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KAYSUN
AQUANTIA

KHP-BI 16 DTR2
KHPI-BI-16VR2XL



A++



A+

XL

44 dB

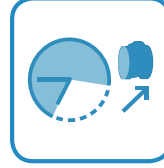
68 dB



12 kW

13 kW

14 kW





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KOYSUN
ΑQUANTIA

KHP-BI 16 DTR2
KHP-BI-16VR2XL



55°C

35°C

A⁺⁺⁺

A⁺⁺

A⁺

A

B

C

D

A⁺⁺

A⁺⁺⁺



44dB



68dB

12

13

14

kW

14

15

13

kW



2019

811/2013

Product fiche

Energy labelling regulation: (EU)812/2013
Ecodesign regulation: (EU)814/2013

Heat pump combination heater		Outdoor		KHP-BI 10 DVR2	KHP-BI 12 DVR2	KHP-BI 14 DVR2	KHP-BI 16 DVR2	KHP-BI 14 DTR2	KHP-BI 16 DTR2	KHP-BI 16 DTR2
		Indoor		KHP-BI-10VR2XL B	KHP-BI-16VR2XL B	KHP-BI-16VR2XL B	KHP-BI-16VR2XL B	KHP-BI-16VR2XL B	KHP-BI-16VR2XL B	KHP-BI-16VR2XL B
Indoor unit sound power(*)		dB		40	42	44	44	44	44	44
Outdoor unit sound power(*)		dB		60	64	65	68	65	68	68
Water heating		-		XL	XL	XL	XL	XL	XL	XL
Energy efficiency class		-		A+	A+	A+	A+	A+	A+	A+
Space heating		-		A++	A++	A++	A++	A++	A++	A++
Average climate										
Water heating			[%]	137	123	123	123	123	123	123
Annual electricity consumption (AEC)			[kWh]	1218	1360	1360	1360	1360	1360	1360
P _{rated} (declared heating capacity)@-10°C			[kW]	7.7	11.6	12.1	12.1	12.1	13.0	13.0
Seasonal space heating efficiency(η _s)			[%]	136.6	135.1	135.6	135.6	135.6	133.3	133.2
Annual energy consumption			[kWh]	4539	6927	7202	7202	7203	7895	7896
Off-peak operation function integrated in heat pump			Y/N	Y	Y	Y	Y	Y	Y	Y
Colder climate										
Water heating			[%]	111	92	92	92	92	92	92
Annual energy consumption			[kWh]	1508	1822	1822	1822	1822	1822	1822
P _{rated} (declared heating capacity)@22°C			[kW]	6.71	10.31	10.96	10.96	11	11.8	11.8
Seasonal space heating efficiency(η _s)			[%]	116.4	117.8	118.9	118.9	118.9	121.8	121.8
Annual energy consumption			[kWh]	5540	8419	8666	8667	8667	9309	9310
Warmer climate										
Water heating			[%]	171	153	153	153	153	153	153
Annual energy consumption			[kWh]	977	1088	1088	1088	1088	1088	1088
P _{rated} (declared heating capacity)@2°C			[kW]	8.63	12.5	13.7	13.7	13.7	13.8	13.8
Seasonal space heating efficiency(η _s)			[%]	180.3	174.0	176.5	176.5	176.4	176.1	175.9
Annual energy consumption			[kWh]	2516	3776	4088	4088	4092	4112	4116
Ecodesign technical data										
Air-to-water heat pump			Y/N	Y	Y	Y	Y	Y	Y	Y
Water-to-water heat pump			Y/N	N	N	N	N	N	N	N
Brine-to-water heat pump			Y/N	N	N	N	N	N	N	N
Low-temperature heat pump			Y/N	N	N	N	N	N	N	N
Equipped with a supplementary heater			Y/N	Y	Y	Y	Y	Y	Y	Y
Heat pump combination heater			Y/N	Y	Y	Y	Y	Y	Y	Y
Rated airflow (outdoor)			[m³/h]	4030	4060	4060	4060	4060	4650	4650
Rated brine/water flow (outdoor H/E)			[m³/h]	-	-	-	-	-	-	-

Heat pump combination heater		Outdoor		KHP-BI-10 DVR2		KHP-BI-12 DVR2		KHP-BI-14 DVR2		KHP-BI-16 DVR2		KHP-BI-16 DTR2		KHP-BI-16 DTR2		
		Indoor		KHP-BI-10VR2XL B	Yes	Yes	KHP-BI-16VR2XL B	Yes	Yes	KHP-BI-16VR2XL B	Yes	Yes	KHP-BI-16VR2XL B	Yes	Yes	KHP-BI-16VR2XL B
Capacity control		-		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P _{off} (Power consumption Off mode)		[kW]		0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.020
P _b (Power consumption Thermostat off mode)		[kW]		0.024	0.024	0.030	0.030	0.024	0.024	0.030	0.030	0.024	0.024	0.030	0.024	0.030
P _{stb} (Power consumption standby mode)		[kW]		0.014	0.014	0.020	0.020	0.014	0.014	0.020	0.020	0.014	0.014	0.020	0.014	0.020
P _{CK} (Power crankcase heater model)		[kW]		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Q _{elec} (Daily electricity consumption)		[kWh]		5.67	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35
Q _{fuel} (Daily fuel consumption)		[kWh]		-	-	-	-	-	-	-	-	-	-	-	-	-
Part load conditions space heating average climate																
P _{th} (declared heating capacity)		[kW]		6.78	10.24	10.24	10.24	10.68	10.68	10.68	10.68	10.68	10.68	10.68	11.52	11.52
COP _d (declared COP)		-		2.24	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	1.99	1.99
C _{dh} (deklaration coefficient)		-		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P _{th} (declared heating capacity)		[kW]		4.28	6.52	6.52	6.52	6.86	6.86	6.86	6.86	6.86	6.86	6.86	7.18	7.18
COP _d (declared COP)		-		3.42	3.44	3.44	3.44	3.43	3.43	3.43	3.43	3.43	3.43	3.43	3.34	3.34
C _{dh} (deklaration coefficient)		-		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P _{th} (declared heating capacity)		[kW]		2.77	4.36	4.36	4.36	4.63	4.63	4.63	4.63	4.63	4.63	4.63	4.67	4.67
COP _d (declared COP)		-		4.52	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.59	4.61	4.61
C _{dh} (deklaration coefficient)		-		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P _{th} (declared heating capacity)		[kW]		1.58	3.29	3.29	3.29	3.31	3.31	3.31	3.31	3.31	3.31	3.31	3.32	3.32
COP _d (declared COP)		-		5.68	6.05	6.05	6.05	6.13	6.13	6.13	6.13	6.13	6.13	6.07	6.07	6.07
C _{dh} (deklaration coefficient)		-		0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
T _{ol} (Temperature Operating Limit)		[°C]		-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10
P _{th} (declared heating capacity)		[kW]		5.38	9.1	9.1	9.1	9.19	9.19	9.19	9.19	9.19	9.19	10.33	10.33	10.33
COP _d (declared COP)		-		1.83	1.79	1.79	1.79	1.76	1.76	1.76	1.76	1.76	1.76	1.80	1.80	1.80
WTOL(Heating water Operation Limit)		[°C]		65	65	65	65	65	65	65	65	65	65	65	65	65
T _{sw}		[°C]		-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7	-7
P _{th} (declared heating capacity)		[kW]		6.78	10.27	10.27	10.27	10.68	10.68	10.68	10.68	10.68	10.68	11.52	11.52	11.52
COP _d (declared COP)		-		2.24	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	1.99	1.99	1.99
Capacity of the back-up heater integrated in the unit		[kW]		3/6/9	3/6/9	3/6/9	3/6/9	3/6/9	3/6/9	3/6/9	3/6/9	3/6/9	3/6/9	3/6/9	3/6/9	3/6/9
Supplementary capacity at P _{design}		[kW]		2.28	2.5	2.5	2.5	2.91	2.91	2.91	2.91	2.91	2.91	2.67	2.67	2.67

