

Technical parameters												
Model(s):	KHC-06RY1-B											
Air-to-water heat pump:	YES											
Water-to-water heat pump:	NO											
Brine-to-water heat pump:	NO											
Low-temperature heat pump:	NO											
Equipped with a supplementary heater:	NO											
Heat pump combination heater:	NO											
Declared climate condition:	AVERAGE											
Parameters are declared for medium-temperature application.												
Item	Symbol	Value	Unit	Item	Symbol	Value						
Rated heat output (*)	P <sub>rated</sub>	5.7	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	137.9						
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>								
T <sub>j</sub> = -7°C	P <sub>dh</sub>	5.04	kW	T <sub>j</sub> = -7°C	COP <sub>d</sub>	2.17						
T <sub>j</sub> = 2°C	P <sub>dh</sub>	3.12	kW	T <sub>j</sub> = 2°C	COP <sub>d</sub>	3.51						
T <sub>j</sub> = 7°C	P <sub>dh</sub>	2.08	kW	T <sub>j</sub> = 7°C	COP <sub>d</sub>	4.54						
T <sub>j</sub> = 12°C	P <sub>dh</sub>	1.28	kW	T <sub>j</sub> = 12°C	COP <sub>d</sub>	5.59						
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	5.04	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.17						
T <sub>j</sub> = operating limit	P <sub>dh</sub>	4.52	kW	T <sub>j</sub> = operating limit	COP <sub>d</sub>	1.91						
For air-to-water heat pumps: T <sub>j</sub> = -15°C	P <sub>dh</sub>	-	kW	For air-to-water heat pumps: T <sub>j</sub> = -15°C	COP <sub>d</sub>	-						
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	T <sub>OL</sub>	-10						
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COP <sub>cyc</sub>	-						
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--	Heating water operating limit temperature	WT <sub>OL</sub>	60						
Power consumption in modes other than active mode				Supplementary heater								
Off mode	P <sub>off</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	1.18						
Standby mode	P <sub>sb</sub>	0.014	kW	Type of energy input	Electrical							
Thermostat-off mode	P <sub>to</sub>	0.024	kW									
Crankcase heater mode	P <sub>ck</sub>	0.000	kW									
Other items												
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770						
Sound power level, indoors/outdoors	L <sub>WA</sub>	-/58	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-						
Annual energy consumption	Q <sub>HE</sub>	3345	kWh			m <sup>3</sup> /h						
For heat pump combination heater:												
Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-						
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-						
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-						
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska											
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P <sub>rated</sub> is equal to the design load for heating P <sub>designh</sub> , and the rated heat output of a supplementary heater P <sub>sup</sub> is equal to the supplementary capacity for heating sup(T <sub>j</sub> ).												
(**) If C <sub>dh</sub> is not determined by measurement then the default degradation coefficient is C <sub>dh</sub> = 0.9.												

Technical parameters										
Model(s):	KHC-06RY1-B									
Air-to-water heat pump:	YES									
Water-to-water heat pump:	NO									
Brine-to-water heat pump:	NO									
Low-temperature heat pump:	NO									
Equipped with a supplementary heater:	NO									
Heat pump combination heater:	NO									
Declared climate condition:	COLDER									
Parameters are declared for medium-temperature application.										
Item	Symbol	Value	Unit	Item	Symbol					
Rated heat output (*)	Prated	4.3	kW	Seasonal space heating energy efficiency	$\eta_s$					
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					111.1					
Tj = -7°C	Pdh	2.70	kW	Tj = -7°C	COPd					
Tj = 2°C	Pdh	1.60	kW	Tj = 2°C	COPd					
Tj = 7°C	Pdh	1.02	kW	Tj = 7°C	COPd					
Tj = 12°C	Pdh	1.37	kW	Tj = 12°C	COPd					
Tj = bivalent temperature	Pdh	3.47	kW	Tj = bivalent temperature	COPd					
Tj = operating limit	Pdh	2.09	kW	Tj = operating limit	COPd					
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd					
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL					
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc					
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL					
Power consumption in modes other than active mode										
Off mode	Poff	0.014	kW	Supplementary heater						
Standby mode	Psb	0.014	kW	Rated heat output (**)	Psup					
Thermostat-off mode	Pto	0.024	kW	Type of energy input	Electrical					
Crankcase heater mode	Pck	0.000	kW							
Other items										
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770	m³/h			
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h			
Annual energy consumption	QHE	3681	kWh							
For heat pump combination heater:										
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%			
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska									
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).										
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.										

