Madal/a).				Outdoor unit: KHA-06RY1-B Indoor unit: K	MK-60RY1					
Model(s):				YES						
Air-to-water heat pump: Water-to-water heat pump:				NO NO						
Brine-to-water heat pump:				NO						
Low-temperature heat pump:				NO						
Equipped with a supplementary heate	er.			NO						
Heat pump combination heater:				NO						
Declared climate condition:				AVERAGE						
Parameters are declared for medium-	temperature	application	1.							
	•	•••								
tem	Symbol	Value	Unit	Item	Symbol	Value	Uni			
Rated heat output (*)	Prated	5.7	kW	Seasonal space heating energy efficiency	ηs	137.9	%			
Declared capacity for heating for part load and outdoor temperature Tj	at indoor tem	oerature 20 °0		Declared coefficient of performance or prim indoor temperature 20 °C and outdoor temp		itio for part lo	ad at			
Гj = -7°С	Pdh	5.04	kW	Tj = -7℃	COPd	2.17	-			
Гј = 2℃	Pdh	3.12	kW	Tj = 2℃	COPd	3.51	-			
Гј = 7℃	Pdh	2.08	kW	Tj = 7℃	COPd	4.54	-			
Гj = 12°С	Pdh	1.28	kW	Tj = 12℃	COPd	5.59	-			
Γj = bivalent temperature	Pdh	5.04	kW	Tj = bivalent temperature	COPd	2.17	-			
Γj = operating limit	Pdh	4.52	kW	Tj = operating limit	COPd	1.91	-			
For air-to-water heat pumps: Tj = -15℃	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃	COPd	-	-			
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C			
Cycling interval capacity for heating	Pcych	-	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 a	ctive mode			Supplementary heater						
Off mode	Poff	0.014	kW	Potod hoot output (**)	Psup	4.40	1-10			
Standby mode	Psb	0.014	kW	Rated heat output (**)	rsup	1.18	kW			
Thermostat-off mode	Pto	0.024	kW	Type of energy input		Electrical				
Crankcase heater mode	Pck	0.000	kW	37 1						
Other items										
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770	m³/ł			
Sound power level, indoors/outdoors	L _{WA}	38/58	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m ³ /ł			
Annual energy consumption	Q _{HE}	3345	kWh	heat exchanger						
For heat pump combination heater:										
Declared load profile		-		Water heating energy efficiency	$\eta_{\sf wh}$	-	%			
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kW			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details		IERM Sp. z		Warszawa, Polska						

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		recn	micai	parameters						
Model(s):				Outdoor unit: KHA-06RY1-B Indoor unit:	KMK-60RY	<u>′</u> 1				
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	er:			NO						
Heat pump combination heater:				NO						
Declared climate condition:				COLDER						
Parameters are declared for medium-	temperature	e application	١.							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	4.3	kW	Seasonal space heating energy efficiency	ηs	111.1	%			
Declared capacity for heating for part load and outdoor temperature Tj	at indoor tem	perature 20 °0		Declared coefficient of performance or prim indoor temperature 20 °C and outdoor temp	ary energy ra		ad at			
Tj = -7°C	Pdh	2.70	kW	Tj = -7°C	COPd	2.46	-			
Tj = 2°C	Pdh	1.60	kW	Tj = 2°C	COPd	3.36	-			
Tj = 7°C	Pdh	1.02	kW	Tj = 7°C	COPd	3.94	-			
Tj = 12℃	Pdh	1.37	kW	Tj = 12℃	COPd	6.35	-			
Tj = bivalent temperature	Pdh	3.47	kW	Tj = bivalent temperature	COPd	1.86	-			
Tj = operating limit	Pdh	2.09	kW	Tj = operating limit	COPd	1.13	-			
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃	COPd	-	-			
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient (**)	Cdh	0.9		Heating water operating limit temperature	WTOL	51	°C			
Power consumption in modes other than a	ctive mode			Supplementary heater						
Off mode	Poff	0.014	kW		_					
Standby mode	Psb	0.014	kW	Rated heat output (**)	Psup	5.10	kW			
Thermostat-off mode	Pto	0.024	kW	Type of energy input		FI				
Crankcase heater mode	Pck	0.000	kW	Type of effergy input		Electrical				
Other items										
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770	m ³ /h			
Sound power level, indoors/outdoors	L _{WA}	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m³/h			
Annual energy consumption	Q _{HE}	3681	kWh	heat exchanger						
For heat pump combination heater:										
Declared load profile		-		Water heating energy efficiency	η_{vh}	-	%			
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details		IERM Sp. z ramska 101.		Warszawa, Polska						

^(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heatingh, 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.