For medium - temperature application

Model		For medium - temperature application																
Outdoor unit	Indoor unit	Energy efficiency class	Indoor unit sound power dB	Outdoor unit sound power dB	average climate			colder climate			warmer climate							
					Rated heat output kW	Seasonal space heating energy efficiency %	For space heating annual energy consumption kWh	Rated heat output kW	Seasonal space heating energy efficiency %	For space heating annual energy consumption kWh	Rated heat output kW	Seasonal space heating energy efficiency %	For space heating annual energy consumption kWh					
		-																
KHP-BI 4 DVR2	KHPM-BI 6 DVR2	A++	38	56	4.4	129.5	2744	3.4	102.1	3158	5.0	163.1	1614					
	KHPI-BI-10VR2L	A++	38	56	4.4	129.5	2744	3.4	102.1	3158	5.0	163.1	1614					
	KHPI-BI-10VR2XL	A++	38	56	4.4	129.5	2744	3.4	102.1	3158	5.0	163.1	1614					
KHP-BI 6 DVR2	KHPM-BI 6 DVR2	A++	38	58	5.7	137.9	3345	4.3	111.1	3680	5.1	165.4	1634					
	KHPI-BI-10VR2L	A++	38	58	5.7	137.9	3345	4.3	111.1	3680	5.1	165.4	1634					
	KHPI-BI-10VR2XL	A++	38	58	5.7	137.9	3345	4.3	111.1	3680	5.1	165.4	1634					
KHP-BI 8 DVR2	KHPM-BI 10 DVR2	A++	42	59	6.6	131.5	4056	5.8	112.1	4948	7.6	177.2	2242					
	KHPI-BI-10VR2L	A++	40	59	6.6	131.5	4056	5.8	112.1	4948	7.6	177.2	2242					
	KHPI-BI-10VR2XL	A++	40	59	6.6	131.5	4056	5.8	112.1	4948	7.6	177.2	2242					
KHP-BI 10 DVR2	KHPM-BI 10 DVR2	A++	42	60	7.7	136.6	4539	6.7	116.5	5539	8.6	181.7	2496					
	KHPI-BI-10VR2L	A++	40	60	7.7	136.6	4539	6.7	116.5	5539	8.6	181.7	2496					
	KHPI-BI-10VR2XL	A++	40	60	7.7	136.6	4539	6.7	116.5	5539	8.6	181.7	2496					
KHP-BI 12 DVR2	KHPM-BI 16 DVR2	A++	43	64	11.6	135.1	6927	10.3	117.8	8419	12.5	174.1	3376					
	KHPI-BI-16VR2L	A++	42	64	11.6	135.1	6927	10.3	117.8	8419	12.5	174.1	3376					
	KHPI-BI-16VR2XL	A++	43	64	11.6	135.1	6928	10.3	117.7	8420	12.5	173.8	3780					
KHP-BI 14 DVR2	KHPM-BI 16 DVR2	A++	43	65	12.1	135.6	7202	11.0	118.9	8866	13.7	176.5	4088					
	KHPI-BI-16VR2L	A++	44	65	12.1	135.6	7202	11.0	118.9	8866	13.7	176.5	4088					
	KHPI-BI-16VR2XL	A++	43	65	12.1	135.6	7203	11.0	118.9	8867	13.7	176.4	4092					
KHP-BI 16 DVR2	KHPM-BI 16 DVR2	A++	43	68	13.0	133.3	7895	11.8	121.8	9309	13.8	176.1	4112					
	KHPI-BI-16VR2L	A++	44	68	13.0	133.3	7895	11.8	121.8	9309	13.8	176.1	4112					
	KHPI-BI-16VR2XL	A++	43	68	13.0	133.2	7896	11.8	121.8	9310	13.8	175.9	4116					
KHP-BI 16 DTR2	KHPI-BI-16VR2XL	A++	44	68	13.0	133.2	7896	11.8	121.8	9310	13.8	175.9	4116					

