



TECHNICAL DATA

GROUND SOURCE INVERTER HEAT PUMPS **IGLU Aleut I / Aleut WTI**



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Applicability of the Technical Data

The Technical Data are applicable to the following units:

Model	Model Code
IGLU Aleut 4 WTI	AS004IWNNNNNSra
	AS004IWNPNNNSra
	AS004IWNNNNNTra
	AS004IWNPNNNTra
	AS004IWNNNNNSna
IGLU Aleut 7 WTI	AS007IWNNNNNSra
	AS007IWNPNNNSra
	AS007IWNNNNNTra
	AS007IWNPNNNTra
	AS007IWNNNNNSna
IGLU Aleut 12 WTI	AS012IWNNNNNTra
	AS012IWNPNNNTra
	AS012IWNNNNNSna
IGLU Aleut 18 WTI	AS018IWNNNNNTra
	AS018IWNPNNNTra
IGLU Aleut 4 I	AL004INNNNNNSra
	AL004INANNNSra
	AL004INNNNNNTra
	AL004INANNNTra
	AL004INNNNNNSna
IGLU Aleut 7 I	AL007INNNNNNSra
	AL007INANNNSra
	AL007INNNNNNSna
	AL007INNNNNNTra
	AL007INANNNTra
IGLU Aleut 12 I	AL012INNNNNNTra
	AL012INANNNTra
	AL012INNNNNNSna
IGLU Aleut 18 I	AL018INNNNNNTra
	AL018INANNNTra

The sequence of IGLU TECH products configuration

X1 – IGLU Aleut/IGLU Aleut WT/IGLU Aleut I/IGLU Aleut WTI – AL;
X1 – IGLU ALEUT WTI (598x674x1876) – AS;
X1 – IGLU Inuit/IGLU Inuit WT – IN;
X1 – IGLU Inuit WT (598x674x1876) –IS;
X1 – IGLU Max – MA;
X1 – IGLU Inuit Mono/IGLU Inuit Mono WT – MB;
X2 – Capacity of pump – 5/7/9... kW;
X3 – Kind of compressor (I – inverter/F – fixed speed);
X4 – Water tank – (W);
X5 – Active cooling – (A);
X6 – Passive cooling – (P);
X7 – Construction – Split (S);
X8 – Unit location – Inside/Outside, (I/O);
X9 – Energy supply:
 Sr - single phase 1P 230 V;
 Tr - triple phase 3P 400V;
 Sn – single phase to north 2P 230 V;
 Tn – triple phase to north 3P 230 V;
X10 – Agent (R 410A – a; R 407C – b; R32 – c; R 290– d);
N – not applicable

Technical data of IGLU Aleut I variable capacity heat pumps without integrated water tank

