Technical data of IGLU® Aleut 7 WTI variable capacity heat pump with integrated boiler

`	IGLU Aleut 7 WTI
Air-to-water heat pump	No
Water-to-water heat pump	No
Ground-to-water heat pump	Yes
Low temperature heat pump	No
Equipped with supplementary heater	Yes
Supplementary heater is used	No

Parameters applied using average temperature are declared. Parameters are declared under average climatic conditions.

Parameter	Conventional representation	Value	Measurement unit
Rated thermal power	P_{rated}	7	kW
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T_j			
T_j = – 7 °C	P_{dh}	5,705	kW
T_j = + 2 °C	P_{dh}	3,403	kW
T_j = + 7 °C	P_{dh}	2,202	kW
T_j = + 12 °C	P_{dh}	2,103	kW
$T_j = (T_{biv})$ - bivalent temperature mode	P_{dh}	-	kW
T_j = operating limit temperature	P_{dh}	-	kW
Air-to-water heat pump: T_j = -15°C (where TOL <-20°C)	P_{dh}	-	kW
Bivalent temperature	T_{biv}	-	°C
Power in cyclic heating mode	P_{cych}	1,5-7	kW
Decreased efficiency in cyclic mode	C_{dh}	0.99	—
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.009	kW
Thermostat-off mode	P_{TO}	0.009	kW
Standby mode	P_{SB}	0.064	kW
Crankcase heater mode	P_{CK}	-	kW
Other parameters			
Capacity control	fixed		
Sound power level, indoors/outdoors	L_{WA}	33-44	dB
Emissions of nitrogen oxides	NO_x	-	mg/kWh
Contact details	IGLU TECH UAB		

Parameter	Conventional representation	Value	Measurement unit
Seasonal energy efficiency for space heating	η_s	150	%
Declared efficiency coefficient or ratio of primary energy to radiant heat output at room temperature 20 °C and outdoor temperature T_j			
T_j = – 7 °C	COP_d arba PER_d	4,855	–
T_j = + 2 °C	COP_d arba PER_d	5,702	–
T_j = + 7 °C	COP_d arba PER_d	6,153	–
T_j = + 12 °C	COP_d arba PER_d	5,774	–
$T_j = (T_{biv})$ - bivalent temperature mode	COP_d arba PER_d	–	–
T_j = operating limit temperature	COP_d arba PER_d	–	°C
Air-to-water heat pump: T_j = -15°C (where TOL <-20°C)	COP_d arba PER_d	-	
Air-to-water heat pump: operating limit temperature	TOL	-	°C
Cyclical efficiency	COP_{cyc} or PER_{cyc}	-	– or %
Heating water limit operating temperature	WTOL	65	°C
Supplementary heater			
Rated thermal power	P_{sup}	3/6/9	kW
Type of energy input	Electricity		
Air-to-water heat pump: rated air flow rate, outdoor	—		m^3/h
Ground-to-water heat pump: water flow, outdoor heat exchanger		2.0	m^3/h
Ukmerges st. 364-3, Vilnius, Lithuania			

Technical data of IGLU® Aleut 12 WTI variable capacity heat pump with integrated boiler

`	IGLU Aleut 12 WTI
Air-to-water heat pump	No
Water-to-water heat pump	No
Ground-to-water heat pump	Yes
Low temperature heat pump	No
Equipped with supplementary heater	Yes
Supplementary heater is used	No

Parameters applied using average temperature are declared. Parameters are declared under average climatic conditions.

Parameter	Conventional representation	Value	Measurement unit
Rated thermal power	P_{rated}	12	kW
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T_j			
T_j = – 7 °C	P_{dh}	9,403	kW
T_j = + 2 °C	P_{dh}	5,705	kW
T_j = + 7 °C	P_{dh}	3,702	kW
T_j = + 12 °C	P_{dh}	2,901	kW
$T_j = (T_{biv})$ - bivalent temperature mode	P_{dh}	-	kW
T_j = operating limit temperature	P_{dh}	-	kW
Air-to-water heat pump: T_j = -15°C (where TOL <-20°C)	P_{dh}	-	kW
Bivalent temperature	T_{biv}	-	°C
Power in cyclic heating mode	P_{cych}	3÷12	kW
Decreased efficiency in cyclic mode	C_{dh}	0.99	—
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.009	kW
Thermostat-off mode	P_{TO}	0.009	kW
Standby mode	P_{SB}	0.064	kW
Crankcase heater mode	P_{CK}	-	kW
Other parameters			
Capacity control	fixed		
Sound power level, indoors/outdoors	L_{WA}	33-44	dB
Emissions of nitrogen oxides	NO_x	-	mg/kWh
Contact details	IGLU TECH UAB		Ukmerges st. 364-3, Vilnius, Lithuania