Model(s):				Outdoor unit: KHA-06RY1-B Indoor unit:	KMK-60RY	1				
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	r:			NO						
Heat pump combination heater:				NO						
Declared climate condition:				WARMER						
Parameters are declared for medium-t	emperature	e application	1.							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	5.1	kW	Seasonal space heating energy efficiency	ηs	164.7	%			
Declared capacity for heating for part load a and outdoor temperature Tj	t indoor temp	perature 20 °C		Declared coefficient of performance or prim indoor temperature 20 °C and outdoor temperature 20		tio for part lo	ad at			
Tj = -7°C	Pdh	-	kW	Tj = -7°C	COPd	-	-			
Tj = 2°C	Pdh	5.02	kW	Tj = 2°C	COPd	2.48	-			
Tj = 7°C	Pdh	3.31	kW	Ti = 7°C	COPd	3.67	-			
Tj = 12℃	Pdh	1.60	kW	Tj = 12°C	COPd	5.29	_			
Tj = bivalent temperature	Pdh	3.31	kW	Tj = bivalent temperature	COPd	3.67	_			
Tj = operating limit	Pdh	5.02	kW	Tj = operating limit	COPd	2.48	_			
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	2	°C			
Cycling interval capacity for heating	Pcych	_	kW	Cycling interval efficiency	COPcyc		-			
Degradation co-efficient (**)	Cdh	0.9		Heating water operating limit temperature	WTOL	62	°C			
Power consumption in modes other than ac				Supplementary heater	WIGE					
Off mode	Poff	0.014	kW							
Standby mode	Psb	0.014	kW	Rated heat output (**)	Psup	0	kW			
Thermostat-off mode	Pto	0.024	kW							
Crankcase heater mode	Pck	0.000	kW	Type of energy input		Electrical				
Other items										
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	2770	m³/h			
Sound power level, indoors/outdoors	L _{WA}	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m³/h			
Annual energy consumption	Q_{HE}	1640	kWh	heat exchanger						
For heat pump combination heater:										
Declared load profile		-		Water heating energy efficiency	η_{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		IERM Sp. z ramska 101		Warszawa, Polska						

		Tech	nical	p	arameters				
Model(s):				Οι	utdoor unit: KHA-08RY1-B Indoor unit: KI	MK-100RY3	3		
Air-to-water heat pump:					YES				
Water-to-water heat pump:				NO NO					
Brine-to-water heat pump:					NO				
Low-temperature heat pump:					NO				
Equipped with a supplementary heate	er:				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	6.6	kW	ľ	Seasonal space heating energy efficiency	ηs	131.5	%	
Declared capacity for heating for part load and outdoor temperature Tj	at indoor tem	perature 20 °C	;	ŀ	Declared coefficient of performance or primindoor temperature 20 °C and outdoor temp		atio for part lo	ad at	
Tj = -7℃	Pdh	5.84	kW	Ì	Tj = -7℃	COPd	2.16	-	
Tj = 2℃	Pdh	3.75	kW	Ì	Tj = 2℃	COPd	3.30	-	
Tj = 7°C	Pdh	2.42	kW	ı	Tj = 7°C	COPd	4.34	-	
Tj = 12℃	Pdh	1.39	kW	İ	Tj = 12℃	COPd	5.33	-	
Tj = bivalent temperature	Pdh	5.84	kW	İ	Tj = bivalent temperature	COPd	2.16	-	
Tj = operating limit	Pdh	4.90	kW	l	Tj = operating limit	COPd	1.84	-	
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	Ì	For air-to-water heat pumps: Tj = -15℃	COPd	-	-	
Bivalent temperature	Tbiv	-7	°C		For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C	
Cycling interval capacity for heating	Pcych	-	kW	ľ	Cycling interval efficiency	COPcyc	-	-	
Degradation co-efficient (**)	Cdh	0.9		Ì	Heating water operating limit temperature	WTOL	60	°C	
Power consumption in modes other than ac	ctive mode			İ	Supplementary heater				
Off mode	Poff	0.014	kW	ľ		_			
Standby mode	Psb	0.014	kW		Rated heat output (**)	Psup	1.69	kW	
Thermostat-off mode	Pto	0.024	kW		Type of energy input		Electrical		
Crankcase heater mode	Pck	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	m³/h	
Sound power level, indoors/outdoors	L _{WA}	42/59	dB		For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m³/h	
Annual energy consumption	Q _{HE}	4056	kWh		heat exchanger				
For heat pump combination heater:									
Declared load profile		-			Water heating energy efficiency	$\eta_{\sf vh}$	-	%	
Daily electricity consumption	Q _{clec}	-	kWh	ľ	Daily fuel consumption	Q _{fuel}	-	kWh	
Annual electricity consumption	AEC	-	kWh	-	Annual fuel consumption	AFC	-	GJ	
Contact details		IERM Sp. z ramska 101 <i>i</i>		1 W	/arszawa, 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.

		Tech	nical	p	arameters					
Model(s):				0	outdoor unit: KHA-08RY1-B Indoor unit:	KMK-100R	Y3			
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 heate	r:				NO					
Heat pump combination heater:					NO					
Declared climate condition:					COLDER					
Parameters are declared for medium-	temperature	application	-							
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit		
Rated heat output (*)	Prated	5.8	kW		Seasonal space heating energy efficiency	ηs	112.0	%		
Declared capacity for heating for part load a and outdoor temperature Tj	at indoor tem	perature 20 °C	;		Declared coefficient of performance or prim indoor temperature 20 °C and outdoor temp		atio for part loa	ad at		
Tj = -7℃	Pdh	3.86	kW		Tj = -7℃	COPd	2.48	-		
Tj = 2°C	Pdh	2.21	kW		Tj = 2°C	COPd	3.35	-		
Tj = 7°C	Pdh	1.44	kW		Tj = 7°C	COPd	4.11	-		
Tj = 12℃	Pdh	1.46	kW		Tj = 12℃	COPd	5.92	-		
Tj = bivalent temperature	Pdh	4.71	kW		Tj = bivalent temperature	COPd	1.90	-		
Tj = operating limit	Pdh	2.80	kW		Tj = operating limit	COPd	1.22	-		
For air-to-water heat pumps: Tj = -15℃	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	-22	°C		
Cycling interval capacity for heating	Pcych	-	kW		Cycling interval efficiency	COPcyc	-	-		
Degradation co-efficient (**)	Cdh	0.9			Heating water operating limit temperature	WTOL	51	°C		
Power consumption in modes other than ac	tive mode				Supplementary heater					
Off mode	Poff	0.014	kW		D 1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	_				
Standby mode	Psb	0.014	kW		Rated heat output (**)	Psup	2.97	kW		
Thermostat-off mode	Pto	0.024	kW		Type of energy input		Electrical			
Crankcase heater mode	Pck	0.000	kW		Type of energy input		Liectrical			
Other items										
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m³/h		
Sound power level, indoors/outdoors	L _{WA}	-	dB		For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m³/h		
Annual energy consumption	Q _{HE}	4950	kWh		heat exchanger					
For heat pump combination heater:										
Declared load profile		-			Water heating energy efficiency	$\eta_{\sf wh}$	-	%		
Daily electricity consumption	Q _{clec}	-	kWh		Daily fuel consumption	Q _{fuel}	-	kWh		
Annual electricity consumption	AEC	-	kWh		Annual fuel consumption	AFC	-	GJ		
Contact details		HERM Sp. z ramska 101		11 V	Varszawa, 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.