	Units	IGLU Aleut 4 I			IGLU Aleut 7 I			IGLU Aleut 12 I			IGLU Aleut 18 I		
Power network connection (3P, 400 V/1P, 230 V)													
Rated current; (3P, 400 V), (1P, 230 V)	A	22A (1P, 230V)	9A (3P, 400V)		38A (1P, 230 V)	16A (3P, 400 V)		21A (3P, 400 V)			26A (3P, 400 V)		
Electric heater	kW	3			6			9			9		
Power network connection (3P, 230 V / 2P, 230 V)													
Rated current; (3P, 230 V / 2P, 230 V) electric heater 3 kW	A	27A (2P, 230V)			30A (2P, 230V)			33A (2P, 230V)			-		
Type of protection	IP	IP20											
Heat (electric) power of a heat pump / COP (B0/W35)													
		Aleut 4 I			Aleut 7 I			Aleut 12 I			Aleut 18 I		
Compressor power	kW	Heating capacity (kW)	Input power (kW)	COP	Heating capacity (kW)	Input power (kW)	COP	Heating capacity (kW)	Input power (kW)	COP	Heating capacity (kW)	Input power (kW)	COP
@1200 rpm	kW	1,79	0,50	3,58	1,79	0,50	3,58	2,70	0,70	3,86	4,00	0,90	4,44
@2100 rpm	kW	3,24	0,76	4,28	3,24	0,76	4,28	4,59	1,01	4,54	7,00	1,40	5,00
@2575 rpm	kW	4,14	0,92	4,36	-	-	-	-	-	-	-	-	-
@3500 rpm	kW	N/A	N/A	N/A	5,49	1,21	4,53	7,69	1,66	4,63	11,64	2,36	4,93
@4300 rpm	kW	N/A	N/A	N/A	7,10	1,60	4,44	9,54	2,09	4,56	14,43	3,06	4,72
@5300 rpm	kW	N/A	N/A	N/A	N/A	N/A	N/A	11,61	2,70	4,30	17,88	4,00	4,47
Heat (electric) power of a heat pump / COP (B0/W55)													
@1200 rpm	kW	1,70	0,80	2,13	1,70	0,80	2,13	2,60	0,97	2,68	3,69	1,46	2,53
@2110 rpm	kW	3,20	1,12	2,86	3,20	1,12	2,86	4,40	1,50	2,93	6,37	2,19	2,91
@2672 rpm	kW	4	1,40	2,864	-	-	-	-	-	-	-	-	-
@3500 rpm	kW	N/A	N/A	N/A	5,18	1,80	2,87	7,28	2,34	3,12	10,49	3,40	3,09
@4300 rpm	kW	N/A	N/A	N/A	6,49	2,30	2,82	8,74	2,94	2,97	12,95	4,25	3,05
@5300 rpm	kW	N/A	N/A	N/A	N/A	N/A	N/A	10,70	3,70	2,89	16,12	5,35	3,01
SCOP	kW	5,33			5,6			5,72			5,95		
FLOOR HEATING (35 C°) average climate conditions													
SCOP	kW	3,97			3,98			4,14			4,44		
RADIATOR HEATING (55 C°) average climate conditions													

Brine circuit	Units	IGLU Aleut 4 l	IGLU Aleut 7 l	IGLU Aleut 12 l	IGLU Aleut 18 l
Rated flow (DT = 3K) ²⁾	m³/h	1	2	3	4
Permissible external pressure drop ²⁾	kPa	80	80	70	52
Maximum pressure	bar	4			
Volume (internal)	l	5			6
Operating temperature	°C	from -10 to +20			
Connection (Cu)	mm	28			
Compressor					
Type		“Scroll”			
Mass of refrigerant R410A ³⁾	kg	1,3	1,4	1,45	2
Maximum operating pressure (High side)	bar	42			
Maximum operating pressure (Low side)	bar	10,3			
Heating system					
Max. permissible operating pressure	bar	4			
Max. supply temperature (compressor only)	°C	60			
Max. supply temperature with backup heater	°C	70			
Nominal flow (DT = 6K)	m³/h	0,57	1	1,4	2,1
Min. flow temperature	°C	15			
Connection (Cu)	mm	28			
General information					
Permissible ambient temperatures	°C	from +10 to +35			
Sound power level R410 A) (LwA) ⁴⁾	dBA	39-47	39-47	39-47	39-47
Dimensions (width x depth x height)	mm	598x718x1106			
Weight (without packaging)	kg	132	132	160	175

Recommended minimum heating coil area for external DHW tank:

Thermal power, kW	Coil area, m²
5 – 7	< 2,5
9 – 11	< 3
13	< 3,5
16 – 18	< 4

2) With ethylene glycol

3) Greenhouse potential, R 407C - GWP100 = 1774; R 410A - GWP100=2088;