Technical parameters												
Model(s):	KHC-06RY1-B											
Air-to-water heat pump:	YES											
Water-to-water heat pump:	NO											
Brine-to-water heat pump:	NO											
Low-temperature heat pump:	NO											
Equipped with a supplementary heater:	NO											
Heat pump combination heater:	NO											
Declared climate condition:	WARMER											
Parameters are declared for medium-temperature application.												
Item	Symbol	Value	Unit	Item	Symbol	Value						
Rated heat output (*)	P <sub>rated</sub>	5.1	kW	Seasonal space heating energy efficiency	η <sub>s</sub>	164.7						
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>								
T <sub>j</sub> = -7°C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = -7°C	COP <sub>d</sub>	-						
T <sub>j</sub> = 2°C	P <sub>dh</sub>	5.02	kW	T <sub>j</sub> = 2°C	COP <sub>d</sub>	2.48						
T <sub>j</sub> = 7°C	P <sub>dh</sub>	3.31	kW	T <sub>j</sub> = 7°C	COP <sub>d</sub>	3.67						
T <sub>j</sub> = 12°C	P <sub>dh</sub>	1.60	kW	T <sub>j</sub> = 12°C	COP <sub>d</sub>	5.29						
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	3.31	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.67						
T <sub>j</sub> = operating limit	P <sub>dh</sub>	5.02	kW	T <sub>j</sub> = operating limit	COP <sub>d</sub>	2.48						
For air-to-water heat pumps: T <sub>j</sub> = -15°C	P <sub>dh</sub>	-	kW	For air-to-water heat pumps: T <sub>j</sub> = -15°C	COP <sub>d</sub>	-						
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	T <sub>OL</sub>	2						
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COP <sub>cyc</sub>	-						
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--	Heating water operating limit temperature	W <sub>TOL</sub>	62						
Power consumption in modes other than active mode				Supplementary heater								
Off mode	P <sub>off</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	0						
Standby mode	P <sub>sb</sub>	0.014	kW	Type of energy input	Electrical							
Thermostat-off mode	P <sub>to</sub>	0.024	kW									
Crankcase heater mode	P <sub>ck</sub>	0.000	kW									
Other items												
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770						
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-						
Annual energy consumption	Q <sub>HE</sub>	1640	kWh			m <sup>3</sup> /h						
For heat pump combination heater:												
Declared load profile	-			Water heating energy efficiency	η <sub>wh</sub>	-						
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-						
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-						
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska											
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P <sub>rated</sub> is equal to the design load for heating P <sub>designh</sub> , and the rated heat output of a supplementary heater P <sub>sup</sub> is equal to the supplementary capacity for heating sup(T <sub>j</sub> ).												
(**) If C <sub>dh</sub> is not determined by measurement then the default degradation coefficient is C <sub>dh</sub> = 0.9.												

Technical parameters												
Model(s):	KHC-08RY3-B											
Air-to-water heat pump:	YES											
Water-to-water heat pump:	NO											
Brine-to-water heat pump:	NO											
Low-temperature heat pump:	NO											
Equipped with a supplementary heater:	NO											
Heat pump combination heater:	NO											
Declared climate condition:	AVERAGE											
Parameters are declared for medium-temperature application.												
Item	Symbol	Value	Unit	Item	Symbol	Value						
Rated heat output (*)	P <sub>rated</sub>	6.6	kW	Seasonal space heating energy efficiency	$\eta_s$	131.5						
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>								
T <sub>j</sub> = -7°C	P <sub>dh</sub>	5.84	kW	T <sub>j</sub> = -7°C	COP <sub>d</sub>	2.16						
T <sub>j</sub> = 2°C	P <sub>dh</sub>	3.75	kW	T <sub>j</sub> = 2°C	COP <sub>d</sub>	3.30						
T <sub>j</sub> = 7°C	P <sub>dh</sub>	2.42	kW	T <sub>j</sub> = 7°C	COP <sub>d</sub>	4.34						
T <sub>j</sub> = 12°C	P <sub>dh</sub>	1.39	kW	T <sub>j</sub> = 12°C	COP <sub>d</sub>	5.33						
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	5.84	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	2.16						
T <sub>j</sub> = operating limit	P <sub>dh</sub>	4.90	kW	T <sub>j</sub> = operating limit	COP <sub>d</sub>	1.84						
For air-to-water heat pumps: T <sub>j</sub> = -15°C	P <sub>dh</sub>	-	kW	For air-to-water heat pumps: T <sub>j</sub> = -15°C	COP <sub>d</sub>	-						
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	T <sub>OL</sub>	-10						
Cycling interval capacity for heating	P <sub>cyc</sub>	-	kW	Cycling interval efficiency	COP <sub>cyc</sub>	-						
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--	Heating water operating limit temperature	WT <sub>OL</sub>	60						
Power consumption in modes other than active mode				Supplementary heater								
Off mode	P <sub>off</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	1.69						
Standby mode	P <sub>sb</sub>	0.014	kW	Type of energy input	Electrical							
Thermostat-off mode	P <sub>to</sub>	0.024	kW									
Crankcase heater mode	P <sub>ck</sub>	0.000	kW									
Other items												
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030						
Sound power level, indoors/outdoors	L <sub>WA</sub>	-/59	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-						
Annual energy consumption	Q <sub>HE</sub>	4056	kWh			m <sup>3</sup> /h						
For heat pump combination heater:												
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-						
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-						
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-						
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska											
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P <sub>rated</sub> is equal to the design load for heating P <sub>designh</sub> , and the rated heat output of a supplementary heater P <sub>sup</sub> is equal to the supplementary capacity for heating sup(T <sub>j</sub> ).												
(**) If C <sub>dh</sub> is not determined by measurement then the default degradation coefficient is C <sub>dh</sub> = 0.9.												