		Tech	nical	ра	nrameters						
Model(s):				Out	tdoor unit: KHA-08RY1-B Indoor unit:	KMK-100R	Y3				
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 heate	er:				NO						
Heat pump combination heater:					NO						
Declared climate condition:					WARMER						
Parameters are declared for medium-	temperature	e application	l.								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	7.6	kW		Seasonal space heating energy efficiency	ηs	175.8	%			
Declared capacity for heating for part load and outdoor temperature Tj					Declared coefficient of performance or primindoor temperature 20 °C and outdoor temp	ary energy ra					
Tj = -7°C	Pdh	-	kW	-	 Tj = -7℃	COPd	-	-			
Tj = 2℃	Pdh	7.55	kW	1	Ti = 2°C	COPd	2.59	-			
Tj = 7℃	Pdh	4.86	kW	+ +	Tj = 7℃	COPd	3.92	-			
Tj = 12℃	Pdh	2.31	kW	_	Ti = 12℃	COPd	5.55	-			
Tj = bivalent temperature	Pdh	4.86	kW	+ -	Tj = bivalent temperature	COPd	3.92	-			
Tj = operating limit	Pdh	7.55	kW		Tj = operating limit	COPd	2.59	-			
For air-to-water heat pumps: Tj = -15℃	Pdh	-	kW		For air-to-water heat pumps: Tj = -15℃	COPd	-	-			
Bivalent temperature	Tbiv	7	°C	1 [For air-to-water heat pumps: Operation limit temperature	TOL	2	°C			
Cycling interval capacity for heating	Pcych	-	kW		Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient (**)	Cdh	0.9		1	Heating water operating limit temperature	WTOL	62	°C			
Power consumption in modes other than ac	ctive mode				Supplementary heater						
Off mode	Poff	0.014	kW		D (11) (1 (**)	_					
Standby mode	Psb	0.014	kW		Rated heat output (**)	Psup	0	kW			
Thermostat-off mode	Pto	0.024	kW		Type of energy input		Electrical				
Crankcase heater mode	Pck	0.000	kW		Type of energy input		Liectrical				
Other items				П							
Capacity control		variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m³/h			
Sound power level, indoors/outdoors	L _{WA}	-	dB		For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m³/h			
Annual energy consumption	Q _{HE}	2259	kWh		heat exchanger						
For heat pump combination heater:											
Declared load profile		-			Water heating energy efficiency	$\eta_{\sf wh}$	-	%			
Daily electricity consumption	Q _{clec}	-	kWh] [Daily fuel consumption	Q _{fuel}	-	kWh			
Annual electricity consumption	AEC	-	kWh		Annual fuel consumption	AFC	-	GJ			
Contact details		HERM Sp. z oramska 101		41 W	arszawa, Polska						
	ut of a supp	lementary h	eater Ps	sup is	rated heat output Prated is equal to the sequal to the supplementary capacity in coefficient is Cdh = 0,9.			ng			

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		Tech	nical	parameters						
Model(s):				Outdoor unit: KHA-10RY1-B Indoor unit: K	MK-100RY	3				
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 heate	r:			NO						
Heat pump combination heater:				NO						
Declared climate condition:				AVERAGE						
Parameters are declared for medium-	temperature	e application	١.							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	7.7	kW	Seasonal space heating energy efficiency	ηs	136.6	%			
Declared capacity for heating for part load and outdoor temperature Tj	at indoor tem	perature 20 °0		Declared coefficient of performance or primindoor temperature 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °		atio for part lo	ad at			
Tj = -7℃	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℃	Pdh	2.77	kW	Tj = 7℃	COPd	4.52	-			
Tj = 12℃	Pdh	1.58	kW	Tj = 12℃	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	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C			
Cycling interval capacity for heating	Pcych	-	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 ac	ctive mode			Supplementary heater	•					
Off mode	Poff	0.014	kW	D 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
Standby mode	Psb	0.014	kW	Rated heat output (**)	Psup	2.29	kW			
Thermostat-off mode	Pto	0.024	kW	Type of energy input		Electrical				
Crankcase heater mode	Pck	0.000	kW	Type of energy input		Liectrical				
Other items										
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m³/h			
Sound power level, indoors/outdoors	L _{WA}	42/60	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m³/h			
Annual energy consumption	Q _{HE}	4539	kWh	heat exchanger						
For heat pump combination heater:										
Declared load profile		-		Water heating energy efficiency	$\eta_{ m wh}$	-	%			
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details		HERM Sp. z oramska 101		1 Warszawa, Polska						
	ut of a supp	lementary h	eater Ps	the rated heat output Prated is equal to tup is equal to the supplementary capacity ation coefficient is Cdh = 0,9.			ing			

