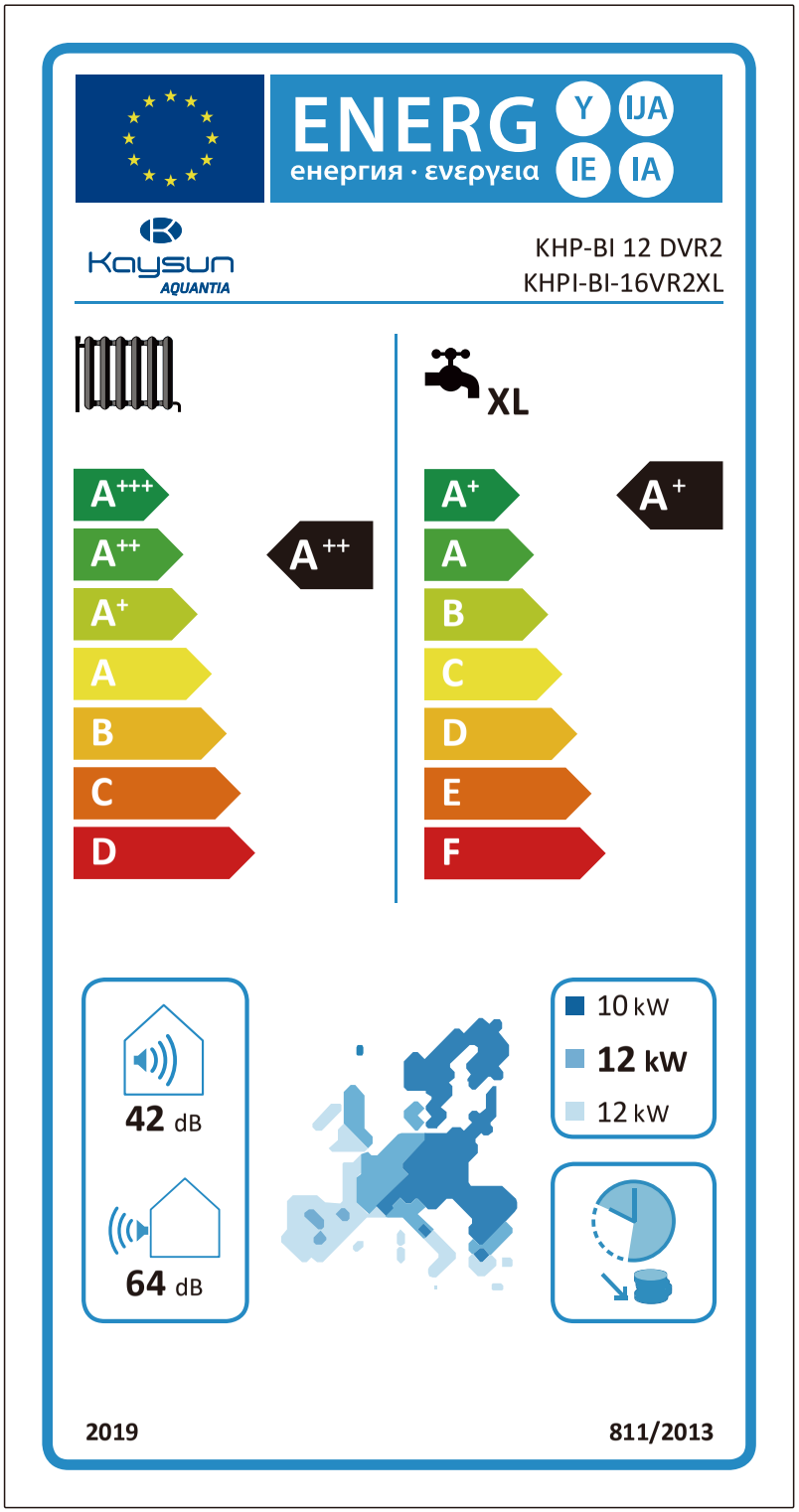
ENERG
Y
IJA
IE
IA
енергия · ενεργεια
Kaysun
AQUANTIA
KHP-BI 12 DVR2
KHPI-BI-16VR2XL
XL
A+++
A++
A+
A
B
C
D
A++
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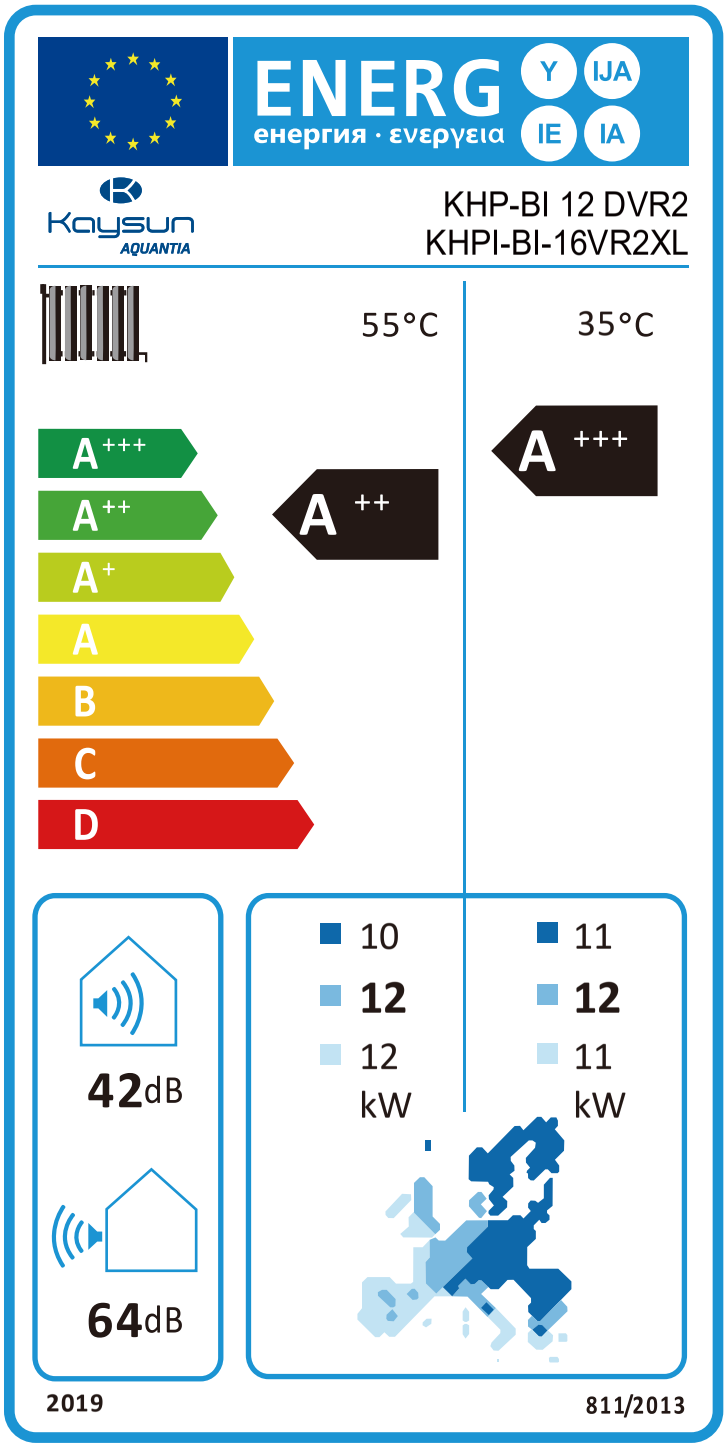
B
C
D
E
F
A+
42 dB
64 dB
10 kW
12 kW
12 kW
2019
811/2013