For low - temperature application

Model		For low - temperature application																
Outdoor unit	Indoor unit	Energy efficiency class	Indoor unit sound power dB	Outdoor unit sound power dB	average climate			colder climate			warmer climate							
					Rated heat output kW	Seasonal space heating energy efficiency %	For space heating, annual energy consumption kWh	Rated heat output kW	Seasonal space heating energy efficiency %	For space heating, annual energy consumption kWh	Rated heat output kW	Seasonal space heating energy efficiency %	For space heating, annual energy consumption kWh					
		-																
	KHPM-BI 6 DVR2	A+++	38	56	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146					
KHP-BI 4 DVR2	KHP-BI-10VR2L	A+++	38	56	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146					
	KHP-BI-10VR2XL	A+++	38	56	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146					
	KHPM-BI 6 DVR2	A+++	38	58	6.8	195.0	2845	5.6	165.3	3300	6.1	259.8	1244					
KHP-BI 6 DVR2	KHP-BI-10VR2L	A+++	38	58	6.8	195.0	2845	5.6	165.3	3300	6.1	259.8	1244					
	KHP-BI-10VR2XL	A+++	38	58	6.8	195.0	2845	5.6	165.3	3300	6.1	259.8	1244					
	KHPM-BI 10 DVR2	A+++	42	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551					
KHP-BI 8 DVR2	KHP-BI-10VR2L	A+++	40	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551					
	KHP-BI-10VR2XL	A+++	40	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551					
	KHPM-BI 10 DVR2	A+++	42	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617					
KHP-BI 10 DVR2	KHP-BI-10VR2L	A+++	40	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617					
	KHP-BI-10VR2XL	A+++	40	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617					
	KHPM-BI 16 DVR2	A+++	43	64	12.0	189.4	5152	11.4	160.2	6870	11.1	256.1	2292					
KHP-BI 12 DVR2	KHP-BI-16VR2L	A+++	42	64	12.0	189.4	5152	11.4	160.2	6870	11.1	256.1	2292					
	KHPM-BI 16 DVR2	A+++	43	64	12.0	189.3	5153	11.4	160.2	6871	11.1	255.6	2296					
KHP-BI 12 DTR2	KHP-BI-16VR2XL	A+++	42	64	12.0	189.3	5153	11.4	160.2	6871	11.1	255.6	2296					
	KHPM-BI 16 DVR2	A+++	43	65	13.7	185.7	6012	12.6	159.6	7667	12.1	260.3	2457					
KHP-BI 14 DVR2	KHP-BI-16VR2XL	A+++	44	65	13.7	185.7	6012	12.6	159.6	7667	12.1	260.3	2457					
	KHPM-BI 16 DVR2	A+++	43	65	13.7	185.6	6013	12.6	159.6	7667	12.1	259.8	2462					
KHP-BI 14 DTR2	KHP-BI-16VR2XL	A+++	44	65	13.7	185.6	6013	12.6	159.6	7667	12.1	259.8	2462					
	KHPM-BI 16 DVR2	A+++	43	68	15.2	181.7	6804	13.7	157.8	8431	13.1	248.5	2781					
KHP-BI 16 DVR2	KHP-BI-16VR2XL	A+++	44	68	15.2	181.7	6804	13.7	157.8	8431	13.1	248.5	2781					
	KHPM-BI 16 DVR2	A+++	43	68	15.2	181.6	6805	13.7	157.8	8431	13.1	248.1	2786					
KHP-BI 16 DTR2	KHP-BI-16VR2XL	A+++	44	68	15.2	181.6	6805	13.7	157.8	8431	13.1	248.1	2786					

Product fiche 1

Heat pump space heater		Outdoor		KHP-BI 4 DVR2	KHP-BI 6 DVR2	KHP-BI 8 DVR2	KHP-BI 10 DVR2	KHP-BI 12 DVR2
		Indoor		KHPM-BI 6 DVR2 KHP-BI-10VR2L KHP-BI-10VR2XL	KHPM-BI 6 DVR2 KHP-BI-10VR2L KHP-BI-10VR2XL	KHPM-BI 10 DVR2 KHP-BI-10VR2L KHP-BI-10VR2XL	KHPM-BI 10 DVR2 KHP-BI-10VR2L KHP-BI-10VR2XL	KHPM-BI 16 DVR2 KHP-BI-16VR2L KHP-BI-16VR2XL
Indoor unit sound power (*)		dB	38 ^{a)} /38 ^{b)}	38 ^{a)} /38 ^{b)}	42 ^{a)} /40 ^{b)}	42 ^{a)} /40 ^{b)}	42 ^{a)} /40 ^{b)}	43 ^{a)} /42 ^{b)}
Outdoor unit sound power (*)	Average climate low temperature application	dB	56	58	59	59	60	64
	Average climate medium temperature application	dB	56	58	59	59	60	64
Capacity of the back-up heater integrated in the unit	Psup back-up heater (optional)	[kW]	3/6/9	3/6/9	3/6/9	3/6/9	3/6/9	3/6/9
Space heating	Energy efficiency class 35°C (Low temp. app.)	-	A+++	A+++	A+++	A+++	A+++	A+++
Space heating	Energy efficiency class 55°C (Medium temp. app.)	-	A++	A++	A++	A++	A++	A++
Average climate (Design temperature = -10°C)								
Space heating 35°C	Prated (declared heating capacity) @ -10°C	[kW]	5.5	6.8	8.1	9.2	12.0	
	Seasonal space heating efficiency (ηs)	[%]	191.0	195.0	205.6	204.8	189.4	
	Annual energy consumption	[kWh]	2,351	2,845	3,218	3,644	5,152	
Space heating 55°C	Prated (declared heating capacity) @ -10°C	[kW]	4.4	5.7	6.6	7.7	11.6	
	Seasonal space heating efficiency (ηs)	[%]	129.5	137.9	131.5	136.6	135.1	
	Annual energy consumption	[kWh]	2,744	3,345	4,056	4,539	6,927	
Part load conditions space heating average climate low temperature application								
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	4.88	6.03	7.18	8.10	10.61	
	COPd (declared COP)	-	3.19	3.09	3.35	3.23	2.88	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	3.05	3.88	4.65	5.18	6.69	
	COPd (declared COP)	-	4.78	4.85	5.09	5.01	4.65	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	1.93	2.39	2.90	3.32	4.44	
	COPd (declared COP)	-	6.13	6.63	6.82	7.08	6.62	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.48	1.39	1.63	1.65	3.74	
	COPd (declared COP)	-	8.05	7.93	8.35	8.58	8.47	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10.00	-10.00	-10.00	-10.00	-10.00	
	Pdh (declared heating capacity)	[kW]	4.41	5.36	6.44	7.40	10.74	
	COPd (declared COP)	-	2.86	2.76	3.04	2.96	2.77	
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65	

Note :

a) represents the hydraulic module series ;

b) represents the m-thermal tank series ;

