



TECHNICAL DATA

AIR-TO-WATER HEAT PUMPS **IGLU Inuit Mono**



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Applicability of the Technical Data

The Technical Data are applicable to the following units:

Model	Unit type	Model Code
IGLU Inuit Mono 5	Indoor	MB005INANMISrd
	Outdoor	MB005INANMOSrd
IGLU Inuit Mono 5 WT	Indoor	MB005IWANMISrd
	Outdoor	MB005INANMOSrd
IGLU Inuit Mono 8	Indoor	MB008INANMITrd
	Outdoor	MB008INANMOTrd
IGLU Inuit Mono 8 WT	Indoor	MB008IWANMITrd
	Outdoor	MB008INANMOTrd
IGLU Inuit Mono 12	Indoor	MB012INANMITrd
	Outdoor	MB012INANMOTrd
IGLU Inuit Mono 12 WT	Indoor	MB012IWANMITrd
	Outdoor	MB012INANMOTrd
IGLU Inuit Mono 16	Indoor	MB016INANMITrd
	Outdoor	MB016INANMOTrd
IGLU Inuit Mono 16 WT	Indoor	MB016IWANMITrd
	Outdoor	MB016INANMOTrd

The sequence of IGLU TECH products configuration

X1 – IGLU Aleut/IGLU Aleut WT/IGLU Aleut I/IGLU Aleut WTI – AL;

X1 – IGLU ALEUT WTI (1800x600x600) – AS;

X1 – IGLU Inuit /IGLU Inuit WT – IN;

X1 – IGLU Inuit WT (1800x600x600) – 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); Mono (M)

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 110 V;

Tn – triple phase to north 3P 110 V;

X10 – Agent (R 410A – a; R 407C – b; R32 – c; R 290– d);

N – not applicable;

Technical data of IGLU Inuit Mono 5 – 16 kW air-to-water heat pumps

Models				IGLU Inuit Mono 5	IGLU Inuit Mono 8	IGLU Inuit Mono 12	IGLU Inuit Mono 16
Air-water used							
CAPACITY	Heating	A2W Condition #1. (A7/W35) ^{1)*}	W	5,000	8,000	12,000	16,000
		A2W condition #2	W	5,000	8,000	12,000	16,000
		A2W condition #3	W	5,000	8,000	12,000	16,000
		A2/W35 ^{4)*}	W	5,000	8,000	12,000	16,000
		A-7/W35 ^{4)*}	W	5,000	8,000	12,000	16,000
	Cooling	A2W Condition #1. (A35/W18) ^{1)*}	W	5,000	8,000	12,000	14,000
		A2W condition #2	W	3,900	5,700	9,000	10,400
Power Input	Heating	A2W Condition #1. (A7/W35) ^{1)*}	W	980	1,630	2,500	3,550
		A2W condition #2		1,320	2,160	3,240	4,570
		A2W condition #3		1,610	2,670	4,000	5,520
		A2/W35 ^{4)*}		1,160	1,900	2,790	4,100
		A-7/W35 ^{4)*}		1,670	2,670	4,000	5,710
	Cooling	A2W Condition #1. (A35/W18) ^{1)*}	W	1,280	2,050	3,000	3,680
		A2W condition #2		1,279	1,900	3,103	3,714
Current Input	Heating	A2W Condition #1.	A	4,63	2,56	3,92	5,57
	Cooling			6,05	3,22	4,71	5,77
	Heating	A2W condition #2		6,24	3,39	5,08	7,17
	Cooling			7,61	4,19	6,28	8,66
Current	MCA (Mimium circuit amperes)		A	16,1	16,1	16,1	16,1
	MFA (Maximum fuse amperes)			17,6	17,7	17,7	17,7
COP (Nominal Heating) A2W condition #1				5,10	4,91	4,80	4,51
EER (Nominal Cooling) A2W condition #1				3,91	3,90	4,00	4,51
EER (Nominal Cooling) A2W condition #2				3,05	3,00	2,90	2,80
COP	A2W condition #2		W/W	3,80	3,70	3,70	3,50
	A2W condition #3			3,10	3,00	3,00	2,90
	A2/W35 ^{4)*}			4,30	4,20	4,30	3,90
	A-7/W35 ^{4)*}			3,00	3,00	3,00	2,80
PdesignH (LWT 35°C)				5,500	8,000	12,000	15,500
PdesignH (LWT 55°C)				5,500	8,000	12,000	15,500
SCOP Class (35°C)				A+++	A+++	A+++	A+++
SCOP Class (55°C)				A++	A++	A++	A++
SCOP (35°C)				5,10	4,85	4,90	4,70
SCOP (55°C)				3,60	3,55	3,65	3,55
SEER				4,20	4,30	4,80	5,00