Model(s):				Outdoor unit: KHA-10RY1-B Indoor unit:	KMK-100R	Y3				
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 heate	r:			NO						
Heat pump combination heater:				NO						
Declared climate condition:				COLDER						
Parameters are declared for medium-	temperature	application	l.							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	6.7	kW	Seasonal space heating energy efficiency	ηs	116.4	%			
Declared capacity for heating for part load a and outdoor temperature Tj	at indoor temp	perature 20 °C		Declared coefficient of performance or primindoor temperature 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °		atio for part lo	ad at			
Tj = -7°C	Pdh	4.27	kW	Tj = -7℃	COPd	2.54	-			
Tj = 2℃	Pdh	2.57	kW	Tj = 2℃	COPd	3.51	-			
Tj = 7℃	Pdh	1.65	kW	Tj = 7℃	COPd	4.37	-			
Tj = 12°C	Pdh	1.47	kW	Tj = 12℃	COPd	5.96	-			
Tj = bivalent temperature	Pdh	5.47	kW	Tj = bivalent temperature	COPd	2.00	-			
Tj = operating limit	Pdh	2.80	kW	Tj = operating limit	COPd	1.22	-			
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃	COPd	-	-			
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C			
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient (**)	Cdh	0.9		Heating water operating limit temperature	WTOL	51	°C			
Power consumption in modes other than ac	tive mode			Supplementary heater						
Off mode	Poff	0.014	kW	Rated heat output (**)	P _{sup}	3.91	kW			
Standby mode	Psb	0.014	kW	raisa nsar saipar ()	1 500	3.91	KVV			
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	-	4030	m ³ /h			
Sound power level, indoors/outdoors	Lwa	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m ³ /h			
Annual energy consumption	Q _{HE}	5540	kWh	heat exchanger						
For heat pump combination heater:										
Declared load profile		-		Water heating energy efficiency	$\eta_{\sf wh}$	-	%			
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWI			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details		HERM Sp. z ramska 101		Warszawa, Polska						

Model(s):				Outdoor unit: KHA-10RY1-B Indoor unit:	KMK-100R	Y3			
Air-to-water heat pump:				YES					
Vater-to-water heat pump:				NO NO					
Brine-to-water heat pump:				NO					
.ow-temperature heat pump:				NO					
Equipped with a supplementary heate	er:			NO					
leat pump combination heater:				NO					
Declared climate condition:				WARMER					
Parameters are declared for medium	-temperature	application	1.						
	-								
em	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated heat output (*)	Prated	8.6	kW	Seasonal space heating energy efficiency	ηs	180.3	%		
Declared capacity for heating for part load and outdoor temperature Tj	at indoor tem	perature 20 °C		Declared coefficient of performance or prim indoor temperature 20 °C and outdoor temp	ary energy ra perature Tj	atio for part lo	ad at		
-j = -7℃	Pdh	-	kW	Tj = -7°C	COPd	-	-		
∵j = 2°C	Pdh	8.06	kW	Tj = 2°C	COPd	2.59	-		
:j = 7℃	Pdh	5.54	kW	Tj = 7℃	COPd	4.10	-		
;j = 12℃	Pdh	2.53	kW	Tj = 12℃	COPd	5.82	-		
j = bivalent temperature	Pdh	5.54	kW	Tj = bivalent temperature	COPd	4.10	-		
j = operating limit	Pdh	8.15	kW	Tj = operating limit	COPd	2.61	-		
for air-to-water heat pumps: Tj = -15℃	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃	COPd	-	-		
livalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C		
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-		
Degradation co-efficient (**)	Cdh	0.9		Heating water operating limit temperature	WTOL	62	°C		
Power consumption in modes other than a	ctive mode			Supplementary heater					
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	0.49	14) A /		
Standby mode	Psb	0.014	kW	Rated fleat output ()	rsup	0.48	kW		
hermostat-off mode	Pto	0.024	kW	Type of energy input		Electrical			
Crankcase heater mode	Pck	0.000	kW	1,752 21 2112137 11172		2100111041			
Other items									
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4030	m³/h		
Sound power level, indoors/outdoors	L _{WA}	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m ³ /h		
Annual energy consumption	Q _{HE}	2516	kWh	heat exchanger					
or heat pump combination heater:									
Declared load profile		-		Water heating energy efficiency	$\eta_{ m wh}$	-	%		
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kW		
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ		
Contact details		HERM Sp. z		Warszawa, Polska					