Technical parameters												
Model(s):	KHC-08RY3-B											
Air-to-water heat pump:	YES											
Water-to-water heat pump:	NO											
Brine-to-water heat pump:	NO											
Low-temperature heat pump:	NO											
Equipped with a supplementary heater:	NO											
Heat pump combination heater:	NO											
Declared climate condition:	COLDER											
Parameters are declared for medium-temperature application.												
Item	Symbol	Value	Unit	Item	Symbol	Value						
Rated heat output (*)	P <sub>rated</sub>	5.8	kW	Seasonal space heating energy efficiency	$\eta_s$	112.0						
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>								
T <sub>j</sub> = -7°C	P <sub>dh</sub>	3.86	kW	T <sub>j</sub> = -7°C	COP <sub>d</sub>	2.48						
T <sub>j</sub> = 2°C	P <sub>dh</sub>	2.21	kW	T <sub>j</sub> = 2°C	COP <sub>d</sub>	3.35						
T <sub>j</sub> = 7°C	P <sub>dh</sub>	1.44	kW	T <sub>j</sub> = 7°C	COP <sub>d</sub>	4.11						
T <sub>j</sub> = 12°C	P <sub>dh</sub>	1.46	kW	T <sub>j</sub> = 12°C	COP <sub>d</sub>	5.92						
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	4.71	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	1.90						
T <sub>j</sub> = operating limit	P <sub>dh</sub>	2.80	kW	T <sub>j</sub> = operating limit	COP <sub>d</sub>	1.22						
For air-to-water heat pumps: T <sub>j</sub> = -15°C	P <sub>dh</sub>	-	kW	For air-to-water heat pumps: T <sub>j</sub> = -15°C	COP <sub>d</sub>	-						
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	T <sub>OL</sub>	-22						
Cycling interval capacity for heating	P <sub>cyc</sub>	-	kW	Cycling interval efficiency	COP <sub>cyc</sub>	-						
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--	Heating water operating limit temperature	WT <sub>OL</sub>	51						
Power consumption in modes other than active mode												
Off mode	P <sub>off</sub>	0.014	kW	Supplementary heater								
Standby mode	P <sub>sb</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	2.97						
Thermostat-off mode	P <sub>to</sub>	0.024	kW	Type of energy input	Electrical							
Crankcase heater mode	P <sub>ck</sub>	0.000	kW									
Other items												
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030						
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-						
Annual energy consumption	Q <sub>HE</sub>	4950	kWh			m <sup>3</sup> /h						
For heat pump combination heater:												
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-						
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-						
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-						
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska											
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P <sub>rated</sub> is equal to the design load for heating P <sub>designh</sub> , and the rated heat output of a supplementary heater P <sub>sup</sub> is equal to the supplementary capacity for heating sup(T <sub>j</sub> ).												
(**) If C <sub>dh</sub> is not determined by measurement then the default degradation coefficient is C <sub>dh</sub> = 0.9.												

Technical parameters											
Model(s):	KHC-08RY3-B										
Air-to-water heat pump:	YES										
Water-to-water heat pump:	NO										
Brine-to-water heat pump:	NO										
Low-temperature heat pump:	NO										
Equipped with a supplementary heater:	NO										
Heat pump combination heater:	NO										
Declared climate condition:	WARMER										
Parameters are declared for medium-temperature application.											
Item	Symbol	Value	Unit	Item							
Rated heat output (*)	P <sub>rated</sub>	7.6	kW	Seasonal space heating energy efficiency	$\eta_s$	175.8	%				
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>					Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>						
T <sub>j</sub> = -7°C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = -7°C	COP <sub>d</sub>	-	-				
T <sub>j</sub> = 2°C	P <sub>dh</sub>	7.55	kW	T <sub>j</sub> = 2°C	COP <sub>d</sub>	2.59	-				
T <sub>j</sub> = 7°C	P <sub>dh</sub>	4.86	kW	T <sub>j</sub> = 7°C	COP <sub>d</sub>	3.92	-				
T <sub>j</sub> = 12°C	P <sub>dh</sub>	2.31	kW	T <sub>j</sub> = 12°C	COP <sub>d</sub>	5.55	-				
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	4.86	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>	3.92	-				
T <sub>j</sub> = operating limit	P <sub>dh</sub>	7.55	kW	T <sub>j</sub> = operating limit	COP <sub>d</sub>	2.59	-				
For air-to-water heat pumps: T <sub>j</sub> = -15°C	P <sub>dh</sub>	-	kW	For air-to-water heat pumps: T <sub>j</sub> = -15°C	COP <sub>d</sub>	-	-				
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	T <sub>OL</sub>	2	°C				
Cycling interval capacity for heating	P <sub>cyc</sub>	-	kW	Cycling interval efficiency	COP <sub>cyc</sub>	-	-				
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--	Heating water operating limit temperature	W <sub>TOL</sub>	62	°C				
Power consumption in modes other than active mode					Supplementary heater						
Off mode	P <sub>off</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	0	kW				
Standby mode	P <sub>sb</sub>	0.014	kW	Type of energy input	Electrical						
Thermostat-off mode	P <sub>to</sub>	0.024	kW								
Crankcase heater mode	P <sub>ck</sub>	0.000	kW								
Other items											
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m <sup>3</sup> /h				
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	2259	kWh								
For heat pump combination heater:											
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ				
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska										
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P <sub>rated</sub> is equal to the design load for heating P <sub>designh</sub> , and the rated heat output of a supplementary heater P <sub>sup</sub> is equal to the supplementary capacity for heating sup(T <sub>j</sub> ).											
(**) If C <sub>dh</sub> is not determined by measurement then the default degradation coefficient is C <sub>dh</sub> = 0.9.											