Outdoor units					
Nominal Water Flow Rate (heating/cooling)	LPM	14,4/14,4	23,1/23,1	34,6/34,6	46,2/40,4
Water Flow Rate, min/max	LPM	7/48	7/48	7/58	7/58
Ambient Temperature, Heating	°C	from -25 to +35			
Ambient Temperature, Cooling	°C	from +10 to +46			
Ambient Temperature, DHW (domestic hot water)	°C	from -25 to +43			
Refrigerant Factory Charging	g	630	870	1,250	1,250
Refrigerant Type	kg	R290			
Dimensions (WxHxD)	mm	998x850x500	998x850x500	1,270x1,018x530	1,270x1,018x530
Weight (without packaging)	kg	86	98	140	140
Outdoor unit IP rating		IPX4			
Sound pressure level, heating/cooling	db	41/41	45/45	47/47	51/51
Sound power level, heating/cooling	db	55/55	59/59	60/60	65/65
Compressor					
Compressor Type		Rotary	Rotary	Scroll	Scroll
Starting method		Inverter driven			
Fan					
Air Flow Rate, heating	m³/min	52	65	95	95
Air Flow Rate, cooling	m³/min	55	69	90	94
Power network connection					
Electrical connections		1F 220~240 V		3F 380V ~415V	
Unit		Indoor unit	Outdoor unit	(Indoor + outdoor unit)	
MFA : Maximum fuse amperes	A	32	20	40	
Piping Connections					
Water Pipe Connections, Inlet/Outlet (on outdoor unit)	BSPP male	1 “	1 “	1 “	1 “
Water Pipe Connections, Inlet/Outlet (on indoor unit)	BSPP male	1” ¹ ₄	1” ¹ ₄	1” ¹ ₄	1” ¹ ₄
Diameter for inter connection	mm	28	28	28	28
Indoor units					
Ambient Temperature	°C	from +5 to +35			
Min. flow heating leaving temperature	°C	15			
Max. flow heating leaving temperature	°C	75			
Min. flow cooling temperature	°C	5			
Max. flow cooling temperature	°C	25			
Water pressure (Max)	bar	3			
Electric supplementary heater power	kW	3 / 6	3 / 6 / 9		
Dimensions indoor (width x height x depth)	mm	535x724x406			
Weight indoor (without packaging)	kg	44	46	48	50
Indoor unit IP rating		IPX1			

- NOTE:**
- 1) A2W Condition #1 : (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].
 - 2) A2W Condition #2 : (Heating) Water In/Out 40°C/45°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 12°C/7°C, Outdoor Air 35°C[DB].
 - 3) A2W Condition #3 : (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].
 - 4) A2W Condition : (A2W35) Water In/Out -/35°C, Outdoor Air 2°C[DB]/1°C[WB]; (A-7/W35) Water In/Out -/35°C, Outdoor Air -7°C[DB]/-(※ Peak Capacity)
 - 5) Select wire size based on the value of MCA
 - 6) Sound pressure level is obtained in an anechoic room. - Sound pressure level is a relative value, depending on the distance and acoustic environment.
- Sound pressure level may differ depending on operation condition.
- dBA = A-weighted sound pressure level
- Reference acoustic pressure 0 dB = 20uPa
 - 7) Sound power level is an absolute value that a sound source generates. - dBA = A-weighted Sound power level
- Reference power : 1pW
- Measured according to ISO 3741
 - 8) These products contain R290 (GWP=3) which is fluorinated greenhouse gas.
 - 9) The system is operated in (-25°C ≤ Outdoor temp. < -20°C) condition, but no guarantee of capacity.