Model(s):			(Outdoorunit: KHA-12RY3-B Indoorunit: KN	ИK-160RY3				
Air-to-water heat pump:				YES					
Water-to-water heat pump:				NO NO					
Brine-to-water heat pump:				NO					
Low-temperature heat pump:			NO						
Equipped with a supplementary heater	er.			NO					
Heat pump combination heater:				NO					
Declared climate condition:				AVERAGE					
Parameters are declared for medium-	temperature	e application	1						
	tomporatare	у арриоаног	•						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated heat output (*)	Prated	11.6	kW	Seasonal space heating energy efficiency	ηs	135.1	%		
Declared capacity for heating for part load and outdoor temperature Tj	at indoor tem	perature 20 °0		Declared coefficient of performance or primindoor temperature 20 °C and outdoor temp		tio for part loa	ad at		
Tj = -7℃	Pdh	10.24	kW	Tj = -7°C	COPd	2.01	-		
Tj = 2℃	Pdh	6.52	kW	Tj = 2℃	COPd	3.44	-		
Tj = 7℃	Pdh	4.36	kW	Tj = 7°C	COPd	4.59	-		
Ti = 12℃	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℃	Pdh	-	kW	For air-to-water heat pumps: Tj = -15℃	COPd	-	-		
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C		
Cycling interval capacity for heating	Pcych	-	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 ac	ctive mode			Supplementary heater					
Off mode	Poff	0.020	kW						
Standby mode	Psb	0.020	kW	Rated heat output (**)	Psup	1.23	kW		
Thermostat-off mode	Pto	0.030	kW	Type of energy input		Clastria al			
Crankcase heater mode	Pck	0.000	kW	Type of energy input		Electrical			
Other items									
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h		
Sound power level, indoors/outdoors	L _{WA}	43/64	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m ³ /h		
Annual energy consumption	Q _{HE}	6928	kWh	heat exchanger					
For heat pump combination heater:									
Declared load profile		-		Water heating energy efficiency	$\eta_{\sf vh}$	-	%		
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kW		
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ		
Contact details									

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.

Madal(a):				Outdoor unit: KHA-12RY3-B Indoor unit:	KMK-160P	V3			
Model(s):					TRIVITY-1001X	.13			
Air-to-water heat pump:				YES NO					
Water-to-water heat pump:									
Brine-to-water heat pump:				NO NO					
Low-temperature heat pump:				NO NO					
Equipped with a supplementary heat	er:			NO NO					
Heat pump combination heater:				NO COLDER					
Declared climate condition:				COLDER					
Parameters are declared for medium	-temperature	e application	l						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit		
Rated heat output (*)	Prated	10.3	kW	Seasonal space heating energy efficiency	ηs	117.7	%		
Declared capacity for heating for part load and outdoor temperature Tj	at indoor tem	perature 20 °C		Declared coefficient of performance or prim indoor temperature 20 °C and outdoor temp		itio for part lo	ad at		
Tj = -7°C	Pdh	6.63	kW	Tj = -7°C	COPd	2.63	-		
Tj = 2℃	Pdh	4.06	kW	Tj = 2°C	COPd	3.60	-		
Tj = 7℃	Pdh	2.78	kW	Tj = 7°C	COPd	4.54	-		
Tj = 12℃	Pdh	3.33	kW	Ti = 12℃	COPd	6.25	-		
Tj = bivalent temperature	Pdh	8.41	kW	Tj = bivalent temperature	COPd	1.84	-		
Tj = operating limit	Pdh	4.19	kW	Tj = operating limit	COPd	1.13	-		
For air-to-water heat pumps: Tj = -15°C	Pdh	4.19	kW	7 1 3	COPd	-	-		
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Tj = -15°C For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C		
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-		
Degradation co-efficient (**)	Cdh	0.9		Heating water operating limit temperature	WTOL	51	°C		
Power consumption in modes other than a	ctive mode			Supplementary heater					
Off mode	Poff	0.020	kW						
Standby mode	Psb	0.020	kW	Rated heat output (**)	Psup	6.11	kW		
Thermostat-off mode	Pto	0.030	kW						
Crankcase heater mode	Pck	0.000	kW	Type of energy input		Electrical			
Other items									
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m³/h		
Sound power level, indoors/outdoors	L _{WA}	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m³/h		
Annual energy consumption	Q _{HE}	8420	kWh	heat exchanger					
For heat pump combination heater:									
Declared load profile		-		Water heating energy efficiency	$\eta_{\sf wh}$	-	%		
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh		
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ		
Contact details		HERM Sp. z							

^(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

		Tech	nical	parameters						
Model(s):				Outdoor unit: KHA-12RY3-B Indoor unit:	KMK-160R	Y3				
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 heate	r:			NO						
Heat pump combination heater:				NO						
Declared climate condition:				WARMER						
Parameters are declared for medium-	temperature	e application	١.							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit			
Rated heat output (*)	Prated	12.5	kW	Seasonal space heating energy efficiency	ηs	173.8	%			
Declared capacity for heating for part load and outdoor temperature Tj	at indoor tem	perature 20 °0		Declared coefficient of performance or prim indoor temperature 20 °C and outdoor temp		atio for part lo	ad at			
Tj = -7°C	Pdh	-	kW	Tj = -7℃	COPd	-	-			
Tj = 2℃	Pdh	12.07	kW	Tj = 2℃	COPd	2.31	-			
Tj = 7℃	Pdh	8.04	kW	Tj = 7°C	COPd	3.86	-			
Tj = 12℃	Pdh	3.75	kW	Tj = 12℃	COPd	5.70	-			
Tj = bivalent temperature	Pdh	8.04	kW	Tj = bivalent temperature	COPd	3.86	-			
Tj = operating limit	Pdh	12.07	kW	Tj = operating limit	COPd	2.31	-			
For air-to-water heat pumps: Tj = -15℃	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	2	°C			
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-			
Degradation co-efficient (**)	Cdh	0.9		Heating water operating limit temperature	WTOL	62	°C			
Power consumption in modes other than ac	ctive mode			Supplementary heater						
Off mode	Poff	0.020	kW	5	_					
Standby mode	Psb	0.020	kW	Rated heat output (**)	Psup	0.43	kW			
Thermostat-off mode	Pto	0.030	kW	Type of energy input		Flootrical				
Crankcase heater mode	Pck	0.000	kW	Type of energy input		Electrical				
Other items Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m³/h			
Sound power level, indoors/outdoors	L _{WA}	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	_	_	m³/h			
Annual energy consumption	Q _{HE}	3780	kWh	heat exchanger	_		,			
For heat pump combination heater:										
Declared load profile		-		Water heating energy efficiency	$\eta_{\sf wh}$	-	%			
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh			
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ			
Contact details	ul. Ostrobi		A, 04-041	Warszawa, Polska						
	ut of a supp	lementary h	eater Psu	the rated heat output Prated is equal to the p is equal to the supplementary capacity tion coefficient is Cdb = 0.9			ing			