ENERG
енергия · ενεργεια
Y
IJA
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IA
Kaysun
AQUANTIA
KHP-BI 12 DVR2
KHPI-BI-16VR2XL
55°C
35°C
A+++
A++
A+
A
B
C
D
A ++
A +++
42dB
64dB
10
12
12
kW
11
12
11
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 12 DTR2	KHP-BI 14 DVR2	KHP-BI 14 DTR2	KHP-BI 16 DVR2	KHP-BI 16 DTR2
		Indoor	KHPI-BI-10VR2XL B	KHPI-BI-16VR2XL B	KHPI-BI-16VR2XL B	KHPI-BI-16VR2XL B	KHPI-BI-16VR2XL B	KHPI-BI-16VR2XL B	KHPI-BI-16VR2XL B
Indoor unit sound power(*)		dB	40	42	42	44	44	44	44
Outdoor unit sound power(*)		dB	60	64	64	65	65	68	68
Water heating	Declared load profile	-	XL	XL	XL	XL	XL	XL	XL
	Energy efficiency class	-	A+	A+	A+	A+	A+	A+	A+
Space heating	Energy efficiency class at 55℃ (High temp. app.)	-	A++	A++	A++	A++	A++	A++	A++
Average climate									
Water heating	Water heating energy efficiency (η_{wh})	[%]	137	123	123	123	123	123	123
	Annual electricity consumption (AEC)	[kWh]	1218	1360	1360	1360	1360	1360	1360
Space heating	P_{rated} (declared heating capacity)@-10℃	[kW]	7.7	11.6	11.6	12.1	12.1	13.0	13.0
	Seasonal space heating efficiency(η_s)	[%]	136.6	135.1	135.1	135.6	135.6	133.3	133.2
	Annual energy consumption	[kWh]	4539	6927	6928	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	Water heating energy efficiency (η_{wh})	[%]	111	92	92	92	92	92	92
	Annual energy consumption	[kWh]	1508	1822	1822	1822	1822	1822	1822
Space heating	P_{rated} (declared heating capacity)@-22℃	[kW]	6.71	10.31	10.3	10.96	11	11.8	11.8
	Seasonal space heating efficiency(η_s)	[%]	116.4	117.8	117.7	118.9	118.9	121.8	121.8
	Annual energy consumption	[kWh]	5540	8419	8420	8866	8867	9309	9310
Warmer climate									
Water heating	Water heating energy efficiency (η_{wh})	[%]	171	153	153	153	153	153	153
	Annual energy consumption	[kWh]	977	1088	1088	1088	1088	1088	1088
Space heating	P_{rated} (declared heating capacity)@2℃	[kW]	8.63	12.5	12.5	13.7	13.7	13.8	13.8
	Seasonal space heating efficiency(η_s)	[%]	180.3	174.0	173.8	176.5	176.4	176.1	175.9
	Annual energy consumption	[kWh]	2516	3776	3780	4088	4092	4112	4116
Ecodesign technical data									
Product description	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
Air-to-water unit	Rated airflow (outdoor)	[m^3/h]	4030	4060	4060	4060	4060	4650	4650
Brine/water-to-water heat pump	Rated brine/water flow (outdoor H/E)	[m^3/h]	-	-	-	-	-	-	-