Annex No 1

Annex to the technical characteristics according to European Commission Regulation No 813/2013

Technical data of IGLU Inuit Mono 5 variable capacity heat pump

Model	IGLU Inuit Mono 5
Indoor unit	MB005INANMISrd
Outdoor unit	MB005INANMOSrd
Air-to-water heat pump	Yes
Water-to-water heat pump	No
Ground-to-water heat pump	No
Low temperature heat pump	No
Equipped with supplementary heater	Yes
Heat pump combination heater	No

Parameters applied using **medium** temperature 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}	4,9	kW
T _j = + 2 °C	P _{dh}	3,0	kW
T _j = + 7 °C	P _{dh}	1,9	kW
T _j = + 12 °C	P _{dh}	1,7	kW
T _j = (T _{biv})- bivalent temperature mode	P _{dh}	4,9	kW
T _j = operating limit temperature	P _{dh}	4,8	kW
Air-to-water heat pump: T _j = -15°C (where TOL <- 20°C)	P _{dh}	-	kW
Bivalent temperature	T _{biv}	-7	°C
Power in cyclic heating mode	P _{cych}	-	kW
Decreased efficiency in cyclic mode	C _{dh}	0,9	-
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0,022	kW
Thermostat-off mode	P _{TO}	0,022	kW
Standby mode	P _{SB}	0,022	kW
Crankcase heater mode	P _{CK}	0,000	kW
Other parameters			
Capacity control	Variable		
Sound power level, indoors/outdoors	L _{WA}	40/55	dB
Emissions of nitrogen oxides	NO _x	-	mg/kWh
For heat pump combination heater			
Declared load profile	-		
Daily electricity consumption Q _{elec}	-	kWh	

Parameter	Conventional representation	Value	Measurement unit
Seasonal energy efficiency for space heating	η _s	141	%
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	2,15	-
T _j = + 2 °C	COP _d or PER _d	3,56	-
T _j = + 7 °C	COP _d or PER _d	4,85	-
T _j = + 12 °C	COP _d or PER _d	5,80	-
T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	2,15	-
T _j = operating limit temperature	COP _d or PER _d	1,90	°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	-10	°C
Cyclical efficiency	COP _{cyc} or PER _{cyc}	-	– or %
Heating water limit operating temperature	WTOL	75	°C
Supplementary heater			
Rated thermal power	P _{sup}	3/6	kW
Type of energy input	Electricity		
Air-to-water heat pump: rated air flow rate, outdoor	-	5520	m³/h
Ground-to-water heat pump: water flow, outdoor heat exchanger	-	-	m³/h
Water heating Energy efficiency – η _{wh}		-	%
Daily fuel consumption Q _{fuel}		-	kWh

Technical data of IGLU Inuit Mono 8 variable capacity heat pump

Model	IGLU Inuit Mono 8
Indoor unit	MB008INANMITrd
Outdoor unit	MB008INANMOTrd
Air-to-water heat pump	Yes
Water-to-water heat pump	No
Ground-to-water heat pump	No
Low temperature heat pump	No
Equipped with supplementary heater	Yes
Heat pump combination heater	No

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

Parameter	Conventional representation	Value	Measurement unit
Rated thermal power	P _{rated}	8,0	kW
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T _j			
T _j = − 7 °C	P _{dh}	7,1	kW
T _j = + 2 °C	P _{dh}	4,3	kW
T _j = + 7 °C	P _{dh}	2,8	kW
T _j = + 12 °C	P _{dh}	2,4	kW
T _j = (T _{biv})- bivalent temperature mode	P _{dh}	7,1	kW
T _j = operating limit temperature	P _{dh}	7,3	kW
Air-to-water heat pump: T _j = -15°C (where TOL <- 20°C)	P _{dh}	-	kW
Bivalent temperature	T _{biv}	-7	°C
Power in cyclic heating mode	P _{cych}		kW
Decreased efficiency in cyclic mode	C _{dh}	0,9	-
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0,022	kW
Thermostat-off mode	P _{TO}	0,022	kW
Standby mode	P _{SB}	0,022	kW
Crankcase heater mode	P _{CK}	0,000	kW
Other parameters			
Capacity control	Variable		
Sound power level indoors/outdoors	L _{WA}	40/59	dB
Emissions of nitrogen oxides	NO _x	-	mg/kWh
For heat pump combination heater			
Declared load profile	-		
Daily electricity consumption Q _{elec}	-	kWh	

Parameter	Conventional representation	Value	Measurement unit
Seasonal energy efficiency for space heating	η _s	139	%
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	2,02	-
T _j = + 2 °C	COP _d or PER _d	3,44	-
T _j = + 7 °C	COP _d or PER _d	5,05	-
T _j = + 12 °C	COP _d or PER _d	6,00	-
T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	2,02	-
T _j = operating limit temperature	COP _d or PER _d	1,90	°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	-10	°C
Cyclical efficiency	COP _{cyc} or PER _{cyc}	-	– or %
Heating water limit operating temperature	WTOL	75	°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	-	5520	m³/h
Ground-to-water heat pump: water flow, outdoor heat exchanger	-	-	m³/h
Water heating Energy efficiency – η _{wh}		-	%
Daily fuel consumption Q _{fuel}		-	kWh