Product fiche 2

Heat pump space heater

	Outdoor					KHP-BI 4 DVR2 KHPM-BI 6 DVR2 KHP-BI-10VR2L KHP-BI-10VR2XL	KHP-BI 6 DVR2 KHPM-BI 6 DVR2 KHP-BI-10VR2L KHP-BI-10VR2XL	KHP-BI 8 DVR2 KHPM-BI 10 DVR2 KHP-BI-10VR2L KHP-BI-10VR2XL	KHP-BI 10 DVR2 KHPM-BI 10 DVR2 KHP-BI-10VR2L KHP-BI-10VR2XL	KHP-BI 12 DVR2 KHPM-BI 16 DVR2 KHP-BI-16VR2XL
	Outdoor	Indoor	[°C]	[kW]	[kW]					
(F) Tivalenttemperature										
Tbiv			-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00
Pdh (declared heating capacity)			4.88	6.03	7.18	8.10	8.10	8.10	8.10	10.61
COPd (declared COP)		-	3.19	3.09	3.35	3.23	3.23	3.23	3.23	2.88
Supplementary capacity at P_design			1.11	1.45	1.68	1.76	1.76	1.76	1.76	1.26
Part load conditions space heating average climate medium temperature application										
(A) condition (-7°C)										
Pdh (declared heating capacity)		[kW]	3.89	5.04	5.84	6.78	6.78	6.78	6.78	10.24
COPd (declared COP)		-	2.17	2.17	2.16	2.24	2.24	2.24	2.24	2.01
Cdh(degradation coefficient)		-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)										
Pdh (declared heating capacity)		[kW]	2.38	3.12	3.75	4.28	4.28	4.28	4.28	6.52
COPd (declared COP)		-	3.30	3.51	3.30	3.42	3.42	3.42	3.42	3.44
Cdh(degradation coefficient)		-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)										
Pdh (declared heating capacity)		[kW]	2.94	2.08	2.42	2.77	2.77	2.77	2.77	4.36
COPd (declared COP)		-	4.41	4.54	4.34	4.52	4.52	4.52	4.52	4.59
Cdh(degradation coefficient)		-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)										
Pdh (declared heating capacity)		[kW]	1.32	1.28	1.39	1.58	1.58	1.58	1.58	3.29
COPd (declared COP)		-	5.66	5.59	5.33	5.68	5.68	5.68	5.68	6.05
Cdh(degradation coefficient)		-	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)										
Tol (temperature operating limit)		[°C]	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00
Pdh (declared heating capacity)		[kW]	3.42	4.52	4.90	5.38	5.38	5.38	5.38	9.10
COPd (declared COP)		-	1.91	1.91	1.84	1.83	1.83	1.83	1.83	1.79
WTOL (Heating water Operation Limit)		[°C]	65	65	65	65	65	65	65	65
(F) Tivalenttemperature										
Tbiv		[°C]	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00
Pdh (declared heating capacity)		[kW]	3.89	5.04	5.84	6.78	6.78	6.78	6.78	10.24
COPd (declared COP)		-	2.17	2.17	2.16	2.24	2.24	2.24	2.24	2.01
Supplementary capacity at P_design		[kW]	0.98	1.18	1.69	2.28	2.28	2.28	2.28	2.50
Colder climate (Design temperature = -22°C)										
(F) Tivalenttemperature										
Pdh (declared heating capacity) @ -22°C		[kW]	4.6	5.6	7.0	7.7	7.7	7.7	7.7	11.4
Seasonal space heating efficiency (ns)		[%]	159.5	165.3	170.0	169.8	169.8	169.8	169.8	160.2
Annual energy consumption		[kWh]	2,769	3,300	3,976	4,423	4,423	4,423	4,423	6,870

Product fiche 3

Heat pump space heater

		Outdoor					Indoor				
		KHP-BI 4 DVR2	KHP-BI 6 DVR2	KHP-BI 8 DVR2	KHP-BI 10 DVR2	KHP-BI 12 DVR2	KHPM-BI 6 DVR2	KHPM-BI 10 DVR2	KHPM-BI 16 DVR2	KHPM-BI 20 DVR2	KHPM-BI 25 DVR2
		KHPM-BI-10VR2L KHPM-BI-10VR2XL	KHPM-BI-10VR2L KHPM-BI-10VR2XL	KHPM-BI-10VR2L KHPM-BI-10VR2XL	KHPM-BI-10VR2L KHPM-BI-10VR2XL	KHPM-BI-10VR2L KHPM-BI-10VR2XL	KHPM-BI-10VR2L KHPM-BI-10VR2XL	KHPM-BI-10VR2L KHPM-BI-10VR2XL	KHPM-BI-10VR2L KHPM-BI-10VR2XL	KHPM-BI-10VR2L KHPM-BI-10VR2XL	
Space heating 55°C	Prated (declared heating capacity) @ -22°C	3.4	4.3	5.8	6.7	10.3	[kW]				
	Seasonal space heating efficiency (ηs)	102.1	111.1	112.0	116.4	117.8	[%]				
	Annual energy consumption	3,159	3,681	4,950	5,540	8,419	[kWh]				
Part load conditions space heating colder climate low temperature application											
(A) condition (-7°C)	Pdh (declared heating capacity)	2.75	3.42	4.46	4.83	7.05	[kW]				
	COPd (declared COP)	3.49	3.59	3.66	3.60	3.48	-				
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90	-				
(B) condition (2°C)	Pdh (declared heating capacity)	1.77	2.06	2.69	2.94	4.67	[kW]				
	COPd (declared COP)	4.95	5.21	5.20	5.26	4.96	-				
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90	-				
(C) condition (7°C)	Pdh (declared heating capacity)	1.17	1.46	1.65	1.92	3.14	[kW]				
	COPd (declared COP)	5.53	6.24	6.53	7.08	6.10	-				
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90	-				
(D) condition (12°C)	Pdh (declared heating capacity)	1.43	1.44	1.65	1.65	3.57	[kW]				
	COPd (declared COP)	7.67	7.66	7.96	7.96	7.87	-				
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90	-				
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	-22.00	-22.00	-22.00	-22.00	-22.00	[°C]				
	Pdh (declared heating capacity)	2.80	3.48	4.06	4.62	7.01	[kW]				
	COPd (declared COP)	1.97	1.96	1.95	1.97	1.98	-				
(F) TbiValent temperature	WTOL (Heating water Operation Limit)	65	65	65	65	65	[°C]				
	Tblv	-15.00	-15.00	-15.00	-15.00	-15.00	[°C]				
	Pdh (declared heating capacity)	3.72	4.59	5.69	6.32	9.28	[kW]				
Supplementary capacity at P_design	COPd (declared COP)	2.57	2.53	2.83	2.64	2.59	-				
	Psup (@Tdesign: -22°C)	1.76	2.15	2.91	3.08	4.40	[kW]				
Part load conditions space heating colder climate medium temperature application											
(A) condition (-7°C)	Pdh (declared heating capacity)	2.13	2.70	3.86	4.27	6.63	[kW]				
	COPd (declared COP)	2.32	2.46	2.48	2.54	2.63	-				
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90	-				