Heat pump combination heater		Outdoor	KHP-BI 10 DVR2	KHP-BI 12 DVR2	KHP-BI 12 DTR2	KHP-BI 14 DVR2	KHP-BI 14 DTR2	KHP-BI 16 DVR2	KHP-BI 16 DTR2
		Indoor	KHPI-BI-10VR2XL B	KHPI-BI-16VR2XL B	KHPI-BI-16VR2XL B	KHPI-BI-16VR2XL B	KHPI-BI-16VR2XL B	KHPI-BI-16VR2XL B	KHPI-BI-16VR2XL B
Other	Capacity control	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	P_{off} (Power consumption Off mode)	[kW]	0.014	0.014	0.020	0.014	0.020	0.014	0.020
	P_{to} (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.030	0.024	0.030	0.024	0.030
	P_{sb} (Power consumption standby mode)	[kW]	0.014	0.014	0.020	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
	Q_{elec} (Daily electricity consumption)	[kWh]	5.67	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									
(A) condition (-7℃)	P_{dh} (declared heating capacity)	[kW]	6.78	10.24	10.24	10.68	10.68	11.52	11.52
	COP_d (declared COP)	-	2.24	2.01	2.01	2.01	2.01	1.99	1.99
	Cdh (declaradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(B) condition (2℃)	P_{dh} (declared heating capacity)	[kW]	4.28	6.52	6.52	6.86	6.86	7.18	7.18
	COP_d (declared COP)	-	3.42	3.44	3.44	3.43	3.43	3.34	3.34
	Cdh (declaradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(C) condition (7℃)	P_{dh} (declared heating capacity)	[kW]	2.77	4.36	4.36	4.63	4.63	4.67	4.67
	COP_d (declared COP)	-	4.52	4.59	4.59	4.66	4.66	4.61	4.61
	Cdh (declaradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(D) condition (12℃)	P_{dh} (declared heating capacity)	[kW]	1.58	3.29	3.29	3.31	3.31	3.32	3.32
	COP_d (declared COP)	-	5.68	6.05	6.05	6.13	6.13	6.07	6.07
	Cdh (declaradation coefficient)	-	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(E) Tol (Temperature Operating Limit)	Tol (Temperature Operating Limit)	[℃]	-10	-10	-10	-10	-10	-10	-10
	P_{dh} (declared heating capacity)	[kW]	5.38	9.1	9.1	9.19	9.19	10.33	10.33
	COP_d (declared COP)	-	1.83	1.79	1.79	1.76	1.76	1.80	1.80
	WTOL(Heating water Operation Limit)	[℃]	65	65	65	65	65	65	65
(F) Tbivalent Temperature	T_{biv}	[℃]	-7	-7	-7	-7	-7	-7	-7
	P_{dh} (declared heating capacity)	[kW]	6.78	10.27	10.27	10.68	10.68	11.52	11.52
	COP_d (declared COP)	-	2.24	2.01	2.01	2.01	2.01	1.99	1.99
Capacity of the back-up heater integrated in the unit	P_{sup} back-up heater (@ Tdesignh: -10℃)	[kW]	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	P_{sup} (@ Tdesignh: -10℃)	[kW]	2.28	2.5	2.5	2.91	2.91	2.67	2.67