Technical data of IGLU Inuit Mono 12 variable capacity heat pump

Model	IGLU Inuit Mono 12
Indoor unit	MB012INANMITrd
Outdoor unit	MB012INANMOTrd
Air-to-water heat pump	Yes
Water-to-water heat pump	No
Ground-to-water heat pump	No
Low temperature heat pump	No
Equipped with supplementary heater	Yes
Heat pump combination heater	No

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

Parameter	Conventional representation	Value	Measurement unit
Rated thermal power	P _{rated}	12,0	kW
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T _j			
T _j = − 7 °C	P _{dh}	10,6	kW
T _j = + 2 °C	P _{dh}	6,5	kW
T _j = + 7 °C	P _{dh}	4,2	kW
T _j = + 12 °C	P _{dh}	4,2	kW
T _j = (T _{biv})- bivalent temperature mode	P _{dh}	10,6	kW
T _j = operating limit temperature	P _{dh}	11,5	kW
Air-to-water heat pump: T _j = -15°C (where TOL <- 20°C)	P _{dh}	-	kW
Bivalent temperature	T _{biv}	-7	°C
Power in cyclic heating mode	P _{cych}		kW
Decreased efficiency in cyclic mode	C _{dh}	0,9	-
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0,022	kW
Thermostat-off mode	P _{TO}	0,022	kW
Standby mode	P _{SB}	0,022	kW
Crankcase heater mode	P _{CK}	0,000	kW
Other parameters			
Capacity control	Variable		
Sound power level indoors/outdoors	L _{WA}	42/60	dB
Emissions of nitrogen oxides	NO _x	-	mg/kWh
For heat pump combination heater			
Declared load profile	-		
Daily electricity consumption Q _{elec}		-	kWh

Parameter	Conventional representation	Value	Measurement unit
Seasonal energy efficiency for space heating	η _s	143	%
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	2,15	-
T _j = + 2 °C	COP _d or PER _d	3,60	-
T _j = + 7 °C	COP _d or PER _d	4,88	-
T _j = + 12 °C	COP _d or PER _d	5,95	-
T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	2,15	-
T _j = operating limit temperature	COP _d or PER _d	1,85	°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	-10	°C
Cyclical efficiency	COP _{cyc} or PER _{cyc}	-	– or %
Heating water limit operating temperature	WTOL	75	°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	-	5700	m³/h
Ground-to-water heat pump: water flow, outdoor heat exchanger	-	-	m³/h
Water heating Energy efficiency – η _{wh}			
Daily fuel consumption		Q _{fuel}	- kWh

Technical data of IGLU Inuit Mono 16 variable capacity heat pump

Model	IGLU Inuit Mono 16
Indoor unit	MB016INANMITrd
Outdoor unit	MB016INANMOTrd
Air-to-water heat pump	Yes
Water-to-water heat pump	No
Ground-to-water heat pump	No
Low temperature heat pump	No
Equipped with supplementary heater	Yes
Heat pump combination heater	No

Parameters applied using **medium** 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}	13,7	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}	4,2	kW
T _j = (T _{biv})- bivalent temperature mode	P _{dh}	13,7	kW
T _j = operating limit temperature	P _{dh}	13,3	kW
Air-to-water heat pump: T _j = -15°C (where TOL <- 20°C)	P _{dh}	-	kW
Bivalent temperature	T _{biv}	-7	°C
Power in cyclic heating mode	P _{cych}		kW
Decreased efficiency in cyclic mode	C _{dh}	0,9	-
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0,022	kW
Thermostat-off mode	P _{TO}	0,022	kW
Standby mode	P _{SB}	0,022	kW
Crankcase heater mode	P _{CK}	0,000	kW
Other parameters			
Capacity control	Variable		
Sound power level indoors/outdoors	L _{WA}	44/65	dB
Emissions of nitrogen oxides	NO _x	-	mg/kWh
For heat pump combination heater			
Declared load profile	-		
Daily electricity consumption Q _{elec}	-	kWh	