^(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Madal(a)				Outdoor unit: KHA-14RY3-B Indoor unit: K	MK-160RY	3						
Model(s):												
Air-to-water heat pump:		YES NO										
Water-to-water heat pump:		NO NO										
Brine-to-water heat pump:				NO NO								
Low-temperature heat pump: Equipped with a supplementary heate	\r.		NO									
Heat pump combination heater:	ži.											
Declared climate condition:												
Parameters are declared for medium-	temperatur	annlication	`	710210102								
arameters are declared for medium	temperature	з арріісацої	1.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit					
Rated heat output (*)	Prated	12.08	kW	Seasonal space heating energy efficiency	ηs	135.6	%					
Declared capacity for heating for part load and outdoor temperature Tj	at indoor tem	perature 20 °0										
Tj = -7℃	Pdh	10.68	kW	Tj = -7°C	COPd	2.01	-					
Tj = 2℃	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℃	Pdh	3.31	kW	•	COPd	6.13	-					
Tj = bivalent temperature	Pdh	10.68	kW	,	COPd	2.01	-					
Tj = operating limit	Pdh	9.19	kW	Tj = operating limit			-					
For air-to-water heat pumps: Tj = -15℃	Pdh	-	kW	For air-to-water heat pumps: Ti = -15°C	COPd	-	-					
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps:	TOL	-10	°C					
Cycling interval capacity for heating	Pcych	-	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 a	ctive mode	<u> </u>		Supplementary heater								
Off mode	Poff	0.020	kW	Detail beat subset (**)	Б	4.40						
Standby mode	Psb	0.020	kW	Rated neat output (***)	Psup	1.40	KVV					
Thermostat-off mode	Pto	0.030	kW	Type of energy input		Flectrical						
Crankcase heater mode	Pck	0.000	kW	Type of offergy input		Liectrical						
OII '1				1								
Other items Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h					
Sound power level, indoors/outdoors	L _{WA}	43/65	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m³/h					
Annual energy consumption	Q _{HE}	7203	kWh	heat exchanger								
For heat pump combination heater:												
Declared load profile		-		Water heating energy efficiency	η_{wh}	-	%					
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWł					
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ					
Contact details		HERM Sp. z		Warszawa, Polska								

^(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Madala)			(Outdoor unit: KHA-14RY3-B Indoor unit: k	(MK-160R)	/3							
Model(s):													
Air-to-water heat pump:	YES												
Water-to-water heat pump:	NO NO												
Brine-to-water heat pump:		NO NO											
Low-temperature heat pump:		NO NO											
Equipped with a supplementary heater	er:												
Heat pump combination heater:		NO COLDED											
Declared climate condition:				COLDER									
Parameters are declared for medium-	temperature	application	l										
Item	Symbol	Value	Unit	Item	Symbol	Value	Uni						
Rated heat output (*)	Prated	11.0	kW	Seasonal space heating energy efficiency	ηs	118.9	%						
Declared capacity for heating for part load and outdoor temperature Tj	at indoor temp	perature 20 °C		NO COLDER Item Symbol Value Un Seasonal space heating energy efficiency η s 118.9 % Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj Tj = -7°C COPd 2.66 - Tj = -7°C COPd 3.66 - Tj = 2°C COPd 4.72 - Tj = 12°C COPd 6.25 - Tj = bivalent temperature COPd 1.79 - Tj = operating limit COPd 1.13 - For air-to-water heat pumps: Tj = -15°C COPd - - For air-to-water heat pumps: Operation limit temperature TOL -22 °C Cycling interval efficiency COPcyc - - Heating water operating limit temperature WTOL 51 °C Supplementary heater Psup 6.80 kW Type of energy input Electrical									
Tj = -7℃	Pdh	6.89	kW	Tj = -7°C	COPd	2.66	-						
Tj = 2℃	Pdh	4.32	kW	Tj = 2°C	COPd	3.66	-						
Tj = 7℃	Pdh	3.06	kW	Ti = 7°C	COPd	4.72	-						
Tj = 12℃	Pdh	3.33	kW	•	COPd	6.25	-						
Tj = bivalent temperature	Pdh	8.94	kW	•			-						
Tj = operating limit	Pdh	4.20	kW				-						
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	7 . 3			-						
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps:	TOL	-22	°C						
Cycling interval capacity for heating	Pcych	-	kW	<u> </u>	COPcyc	-	-						
Degradation co-efficient (**)	Cdh	0.9		Heating water operating limit temperature	WTOL	51	°C						
Power consumption in modes other than a	ctive mode			Supplementary heater									
Off mode	Poff	0.020	kW		_								
Standby mode	Psb	0.020	kW	Rated heat output (**)	Psup	6.80	kW						
Thermostat-off mode	Pto	0.030	kW	Type of energy input	FI 11 1								
Crankcase heater mode	Pck	0.000	kW	Type of energy input		Electrical							
Other items													
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m³/h						
Sound power level, indoors/outdoors	L _{WA}	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m ³ /h						
Annual energy consumption	Q _{HE}	8867	kWh	heat exchanger									
For heat pump combination heater:													
Declared load profile		-		Water heating energy efficiency	$\eta_{ m wh}$	_	%						
Daily electricity consumption	Q _{clec}	_	kWh	Daily fuel consumption	Q _{fuel}	_	kW						
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ						
,					1 7 5								
Contact details				Warszawa, Polska		KLIMA-THERM Sp. z o. o. ul. Ostrobramska 101A, 04-041 Warszawa, Polska							