Model		For medium - temperature application											
					average climate			colder climate			warmer climate		
Outdoor unit	Indoor unit	Energy efficiency class	Indoor unit sound power	Outdoor unit sound power	Rated heat output	Seasonal space heating energy efficiency	For space heating,annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating,annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating,annual energy consumption
		-	dB	dB	kW	%	kWh	kW	%	kWh	kW	%	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-16VR2XL	A++	42	64	11.6	135.1	6927	10.3	117.8	8419	12.5	174.1	3376
KHP-BI 12 DTR2	KHPM-BI 16 DVR2	A++	43	64	11.6	135.1	6928	10.3	117.7	8420	12.5	173.8	3780
	KHPI-BI-16VR2XL	A++	42	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-16VR2XL	A++	44	65	12.1	135.6	7202	11.0	118.9	8866	13.7	176.5	4088
KHP-BI 14 DTR2	KHPM-BI 16 DVR2	A++	43	65	12.1	135.6	7203	11.0	118.9	8867	13.7	176.4	4092
	KHPI-BI-16VR2XL	A++	44	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-16VR2XL	A++	44	68	13.0	133.3	7895	11.8	121.8	9309	13.8	176.1	4112
KHP-BI 16 DTR2	KHPM-BI 16 DVR2	A++	43	68	13.0	133.2	7896	11.8	121.8	9310	13.8	175.9	4116
	KHPI-BI-16VR2XL	A++	44	68	13.0	133.2	7896	11.8	121.8	9310	13.8	175.9	4116