4) According to EN 3743-1

Technical data of IGLU Aleut WTI variable capacity heat pumps with water tank

	Units	IGLU Aleut 4 WTI			IGLU Aleut 7 WTI			IGLU Aleut 12 WTI			IGLU Aleut 18 WTI		
Power network connection (3P, 400 V/1P, 230 V)													
Rated current; (3P, 400 V), (1P, 230 V)	A	22A (1P, 230V)	9A (3P, 400V)		38A (1P, 230 V)		16A (3P, 400 V)	21A (3P, 400 V)			26A (3P, 400 V)		
Electric heater	kW	3			6			9			9		
Passive cooling	-	Optional			Optional			Optional			Optional		
Power network connection (3P, 230 V / 2P, 230 V)													
Rated current; (3P, 230 V / 2P, 230 V) electric heater 3 kW	A	27A (2P, 230V)			30A (2P, 230V)			33A (2P, 230V)			-		
Type of protection	IP	IP20											
Heat (electric) power of a heat pump / COP (B0/W35)													
		Aleut 4 WTI			Aleut 7 WTI			Aleut 12 WTI			Aleut 18 WTI		
Compressor power	kW	Heating capacity (kW)	Input power (kW)	COP	Heating capacity (kW)	Input power (kW)	COP	Heating capacity (kW)	Input power (kW)	COP	Heating capacity (kW)	Input power (kW)	COP
@1200 rpm	kW	1,79	0,50	3,58	1,79	0,50	3,58	2,70	0,70	3,86	4,00	0,90	4,44
@2100 rpm	kW	3,24	0,76	4,28	3,24	0,76	4,28	4,59	1,01	4,54	7,00	1,40	5,00
@2575 rpm	kW	4,14	0,92	4,36	-	-	-	-	-	-	-	-	-
@3500 rpm	kW	N/A	N/A	N/A	5,49	1,21	4,53	7,69	1,66	4,63	11,64	2,36	4,93
@4300 rpm	kW	N/A	N/A	N/A	7,10	1,60	4,44	9,54	2,09	4,56	14,43	3,06	4,72
@5300 rpm	kW	N/A	N/A	N/A	N/A	N/A	N/A	11,61	2,70	4,30	17,88	4,00	4,47
Heat (electric) power of a heat pump / COP (B0/W55)													
@1200 rpm	kW	1,70	0,80	2,13	1,70	0,80	2,13	2,60	0,97	2,68	3,69	1,46	2,53
@2110 rpm	kW	3,20	1,12	2,86	3,20	1,12	2,86	4,40	1,50	2,93	6,37	2,19	2,91
@2672 rpm	kW	4	1,40	2,864	-	-	-	-	-	-	-	-	-
@3500 rpm	kW	N/A	N/A	N/A	5,18	1,80	2,87	7,28	2,34	3,12	10,49	3,40	3,09
@4300 rpm	kW	N/A	N/A	N/A	6,49	2,30	2,82	8,74	2,94	2,97	12,95	4,25	3,05
@5300 rpm	kW	N/A	N/A	N/A	N/A	N/A	N/A	10,70	3,70	2,89	16,12	5,35	3,01
SCOP	kW	5,33			5,6			5,72			5,95		
FLOOR HEATING (35 C°) average climate conditions													
SCOP	kW	3,97			3,98			4,14			4,44		
RADIATOR HEATING (55 C°) average climate													