Product fiche 4

Heat pump space heater		Outdoor						
		KHP-BI 4 DVR2 KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHP-BI 6 DVR2 KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHP-BI 8 DVR2 KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHP-BI 10 DVR2 KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHP-BI 12 DVR2		
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	1.28	1.60	2.21	2.57	4.06	
	COPd (declared COP)	-	2.99	3.36	3.35	3.51	3.60	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
	Pdh (declared heating capacity)	[kW]	1.01	1.02	1.44	1.65	2.78	
(C) condition (7°C)	COPd (declared COP)	-	3.86	3.94	4.11	4.37	4.54	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
	Pdh (declared heating capacity)	[kW]	1.36	1.37	1.46	1.47	3.33	
	COPd (declared COP)	-	6.28	6.35	5.92	5.96	6.25	
(D) condition (12°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
	Toi (temperature operating limit)	[°C]	-22.00	-22.00	-22.00	-22.00	-22.00	
	Pdh (declared heating capacity)	[kW]	1.64	2.09	2.80	2.80	4.19	
	COPd (declared COP)	-	1.02	1.13	1.22	1.22	1.13	
(E) Toi (temperature operating limit)	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65	
	Tbiv	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00	
	Pdh (declared heating capacity)	[kW]	2.74	3.47	4.71	5.47	8.41	
	COPd (declared COP)	-	1.74	1.86	1.90	2.00	1.84	
Supplementary capacity at P_design	Psup (@Tdesignh: -22°C)	[kW]	1.72	2.17	2.97	3.91	6.12	
Warmer climate (Design temperature = 2°C)								
Space heating 35°C	Prated (declared heating capacity) @ 2°C	[kW]	5.5	6.1	8.1	8.6	11.1	
	Seasonal space heating efficiency (ns)	[%]	255.4	259.8	276.6	280.5	256.1	
	Annual energy consumption	[kWh]	1,146	1,244	1,551	1,617	2,292	
Space heating 55°C	Prated (declared heating capacity) @ 2°C	[kW]	5.0	5.1	7.6	8.6	12.5	
	Seasonal space heating efficiency (ns)	[%]	162.4	164.7	175.8	180.3	174.0	
	Annual energy consumption	[kWh]	1,621	1,640	2,259	2,516	3,776	
Part load conditions space heating warmer climate low temperature application								
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	5.34	5.93	7.56	8.44	11.26	
	COPd (declared COP)	-	3.94	3.91	3.98	3.84	3.59	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	3.56	3.93	5.22	5.52	7.14	
	COPd (declared COP)	-	5.92	5.89	6.26	6.18	5.87	
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	

Product fiche 5

Heat pump space heater		Outdoor	KHP-BI 4 DVR2	KHP-BI 6 DVR2	KHP-BI 8 DVR2	KHP-BI 10 DVR2	KHP-BI 12 DVR2
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.63	1.79	2.62	2.62	3.55
	COPd (declared COP)	-	7.91	8.20	9.23	9.04	7.94
(E) Tol (temperature operating limit)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	2.00
(F) Tivalent temperature	Pdh (declared heating capacity)	[kW]	5.34	5.93	7.56	8.44	11.26
	COPd (declared COP)	-	3.94	3.91	3.98	3.84	3.59
Supplementary capacity at P_design	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
	Tblv	[°C]	7.00	7.00	7.00	7.00	7.00
Part load conditions space heating warmer climate medium temperature application	Pdh (declared heating capacity)	[kW]	3.56	3.93	5.22	5.52	7.14
	COPd (declared COP)	-	5.92	5.89	6.26	6.18	5.87
(B) condition (2°C)	Psup (@Tdesignh: 2°C)	[kW]	0.18	0.18	0.55	0.14	0.00
	Pdh (declared heating capacity)	[kW]	4.83	5.02	7.55	8.06	12.07
(C) condition (7°C)	COPd (declared COP)	-	2.51	2.48	2.59	2.59	2.31
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.22	3.31	4.86	5.54	8.04
	COPd (declared COP)	-	3.68	3.67	3.92	4.10	3.86
(E) Tol (temperature operating limit)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	Tol (temperature operating limit)	[°C]	1.47	1.59	2.31	2.53	3.75
(F) Tivalent temperature	Pdh (declared heating capacity)	[kW]	5.15	5.29	5.55	5.82	5.70
	COPd (declared COP)	-	0.90	0.90	0.90	0.90	0.90
Supplementary capacity at P_design	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	2.00
	Pdh (declared heating capacity)	[kW]	4.83	5.02	7.83	8.15	12.07
Part load conditions space heating warmer climate medium temperature application	COPd (declared COP)	-	2.51	2.48	2.66	2.61	2.31
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
(B) condition (2°C)	Tblv	[°C]	7.00	7.00	7.00	7.00	7.00
	Pdh (declared heating capacity)	[kW]	3.22	3.31	4.86	5.54	8.04
(C) condition (7°C)	COPd (declared COP)	-	3.68	3.67	3.92	4.10	3.86
	Psup (@Tdesignh: 2°C)	[kW]	0.18	0.12	0.00	0.48	0.43

Product fiche 6

Heat pump space heater

		Outdoor	KHP-BI 4 DVR2	KHP-BI 6 DVR2	KHP-BI 8 DVR2	KHP-BI 10 DVR2	KHP-BI 12 DVR2
Product description	Air-to-water heat pump	Y/N	Yes	Yes	Yes	Yes	Yes
	Water-to-water heat pump	Y/N	No	No	No	No	No
	Brine-to-water heat pump	Y/N	No	No	No	No	No
	Low-temperature heat pump	Y/N	No	No	No	No	No
	Equipped with a supplementary heater	Y/N	Yes	Yes	Yes	Yes	Yes
	Heat pump combination heater	Y/N	Yes	Yes	Yes	Yes	Yes
	Rated airflow (outdoor)	[m³/h]	2770	2770	4030	4030	4060
	Rated water/brine flow (outdoor H/E)		/	/	/	/	/
	Capacity control	-	Inverter	Inverter	Inverter	Inverter	Inverter
	Poff (Power consumption Off mode)	[kW]	0.014	0.014	0.014	0.014	0.014
Pto (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.024	0.024	0.024	
Psb (Power consumption Standby mode)	[kW]	0.014	0.014	0.014	0.014	0.014	
PCK (Power crankcase heater model)	[kW]	0.000	0.000	0.000	0.000	0.000	
Qelec (Daily electricity consumption)	[kWh]	/	/	/	/	/	
Qfuel (Daily fuel consumption)	[kWh]	/	/	/	/	/	

Note:

Indoor unit type explanation:

Hydraulic module series

1) KHPM-BI 6 DVR2 includes the following type :

KHPM-BI 60/CGN8-B: without back-up heater.