Model		For low - temperature appl ication											
Outdoor unit	Indoor unit	Energy efficiency class	Indoor unit sound power	Outdoor unit sound power	average climate			colder climate			warmer climate		
					Rated heat output	Seasonal space heating energy efficiency	For space heating,annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating,annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating,annual energy consumption
		-	dB	dB	kW	%	kWh	kW	%	kWh	kW	%	kWh
KHP-BI 4 DVR2	KHPM-BI 6 DVR2	A+++	38	56	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146
	KHPI-BI-10VR2L	A+++	38	56	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146
	KHPI-BI-10VR2XL	A+++	38	56	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146
KHP-BI 6 DVR2	KHPM-BI 6 DVR2	A+++	38	58	6.8	195.0	2845	5.6	165.3	3300	6.1	259.8	1244
	KHPI-BI-10VR2L	A+++	38	58	6.8	195.0	2845	5.6	165.3	3300	6.1	259.8	1244
	KHPI-BI-10VR2XL	A+++	38	58	6.8	195.0	2845	5.6	165.3	3300	6.1	259.8	1244
KHP-BI 8 DVR2	KHPM-BI 10 DVR2	A+++	42	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551
	KHPI-BI-10VR2L	A+++	40	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551
	KHPI-BI-10VR2XL	A+++	40	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551
KHP-BI 10 DVR2	KHPM-BI 10 DVR2	A+++	42	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617
	KHPI-BI-10VR2L	A+++	40	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617
	KHPI-BI-10VR2XL	A+++	40	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617
KHP-BI 12 DVR2	KHPM-BI 16 DVR2	A+++	43	64	12.0	189.4	5152	11.4	160.2	6870	11.1	256.1	2292
	KHPI-BI-16VR2XL	A+++	42	64	12.0	189.4	5152	11.4	160.2	6870	11.1	256.1	2292
KHP-BI 12 DTR2	KHPM-BI 16 DVR2	A+++	43	64	12.0	189.3	5153	11.4	160.2	6871	11.1	255.6	2296
	KHPI-BI-16VR2XL	A+++	42	64	12.0	189.3	5153	11.4	160.2	6871	11.1	255.6	2296
KHP-BI 14 DVR2	KHPM-BI 16 DVR2	A+++	43	65	13.7	185.7	6012	12.6	159.6	7667	12.1	260.3	2457
	KHPI-BI-16VR2XL	A+++	44	65	13.7	185.7	6012	12.6	159.6	7667	12.1	260.3	2457
KHP-BI 14 DTR2	KHPM-BI 16 DVR2	A+++	43	65	13.7	185.6	6013	12.6	159.6	7667	12.1	259.8	2462
	KHPI-BI-16VR2XL	A+++	44	65	13.7	185.6	6013	12.6	159.6	7667	12.1	259.8	2462
KHP-BI 16 DVR2	KHPM-BI 16 DVR2	A+++	43	68	15.2	181.7	6804	13.7	157.8	8431	13.1	248.5	2781
	KHPI-BI-16VR2XL	A+++	44	68	15.2	181.7	6804	13.7	157.8	8431	13.1	248.5	2781
KHP-BI 16 DTR2	KHPM-BI 16 DVR2	A+++	43	68	15.2	181.6	6805	13.7	157.8	8431	13.1	248.1	2786
	KHPI-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 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL
Indoor unit sound power (*)		dB	38[a)] /38[b)]	38[a)] /38[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	60	64
	Average climate medium temperature application	dB	56	58	59	60	64
Capicity 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
Space heating	Energy efficiency class 35°C (Low temp. app.)	-	A+++	A+++	A+++	A+++	A+++
Space heating	Energy efficiency class 55°C (Medium temp. app.)	-	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	KHP-BI 6 DVR2	KHP-BI 8 DVR2	KHP-BI 10 DVR2	KHP-BI 12 DVR2
		Indoor	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL
(F) Tbivalent temperature	Tbiv	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00
	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
Supplementary capacity at P_design	Psup (@Tdesignh: –10°C)	[kW]	1.11	1.45	1.68	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	10.24
	COPd (declared COP)	-	2.17	2.17	2.16	2.24	2.01
	Cdh(degradation coefficient)	-	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	6.52
	COPd (declared COP)	-	3.30	3.51	3.30	3.42	3.44
	Cdh(degradation coefficient)	-	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	4.36
	COPd (declared COP)	-	4.41	4.54	4.34	4.52	4.59
	Cdh(degradation coefficient)	-	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	3.29
	COPd (declared COP)	-	5.66	5.59	5.33	5.68	6.05
	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]	3.42	4.52	4.90	5.38	9.10
	COPd (declared COP)	-	1.91	1.91	1.84	1.83	1.79
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
(F) Tbivalent temperature	Tbiv	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	3.89	5.04	5.84	6.78	10.24
	COPd (declared COP)	-	2.17	2.17	2.16	2.24	2.01
Supplementary capacity at P_design	Psup (@Tdesignh: –10°C)	[kW]	0.98	1.18	1.69	2.28	2.50
Colder climate (Design temperature = –22°C)							
Space heating 35°C	Prated (declared heating capacity) @ –22°C	[kW]	4.6	5.6	7.0	7.7	11.4
	Seasonal space heating efficiency (ηs)	[%]	159.5	165.3	170.0	169.8	160.2
	Annual energy consumption	[kWh]	2,769	3,300	3,976	4,423	6,870