Parameter	Conventional representation	Value	Measurement unit
Seasonal energy efficiency for space heating	η _s	139	%
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	1,95	-
T _j = + 2 °C	COP _d or PER _d	3,43	-
T _j = + 7 °C	COP _d or PER _d	5,18	-
T _j = + 12 °C	COP _d or PER _d	6,58	-
T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	1,95	-
T _j = operating limit temperature	COP _d or PER _d	1,75	°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	-10	°C
Cyclical efficiency	COP _{cyc} or PER _{cyc}	-	– or %
Heating water limit operating temperature	WTOL	75	°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	-	5700	m³/h
Ground-to-water heat pump: water flow, outdoor heat exchanger	-	-	m³/h
Water heating Energy efficiency – η _{wh}		-	%
Daily fuel consumption Q _{fuel}		-	kWh

Technical data of IGLU Inuit Mono 5 – 16 kW air-to-water heat pumps with integrated water tank

Models				IGLU Inuit Mono 5 WT	IGLU Inuit Mono 8 WT	IGLU Inuit Mono 12 WT	IGLU Inuit Mono 16 WT
Air-water used							
CAPACITY	Heating	A2W Condition #1. (A7/W35) ^{1)*}	W	5,000	8,000	12,000	16,000
		A2W condition #2	W	5,000	8,000	12,000	16,000
		A2W condition #3	W	5,000	8,000	12,000	16,000
		A2/W35 ^{4)*}	W	5,000	8,000	12,000	16,000
		A-7/W35 ^{4)*}	W	5,000	8,000	12,000	16,000
	Cooling	A2W Condition #1. (A35/W18) ^{1)*}	W	5,000	8,000	12,000	14,000
		A2W condition #2	W	3,900	5,700	9,000	10,400
Power Input	Heating	A2W Condition #1. (A7/W35) ^{1)*}	W	980	1,630	2,500	3,550
		A2W condition #2		1,320	2,160	3,240	4,570
		A2W condition #3		1,610	2,670	4,000	5,520
		A2/W35 ^{4)*}		1,160	1,900	2,790	4,100
		A-7/W35 ^{4)*}		1,670	2,670	4,000	5,710
	Cooling	A2W Condition #1. (A35/W18) ^{1)*}	W	1,280	2,050	3,000	3,680
		A2W condition #2		1,279	1,900	3,103	3,714
Current Input	Heating	A2W Condition #1.	A	4,63	2,56	3,92	5,57
	Cooling			6,05	3,22	4,71	5,77
	Heating	A2W condition #2		6,24	3,39	5,08	7,17
	Cooling			7,61	4,19	6,28	8,66
Current	MCA (Mimium circuit amperes)		A	16,1	16,1	16,1	16,1
	MFA (Maximum fuse amperes)			17,6	17,7	17,7	17,7
COP (Nominal Heating) A2W condition #1				5,10	4,91	4,80	4,51
EER (Nominal Cooling) A2W condition #1				3,91	3,90	4,00	4,51
EER (Nominal Cooling) A2W condition #2				3,05	3,00	2,90	2,80
COP	A2W condition #2		W/W	3,80	3,70	3,70	3,50
	A2W condition #3			3,10	3,00	3,00	2,90
	A2/W35 ^{4)*}			4,30	4,20	4,30	3,90
	A-7/W35 ^{4)*}			3,00	3,00	3,00	2,80
PdesignH (LWT 35°C)				5,500	8,000	12,000	15,500
PdesignH (LWT 55°C)				5,500	8,000	12,000	15,500
SCOP Class (35°C)				A+++	A+++	A+++	A+++
SCOP Class (55°C)				A++	A++	A++	A++
SCOP (35°C)				5,10	4,85	4,90	4,70
SCOP (55°C)				3,60	3,55	3,65	3,55
SEER				4,20	4,30	4,80	5,00
Outdoor units							
Nominal Water Flow Rate (heating/cooling)			LPM	14,4/14,4	23,1/23,1	34,6/34,6	46,2/40,4
Water Flow Rate, min/max			LPM	7/48	7/48	7/58	7/58
Ambient Temperature, Heating			°C	from -25 to +35			
Ambient Temperature, Cooling			°C	from +10 to +46			
Ambient Temperature, DHW (domestic hot water)			°C	from -25 to +43			