Technical parameters											
Model(s):	KHC-10RY3-B										
Air-to-water heat pump:	YES										
Water-to-water heat pump:	NO										
Brine-to-water heat pump:	NO										
Low-temperature heat pump:	NO										
Equipped with a supplementary heater:	NO										
Heat pump combination heater:	NO										
Declared climate condition:	AVERAGE										
Parameters are declared for medium-temperature application.											
Item	Symbol	Value	Unit	Item							
Rated heat output (*)	Prated	7.7	kW	Seasonal space heating energy efficiency	$\eta_s$	136.6	%				
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj						
Tj = -7°C	Pdh	6.78	kW	Tj = -7°C	COPd	2.24	-				
Tj = 2°C	Pdh	4.28	kW	Tj = 2°C	COPd	3.42	-				
Tj = 7°C	Pdh	2.77	kW	Tj = 7°C	COPd	4.52	-				
Tj = 12°C	Pdh	1.58	kW	Tj = 12°C	COPd	5.68	-				
Tj = bivalent temperature	Pdh	6.78	kW	Tj = bivalent temperature	COPd	2.24	-				
Tj = operating limit	Pdh	5.38	kW	Tj = operating limit	COPd	1.83	-				
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-				
Bivalent temperature	T <sub>biv</sub>	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	P <sub>cyc</sub>	-	kW	Cycling interval efficiency	COP <sub>cyc</sub>	-	-				
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C				
Power consumption in modes other than active mode					Supplementary heater						
Off mode	P <sub>off</sub>	0.014	kW	Rated heat output (**)	P <sub>sup</sub>	2.29	kW				
Standby mode	P <sub>sb</sub>	0.014	kW	Type of energy input	Electrical						
Thermostat-off mode	P <sub>to</sub>	0.024	kW								
Crankcase heater mode	P <sub>ck</sub>	0.000	kW								
Other items											
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m <sup>3</sup> /h				
Sound power level, indoors/outdoors	L <sub>WA</sub>	-/60	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h				
Annual energy consumption	Q <sub>HE</sub>	4539	kWh								
For heat pump combination heater:											
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh				
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ				
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska										
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).											
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.											

Technical parameters									
Model(s):	KHC-10RY3-B								
Air-to-water heat pump:	YES								
Water-to-water heat pump:	NO								
Brine-to-water heat pump:	NO								
Low-temperature heat pump:	NO								
Equipped with a supplementary heater:	NO								
Heat pump combination heater:	NO								
Declared climate condition:	COLDER								
Parameters are declared for medium-temperature application.									
Item	Symbol	Value	Unit						
Rated heat output (*)	Prated	6.7	kW						
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj									
Tj = -7°C	Pdh	4.27	kW						
Tj = 2°C	Pdh	2.57	kW						
Tj = 7°C	Pdh	1.65	kW						
Tj = 12°C	Pdh	1.47	kW						
Tj = bivalent temperature	Pdh	5.47	kW						
Tj = operating limit	Pdh	2.80	kW						
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW						
Bivalent temperature	Tbiv	-15	°C						
Cycling interval capacity for heating	Pcyc	-	kW						
Degradation co-efficient (**)	Cdh	0.9	--						
Power consumption in modes other than active mode									
Off mode	Poff	0.014	kW						
Standby mode	Psb	0.014	kW						
Thermostat-off mode	Pto	0.024	kW						
Crankcase heater mode	Pck	0.000	kW						
Other items									
Capacity control	variable								
Sound power level, indoors/outdoors	LWA	-	dB						
Annual energy consumption	QHE	5540	kWh						
For heat pump combination heater:									
Declared load profile	-		Water heating energy efficiency						
Daily electricity consumption	Qelec	-							
Annual electricity consumption	AEC	-							
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska								
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).									
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.									

