

Manufacturer: AWE WÄRMEPUMPEN
Model: ELW 13
Air - 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			
$T_j = -7$ °C	<i>Pdh</i>	9,4	kW
$T_j = +2$ °C	<i>Pdh</i>	12,2	kW
$T_j = +7$ °C	<i>Pdh</i>	14,6	kW
$T_j = +12$ °C	<i>Pdh</i>	17,0	kW
$T_j =$ bivalent temperature	<i>Pdh</i>	10,0	kW
$T_j =$ operation limit	<i>Pdh</i>	8,4	kW
For air-to-water heat pumps: $T_j = -15$ °C (if $TOL < -20$ °C)	<i>Pdh</i>	6,8	kW
Bivalent temperature	T_{biv}	-5	°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}	5	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}	40	dB
		33	
Annual energy consumption	Q_{HE}	9080	kWh

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	η_S	110	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T_j			
$T_j = -7$ °C	<i>COPd</i>	2,06	
$T_j = +2$ °C	<i>COPd</i>	2,81	
$T_j = +7$ °C	<i>COPd</i>	3,31	
$T_j = +12$ °C	<i>COPd</i>	3,83	
$T_j =$ bivalent temperature	<i>COPd</i>	2,28	
$T_j =$ operation limit	<i>COPd</i>	1,77	
For air-to-water heat pumps: $T_j = -15$ °C (if $TOL < -20$ °C)	<i>COPd</i>	1,33	
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}	4,00	kW
Type of energy input	electricity		
For air-to-water heat pumps: Rated air flow rate, outdoors			
	-	6500	m ³ /h
For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger			
	-		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.