Brine circuit		Units	IGLU Aleut 4 WTI	IGLU Aleut 7 WTI	IGLU Aleut 12 WTI	IGLU Aleut 18 WTI
Rated flow (DT = 3K) ²⁾		m³/h	1	2,0	3,0	4,0
Permissible external pressure drop ²⁾		kPa	80	80	70	52
Maximum pressure		bar	4			
Volume (internal)		l	5			6
Operating temperature		°C	from -10 to +20			
Connection (Cu), ✓ heat pump dimensions: 598 x 674 x 1876 ✓ glycol in/out		in	1"			
Compressor						
Type		-	“Scroll”			
Mass of refrigerant R 410A ³⁾		kg	1,3	1,4	1,45	2
Maximum operating pressure (High side)		bar	42			
Maximum operating pressure (Low side)		bar	10,3			
Heating system (Heat pump’s dimensions with water tank 598x674x1876)						
Hot water tank volume (DHW)		l	180			
Operating pressure (DHW)		bar	10			
Max. supply temperature (compressor only)		°C	60			
Max. supply temperature with backup heater		°C	70			
Water tank material (DHW)		-	Stainless steel AISI 444			
Coil area (DHW)		m²	1,5			
Max. permissible operating pressure (Heating system)			4			
Nominal flow (DT = 6K)		m³/h	0.57	1	1,4	2,1
Min. flow temperature		°C	15			
Heating system’s connections (Heat pump’s dimensions with water tank 598x674x1876)						
Connection (Cu), (DHW)		in	3/4"			
Connection (Cu), heating supply/return		in	1"			
General information						
Permissible ambient temperatures		°C	from +10 to +35			
Sound power level R 410A) (LwA) ⁴⁾		dBA	39-47	39-47	39-47	39-47
General information (Heat pump’s dimensions with water tank 598x674x1876)						
Dimensions (width x depth x height)		mm	598x674x1876			
Weight (without packaging)		kg	216	216	226	236

2) With ethylene glycol

3) Greenhouse potential, R 407C - GWP100 = 1774; R 410A - GWP100=2088 ;

4) According to EN 3743-1

Technical data of IGLU Aleut 4 I variable capacity heat pump

Model	IGLU Aleut 4 I
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
Heat pump combination heater	No

Parameters applied using **medium** temperature (55 °C) are declared. Parameters are declared under average climatic conditions.

Parameter	Conventional representation	Value	Measurement unit	Parameter	Conventional representation	Value	Measurement unit
Rated thermal power	P _{rated}	4	kW	Seasonal energy efficiency for space heating	η _s	150,7	%
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T _j				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	P _{dh}	3,8	kW	T _j = − 7 °C	COP _d or PER _d	3,16	-
T _j = + 2 °C	P _{dh}	2,6	kW	T _j = + 2 °C	COP _d or PER _d	4,06	-
T _j = + 7 °C	P _{dh}	1,65	kW	T _j = + 7 °C	COP _d or PER _d	4,49	-
T _j = + 12 °C	P _{dh}	1,25	kW	T _j = + 12 °C	COP _d or PER _d	4,71	-
T _j = (T _{biv})- bivalent temperature mode	P _{dh}	3,82	kW	T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	3,05	-
T _j = operating limit temperature	P _{dh}	-	kW	T _j = operating limit temperature	COP _d or PER _d	-	°C
Air-to-water heat pump: T _j = -15°C (where TOL <-20°C)	P _{dh}	-	kW	Air-to-water heat pump: T _j = -15°C (where TOL <-20°C)	COP _d arba PER _d	-	-
Bivalent temperature	T _{biv}	-10	°C	Air-to-water heat pump: operating limit temperature	TOL	-	°C
Power in cyclic heating mode	P _{cych}	1-4	kW	Cyclical efficiency	COP _{cyc} or PER _{cyc}	-	– or %
Decreased efficiency in cyclic mode	C _{dh}	0,9	-	Heating water limit operating temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0,004	kW	Rated thermal power	P _{sup}	6/9 ¹⁾	kW
Thermostat-off mode	P _{TO}	0,004	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0,004	kW				
Crankcase heater mode	P _{CK}	-	kW				
Other parameters							
Capacity control	Variable			Air-to-water heat pump: rated air flow rate, outdoor	-	-	m³/h
Sound power level, indoors/outdoors	L _{WA}	39-47/0	dB	Ground-to-water heat pump: water flow, outdoor heat exchanger	-	2,0	m³/h
Emissions of nitrogen oxides	NO _x	-	mg/kWh				
For heat pump combination heater							
Declared load profile	-			Water heating Energy efficiency – η _{wh}		-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption		Q _{fuel}	- kWh
Contact details	IGLU TEC UAB Ukmerges st. 364-6, Vilnius, Lithuania						

1) Supplementary heater 6/9 kW based on under the model and power network connection values (more information – "Technical table")

Technical data of IGLU Aleut 7 I variable capacity heat pump

Model	IGLU Aleut 7 I
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
Heat pump combination heater	No

Parameters applied using **medium** temperature (55 °C) are declared. Parameters are declared under average climatic conditions.