Technical parameters																																																																																																	
Model(s):	KHC-10RY3-B																																																																																																
Air-to-water heat pump:	YES																																																																																																
Water-to-water heat pump:	NO																																																																																																
Brine-to-water heat pump:	NO																																																																																																
Low-temperature heat pump:	NO																																																																																																
Equipped with a supplementary heater:	NO																																																																																																
Heat pump combination heater:	NO																																																																																																
Declared climate condition:	WARMER																																																																																																
Parameters are declared for medium-temperature application.																																																																																																	
Item	Symbol	Value	Unit	Item	Symbol																																																																																												
Rated heat output (*)	P <sub>rated</sub>	8.6	kW	Seasonal space heating energy efficiency	$\eta_s$																																																																																												
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>																																																																																																	
T <sub>j</sub> = -7°C	P <sub>dh</sub>	-	kW	T <sub>j</sub> = -7°C	COP <sub>d</sub>																																																																																												
T <sub>j</sub> = 2°C	P <sub>dh</sub>	8.06	kW	T <sub>j</sub> = 2°C	COP <sub>d</sub>																																																																																												
T <sub>j</sub> = 7°C	P <sub>dh</sub>	5.54	kW	T <sub>j</sub> = 7°C	COP <sub>d</sub>																																																																																												
T <sub>j</sub> = 12°C	P <sub>dh</sub>	2.53	kW	T <sub>j</sub> = 12°C	COP <sub>d</sub>																																																																																												
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	5.54	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>																																																																																												
T <sub>j</sub> = operating limit	P <sub>dh</sub>	8.15	kW	T <sub>j</sub> = operating limit	COP <sub>d</sub>																																																																																												
For air-to-water heat pumps: T <sub>j</sub> = -15°C	P <sub>dh</sub>	-	kW	For air-to-water heat pumps: T <sub>j</sub> = -15°C	COP <sub>d</sub>																																																																																												
Bivalent temperature	T <sub>biv</sub>	7	°C	For air-to-water heat pumps: Operation limit temperature	T <sub>OL</sub>																																																																																												
Cycling interval capacity for heating	P <sub>cyc</sub>	-	kW	Cycling interval efficiency	COP <sub>cyc</sub>																																																																																												
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--	Heating water operating limit temperature	W <sub>TOL</sub>																																																																																												
Power consumption in modes other than active mode																																																																																																	
Off mode	P <sub>off</sub>	0.014	kW	Supplementary heater																																																																																													
Standby mode	P <sub>sb</sub>	0.014	kW	Thermostat-off mode	P <sub>to</sub>	0.024	kW	Rated heat output (**)	P <sub>sup</sub>	0.48	kW	Crankcase heater mode	P <sub>ck</sub>	0.000	kW	Type of energy input	Electrical			Other items						Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m <sup>3</sup> /h	Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h	Annual energy consumption	Q <sub>HE</sub>	2516	kWh					For heat pump combination heater:						Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%	Daily electricity consumption	Q <sub>clec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh	Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ	Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska					(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P <sub>rated</sub> is equal to the design load for heating P <sub>designh</sub> , and the rated heat output of a supplementary heater P <sub>sup</sub> is equal to the supplementary capacity for heating sup(T <sub>j</sub> ).						(**) If C <sub>dh</sub> is not determined by measurement then the default degradation coefficient is C <sub>dh</sub> = 0.9.					
Thermostat-off mode	P <sub>to</sub>	0.024	kW	Rated heat output (**)	P <sub>sup</sub>	0.48	kW																																																																																										
Crankcase heater mode	P <sub>ck</sub>	0.000	kW	Type of energy input	Electrical																																																																																												
Other items																																																																																																	
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m <sup>3</sup> /h																																																																																										
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h																																																																																										
Annual energy consumption	Q <sub>HE</sub>	2516	kWh																																																																																														
For heat pump combination heater:																																																																																																	
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%																																																																																										
Daily electricity consumption	Q <sub>clec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh																																																																																										
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ																																																																																										
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska																																																																																																
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P <sub>rated</sub> is equal to the design load for heating P <sub>designh</sub> , and the rated heat output of a supplementary heater P <sub>sup</sub> is equal to the supplementary capacity for heating sup(T <sub>j</sub> ).																																																																																																	
(**) If C <sub>dh</sub> is not determined by measurement then the default degradation coefficient is C <sub>dh</sub> = 0.9.																																																																																																	

Technical parameters													
Model(s):	KHC-12RY3-B												
Air-to-water heat pump:	YES												
Water-to-water heat pump:	NO												
Brine-to-water heat pump:	NO												
Low-temperature heat pump:	NO												
Equipped with a supplementary heater:	NO												
Heat pump combination heater:	NO												
Declared climate condition:	AVERAGE												
Parameters are declared for medium-temperature application.													
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit						
Rated heat output (*)	Prated	11.6	kW	Seasonal space heating energy efficiency	$\eta_s$	135.1	%						
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj									
Tj = -7°C	Pdh	10.24	kW	Tj = -7°C	COPd	2.01	-						
Tj = 2°C	Pdh	6.52	kW	Tj = 2°C	COPd	3.44	-						
Tj = 7°C	Pdh	4.36	kW	Tj = 7°C	COPd	4.59	-						
Tj = 12°C	Pdh	3.29	kW	Tj = 12°C	COPd	6.05	-						
Tj = bivalent temperature	Pdh	10.24	kW	Tj = bivalent temperature	COPd	2.01	-						
Tj = operating limit	Pdh	9.10	kW	Tj = operating limit	COPd	1.79	-						
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-						
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C						
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-						
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C						
Power consumption in modes other than active mode				Supplementary heater									
Off mode	Poff	0.020	kW	Rated heat output (**)	Psup	1.23	kW						
Standby mode	Psb	0.020	kW	Type of energy input	Electrical								
Thermostat-off mode	Pto	0.030	kW										
Crankcase heater mode	Pck	0.000	kW										
Other items													
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m³/h						
Sound power level, indoors/outdoors	LWA	-/65	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h						
Annual energy consumption	QHE	6928	kWh										
For heat pump combination heater:													
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%						
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh						
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ						
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska												
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).													
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.													