KHPM-BI 6 DVR2: with 3kW back-up heater and 1-Phase Source.

2) KHPM-BI 10 DVR2 includes the following type :

KHPM-BI 100/CGN8-B: without back-up heater.

KHPM-BI 10 DVR2: with 3kW back-up heater and 1-Phase Source.

KHPM-BI 100/CDS90GN8-B: with 9kW back-up heater and 3-Phase Source.

3) KHPM-BI 16 DVR2 includes the following type :

KHPM-BI 160/CGN8-B: without back-up heater.

KHPM-BI 16 DVR2: with 3kW back-up heater and 1-Phase Source.

KHPM-BI 160/CDS90GN8-B: with 9kW back-up heater and 3-Phase Source.

M-thermal tank series

1) KHP-BI-10VR2L includes the following type :

KHP-BI-10VR2L: 190L tank with 3kW back-up heater and 1-Phase Source.

KHP-BI-100/190CD60GN8-B: 190L tank with 6kW back-up heater and 1-Phase Source.

KHP-BI-100/190CDS90GN8-B: 190L tank with 9kW back-up heater and 3-Phase Source.

2) KHP-BI-10VR2XL includes the following type :

KHP-BI-10VR2XL: 240L tank with 3kW back-up heater and 1-Phase Source.

KHP-BI-100/240CD60GN8-B: 240L tank with 6kW back-up heater and 1-Phase Source.

KHP-BI-100/240CDS90GN8-B: 240L tank with 9kW back-up heater and 3-Phase Source.

3) KHP-BI-16VR2XL includes the following type :

KHP-BI-16VR2XL: 240L tank with 3kW back-up heater and 1-Phase Source.

KHP-BI-160/240CD60GN8-B: 240L tank with 6kW back-up heater and 1-Phase Source.

KHP-BI-160/240CDS90GN8-B: 240L tank with 9kW back-up heater and 3-Phase Source.

Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.

Sound power measured according to the EN12102 under conditions of the EN14825.

Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

Technical parameters

Model(s):	Outdoor unit: KHP-BI 16 DTR2 Indoor unit: KHPM-BI 16 DVR2, KHPI-BI-16VR2XL
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:	YES
Heat pump combination heater:	YES
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13.0	kW	Seasonal space heating energy efficiency	η_s	133.2	%
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	11.52	kW	Tj = -7°C	COPd	1.99	-
Tj = 2°C	Pdh	7.18	kW	Tj = 2°C	COPd	3.34	-
Tj = 7°C	Pdh	4.67	kW	Tj = 7°C	COPd	4.61	-
Tj = 12°C	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	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
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	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{off}	0.020	kW	Rated heat output (**)	P _{sup}	2.67	kW
Standby mode	P _{sb}	0.020	kW				
Thermostat-off mode	P _{to}	0.030	kW				
Crankcase heater mode	P _{ck}	0.000	kW				
Type of energy input	Electrical						

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	LWA	43 ^a /68 44 ^b /68	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	7896	kWh				

For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	η_{wh}	123	%
Daily electricity consumption	Q_{elec}	6.35	kWh	Daily fuel consumption	Q_{fuel}	-	kWh
Annual electricity consumption	AEC	1360	kWh	Annual fuel consumption	AFC	-	GJ
Contact details	GD Midea Heating & Ventilating Equipment Co. Ltd (Penglai industry road, Beijiao, Shunde, Foshan, Guangdong, P.R China)						
(*) 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 $Cdh = 0.9$. a) Represents : KHPM-BI 16 DVR2 b) Represents : KHPI-BI-16VR2XL							

Technical parameters							
Model(s):	Outdoor unit: KHP-BI 16 DTR2 Indoor unit: KHPM-BI 16 DVR2, KHPI-BI-16VR2XL						
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:	YES						
Heat pump combination heater:	YES						
Declared climate condition:	COLDER						
Parameters are declared for medium-temperature application.							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	$Prated$	11.8	kW	Seasonal space heating energy efficiency	η_s	121.8	%
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			
$Tj = -7^{\circ}C$	Pdh	7.64	kW	$Tj = -7^{\circ}C$	$COPd$	2.65	-
$Tj = 2^{\circ}C$	Pdh	4.42	kW	$Tj = 2^{\circ}C$	$COPd$	3.79	-
$Tj = 7^{\circ}C$	Pdh	2.97	kW	$Tj = 7^{\circ}C$	$COPd$	4.81	-
$Tj = 12^{\circ}C$	Pdh	3.43	kW	$Tj = 12^{\circ}C$	$COPd$	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: $Tj = -15^{\circ}C$	Pdh	-	kW	For air-to-water heat pumps: $Tj = -15^{\circ}C$	$COPd$	-	-
Bivalent temperature	T_{biv}	-15	$^{\circ}C$	For air-to-water heat pumps: Operation limit temperature	TOL	-22	$^{\circ}C$
Cycling interval capacity for heating	P_{cyc}	-	kW	Cycling interval efficiency	COP_{cyc}	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	$WTOL$	65	$^{\circ}C$

Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{off}	0.020	kW	Rated heat output (**)	P _{sup}	6.59	kW
Standby mode	P _{sb}	0.020	kW		Type of energy input	Electrical	
Thermostat-off mode	P _{to}	0.030	kW				
Crankcase heater mode	P _{ck}	0.000	kW				
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	LWA	-	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	9310	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	η _{wh}	92	%
Daily electricity consumption	Q _{elec}	8.49	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Annual electricity consumption	AEC	1822	kWh	Annual fuel consumption	AFC	-	GJ
Contact details	GD Midea Heating & Ventilating Equipment Co. Ltd (Penglai industry road, Beijiao, Shunde, Foshan, Guangdong, P.R China)						
(*) 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):	Outdoor unit: KHP-BI 16 DTR2 Indoor unit: KHPM-BI 16 DVR2, KHPI-BI-16VR2XL						
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:	YES						
Heat pump combination heater:	YES						
Declared climate condition:	WARMER						
Parameters are declared for medium-temperature application.							
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 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			