Parameter	Conventional representation	Value	Measurement unit
Seasonal energy efficiency for space heating	η_s	157	%
Declared efficiency coefficient or ratio of primary energy to radiant heat output at room temperature 20 °C and outdoor temperature T_j			
T_j = – 7 °C	COP_d arba PER_d	4,772	–
T_j = + 2 °C	COP_d arba PER_d	5,821	–
T_j = + 7 °C	COP_d arba PER_d	6,403	–
T_j = + 12 °C	COP_d arba PER_d	5,975	–
$T_j = (T_{biv})$ - bivalent temperature mode	COP_d arba PER_d	–	–
T_j = operating limit temperature	COP_d arba PER_d	–	°C
Air-to-water heat pump: T_j = -15°C (where TOL <-20°C)	COP_d arba PER_d	-	
Air-to-water heat pump: operating limit temperature	TOL	-25	°C
Cyclical efficiency	COP_{cyc} or PER_{cyc}	-	– or %
Heating water limit operating temperature	WTOL	65	°C
Supplementary heater			
Rated thermal power	P_{sup}	3/6/9	kW
Type of energy input	Electricity		
Air-to-water heat pump: rated air flow rate, outdoor	—		m^3/h
Ground-to-water heat pump: water flow, outdoor heat exchanger		2.0	m^3/h

Technical data of IGLU® Aleut 18 WTI variable capacity heat pump with integrated boiler

`	**IGLU Aleut 18 WTI**
Air-to-water heat pump	No
Water-to-water heat pump	No
Ground-to-water heat pump	Yes
Low temperature heat pump	No
Equipped with supplementary heater	Yes
Supplementary heater is used	No

Parameters applied using average temperature are declared. Parameters are declared under average climatic conditions.

Parameter	**Conventional representation**	**Value**	**Measurement unit**
Rated thermal power	P_{rated}	16	kW
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T_j			
T_j = – 7 °C	P_{dh}	13.9	kW
T_j = + 2 °C	P_{dh}	8.4	kW
T_j = + 7 °C	P_{dh}	5,4	kW
T_j = + 12 °C	P_{dh}	4,3	kW
T_j= (T_{biv})- bivalent temperature mode	P_{dh}	-	kW
T_j = operating limit temperature	P_{dh}	-	kW
Air-to-water heat pump: **T_j** = -15°C (where TOL <-20°C)	P_{dh}	-	kW
Bivalent temperature	T_{biv}	-	°C
Power in cyclic heating mode	P_{cych}	4÷18	kW
Decreased efficiency in cyclic mode	C_{dh}	0.99	—
Power consumption in modes other than active mode			
Off mode	P_{OFF}	0.009	kW
Thermostat-off mode	P_{TO}	0.009	kW
Standby mode	P_{SB}	0.064	kW
Crankcase heater mode	P_{CK}	-	kW
Other parameters			
Capacity control	fixed		
Sound power level, indoors/outdoors	L_{WA}	33-44	dB
Emissions of nitrogen oxides	NO_x	-	mg/kWh

Parameter	**Conventional representation**	**Value**	**Measurement unit**
Seasonal energy efficiency for space heating	η_s	168	%
Declared efficiency coefficient or ratio of primary energy to radiant heat output at room temperature 20 °C and outdoor temperature T_j			
T_j = – 7 °C	COP_d arba PER_d	5,04	–
T_j = + 2 °C	COP_d arba PER_d	5,91	–
T_j = + 7 °C	COP_d arba PER_d	6,65	–
T_j = + 12 °C	COP_d arba PER_d	6,49	–
T_j= (T_{biv})- bivalent temperature mode	COP_d arba PER_d	–	–
T_j = operating limit temperature	COP_d arba PER_d	–	°C
Air-to-water heat pump: **T_j** = -15°C (where TOL <-20°C)	COP_d arba PER_d	-	
Air-to-water heat pump: operating limit temperature	TOL	-	°C
Cyclical efficiency	COP_{cyc} or PER_{cyc}	-	– or %
Heating water limit operating temperature	WTOL	65	°C
Supplementary heater			
Rated thermal power	P_{sup}	3/6/9	kW
Type of energy input	Electricity		
Air-to-water heat pump: rated air flow rate, outdoor	—		m^3/h
Ground-to-water heat pump: water flow, outdoor heat exchanger		3.0	m^3/h
Contact details	IGLU TECH UAB		Ukmerges st. 364-3, Vilnius, Lithuania