Refrigerant Factory Charging	g	630	870	1,250	1,250
Refrigerant Type	kg	R290			
Dimensions (WxHxD)	mm	998x850x500	998x850x500	1,270x1,018x530	1,270x1,018x530
Outdoor unit IP rating		IPX4			
Weight (without packaging)	kg	86	98	140	140
Sound pressure level, heating/cooling	db	41/41	45/45	47/47	51/51
Sound power level, heating/cooling	db	55/55	59/59	60/60	65/65
Compressor					
Compressor Type		Rotary	Rotary	Scroll	Scroll
Starting method		Inverter driven			
Fan					
Air Flow Rate, heating	m³/min	52	65	95	95
Air Flow Rate, cooling	m³/min	55	69	90	94
Power network connection					
Electrical connections		1F 220~240 V		3F 380V ~415V	
Unit		Indoor unit	Outdoor unit	(Indoor + outdoor unit)	
MFA : Maximum fuse amperes	A	32	20	40	
Piping Connections					
Water Pipe Connections, Inlet/Outlet (on outdoor unit)	BSPP male	1 "	1 "	1 "	1 "
Water Pipe Connections, Inlet/Outlet (on indoor unit)	BSPP male	1 "	1 "	1 "	1 "
Diameter for inter connection	mm	28	28	28	28
DHW pipe connection, Inlet/Outlet (on indoor unit)	BSPP male	¾"	¾"	¾"	¾"
Indoor units					
Ambient Temperature	°C	from +5 to +35			
Min. flow heating leaving temperature	°C	15			
Max. flow heating leaving temperature	°C	75			
Min. flow cooling temperature	°C	5			
Max. flow cooling temperature	°C	25			
Water pressure (Max)	bar	3			
Electric supplementary heater power	kW	3 / 6	3 / 6/ 9		
Dimensions indoor (width x height x depth)	mm	598x1880x673			
DHW tank volume	l	180			
DHW tank Operating Pressure	bar	10			
DHW tank material		Stainless steel AISI 444			
Weight indoor (without packaging)	kg	151.5	151.5	153.5	153.5
Indoor unit IP rating		IPX1			

NOTE:

- 1) A2W Condition #1 : (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].
- 2) A2W Condition #2 : (Heating) Water In/Out 40°C/45°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 12°C/7°C, Outdoor Air 35°C[DB].
- 3) A2W Condition #3 : (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].
- 4) A2W Condition : (A2W35) Water In/Out -/35°C, Outdoor Air 2°C[DB]/1°C[WB]; (A-7/W35) Water In/Out -/35°C, Outdoor Air -7°C[DB]/-(※ Peak Capacity)
- 5) Select wire size based on the value of MCA
- 6) Soundpressure level is obtained in an anechoic room. - Sound pressure level is a relative value, depending on the distance and acoustic environment.
- Sound pressure level may differ depending on operation condition.
- dBA = A-weighted sound pressure level
- Reference acoustic pressure 0 dB = 20uPa
- 7) Sound power level is an absolute value that a sound source generates. - dBA = A-weighted Sound power level
- Reference power : 1pW
- Measured according to ISO 3741
- 8) These products contain R290 (GWP=3) which is fluorinated greenhouse gas.
- 9) The system is operated in (-25°C ≤ Outdoor temp. < -20°C) condition, but no guarantee of capacity.

Annex to the technical characteristics according to European Commission Regulation No 813/2013

Technical data of IGLU Inuit Mono 5 WT variable capacity heat pump with integrated water tank

Model	IGLU Inuit Mono 5 WT
Indoor unit	MB005IWANMISrd
Outdoor unit	MB005INANMOSrd
Air-to-water heat pump	Yes
Water-to-water heat pump	No
Ground-to-water heat pump	No
Low temperature heat pump	No
Equipped with supplementary heater	Yes
Heat pump combination heater	Yes