Parameter	Conventional representation	Value	Measurement unit				
Rated thermal power	P _{rated}	6	kW				
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T _j							
T _j = − 7 °C	P _{dh}	5,68	kW				
T _j = + 2 °C	P _{dh}	3,38	kW				
T _j = + 7 °C	P _{dh}	2,15	kW				
T _j = + 12 °C	P _{dh}	2,04	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}	-10	°C				
Power in cyclic heating mode	P _{cych}	1,5-7	kW				
Decreased efficiency in cyclic mode	C _{dh}	0,9	-				
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	Variable						
Sound power level, indoors/outdoors	L _{WA}	39-47/0	dB				
Emissions of nitrogen oxides	NO _x	-	mg/kWh				
For heat pump combination heater							
Declared load profile	-			Water heating Energy efficiency – η _{wh}		-	%
				ciency			
Daily electricity consumption	Q _{elec}	-	kWh		Daily fuel consumption	Q _{fuel}	- kWh
Contact details	IGLU TEC UAB Ukmerges st. 364-6, Vilnius, Lithuania						

Parameter	Conventional representation	Value	Measurement unit
Seasonal energy efficiency for space heating	η _s	148	%
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 or PER _d	3,05	-
T _j = + 2 °C	COP _d or PER _d	4,01	-
T _j = + 7 °C	COP _d or PER _d	4,51	-
T _j = + 12 °C	COP _d or PER _d	4,52	-
T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	-	-
T _j = operating limit temperature	COP _d or 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}	6/9 ¹⁾	kW
Type of energy input	Electricity		
Air-to-water heat pump: rated air flow rate, outdoor	-	-	m³/h
Ground-to-water heat pump: water flow, outdoor heat exchanger	-	2,0	m³/h

2) Supplementary heater 6/9 kW based on under the model and power network connection values (more information – "Technical table")

Technical data of IGLU Aleut 12 I variable capacity heat pump

Model	IGLU Aleut 12 I
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
Heat pump combination heater	No

Parameters applied using **medium** temperature (55 °C) are declared. Parameters are declared under average climatic conditions.

Parameter	Conventional representation	Value	Measurement unit	Parameter	Conventional representation	Value	Measurement unit
Rated thermal power	P _{rated}	11	kW	Seasonal energy efficiency for space heating	η _s	154	%
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T _i				Declared efficiency coefficient or ratio of primary energy to radiant heat output at room temperature 20 °C and outdoor temperature T _i			
T _j = − 7 °C	P _{dh}	9,21	kW	T _j = − 7 °C	COP _d or PER _d	3,08	-
T _j = + 2 °C	P _{dh}	5,59	kW	T _j = + 2 °C	COP _d or PER _d	4,09	-
T _j = + 7 °C	P _{dh}	3,61	kW	T _j = + 7 °C	COP _d or PER _d	4,66	-
T _j = + 12 °C	P _{dh}	2,82	kW	T _j = + 12 °C	COP _d or PER _d	4,51	-
T _j = (T _{biv})- bivalent temperature mode	P _{dh}	-	kW	T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	-	-
T _j = operating limit temperature	P _{dh}	-	kW	T _j = operating limit temperature	COP _d or PER _d	-	°C
Air-to-water heat pump: T _j = -15°C (where TOL <-20°C)	P _{dh}	-	kW	Air-to-water heat pump: T _j = -15°C (where TOL <-20°C)	COP _d or PER _d	-	-
Bivalent temperature	T _{biv}	-10	°C	Air-to-water heat pump: operating limit temperature	TOL	-	°C
Power in cyclic heating mode	P _{cych}	3-12	kW	Cyclical efficiency	COP _{cyc} or PER _{cyc}	-	– or %
Decreased efficiency in cyclic mode	C _{dh}	0,9	-	Heating water limit operating temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0,009	kW	Rated thermal power	P _{sup}	6/9 ¹⁾	kW
Thermostat-off mode	P _{TO}	0,009	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0,064	kW				
Crankcase heater mode	P _{CK}	-	kW				
Other parameters							
Capacity control	Variable			Air-to-water heat pump: rated air flow rate, outdoor	-	-	m³/h
Sound power level, indoors/outdoors	L _{WA}	39-47/0	dB	Ground-to-water heat pump: water flow, outdoor heat exchanger	-	2,0	m³/h
Emissions of nitrogen oxides	NO _x	-	mg/kWh				
For heat pump combination heater							
Declared load profile	-			Water heating Energy efficiency	η _{wh}	-	%
Daily electricity consumption	Q _{elec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	IGLU TEC UAB Ukmerges st. 364-6, Vilnius, Lithuania						

