$T_j =$ bivalent temperature	<i>COPd</i>	2,92	
$T_j =$ operation limit	<i>COPd</i>	2,92	
For air-to-water heat pumps: $T_j = -15\text{ °C}$ (if $TOL < -20\text{ °C}$)	<i>COPd</i>	2,92	
For air-to-water heat pumps: Operation limit temperature	<i>TOL</i>	-10	°C
Heating water operating limit temperature	<i>WTOL</i>	55	°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			
	-		m ³ /h
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger			
	-	3100	l/h

Contact details: AWE WÄRMEPUMPEN,
* 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.