Parameters applied using **medium** temperature 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}	6	kW	Seasonal energy efficiency for space heating	η _s	141	%
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}	4,9	kW	T _j = − 7 °C	COP _d or PER _d	2,15	-
T _j = + 2 °C	P _{dh}	3,0	kW	T _j = + 2 °C	COP _d or PER _d	3,56	-
T _j = + 7 °C	P _{dh}	1,9	kW	T _j = + 7 °C	COP _d or PER _d	4,85	-
T _j = + 12 °C	P _{dh}	1,7	kW	T _j = + 12 °C	COP _d or PER _d	5,80	-
T _j = (T _{biv})- bivalent temperature mode	P _{dh}	4,9	kW	T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	2,15	-
T _j = operating limit temperature	P _{dh}	4,8	kW	T _j = operating limit temperature	COP _d or PER _d	1,90	°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}	-7	°C	Air-to-water heat pump: operating limit temperature	TOL	-10	°C
Power in cyclic heating mode	P _{cych}	-	kW	Cyclical efficiency	COP _{cyc} or PER _{cyc}	-	– or %
Decreased efficiency in cyclic mode	C _{dh}	0,9	-	Heating water limit operating temperature	WTOL	75	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{OFF}	0,022	kW	Rated thermal power	P _{sup}	3/6	kW
Thermostat-off mode	P _{TO}	0,022	kW	Type of energy input	Electricity		
Standby mode	P _{SB}	0,022	kW				
Crankcase heater mode	P _{CK}	0,000	kW				
Other parameters							
Capacity control	Variable			Air-to-water heat pump: rated air flow rate, outdoor	-	5520	m³/h
Sound power level, indoors/outdoors	L _{WA}	40/55	dB	Ground-to-water heat pump: water flow, outdoor heat exchanger	-	-	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	%
Annual electricity consumption Q _{elec}	1716	kWh		Daily fuel consumption Q _{fuel}	-		kWh

Technical data of IGLU Inuit Mono 8 WT variable capacity heat pump with integrated water tank

Model	IGLU Inuit Mono 8 WT
Indoor unit	MB008IWANMITrd
Outdoor unit	MB008INANMOTrd
Air-to-water heat pump	Yes
Water-to-water heat pump	No
Ground-to-water heat pump	No
Low temperature heat pump	No
Equipped with supplementary heater	Yes
Heat pump combination heater	Yes

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

Parameter	Conventional representation	Value	Measurement unit
Rated thermal power	P _{rated}	8,0	kW
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T _j			
T _j = − 7 °C	P _{dh}	7,1	kW
T _j = + 2 °C	P _{dh}	4,3	kW
T _j = + 7 °C	P _{dh}	2,8	kW
T _j = + 12 °C	P _{dh}	2,4	kW
T _j = (T _{biv})- bivalent temperature mode	P _{dh}	7,1	kW
T _j = operating limit temperature	P _{dh}	7,3	kW
Air-to-water heat pump: T _j = -15°C (where TOL <- 20°C)	P _{dh}	-	kW
Bivalent temperature	T _{biv}	-7	°C
Power in cyclic heating mode	P _{cych}		kW
Decreased efficiency in cyclic mode	C _{dh}	0,9	-
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0,022	kW
Thermostat-off mode	P _{TO}	0,022	kW
Standby mode	P _{SB}	0,022	kW
Crankcase heater mode	P _{CK}	0,000	kW
Other parameters			
Capacity control	Variable		
Sound power level indoors/outdoors	L _{WA}	40/59	dB
Emissions of nitrogen oxides	NO _x	-	mg/kWh
For heat pump combination heater			
Declared load profile	XL		
Annual electricity consumption Q _{elec}	1716	kWh	

Parameter	Conventional representation	Value	Measurement unit
Seasonal energy efficiency for space heating	η _s	139	%
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	2,02	-
T _j = + 2 °C	COP _d or PER _d	3,44	-
T _j = + 7 °C	COP _d or PER _d	5,05	-
T _j = + 12 °C	COP _d or PER _d	6,00	-
T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	2,02	-
T _j = operating limit temperature	COP _d or PER _d	1,90	°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	-10	°C
Cyclical efficiency	COP _{cyc} or PER _{cyc}	-	– or %
Heating water limit operating temperature	WTOL	75	°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	-	5520	m³/h
Ground-to-water heat pump: water flow, outdoor heat exchanger	-	-	m³/h
Water heating Energy efficiency – η _{wh}		104	%
Daily fuel consumption Q _{fuel}		-	kWh

Technical data of IGLU Inuit Mono 12 WT variable capacity heat pump with integrated water tank

Model	IGLU Inuit Mono 12 WT
Indoor unit	MB012IWANMITrd
Outdoor unit	MB012INANMOTrd
Air-to-water heat pump	Yes
Water-to-water heat pump	No
Ground-to-water heat pump	No
Low temperature heat pump	No
Equipped with supplementary heater	Yes
Heat pump combination heater	Yes