Product fiche 3

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 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL
Space heating 55°C	Prated (declared heating capacity) @ –22°C	[kW]	3.4	4.3	5.8	6.7	10.3
	Seasonal space heating efficiency (ηs)	[%]	102.1	111.1	112.0	116.4	117.8
	Annual energy consumption	[kWh]	3,159	3,681	4,950	5,540	8,419
Part load conditions space heating colder climate low temperature application							
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	2.75	3.42	4.46	4.83	7.05
	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)	[kW]	1.77	2.06	2.69	2.94	4.67
	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)	[kW]	1.17	1.46	1.65	1.92	3.14
	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)	[kW]	1.43	1.44	1.65	1.65	3.57
	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)	[°C]	-22.00	-22.00	-22.00	-22.00	-22.00
	Pdh (declared heating capacity)	[kW]	2.80	3.48	4.06	4.62	7.01
	COPd (declared COP)	-	1.97	1.96	1.95	1.97	1.98
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
(F) Tbivalent temperature	Tbiv	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	Pdh (declared heating capacity)	[kW]	3.72	4.59	5.69	6.32	9.28
	COPd (declared COP)	-	2.57	2.53	2.83	2.64	2.59
Supplementary capacity at P_design	Psup (@Tdesignh: –22°C)	[kW]	1.76	2.15	2.91	3.08	4.40
Part load conditions space heating colder climate medium temperature application							
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	2.13	2.70	3.86	4.27	6.63
	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	KHP-BI 6 DVR2	KHP-BI 8 DVR2	KHP-BI 10 DVR2	KHP-BI 12 DVR2
		Indoor	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL
(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
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	1.01	1.02	1.44	1.65	2.78
	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
(D) condition (12°C)	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
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (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
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
(F) Tbivalent temperature	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 (ηs)	[%]	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 (ηs)	[%]	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
		Indoor	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL
(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
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00	2.00
	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
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
(F) Tbivalent temperature	Tblv	[°C]	7.00	7.00	7.00	7.00	7.00
	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
Supplementary capacity at P_design	Psup (@Tdesignh: 2°C)	[kW]	0.18	0.18	0.55	0.14	0.00
Part load conditions space heating warmer climate medium temperature application							
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	4.83	5.02	7.55	8.06	12.07
	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
(C) condition (7°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
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.47	1.59	2.31	2.53	3.75
	COPd (declared COP)	-	5.15	5.29	5.55	5.82	5.70
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	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
	COPd (declared COP)	-	2.51	2.48	2.66	2.61	2.31
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
(F) Tbivalent temperature	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
	COPd (declared COP)	-	3.68	3.67	3.92	4.10	3.86
Supplementary capacity at P_design	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
		Indoor	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 6 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 10 DVR2 KHPI-BI-10VR2L KHPI-BI-10VR2XL	KHPM-BI 16 DVR2 KHPI-BI-16VR2XL
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
Air to water unit	Rated airflow (outdoor)	[m^3/h]	2770	2770	4030	4030	4060
Brine/water to water unit	Rated water/brine flow (outdoor H/E)		/	/	/	/	/
Other	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 seires
1).KHPI-BI-10VR2L includes the following type:
KHPI-BI-10VR2L: 190L tank with 3kW back-up heater and 1-Phase Source.
KHPI-BI-100/190CD60GN8-B: 190L tank with 6kW back-up heater and 1-Phase Source.
KHPI-BI-100/190CDS90GN8-B: 190L tank with 9kW back-up heater and 3-Phase Source.
2).KHPI-BI-10VR2XL includes the following type:
KHPI-BI-10VR2XL: 240L tank with 3kW back-up heater and 1-Phase Source.
KHPI-BI-100/240CD60GN8-B: 240L tank with 6kW back-up heater and 1-Phase Source.
KHPI-BI-100/240CDS90GN8-B: 240L tank with 9kW back-up heater and 3-Phase Source.
3).KHPI-BI-16VR2XL includes the following type:
KHPI-BI-16VR2XL: 240L tank with 3kW back-up heater and 1-Phase Source.
KHPI-BI-160/240CD60GN8-B: 240L tank with 6kW back-up heater and 1-Phase Source.
KHPI-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 12 DVR2 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
Rated heat output (*)	Prated	11.6	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7℃	Pdh	10.24	kW
Tj = 2℃	Pdh	6.52	kW
Tj = 7℃	Pdh	4.36	kW
Tj = 12℃	Pdh	3.29	kW
Tj = bivalent temperature	Pdh	10.24	kW
Tj = operating limit	Pdh	9.10	kW
For air-to-water heat pumps: Tj = -15℃	Pdh	-	kW
Bivalent temperature	T_{biv}	-7	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.014	kW
Standby mode	P_{sb}	0.014	kW
Thermostat-off mode	P_{to}	0.024	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	135.1	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7℃	COPd	2.01	-
Tj = 2℃	COPd	3.44	-
Tj = 7℃	COPd	4.59	-
Tj = 12℃	COPd	6.05	-
Tj = bivalent temperature	COPd	2.01	-
Tj = operating limit	COPd	1.79	-
For air-to-water heat pumps: Tj = -15℃	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	65	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	1.23	kW
Type of energy input	Electrical		