T _j = -7°C	P _{dh}	-	kW	T _j = -7°C	COP _d	-	-
T _j = 2°C	P _{dh}	13.38	kW	T _j = 2°C	COP _d	2.29	-
T _j = 7°C	P _{dh}	8.86	kW	T _j = 7°C	COP _d	3.84	-
T _j = 12°C	P _{dh}	4.06	kW	T _j = 12°C	COP _d	5.86	-
T _j = bivalent temperature	P _{dh}	8.86	kW	T _j = bivalent temperature	COP _d	3.84	-
T _j = operating limit	P _{dh}	13.38	kW	T _j = operating limit	COP _d	2.29	-
For air-to-water heat pumps: T _j = -15°C	P _{dh}	-	kW	For air-to-water heat pumps: T _j = -15°C	COP _d	-	-
Bivalent temperature	T _{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P _{eych}	-	kW	Cycling interval efficiency	COP _{cyc}	-	-
Degradation co-efficient (**)	C _{dh}	0.9	--	Heating water operating limit temperature	WTOL	65	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	P _{off}	0.020	kW	Rated heat output (**)	P _{sup}	0.42	kW
Standby mode	P _{sb}	0.020	kW				
Thermostat-off mode	P _{to}	0.030	kW	Type of energy input	Electrical		
Crankcase heater mode	P _{ck}	0.000	kW				
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 heat exchanger	-	-	m ³ /h
Annual energy consumption	Q _{HE}	4116	kWh				
For heat pump combination heater:							
Declared load profile	XL			Water heating energy efficiency	η _{wh}	153	%
Daily electricity consumption	Q _{elec}	5.12	kWh	Daily fuel consumption	Q _{fuel}	-	kWh
Annual electricity consumption	AEC	1088	kWh	Annual fuel consumption	AFC	-	GJ
Contact details	GD Midea Heating & Ventilating Equipment Co. Ltd (Penglai industry road, Beijiao, Shunde, Foshan, Guangdong, P.R China)						
(*) For heat pump space heaters and heat pump combination heaters, the rated heat output P _{rated} is equal to the design load for heating P _{designh} , and the rated heat output of a supplementary heater P _{sup} is equal to the supplementary capacity for heating sup(T _j).							
(**) If C _{dh} is not determined by measurement then the default degradation coefficient is C _{dh} = 0,9.							

Information requirements for comfort chillers

Model(s):	Outdoor unit: KHP-BI 16 DTR2 Indoor unit: KHPM-BI 16 DVR2, KHPI-BI-16VR2XL						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	14.3	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	183.6	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	14.31	kW	$T_j=+35^\circ\text{C}$	EER_d	2.47	-
$T_j=+30^\circ\text{C}$	P_{dc}	10.68	kW	$T_j=+30^\circ\text{C}$	EER_d	3.63	-

Information requirements for comfort chillers

T _j =+25°C	P _{dc}	6.76	kW	T _j =+25°C	EER _d	5.27	-
T _j =+20°C	P _{dc}	3.41	kW	T _j =+20°C	EER _d	7.29	-
Degradationco-efficient for chillers(*)							
	C _{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P _{OFF}	0.020	kW	Crankcase heater mode	P _{CK}	0.000	kW
Thermosat-off mode	P _{TO}	0.010	kW	Standby mode	P _{SB}	0.020	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4650	m ³ /h
Soundpowerlevel, indoors /outdoors	LWA	44/68	dB				
Emissions of nitrogen oxides(ifapplicable)	NO _x (**)	-	mg/kWh input GCV	For water / brineto-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m ³ /h
GWP of the refrigerant	-	675	kg CO ₂ eq (100years)				
Standard rating conditions used	Low temperature application						
Contact details	GD Midea Heating & Ventilating Equipment Co. , Ltd. Penglai industry Road, Beijiao, Shunde, Foshan, Guangdong, 528311 P.R. China						
(*) If C _{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.							

Information requirements for comfort chillers

Model(s):	Outdoor unit: KHP-BI 16 DTR2 Indoor unit: KHPI-BI 16 DVR2, KHPI-BI-16VR2XL						
Outdoor side heat exchanger of chiller:	Air to water						
Indoor side heat exchanger chiller:	Water						
Type:	Compressor driven vapour compression						
Driver of compressor:	Electric motor						
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	15.4	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	265.3	%
Declared cooling capacity for part load at given outdoor temperature T_j				Declared energy efficiency ratio for part load at given outdoor temperature T_j			
$T_j=+35^\circ\text{C}$	P_{dc}	15.40	kW	$T_j=+35^\circ\text{C}$	EER_d	3.50	-
$T_j=+30^\circ\text{C}$	P_{dc}	11.42	kW	$T_j=+30^\circ\text{C}$	EER_d	5.14	-
$T_j=+25^\circ\text{C}$	P_{dc}	7.27	kW	$T_j=+25^\circ\text{C}$	EER_d	7.83	-
$T_j=+20^\circ\text{C}$	P_{dc}	3.40	kW	$T_j=+20^\circ\text{C}$	EER_d	10.35	-
Degradation coefficient for chillers(*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.020	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermostat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.020	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4650	m^3/h
Sound power level, indoors / outdoors	LWA	44/67	dB				
Emissions of nitrogen oxides (if applicable)	$\text{NO}_x(**)$	-	mg/kWh input GCV	For water / brine-to-water chillers: Rated	-	-	m^3/h

GWP of the refrigerant	-	675	kg CO ₂ eq (100years)	brine or water flow rate, outdoor side heat exchanger		
Standard rating conditions used	Medium temperature application					
Contact details	GD Midea Heating & Ventilating Equipment Co. , Ltd. Penglai industry Road, Beijiao, Shunde, Foshan, Guangdong, 528311 P.R. China					
(*) If C _{dc} is not determined by measurement then the default degradation coefficient of chillers shall be 0,9. (**) From 26 September 2018.						