1) Supplementary heater 6/9 kW based on under the model and power network connection values (more information – "Technical table")

Technical data of IGLU Aleut 18 I variable capacity heat pump

Model	IGLU Aleut 18 I
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
Heat pump combination heater	No

Parameters applied using **medium** temperature (55 °C) 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}	13,54	kW
T _j = + 2 °C	P _{dh}	8,17	kW
T _j = + 7 °C	P _{dh}	5,29	kW
T _j = + 12 °C	P _{dh}	4,19	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}	-10	°C
Power in cyclic heating mode	P _{cych}	4-18	kW
Decreased efficiency in cyclic mode	C _{dh}	0,9	-
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	Variable		
Sound power level, indoors/outdoors	L _{WA}	39-47/0	dB
Emissions of nitrogen oxides	NO _x	-	mg/kWh
For heat pump combination heater			
Declared load profile	-		
Daily electricity consumption	Q _{elec}	-	kWh
Contact details	IGLU TEC UAB		

Parameter	Conventional representation	Value	Measurement unit
Seasonal energy efficiency for space heating	η _s	164	%
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 or PER _d	3,29	-
T _j = + 2 °C	COP _d or PER _d	4,30	-
T _j = + 7 °C	COP _d or PER _d	4,99	-
T _j = + 12 °C	COP _d or PER _d	5,12	-
T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	-	-
T _j = operating limit temperature	COP _d or PER _d	-	°C
Air-to-water heat pump: T _j = -15°C (where TOL <-20°C)	COP _d or 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}	6/9 ¹⁾	kW
Type of energy input	Electricity		
Air-to-water heat pump: rated air flow rate, outdoor	-	-	m³/h
Ground-to-water heat pump: water flow, outdoor heat exchanger	-	3,0	m³/h
Water heating Energy efficiency		η _{wh}	%
Daily fuel consumption	Q _{fuel}	-	kWh
Ukmerges st. 364-6, Vilnius, Lithuania			

1) Supplementary heater 6/9 kW based on under the model and power network connection values (more information – "Technical table")

Technical data of IGLU Aleut 4 WTI variable capacity heat pump

Model	IGLU Aleut 4 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
Heat pump combination heater	Yes

Parameters applied using **medium** temperature (55 °C) are declared. Parameters are declared under average climatic conditions.

