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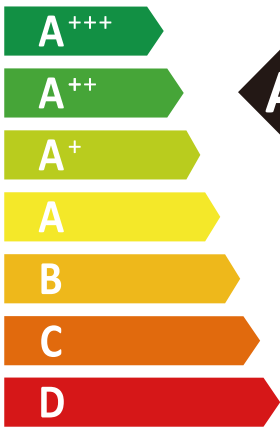


MHA-V14W/D2N8-B  
 HB-A160/CD30GN8-B




55°C


35°C




A ++

A +++

  
**43dB**

  
**65dB**

■ 11	■ 13
■ 12	■ 14
■ 14	■ 12
kW	kW



2019

811/2013



Model		For low - temperature application											
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
					kW	%	kWh	kW	%	kWh	kW	%	kWh
MHA-V4W/D2N8-B	HB-A60/CGN8-B	A+++	38	56	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146
	HB-A60/CD30GN8-B	A+++	38	56	5.5	191.0	2351	4.6	159.5	2769	5.5	255.4	1146
MHA-V6W/D2N8-B	HB-A60/CGN8-B	A+++	38	58	6.8	195.0	2845	5.6	165.3	3300	6.1	259.8	1244
	HB-A60/CD30GN8-B	A+++	38	58	6.8	195.0	2845	5.6	165.3	3300	6.1	259.8	1244
MHA-V8W/D2N8-B	HB-A100/CGN8-B	A+++	42	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551
	HB-A100/CD30GN8-B	A+++	42	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551
	HB-A100/CDS90GN8-B	A+++	42	59	8.1	205.6	3218	7.0	170.0	3976	8.1	276.6	1551
MHA-V10W/D2N8-B	HB-A100/CGN8-B	A+++	42	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617
	HB-A100/CD30GN8-B	A+++	42	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617
	HB-A100/CDS90GN8-B	A+++	42	60	9.2	204.8	3644	7.7	169.8	4423	8.6	280.5	1617
MHA-V12W/D2N8-B	HB-A160/CGN8-B	A+++	43	64	12.0	189.4	5152	11.4	160.2	6870	11.1	256.1	2292
	HB-A160/CD30GN8-B	A+++	43	64	12.0	189.4	5152	11.4	160.2	6870	11.1	256.1	2292
	HB-A160/CDS90GN8-B	A+++	43	64	12.0	189.4	5152	11.4	160.2	6870	11.1	256.1	2292
MHA-V14W/D2N8-B	HB-A160/CGN8-B	A+++	43	65	13.7	185.7	6012	12.6	159.6	7667	12.1	260.3	2457
	HB-A160/CD30GN8-B	A+++	43	65	13.7	185.7	6012	12.6	159.6	7667	12.1	260.3	2457
	HB-A160/CDS90GN8-B	A+++	43	65	13.7	185.7	6012	12.6	159.6	7667	12.1	260.3	2457
MHA-V16W/D2N8-B	HB-A160/CGN8-B	A+++	43	68	15.2	181.7	6804	13.7	157.8	8431	13.1	248.5	2781
	HB-A160/CD30GN8-B	A+++	43	68	15.2	181.7	6804	13.7	157.8	8431	13.1	248.5	2781
	HB-A160/CDS90GN8-B	A+++	43	68	15.2	181.7	6804	13.7	157.8	8431	13.1	248.5	2781
MHA-V12W/D2RN8-B	HB-A160/CGN8-B	A+++	43	64	12.0	189.3	5153	11.4	160.2	6871	11.1	255.6	2296
	HB-A160/CD30GN8-B	A+++	43	64	12.0	189.3	5153	11.4	160.2	6871	11.1	255.6	2296
	HB-A160/CDS90GN8-B	A+++	43	64	12.0	189.3	5153	11.4	160.2	6871	11.1	255.6	2296
MHA-V14W/D2RN8-B	HB-A160/CGN8-B	A+++	43	65	13.7	185.6	6013	12.6	159.6	7667	12.1	259.8	2462
	HB-A160/CD30GN8-B	A+++	43	65	13.7	185.6	6013	12.6	159.6	7667	12.1	259.8	2462
	HB-A160/CDS90GN8-B	A+++	43	65	13.7	185.6	6013	12.6	159.6	7667	12.1	259.8	2462
MHA-V16W/D2RN8-B	HB-A160/CGN8-B	A+++	43	68	15.2	181.6	6805	13.7	157.8	8431	13.1	248.1	2786
	HB-A160/CD30GN8-B	A+++	43	68	15.2	181.6	6805	13.7	157.8	8431	13.1	248.1	2786
	HB-A160/CDS90GN8-B	A+++	43	68	15.2	181.6	6805	13.7	157.8	8431	13.1	248.1	2786