Technical parameters										
Model(s):	KHC-12RY3-B									
Air-to-water heat pump:	YES									
Water-to-water heat pump:	NO									
Brine-to-water heat pump:	NO									
Low-temperature heat pump:	NO									
Equipped with a supplementary heater:	NO									
Heat pump combination heater:	NO									
Declared climate condition:	COLDER									
Parameters are declared for medium-temperature application.										
Item	Symbol	Value	Unit	Item	Symbol					
Rated heat output (*)	P <sub>rated</sub>	10.3	kW	Seasonal space heating energy efficiency	$\eta_s$					
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature T <sub>j</sub>										
T <sub>j</sub> = -7°C	P <sub>dh</sub>	6.63	kW	T <sub>j</sub> = -7°C	COP <sub>d</sub>					
T <sub>j</sub> = 2°C	P <sub>dh</sub>	4.06	kW	T <sub>j</sub> = 2°C	COP <sub>d</sub>					
T <sub>j</sub> = 7°C	P <sub>dh</sub>	2.78	kW	T <sub>j</sub> = 7°C	COP <sub>d</sub>					
T <sub>j</sub> = 12°C	P <sub>dh</sub>	3.33	kW	T <sub>j</sub> = 12°C	COP <sub>d</sub>					
T <sub>j</sub> = bivalent temperature	P <sub>dh</sub>	8.41	kW	T <sub>j</sub> = bivalent temperature	COP <sub>d</sub>					
T <sub>j</sub> = operating limit	P <sub>dh</sub>	4.19	kW	T <sub>j</sub> = operating limit	COP <sub>d</sub>					
For air-to-water heat pumps: T <sub>j</sub> = -15°C	P <sub>dh</sub>	-	kW	For air-to-water heat pumps: T <sub>j</sub> = -15°C	COP <sub>d</sub>					
Bivalent temperature	T <sub>biv</sub>	-15	°C	For air-to-water heat pumps: Operation limit temperature	T <sub>OL</sub>					
Cycling interval capacity for heating	P <sub>cych</sub>	-	kW	Cycling interval efficiency	COP <sub>cyc</sub>					
Degradation co-efficient (**)	C <sub>dh</sub>	0.9	--	Heating water operating limit temperature	WT <sub>OL</sub>					
Power consumption in modes other than active mode										
Off mode	P <sub>off</sub>	0.020	kW	Supplementary heater						
Standby mode	P <sub>sb</sub>	0.020	kW	Rated heat output (**)	P <sub>sup</sub>					
Thermostat-off mode	P <sub>to</sub>	0.030	kW	Type of energy input	Electrical					
Crankcase heater mode	P <sub>ck</sub>	0.000	kW							
Other items										
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m <sup>3</sup> /h			
Sound power level, indoors/outdoors	L <sub>WA</sub>	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h			
Annual energy consumption	Q <sub>HE</sub>	8420	kWh							
For heat pump combination heater:										
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%			
Daily electricity consumption	Q <sub>clec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska									
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P <sub>rated</sub> is equal to the design load for heating P <sub>designh</sub> , and the rated heat output of a supplementary heater P <sub>sup</sub> is equal to the supplementary capacity for heating sup(T <sub>j</sub> ).										
(**) If C <sub>dh</sub> is not determined by measurement then the default degradation coefficient is C <sub>dh</sub> = 0.9.										

Technical parameters										
Model(s):	KHC-12RY3-B									
Air-to-water heat pump:	YES									
Water-to-water heat pump:	NO									
Brine-to-water heat pump:	NO									
Low-temperature heat pump:	NO									
Equipped with a supplementary heater:	NO									
Heat pump combination heater:	NO									
Declared climate condition:	WARMER									
Parameters are declared for medium-temperature application.										
Item	Symbol	Value	Unit	Item	Symbol					
Rated heat output (*)	Prated	12.5	kW	Seasonal space heating energy efficiency	$\eta_s$					
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				173.8 %						
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd					
Tj = 2°C	Pdh	12.07	kW	Tj = 2°C	COPd					
Tj = 7°C	Pdh	8.04	kW	Tj = 7°C	COPd					
Tj = 12°C	Pdh	3.75	kW	Tj = 12°C	COPd					
Tj = bivalent temperature	Pdh	8.04	kW	Tj = bivalent temperature	COPd					
Tj = operating limit	Pdh	12.07	kW	Tj = operating limit	COPd					
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd					
Bivalent temperature	T_biv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL					
Cycling interval capacity for heating	P_cyc	-	kW	Cycling interval efficiency	COP_cyc					
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL					
Power consumption in modes other than active mode										
Off mode	Poff	0.020	kW	Supplementary heater						
Standby mode	Psb	0.020	kW	Rated heat output (**)	Psup					
Thermostat-off mode	Pto	0.030	kW	Type of energy input	Electrical					
Crankcase heater mode	Pck	0.000	kW							
Other items										
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m³/h			
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h			
Annual energy consumption	QHE	3780	kWh							
For heat pump combination heater:										
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%			
Daily electricity consumption	Q_clec	-	kWh	Daily fuel consumption	Q_fuel	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska									
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).										
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.										