^(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):				Outdoor unit: KHA-14RY3-B Indoor unit:	KMK-160R	Y3						
Air-to-water heat pump:				YES								
Water-to-water heat pump:	NO NO											
Brine-to-water heat pump:	NO NO											
Low-temperature heat pump:			NO									
Equipped with a supplementary heate	er.	NO NO										
Heat pump combination heater:	,,,	NO NO										
Declared climate condition:				WARMER								
Parameters are declared for medium-	temperature	application	<u> </u>									
	tomporatare	арриосион	••									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit					
Rated heat output (*)	Prated	13.7	kW	Seasonal space heating energy efficiency	ηs	176.4	%					
Declared capacity for heating for part load and outdoor temperature Tj	at indoor tem	perature 20 °C		Declared coefficient of performance or prim indoor temperature 20 °C and outdoor temp		tio for part lo	ad at					
Tj = -7℃	Pdh	-	kW	Tj = -7°C	COPd	-	-					
Tj = 2°C	Pdh	13.04	kW	Tj = 2℃	COPd	2.20	-					
Tj = 7℃	Pdh	8.83	kW	Tj = 7°C	COPd	3.91	-					
Tj = 12℃	Pdh	4.08	kW	Tj = 12°C	COPd	5.90	-					
Tj = bivalent temperature	Pdh	8.83	kW	Tj = bivalent temperature	COPd	3.91	-					
Tj = operating limit	Pdh	13.04	kW	Tj = operating limit	COPd	2.20	-					
For air-to-water heat pumps: Tj = -15℃	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	2	°C					
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-					
Degradation co-efficient (**)	Cdh	0.9		Heating water operating limit temperature	WTOL	62	°C					
Power consumption in modes other than a	ctive mode			Supplementary heater								
Off mode	Poff	0.020	kW	B + 11 + 1 + 1(##)	-							
Standby mode	Psb	0.020	kW	Rated heat output (**)	Psup	0.66	kW					
Thermostat-off mode	Pto	0.030	kW	Type of energy input	Electrical							
Crankcase heater mode	Pck	0.000	kW	Type of energy input		Liectrical						
Other items												
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m ³ /h					
Sound power level, indoors/outdoors	L _{WA}	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m³/h					
Annual energy consumption	Q _{HE}	4092	kWh	heat exchanger								
For heat pump combination heater:												
Declared load profile		-		Water heating energy efficiency	$\eta_{\sf wh}$	-	%					
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWI					
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ					
Contact details		IERM Sp. z		Warszawa, Polska								

^(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

Model(s):				Outdoorunit: KHA-16RY3-B Indoorunit: K	MK-160RY	3						
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 heate	r:		NO NO									
Heat pump combination heater:			NO AVERAGE									
Declared climate condition:				AVERAGE								
Parameters are declared for medium-	temperature	application	1.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit					
Rated heat output (*)	Prated	13.0	kW	Seasonal space heating energy efficiency	ηs	133.2	%					
Declared capacity for heating for part load a and outdoor temperature Tj	at indoor temp	perature 20 °C		NO AVERAGE Item Symbol Value Unit Seasonal space heating energy efficiency \(\eta_s \) 133.2 % Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj Tj = -7°C COPd 1.99 - Tj = 2°C COPd 3.34 - Tj = 7°C COPd 4.61 - Tj = 12°C COPd 6.07 - Tj = bivalent temperature COPd 1.99 - Tj = operating limit COPd 1.80 - For air-to-water heat pumps: Tj = -15°C COPd - For air-to-water heat pumps: Tj = -15°C COPd - Cycling interval efficiency COPcyc - Heating water operating limit temperature WToL 60 °C Supplementary heater Rated heat output (**) Psup 2.67 kW Type of energy input Electrical For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor - For water-or brine-to-water heat pumps: Rated brine or water flow rate,								
Tj = -7°C	Pdh	11.52	kW	Tj = -7°C	COPd	1.99	-					
Tj = 2℃	Pdh	7.18	kW	Tj = 2°C	COPd	3.34	-					
Tj = 7℃	Pdh	4.67	kW	Tj = 7°C	COPd	4.61	-					
Tj = 12℃	Pdh	3.31	kW	Tj = 12°C	COPd	6.07	-					
Tj = bivalent temperature	Pdh	11.52	kW	Tj = bivalent temperature	COPd	1.99	-					
Tj = operating limit	Pdh	10.33	kW	Tj = operating limit	COPd	1.80	-					
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		TOL	-10	°C					
Cycling interval capacity for heating	Pcych	-	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 ac	tive mode			Supplementary heater								
Off mode	Poff	0.020	kW	Rated heat output (**)	Psun	2.67	١٨٨					
Standby mode	Psb	0.020	kW	rated float sulpat ()	1 Sup	2.01	KVV					
Thermostat-off mode	Pto	0.030	kW	Type of energy input	Electrical							
Crankcase heater mode	Pck	0.000	kW									
Other items												
Capacity control		variable			-	4650	m³/h					
Sound power level, indoors/outdoors	L _{WA}	43/68	dB	Rated brine or water flow rate, outdoor	-	-	m ³ /h					
Annual energy consumption	Q _{HE}	7896	kWh	heat exchanger								
For heat pump combination heater:												
Declared load profile		-		Water heating energy efficiency	$\eta_{\sf wh}$	-	%					
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWł					
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ					
Contact details		IERM Sp. z ramska 101		Warszawa, Polska								