Condition(°C)	Outdoor unit	Indoor unit	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: 35/24 Water temperature: 12/7	KHP-BI 4 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	4.70	1.36	3.45
	KHP-BI 6 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	7.00	2.33	3.00
	KHP-BI 8 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	7.40	2.19	3.38
	KHP-BI 10 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	8.20	2.48	3.30
	KHP-BI 12 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.60	4.22	2.75
	KHP-BI 14 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.70	4.98	2.55
	KHP-BI 16 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	14.00	5.71	2.45
	KHP-BI 12 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.60	4.22	2.75
	KHP-BI 14 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.70	4.98	2.55
	KHP-BI 16 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	14.00	5.71	2.45
Ambient Temperature: 35/24 Water temperature: 23/18	KHP-BI 4 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	4.50	0.81	5.55
	KHP-BI 6 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	6.55	1.34	4.90
	KHP-BI 8 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	8.40	1.66	5.05

KHP-BI 10 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	10.00	2.08	4.80
KHP-BI 12 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.00	3.00	4.00
KHP-BI 14 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	13.50	3.75	3.60
KHP-BI 16 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	14.90	4.38	3.40
KHP-BI 12 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.00	3.00	4.00
KHP-BI 14 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	13.50	3.75	3.60
KHP-BI 16 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	14.90	4.38	3.40

Condition(°C)	Outdoor unit	Indoor unit	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: 7/6 Water temperature: 30/35	KHP-BI 4 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	4.25	0.82	5.20
	KHP-BI 6 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	6.20	1.24	5.00
	KHP-BI 8 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	8.30	1.60	5.20
	KHP-BI 10 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	10.00	2.00	5.00
	KHP-BI 12 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.10	2.44	4.95
	KHP-BI 14 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	14.50	3.09	4.70
	KHP-BI 16 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	16.00	3.56	4.50
	KHP-BI 12 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.10	2.44	4.95
	KHP-BI 14 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	14.50	3.09	4.70
	KHP-BI 16 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	16.00	3.56	4.50
Ambient Temperature: 2/1 Water temperature: 30/35	KHP-BI 4 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	4.45	1.10	4.05

KHP-BI 6 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	5.50	1.39	3.95
KHP-BI 8 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	7.10	1.73	4.10
KHP-BI 10 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	8.20	2.02	4.05
KHP-BI 12 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	9.30	2.35	3.95
KHP-BI 14 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.40	3.12	3.65
KHP-BI 16 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	13.00	3.71	3.50
KHP-BI 12 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	9.30	2.35	3.95
KHP-BI 14 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.40	3.12	3.65
KHP-BI 16 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	13.00	3.71	3.50

Condition(°C)	Outdoor unit	Indoor unit	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: -7/-8 Water temperature: 30/35	KHP-BI 4 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	4.80	1.52	3.15
	KHP-BI 6 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	6.10	2.00	3.05
	KHP-BI 8 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	7.10	2.18	3.25
	KHP-BI 10 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	8.25	2.62	3.15
	KHP-BI 12 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	10.00	3.33	3.00
	KHP-BI 14 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.00	4.29	2.80
	KHP-BI 16 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	13.30	4.93	2.70
	KHP-BI 12 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	10.00	3.33	3.00
	KHP-BI 14 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.00	4.29	2.80

	KHP-BI 16 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	13.30	4.93	2.70
Ambient Temperature: 7/6 Water temperature: 40/45	KHP-BI 4 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	4.35	1.14	3.80
	KHP-BI 6 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	6.35	1.69	3.75
	KHP-BI 8 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	8.20	2.08	3.95
	KHP-BI 10 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	10.00	2.63	3.80
	KHP-BI 12 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.30	3.24	3.80
	KHP-BI 14 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	14.20	3.89	3.65
	KHP-BI 16 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	16.00	4.44	3.60
	KHP-BI 12 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.30	3.24	3.80
	KHP-BI 14 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	14.20	3.89	3.65
	KHP-BI 16 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	16.00	4.44	3.60

Condition(°C)	Outdoor unit	Indoor unit	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: 2/1 Water temperature: 40/45	KHP-BI 4 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	5.10	1.70	3.00
	KHP-BI 6 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	5.80	1.93	3.00
	KHP-BI 8 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	7.40	2.28	3.25
	KHP-BI 10 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	7.85	2.45	3.20
	KHP-BI 12 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	10.70	3.57	3.00
	KHP-BI 14 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.70	4.09	2.86
	KHP-BI 16 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.80	4.49	2.85

	KHP-BI 12 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	10.70	3.57	3.00
	KHP-BI 14 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.70	4.09	2.86
	KHP-BI 16 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.80	4.49	2.85
Ambient Temperature: -7/-8 Water temperature: 40/45	KHP-BI 4 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	4.30	1.83	2.35
	KHP-BI 6 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	5.40	2.25	2.40
	KHP-BI 8 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	6.60	2.59	2.55
	KHP-BI 10 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	7.35	2.88	2.55
	KHP-BI 12 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	10.20	4.25	2.40
	KHP-BI 14 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.80	5.02	2.35
	KHP-BI 16 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.90	5.78	2.23
	KHP-BI 12 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	10.20	4.25	2.40
	KHP-BI 14 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.80	5.02	2.35
	KHP-BI 16 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.90	5.78	2.23

Condition(°C)	Outdoor unit	Indoor unit	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: 7/6 Water temperature: 47/55	KHP-BI 4 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	4.40	1.49	2.95
	KHP-BI 6 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	6.00	2.00	3.00
	KHP-BI 8 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	7.50	2.36	3.18
	KHP-BI 10 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	9.50	3.06	3.10
	KHP-BI 12 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.00	3.87	3.10

	KHP-BI 14 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	13.80	4.60	3.00
	KHP-BI 16 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	16.00	5.52	2.90
	KHP-BI 12 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.00	3.87	3.10
	KHP-BI 14 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	13.80	4.60	3.00
	KHP-BI 16 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	16.00	5.52	2.90
Ambient Temperature: 2/1 Water temperature: 47/55	KHP-BI 4 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	5.10	2.08	2.45
	KHP-BI 6 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	5.65	2.31	2.45
	KHP-BI 8 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	7.10	2.73	2.60
	KHP-BI 10 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	8.10	3.16	2.56
	KHP-BI 12 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.40	4.47	2.55
	KHP-BI 14 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.40	5.06	2.45
	KHP-BI 16 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	13.40	5.58	2.40
	KHP-BI 12 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.40	4.47	2.55
	KHP-BI 14 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.80	4.82	2.45
	KHP-BI 16 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	13.40	5.58	2.40
Condition(°C)	Outdoor unit	Indoor unit	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: -7/-8 Water temperature: 47/55	KHP-BI 4 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	4.00	2.05	1.95
	KHP-BI 6 DVR2	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	5.15	2.58	2.00
	KHP-BI 8 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	6.15	3.00	2.05

KHP-BI 10 DVR2	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	6.85	3.43	2.00
KHP-BI 12 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	10.00	4.88	2.05
KHP-BI 14 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.00	5.37	2.05
KHP-BI 16 DVR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.50	6.19	2.02
KHP-BI 12 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	10.00	4.88	2.05
KHP-BI 14 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	11.00	5.37	2.05
KHP-BI 16 DTR2	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL	12.50	6.19	2.02