Technical parameters											
Model(s):	KHC-14RY3-B										
Air-to-water heat pump:	YES										
Water-to-water heat pump:	NO										
Brine-to-water heat pump:	NO										
Low-temperature heat pump:	NO										
Equipped with a supplementary heater:	NO										
Heat pump combination heater:	NO										
Declared climate condition:	AVERAGE										
Parameters are declared for medium-temperature application.											
Item	Symbol	Value	Unit	Item							
Rated heat output (*)	Prated	12.08	kW	Seasonal space heating energy efficiency	$\eta_s$	135.6	%				
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj						
Tj = -7°C	Pdh	10.68	kW	Tj = -7°C	COPd	2.01	-				
Tj = 2°C	Pdh	6.86	kW	Tj = 2°C	COPd	3.43	-				
Tj = 7°C	Pdh	4.63	kW	Tj = 7°C	COPd	4.66	-				
Tj = 12°C	Pdh	3.31	kW	Tj = 12°C	COPd	6.13	-				
Tj = bivalent temperature	Pdh	10.68	kW	Tj = bivalent temperature	COPd	2.01	-				
Tj = operating limit	Pdh	9.19	kW	Tj = operating limit	COPd	1.76	-				
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-				
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C				
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C				
Power consumption in modes other than active mode					Supplementary heater						
Off mode	Poff	0.020	kW	Rated heat output (**)	Psup	1.40	kW				
Standby mode	Psb	0.020	kW	Type of energy input	Electrical						
Thermostat-off mode	Pto	0.030	kW								
Crankcase heater mode	Pck	0.000	kW								
Other items											
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m³/h				
Sound power level, indoors/outdoors	LWA	-/65	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h				
Annual energy consumption	QHE	7203	kWh								
For heat pump combination heater:											
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%				
Daily electricity consumption	Qclec	-	kWh	Daily fuel consumption	Qfuel	-	kWh				
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ				
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska										
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).											
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.											

Technical parameters												
Model(s):	KHC-14RY3-B											
Air-to-water heat pump:	YES											
Water-to-water heat pump:	NO											
Brine-to-water heat pump:	NO											
Low-temperature heat pump:	NO											
Equipped with a supplementary heater:	NO											
Heat pump combination heater:	NO											
Declared climate condition:	COLDER											
Parameters are declared for medium-temperature application.												
Item	Symbol	Value	Unit	Item	Symbol							
Rated heat output (*)	Prated	11.0	kW	Seasonal space heating energy efficiency	$\eta_s$							
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				118.9 %								
Tj = -7°C	Pdh	6.89	kW	Tj = -7°C	COPd							
Tj = 2°C	Pdh	4.32	kW	Tj = 2°C	COPd							
Tj = 7°C	Pdh	3.06	kW	Tj = 7°C	COPd							
Tj = 12°C	Pdh	3.33	kW	Tj = 12°C	COPd							
Tj = bivalent temperature	Pdh	8.94	kW	Tj = bivalent temperature	COPd							
Tj = operating limit	Pdh	4.20	kW	Tj = operating limit	COPd							
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd							
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL							
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc							
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL							
Power consumption in modes other than active mode				51 °C								
Off mode	Poff	0.020	kW	Supplementary heater								
Standby mode	Psb	0.020	kW	Rated heat output (**)	Psup							
Thermostat-off mode	Pto	0.030	kW	Type of energy input	Electrical							
Crankcase heater mode	Pck	0.000	kW									
Other items												
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m³/h					
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h					
Annual energy consumption	QHE	8867	kWh									
For heat pump combination heater:												
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%					
Daily electricity consumption	Qclec	-	kWh	Daily fuel consumption	Qfuel	-	kWh					
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ					
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska											
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).												
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.												

Technical parameters										
Model(s):	KHC-14RY3-B									
Air-to-water heat pump:	YES									
Water-to-water heat pump:	NO									
Brine-to-water heat pump:	NO									
Low-temperature heat pump:	NO									
Equipped with a supplementary heater:	NO									
Heat pump combination heater:	NO									
Declared climate condition:	WARMER									
Parameters are declared for medium-temperature application.										
Item	Symbol	Value	Unit	Item	Symbol					
Rated heat output (*)	Prated	13.7	kW	Seasonal space heating energy efficiency	$\eta_s$					
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj										
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd					
Tj = 2°C	Pdh	13.04	kW	Tj = 2°C	COPd					
Tj = 7°C	Pdh	8.83	kW	Tj = 7°C	COPd					
Tj = 12°C	Pdh	4.08	kW	Tj = 12°C	COPd					
Tj = bivalent temperature	Pdh	8.83	kW	Tj = bivalent temperature	COPd					
Tj = operating limit	Pdh	13.04	kW	Tj = operating limit	COPd					
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd					
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL					
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc					
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL					
Power consumption in modes other than active mode										
Off mode	Poff	0.020	kW	Supplementary heater						
Standby mode	Psb	0.020	kW	Rated heat output (**)	Psup					
Thermostat-off mode	Pto	0.030	kW	Type of energy input	Electrical					
Crankcase heater mode	Pck	0.000	kW							
Other items										
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m³/h			
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h			
Annual energy consumption	QHE	4092	kWh							
For heat pump combination heater:										
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%			
Daily electricity consumption	Qclec	-	kWh	Daily fuel consumption	Qfuel	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska									
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).										
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0.9.										