Other items			
Capacity control	variable		
Sound power level, indoors/outdoors	L_{WA}	43[a)]/64 42[b)]/64	dB
Annual energy consumption	Q_{HE}	6927	kWh

For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m^3/h
For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m^3/h

For heat pump combination heater:			
Declared load profile	XL		
Daily electricity consumption	Q_{clec}	6.35	kWh
Annual electricity consumption	AEC	1360	kWh

Water heating energy efficiency	η_{wh}	123	%
Daily fuel consumption	Q_{fuel}	-	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 12 DVR2 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
Rated heat output (*)	Prated	10.3	kW
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7℃	Pdh	6.63	kW
Tj = 2℃	Pdh	4.06	kW
Tj = 7℃	Pdh	2.78	kW
Tj = 12℃	Pdh	3.33	kW
Tj = bivalent temperature	Pdh	8.41	kW
Tj = operating limit	Pdh	4.19	kW
For air-to-water heat pumps: Tj = -15℃	Pdh	-	kW
Bivalent temperature	T_{biv}	-15	°C
Cycling interval capacity for heating	P_{cych}	-	kW
Degradation co-efficient (**)	C_{dh}	0.9	--
Power consumption in modes other than active mode			
Off mode	P_{off}	0.014	kW
Standby mode	P_{sb}	0.014	kW
Thermostat-off mode	P_{to}	0.024	kW
Crankcase heater mode	P_{ck}	0.000	kW

Item	Symbol	Value	Unit
Seasonal space heating energy efficiency	ηs	117.8	%
Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7℃	COPd	2.63	-
Tj = 2℃	COPd	3.60	-
Tj = 7℃	COPd	4.54	-
Tj = 12℃	COPd	6.25	-
Tj = bivalent temperature	COPd	1.84	-
Tj = operating limit	COPd	1.13	-
For air-to-water heat pumps: Tj = -15℃	COPd	-	-
For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval efficiency	COP_{cyc}	-	-
Heating water operating limit temperature	W_{TOL}	65	°C
Supplementary heater			
Rated heat output (**)	P_{sup}	6.11	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}	-	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}	8419	kWh				

For heat pump combination heater:							
Declared load profile	XL			**Water heating energy efficiency**	η_{wh}	92	%
Daily electricity consumption	Q_{clec}	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 12 DVR2 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	12.5	kW	Seasonal space heating energy efficiency	ηs	174.0	%
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	-	kW	Tj = -7°C	COPd	-	-
Tj = 2°C	Pdh	12.07	kW	Tj = 2°C	COPd	2.31	-
Tj = 7°C	Pdh	8.04	kW	Tj = 7°C	COPd	3.86	-
Tj = 12°C	Pdh	3.75	kW	Tj = 12°C	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°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-