^{\$}

Model(s):				Outdoor unit: KHA-16RY3-B Indoor unit:	KMK-160R	Y3					
Air-to-water heat pump:	YES										
Water-to-water heat pump:		NO NO									
Brine-to-water heat pump:				NO							
Low-temperature heat pump:		NO NO									
Equipped with a supplementary heater	er:	NO									
Heat pump combination heater:		NO									
Declared climate condition:				COLDER							
Parameters are declared for medium-	temperature	e application	l.								
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit				
Rated heat output (*)	Prated	11.8	kW	Seasonal space heating energy efficiency	ηs	121.8	%				
Declared capacity for heating for part load and outdoor temperature Tj	at indoor tem	perature 20 °C		Declared coefficient of performance or primindoor temperature 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °C and outdoor 20 °		tio for part loa	ad at				
Tj = -7℃	Pdh	7.64	kW	Tj = -7℃	COPd	2.65	-				
Tj = 2℃	Pdh	4.42	kW	Tj = 2℃	COPd	3.79	-				
Tj = 7°C	Pdh	2.97	kW	Tj = 7°C	COPd	4.81	-				
Tj = 12°C	Pdh	3.43	kW	Ti = 12°C	COPd	6.29	-				
Tj = bivalent temperature	Pdh	9.61	kW	Tj = bivalent temperature	COPd	1.86	-				
Tj = operating limit	Pdh	5.21	kW	Tj = operating limit	COPd	1.23	-				
For air-to-water heat pumps: Tj = -15℃	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	-22	°C				
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-				
Degradation co-efficient (**)	Cdh	0.9		Heating water operating limit temperature	WTOL	51	°C				
Power consumption in modes other than ac	ctive mode			Supplementary heater							
Off mode	Poff	0.020	kW	Dated heat sutput (**)	Б	0.50					
Standby mode	Psb	0.020	kW	Rated heat output (**)	Psup	6.59	kW				
Thermostat-off mode	Pto	0.030	kW	Type of energy input		Electrical					
Crankcase heater mode	Pck	0.000	kW	Type of one gy mpac		Licotrical					
Other items											
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h				
Sound power level, indoors/outdoors	L _{WA}	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m ³ /h				
Annual energy consumption	Q _{HE}	9310	kWh	heat exchanger							
For heat pump combination heater:											
Declared load profile		-		Water heating energy efficiency	$\eta_{\!\scriptscriptstyle{Wh}}$	-	%				
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh				
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ				
Contact details		HERM Sp. z		Warszawa, Polska							

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.

				parameters								
Model(s):			(Outdoor unit: KHA-16RY3-B Indoor unit: I	KMK-160RY	/3						
Air-to-water heat pump:		YES										
Water-to-water heat pump:		NO 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-to-	emperature	application	1.									
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit					
Rated heat output (*)	Prated	13.8	kW	Seasonal space heating energy efficiency	ηs	175.9	%					
Declared capacity for heating for part load at and outdoor temperature Tj	indoor temp	perature 20 °C	3	Declared coefficient of performance or prima indoor temperature 20 °C and outdoor temp	nary energy ra	itio for part lo	ad at					
Tj = -7℃	Pdh	-	kW	Tj = -7°C	COPd	-	-					
Tj = 2℃	Pdh	13.38	kW	Tj = 2°C	COPd	2.29	-					
Tj = 7°C	Pdh	8.86	kW	Tj = 7°C	COPd	3.84	-					
Tj = 12℃	Pdh	4.06	kW	Tj = 12°C	COPd	5.86	-					
Tj = bivalent temperature	Pdh	8.86	kW	Tj = bivalent temperature	COPd	3.84	-					
Tj = operating limit	Pdh	13.38	kW	Tj = operating limit	COPd	2.29	-					
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	2	°C					
Cycling interval capacity for heating	Pcych	-	kW	Cycling interval efficiency	COPcyc	-	-					
Degradation co-efficient (**)	Cdh	0.9		Heating water operating limit temperature	WTOL	62	°C					
Power consumption in modes other than act	ive mode			Supplementary heater								
Off mode	Poff	0.014	kW	D-tad back submit /**)		0.40	1-10/					
Standby mode	Psb	0.014	kW	Rated heat output (**)	Psup	0.42	kW					
Thermostat-off mode	Pto	0.029	kW	Type of energy input		Electrical						
Crankcase heater mode	Pck	0.000	kW	Type of chorgy meas		Libouross						
Other items				<u> </u>								
Capacity control		variable		For air-to-water heat pumps: Rated air flow rate, outdoors	-	4650	m ³ /h					
Sound power level, indoors/outdoors	L _{WA}	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor	-	-	m³/h					
Annual energy consumption	Q_{HE}	4116	kWh	heat exchanger								
For heat pump combination heater:												
Declared load profile		-		Water heating energy efficiency	$\eta_{\sf wh}$	-	%					
Daily electricity consumption	Q _{clec}	-	kWh	Daily fuel consumption	Q _{fuel}	-	kWh					
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ					
Contact details		HERM Sp. z		Warszawa, Polska								

^(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.