Technical parameters										
Model(s):	KHC-16RY3-B									
Air-to-water heat pump:	YES									
Water-to-water heat pump:	NO									
Brine-to-water heat pump:	NO									
Low-temperature heat pump:	NO									
Equipped with a supplementary heater:	NO									
Heat pump combination heater:	NO									
Declared climate condition:	AVERAGE									
Parameters are declared for medium-temperature application.										
Item	Symbol	Value	Unit	Item	Symbol					
Rated heat output (*)	Prated	13.0	kW	Seasonal space heating energy efficiency	$\eta_s$					
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj										
Tj = -7°C	Pdh	11.52	kW	Tj = -7°C	COPd					
Tj = 2°C	Pdh	7.18	kW	Tj = 2°C	COPd					
Tj = 7°C	Pdh	4.67	kW	Tj = 7°C	COPd					
Tj = 12°C	Pdh	3.31	kW	Tj = 12°C	COPd					
Tj = bivalent temperature	Pdh	11.52	kW	Tj = bivalent temperature	COPd					
Tj = operating limit	Pdh	10.33	kW	Tj = operating limit	COPd					
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd					
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL					
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc					
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL					
Power consumption in modes other than active mode										
Off mode	Poff	0.020	kW	Supplementary heater						
Standby mode	Psb	0.020	kW	Rated heat output (**)	Psup					
Thermostat-off mode	Pto	0.030	kW	Type of energy input	Electrical					
Crankcase heater mode	Pck	0.000	kW							
Other items										
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m³/h			
Sound power level, indoors/outdoors	LWA	-/68	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h			
Annual energy consumption	QHE	7896	kWh							
For heat pump combination heater:										
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%			
Daily electricity consumption	Qclec	-	kWh	Daily fuel consumption	Qfuel	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska									
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).										
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.										

Technical parameters										
Model(s):	KHC-16RY3-B									
Air-to-water heat pump:	YES									
Water-to-water heat pump:	NO									
Brine-to-water heat pump:	NO									
Low-temperature heat pump:	NO									
Equipped with a supplementary heater:	NO									
Heat pump combination heater:	NO									
Declared climate condition:	COLDER									
Parameters are declared for medium-temperature application.										
Item	Symbol	Value	Unit	Item	Symbol					
Rated heat output (*)	Prated	11.8	kW	Seasonal space heating energy efficiency	$\eta_s$					
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj					121.8 %					
Tj = -7°C	Pdh	7.64	kW	Tj = -7°C	COPd					
Tj = 2°C	Pdh	4.42	kW	Tj = 2°C	COPd					
Tj = 7°C	Pdh	2.97	kW	Tj = 7°C	COPd					
Tj = 12°C	Pdh	3.43	kW	Tj = 12°C	COPd					
Tj = bivalent temperature	Pdh	9.61	kW	Tj = bivalent temperature	COPd					
Tj = operating limit	Pdh	5.21	kW	Tj = operating limit	COPd					
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd					
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL					
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc					
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL					
Power consumption in modes other than active mode										
Off mode	Poff	0.020	kW	Supplementary heater						
Standby mode	Psb	0.020	kW	Rated heat output (**)	Psup					
Thermostat-off mode	Pto	0.030	kW	Type of energy input	Electrical					
Crankcase heater mode	Pck	0.000	kW							
Other items										
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650 m³/h				
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	- m³/h				
Annual energy consumption	QHE	9310	kWh							
For heat pump combination heater:										
Declared load profile	-			Water heating energy efficiency	$n_{wh}$	- %				
Daily electricity consumption	Qclec	-	kWh	Daily fuel consumption	Qfuel	- kWh				
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	- GJ				
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska									
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).										
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.										

Technical parameters										
Model(s):	KHC-16RY3-B									
Air-to-water heat pump:	YES									
Water-to-water heat pump:	NO									
Brine-to-water heat pump:	NO									
Low-temperature heat pump:	NO									
Equipped with a supplementary heater:	NO									
Heat pump combination heater:	NO									
Declared climate condition:	WARMER									
Parameters are declared for medium-temperature application.										
Item	Symbol	Value	Unit	Item	Symbol					
Rated heat output (*)	Prated	13.8	kW	Seasonal space heating energy efficiency	$\eta_s$					
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				175.9 %						
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd					
Tj = 2°C	Pdh	13.38	kW	Tj = 2°C	COPd					
Tj = 7°C	Pdh	8.86	kW	Tj = 7°C	COPd					
Tj = 12°C	Pdh	4.06	kW	Tj = 12°C	COPd					
Tj = bivalent temperature	Pdh	8.86	kW	Tj = bivalent temperature	COPd					
Tj = operating limit	Pdh	13.38	kW	Tj = operating limit	COPd					
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd					
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL					
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc					
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL					
Power consumption in modes other than active mode										
Off mode	Poff	0.014	kW	Supplementary heater						
Standby mode	Psb	0.014	kW	Rated heat output (**)	Psup					
Thermostat-off mode	Pto	0.029	kW	Type of energy input	Electrical					
Crankcase heater mode	Pck	0.000	kW							
Other items										
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m³/h			
Sound power level, indoors/outdoors	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m³/h			
Annual energy consumption	QHE	4116	kWh							
For heat pump combination heater:										
Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%			
Daily electricity consumption	Qclec	-	kWh	Daily fuel consumption	Qfuel	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details	KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska									
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).										
(**) If Cd is not determined by measurement then the default degradation coefficient is Cd = 0.9.										