

TECHNICAL DOCUMENTATION

according Directive 2010/30/EU and corresponding Regulation (EU) No. 811/2013 (Energy Labelling),
Directive 2009/125/EC and corresponding Regulation (EU) No. 813/2013 (Ecodesign)



Model:	TERRA SW 20 Twin
Type of heat pump:	Brine-to-water heat pump
Low-temperature heat pump: (Yes/No)	No
Temperature application: (35°C/55°C)	low temperature (35°C)
Equipped with supplementary heater: (Yes/No)	No
Heat pump combination heater: (Yes/No)	No

	P_{rated}	Climate condition			kW
		cold	average	warm	
Rated heat output		20.5	20.5	20.5	
Outdoor temperature T_j	Declared capacity for part load (indoor temperature = 20 °C)				
$T_j = -15\text{ °C}$ (for air-to-water heat pumps if TOL < -20°C)	P_{dh}	n.a.	-	-	kW
$T_j = -7\text{ °C}$	P_{dh}	20.6	20.5	-	kW
$T_j = +2\text{ °C}$	P_{dh}	10.7	20.6	20.5	kW
$T_j = +7\text{ °C}$	P_{dh}	10.7	10.7	20.6	kW
$T_j = +12\text{ °C}$	P_{dh}	10.7	10.8	10.7	kW
$T_j =$ Bivalenz temperature (T_{biv})	P_{dh}	20.5	20.5	20.5	kW
$T_j =$ Operation limit temperature (TOL)	P_{dh}	20.5	20.5	20.5	kW
Bivalenz temperature (T_{biv})	T_{biv}	-22.0	-10.0	2.0	°C
Cycling interval capacity for heating	P_{cyh}	-	-	-	kW
Degradation co-efficient	C_{dh}	0.9	0.9	0.9	---
Power consumption in modes other than active mode					
Thermostat-off mode	P_{TO}	0.013	0.013	0.013	kW
Standby mode	P_{SB}	0.013	0.013	0.013	kW
Off mode	P_{OFF}	0	0	0	kW
Crankcase heater mode	P_{CK}	0	0	0	kW
Other items					
Capacity control		fixed			
Sound power levels, indoors/outdoors	L_{WA}	51 / -	51 / -	51 / -	dB
Annual energy consumption	Q_{HE}	8,807	7,879	4,957	kWh
For heat pump combination heater:					
Declared load profile		n.a.			
Daily electricity consumption	Q_{elec}	n.a.	n.a.	n.a.	kWh
Annual electricity consumption	AEC	n.a.	n.a.	n.a.	kWh

Contact details:

IDM-Energiesysteme, Seblas 16-18, 9971 Matrei i.O., Austria

	η_s	Climate condition			%
		cold	average	warm	
Seasonal space heating efficiency		221	206	211	
Outdoor temperature T_j	Declared capacity for part load (indoor temperature = 20 °C)				
$T_j = -15\text{ °C}$ (for air-to-water heat pumps if TOL < -20°C)	COP_d	n.a.	-	-	---
$T_j = -7\text{ °C}$	COP_d	5.30	4.96	-	---
$T_j = +2\text{ °C}$	COP_d	6.41	5.26	4.89	---
$T_j = +7\text{ °C}$	COP_d	6.63	6.39	5.19	---
$T_j = +12\text{ °C}$	COP_d	6.69	6.73	6.51	---
$T_j =$ Bivalenz temperature (T_{biv})	COP_d	4.89	4.89	4.89	---
$T_j =$ Operation limit temperature (TOL)	COP_d	4.89	4.89	4.89	---
Operation limit temperature (for air-to-water heat pumps)	TOL	n.a.	n.a.	n.a.	°C
Cycling interval capacity for heating	COP_{cyc}	-	-	-	---
Heating water operating limit temperature	$WTOL$	62	62	62	°C
Supplementary heater					
Rated heat output	P_{sup}	n.a.	n.a.	n.a.	kW
Type of energy input		n.a.			
For air-to-water heat pumps:					
Rated air flow rate, outdoors	---	n.a.	n.a.	n.a.	m ³ /h
For water- or brine-to-water heat pumps:					
Rated brine or water flow rate, outdoor heat exchanger	---	5.0	5.0	5.0	m ³ /h
Water heating energy efficiency	η_{wh}	n.a.			%
Daily fuel consumption	Q_{fuel}	n.a.	n.a.	n.a.	kWh
Annual fuel consumption	AFC	n.a.	n.a.	n.a.	GJ