Bivalent temperature	T_{biv}	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	P_{cych}	-	kW	Cycling interval efficiency	COP_{cyc}	-	-
Degradation co-efficient (**)	C_{dh}	0.9	--	Heating water operating limit temperature	W_{TOL}	65	°C
Power consumption in modes other than active mode				**Supplementary heater**			
Off mode	P_{off}	0.014	kW	Rated heat output (**)	P_{sup}	0.43	kW
Standby mode	P_{sb}	0.014	kW				
Thermostat-off mode	P_{to}	0.024	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	-	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 heat exchanger	-	-	m^3/h
Annual energy consumption	Q_{HE}	3776	kWh				
For heat pump combination heater:							
Declared load profile	XL			**Water heating energy efficiency**	η_{wh}	153	%
Daily electricity consumption	Q_{clec}	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 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.

Information requirements for comfort chillers

Model(s):	Outdoor unit: KHP-BI 12 DVR2 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

Information requirements for comfort chillers

Rated cooling capacity	$P_{rated,c}$	11.3	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	192.4	%
Declared cooling capacity for part load at given outdoor temperature Tj				Declared energy efficiency ratio for part load at given outdoor temperature Tj			
Tj=+35°C	P_{dc}	11.31	kW	Tj=+35°C	EER_d	2.61	-
Tj=+30°C	P_{dc}	8.76	kW	Tj=+30°C	EER_d	3.93	-
Tj=+25°C	P_{dc}	5.81	kW	Tj=+25°C	EER_d	5.73	-
Tj=+20°C	P_{dc}	2.63	kW	Tj=+20°C	EER_d	6.75	-
Degradationco-efficient for chillers(*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4060	m^3/h
Soundpowerlevel, indoors /outdoors	L_{WA}	43/65	dB				
Emissions of nitrogen oxides(ifapplicable)	NO_x(**)	-	mg/kWh input GCV	For water /brine-to-water chillers:Ratedbrineor water flow rate, outdoor sideheatexchanger	-	-	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.

Model(s):	Outdoor unit: KHP-BI 12 DVR2 Indoor unit: KHPM-BI 16 DVR2, KHPI-BI-16VR2XL
Outdoor side heat exchanger of chiller:	Air to water
Indoor side heat exchanger chiller:	Water

Information requirements for comfort chillers

Type:	Compressor driven vapour compression
Driver of compressor:	Electric motor

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	11.8	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	280.9	%
Declared cooling capacity for part load at given outdoor temperature Tj				Declared energy efficiency ratio for part load at given outdoor temperature Tj			
Tj=+35°C	P_{dc}	11.77	kW	Tj=+35°C	EER_d	3.87	-
Tj=+30°C	P_{dc}	9.21	kW	Tj=+30°C	EER_d	5.50	-
Tj=+25°C	P_{dc}	5.74	kW	Tj=+25°C	EER_d	8.66	-
Tj=+20°C	P_{dc}	3.33	kW	Tj=+20°C	EER_d	10.07	-
Degradationco-efficient for chillers(*)	C_{dc}	0.9	-				
Power consumption in modes other than "active mode"							
Off mode	P_{OFF}	0.014	kW	Crankcase heater mode	P_{CK}	0.000	kW
Thermosat-off mode	P_{TO}	0.010	kW	Standby mode	P_{SB}	0.014	kW
Other items							
Capacity control	variable			For air-to-water comfort chillers: air flow rate, outdoor measured	-	4060	m^3/h
Soundpowerlevel, indoors /outdoors	L_{WA}	43/64	dB				
Emissions of nitrogen oxides(ifapplicable)	NO_x(**)	-	mg/kWh input GCV	For water /brine-to-water chillers:Ratedbrineor water flow rate, outdoor sideheatexchanger	-	-	m^3/h
GWP of the refrigerant	-	675	kg $CO_{2\ eq}$ (100years)				
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