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

Parameter	Conventional representation	Value	Measurement unit
Rated thermal power	P _{rated}	12,0	kW
Declared part load heating capacity at 20 °C indoor temperature and outdoor temperature T _j			
T _j = − 7 °C	P _{dh}	10,6	kW
T _j = + 2 °C	P _{dh}	6,5	kW
T _j = + 7 °C	P _{dh}	4,2	kW
T _j = + 12 °C	P _{dh}	4,2	kW
T _j = (T _{biv})- bivalent temperature mode	P _{dh}	10,6	kW
T _j = operating limit temperature	P _{dh}	11,5	kW
Air-to-water heat pump: T _j = -15°C (where TOL <- 20°C)	P _{dh}	-	kW
Bivalent temperature	T _{biv}	-7	°C
Power in cyclic heating mode	P _{cych}		kW
Decreased efficiency in cyclic mode	C _{dh}	0,9	-
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0,022	kW
Thermostat-off mode	P _{TO}	0,022	kW
Standby mode	P _{SB}	0,022	kW
Crankcase heater mode	P _{CK}	0,000	kW
Other parameters			
Capacity control	Variable		
Sound power level indoors/outdoors	L _{WA}	42//60	dB
Emissions of nitrogen oxides	NO _x	-	mg/kWh

Parameter	Conventional representation	Value	Measurement unit
Seasonal energy efficiency for space heating	η _s	143	%
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	2,15	-
T _j = + 2 °C	COP _d or PER _d	3,60	-
T _j = + 7 °C	COP _d or PER _d	4,88	-
T _j = + 12 °C	COP _d or PER _d	5,95	-
T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	2,15	-
T _j = operating limit temperature	COP _d or PER _d	1,85	°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	-10	°C
Cyclical efficiency	COP _{cyc} or PER _{cyc}	-	– or %
Heating water limit operating temperature	WTOL	75	°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	-	5700	m³/h
Ground-to-water heat pump: water flow, outdoor heat exchanger	-	-	m³/h

For heat pump combination heater							
Declared load profile	XL		Water heating Energy efficiency – η _{wh}	104	%		
Annual electricity consumption Q _{elec}		1716	kWh	Daily fuel consumption Q _{fuel}		-	kWh

Technical data of IGLU Inuit Mono 16 WT variable capacity heat pump with integrated water tank

Model	IGLU Inuit Mono 16 WT
Indoor unit	MB016IWANMITrd
Outdoor unit	MB016INANMOTrd
Air-to-water heat pump	Yes
Water-to-water heat pump	No
Ground-to-water heat pump	No
Low temperature heat pump	No
Equipped with supplementary heater	Yes
Heat pump combination heater	Yes

Parameters applied using **medium** 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}	13,7	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}	4,2	kW
T _j = (T _{biv})- bivalent temperature mode	P _{dh}	13,7	kW
T _j = operating limit temperature	P _{dh}	13,3	kW
Air-to-water heat pump: T _j = -15°C (where TOL <- 20°C)	P _{dh}	-	kW
Bivalent temperature	T _{biv}	-7	°C
Power in cyclic heating mode	P _{cych}		kW
Decreased efficiency in cyclic mode	C _{dh}	0,9	-
Power consumption in modes other than active mode			
Off mode	P _{OFF}	0,022	kW
Thermostat-off mode	P _{TO}	0,022	kW
Standby mode	P _{SB}	0,022	kW
Crankcase heater mode	P _{CK}	0,000	kW
Other parameters			
Capacity control	Variable		
Sound power level indoors/outdoors	L _{WA}	44/65	dB
Emissions of nitrogen oxides	NO _x	-	mg/kWh
For heat pump combination heater			
Declared load profile	XL		
Annual electricity consumption Q _{elec}	1716	kWh	

Parameter	Conventional representation	Value	Measurement unit
Seasonal energy efficiency for space heating	η _s	139	%
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	1,95	-
T _j = + 2 °C	COP _d or PER _d	3,43	-
T _j = + 7 °C	COP _d or PER _d	5,18	-
T _j = + 12 °C	COP _d or PER _d	6,58	-
T _j = (T _{biv})- bivalent temperature mode	COP _d or PER _d	1,95	-
T _j = operating limit temperature	COP _d or PER _d	1,75	°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	-10	°C
Cyclical efficiency	COP _{cyc} or PER _{cyc}	-	– or %
Heating water limit operating temperature	WTOL	75	°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	-	5700	m³/h
Ground-to-water heat pump: water flow, outdoor heat exchanger	-	-	m³/h
Water heating Energy efficiency – η _{wh}		104	%
Daily fuel consumption	Q _{fuel}	-	kWh



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