Parameter	Conventional representation	Value	Measurement unit	Parameter	Conventional representation	Value	Measurement unit
Rated thermal power	P _{rated}	4	kW	Seasonal energy efficiency for space heating	η _s	150,7	%
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T _j				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	P _{dh}	3,8	kW	T _j = − 7 °C	COP _d or PER _d	3,16	-
T _j = + 2 °C	P _{dh}	2,6	kW	T _j = + 2 °C	COP _d or PER _d	4,06	-
T _j = + 7 °C	P _{dh}	1,65	kW	T _j = + 7 °C	COP _d or PER _d	4,49	-
T _j = + 12 °C	P _{dh}	1,25	kW	T _j = + 12 °C	COP _d or PER _d	4,71	-
T _j = (T _{biv})- bivalent temperature mode	P _{dh}	3,82	kW	T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	3,05	-
T _j = operating limit temperature	P _{dh}	-	kW	T _j = operating limit temperature	COP _d or PER _d	-	°C
Air-to-water heat pump: T _j = -15°C (where TOL <-20°C)	P _{dh}	-	kW	Air-to-water heat pump: T _j = -15°C (where TOL <-20°C)	COP _d arba PER _d	-	-
Bivalent temperature	T _{biv}	-10	°C	Air-to-water heat pump: operating limit temperature	TOL	-	°C
Power in cyclic heating mode	P _{cych}	1-4	kW	Cyclical efficiency	COP _{cyc} or PER _{cyc}	-	– or %
Decreased efficiency in cyclic mode	C _{dh}	0,9	-	Heating water limit operating temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0,004	kW	Rated thermal power	P _{sup}	6/9 ¹⁾	kW
Thermostat-off mode	P _{TO}	0,004	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0,004	kW				
Crankcase heater mode	P _{CK}	-	kW				
Other parameters							
Capacity control	Variable			Air-to-water heat pump: rated air flow rate, outdoor	-	-	m³/h
Sound power level, indoors/outdoors	L _{WA}	39-47/0	dB	Ground-to-water heat pump: water flow, outdoor heat exchanger	-	2,0	m³/h
Emissions of nitrogen oxides	NO _x	-	mg/kWh				
For heat pump combination heater							
Declared load profile	XL			Water heating Energy efficiency – η _{wh}		104	%
Daily electricity consumption	Q _{elec}	7,328	kWh	Daily fuel consumption		-	kWh
Contact details	IGLU TEC UAB Ukmerges st. 364-6, Vilnius, Lithuania						

3) Supplementary heater 6/9 kW based on under the model and power network connection values (more information – "Technical table")

Technical data of IGLU Aleut 7 WTI variable capacity heat pump with water tank

Model	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
Heat pump combination heater	Yes

Parameters applied using **medium** temperature (55 °C) are declared. Parameters are declared under average climatic conditions.

Parameter	Conventional representation	Value	Measurement unit				
Rated thermal power	P _{rated}	6	kW				
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T _j							
T _j = − 7 °C	P _{dh}	5,68	kW				
T _j = + 2 °C	P _{dh}	3,38	kW				
T _j = + 7 °C	P _{dh}	2,15	kW				
T _j = + 12 °C	P _{dh}	2,04	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}	-10	°C				
Power in cyclic heating mode	P _{cych}	1,5-7	kW				
Decreased efficiency in cyclic mode	C _{dh}	0,9	-				
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	Variable						
Sound power level, indoors/outdoors	L _{WA}	39-47/0	dB				
Emissions of nitrogen oxides	NO _x	-	mg/kWh				
For heat pump combination heater							
Declared load profile	XL		Water heating Energy efficiency	η _{wh}	104	%	
Daily electricity consumption	Q _{elec}	7,328	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	IGLU TEC UAB Ukmerges st. 364-3, Vilnius, Lithuania						

1) Supplementary heater 6/9 kW based on under the model and power network connection values (more information – "Technical table")

Technical data of IGLU Aleut 12 WTI variable capacity heat pump with water tank

Model	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
Heat pump combination heater	Yes

Parameters applied using **medium** temperature (55 °C) are declared. Parameters are declared under average climatic conditions.

Parameter	Conventional representation	Value	Measurement unit	Parameter	Conventional representation	Value	Measurement unit
Rated thermal power	P _{rated}	11	kW	Seasonal energy efficiency for space heating	η _s	154	%
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T _j				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	P _{dh}	9,21	kW	T _j = − 7 °C	COP _d or PER _d	3,08	-
T _j = + 2 °C	P _{dh}	5,59	kW	T _j = + 2 °C	COP _d or PER _d	4,09	-
T _j = + 7 °C	P _{dh}	3,61	kW	T _j = + 7 °C	COP _d or PER _d	4,66	-
T _j = + 12 °C	P _{dh}	2,82	kW	T _j = + 12 °C	COP _d or PER _d	4,51	-
T _j = (T _{biv})- bivalent temperature mode	P _{dh}	-	kW	T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	-	-
T _j = operating limit temperature	P _{dh}	-	kW	T _j = operating limit temperature	COP _d or PER _d	-	°C
Air-to-water heat pump: T _j = -15°C (where TOL <-20°C)	P _{dh}	-	kW	Air-to-water heat pump: T _j = -15°C (where TOL <-20°C)	COP _d or PER _d	-	-
Bivalent temperature	T _{biv}	-10	°C	Air-to-water heat pump: operating limit temperature	TOL	-	°C
Power in cyclic heating mode	P _{cych}	3-12	kW	Cyclical efficiency	COP _{cyc} or PER _{cyc}	-	– or %
Decreased efficiency in cyclic mode	C _{dh}	0,9	-	Heating water limit operating temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0,009	kW	Rated thermal power	P _{sup}	6/9 ¹⁾	kW
Thermostat-off mode	P _{TO}	0,009	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0,064	kW				
Crankcase heater mode	P _{CK}	-	kW				
Other parameters							
Capacity control	Variable			Air-to-water heat pump: rated air flow rate, outdoor	-	-	m³/h
Sound power level, indoors/outdoors	L _{WA}	39-47/0	dB	Ground-to-water heat pump: water flow, outdoor heat exchanger	-	2,0	m³/h
Emissions of nitrogen oxides	NO _x	-	mg/kWh				
For heat pump combination heater							
Declared load profile	XL			Water heating Energy efficiency – η _{wh}	104 %		
Daily electricity consumption	Q _{elec}	7,328	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Contact details	IGLU TEC UAB Ukmerges st. 364-3, Vilnius, Lithuania						

1) Supplementary heater 6/9 kW based on under the model and power network connection values (more information – "Technical table")

Technical data of IGLU Aleut 18 WTI variable capacity heat pump with water tank

Model	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
Heat pump combination heater	Yes

Parameters applied using **medium** temperature (55 °C) 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}	13,54	kW
T _j = + 2 °C	P _{dh}	8,17	kW
T _j = + 7 °C	P _{dh}	5,29	kW
T _j = + 12 °C	P _{dh}	4,19	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}	-10	°C
Power in cyclic heating mode	P _{cych}	4-18	kW
Decreased efficiency in cyclic mode	C _{dh}	0,9	-
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	Variable		
Sound power level, indoors/outdoors	L _{WA}	39-47/0	dB
Emissions of nitrogen oxides	NO _x	-	mg/kWh
For heat pump combination heater			
Declared load profile	XL		
Daily electricity consumption	Q _{elec}	7,328	kWh
Contact details	IGLU TEC UAB		

Parameter	Conventional representation	Value	Measurement unit
Seasonal energy efficiency for space heating	η _s	164	%
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 or PER _d	3,29	-
T _j = + 2 °C	COP _d or PER _d	4,30	-
T _j = + 7 °C	COP _d or PER _d	4,99	-
T _j = + 12 °C	COP _d or PER _d	5,12	-
T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	-	-
T _j = operating limit temperature	COP _d or PER _d	-	°C
Air-to-water heat pump: T _j = -15°C (where TOL <-20°C)	COP _d or 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}	6/9 ¹⁾	kW
Type of energy input	Electricity		
Air-to-water heat pump: rated air flow rate, outdoor	-	-	m³/h
Ground-to-water heat pump: water flow, outdoor heat exchanger	-	3,0	m³/h
Water heating Energy efficiency	η _{wh}	104	%
Daily fuel consumption	Q _{fuel}	-	kWh
Ukmerges st. 364-3, Vilnius, Lithuania			

1) Supplementary heater 6/9 kW based on under the model and power network connection values (more information – "Technical table")



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