Indoor unit type explanation:

1. HB-\*/CGN8-B, without back-up heater,
2. HB-\*/CD30GN8-B, with 3kW back-up heater and 1-Phase Source
3. HB-\*/CSD90GN8-B, with 9kW back-up heater and 3-Phase Source

Model		For medium - temperature application											
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
MHA-V4W/D2N8-B	HB-A60/CGN8-B	A++	38	56	4.4	129.5	2742	3.4	102.1	3158	5.0	163.1	1614
	HB-A60/CD30GN8-B	A++	38	56	4.4	129.5	2742	3.4	102.1	3158	5.0	163.1	1614
MHA-V6W/D2N8-B	HB-A60/CGN8-B	A++	38	58	5.7	137.9	3343	4.3	111.1	3680	5.1	165.4	1634
	HB-A60/CD30GN8-B	A++	38	58	5.7	137.9	3343	4.3	111.1	3680	5.1	165.4	1634
MHA-V8W/D2N8-B	HB-A100/CGN8-B	A++	42	59	6.6	131.6	4054	5.8	112.1	4948	7.6	177.2	2242
	HB-A100/CD30GN8-B	A++	42	59	6.6	131.6	4054	5.8	112.1	4948	7.6	177.2	2242
	HB-A100/CDS90GN8-B	A++	42	59	6.6	131.6	4054	5.8	112.1	4948	7.6	177.2	2242
MHA-V10W/D2N8-B	HB-A100/CGN8-B	A++	42	60	7.7	135.7	4567	6.7	116.5	5539	8.6	181.7	2496
	HB-A100/CD30GN8-B	A++	42	60	7.7	135.7	4567	6.7	116.5	5539	8.6	181.7	2496
	HB-A100/CDS90GN8-B	A++	42	60	7.7	135.7	4567	6.7	116.5	5539	8.6	181.7	2496
MHA-V12W/D2N8-B	HB-A160/CGN8-B	A++	43	64	11.6	135.1	6927	10.3	117.8	8419	12.5	174.1	3376
	HB-A160/CD30GN8-B	A++	43	64	11.6	135.1	6927	10.3	117.8	8419	12.5	174.1	3376
	HB-A160/CDS90GN8-B	A++	43	64	11.6	135.1	6927	10.3	117.8	8419	12.5	174.1	3376
MHA-V14W/D2N8-B	HB-A160/CGN8-B	A++	43	65	12.1	135.6	7202	11.0	118.9	8866	13.7	176.5	4088
	HB-A160/CD30GN8-B	A++	43	65	12.1	135.6	7202	11.0	118.9	8866	13.7	176.5	4088
	HB-A160/CDS90GN8-B	A++	43	65	12.1	135.6	7202	11.0	118.9	8866	13.7	176.5	4088
MHA-V16W/D2N8-B	HB-A160/CGN8-B	A++	43	68	13.0	133.3	7895	11.8	121.8	9309	13.8	176.1	4112
	HB-A160/CD30GN8-B	A++	43	68	13.0	133.3	7895	11.8	121.8	9309	13.8	176.1	4112
	HB-A160/CDS90GN8-B	A++	43	68	13.0	133.3	7895	11.8	121.8	9309	13.8	176.1	4112
MHA-V12W/D2RN8-B	HB-A160/CGN8-B	A++	43	64	11.6	135.1	6928	10.3	117.7	8420	12.5	173.8	3780
	HB-A160/CD30GN8-B	A++	43	64	11.6	135.1	6928	10.3	117.7	8420	12.5	173.8	3780
	HB-A160/CDS90GN8-B	A++	43	64	11.6	135.1	6928	10.3	117.7	8420	12.5	173.8	3780
MHA-V14W/D2RN8-B	HB-A160/CGN8-B	A++	43	65	12.1	135.6	7203	11.0	118.9	8867	13.7	176.4	4092
	HB-A160/CD30GN8-B	A++	43	65	12.1	135.6	7203	11.0	118.9	8867	13.7	176.4	4092
	HB-A160/CDS90GN8-B	A++	43	65	12.1	135.6	7203	11.0	118.9	8867	13.7	176.4	4092
MHA-V16W/D2RN8-B	HB-A160/CGN8-B	A++	43	68	13.0	133.2	7896	11.8	121.8	9310	13.8	175.9	4116
	HB-A160/CD30GN8-B	A++	43	68	13.0	133.2	7896	11.8	121.8	9310	13.8	175.9	4116
	HB-A160/CDS90GN8-B	A++	43	68	13.0	133.2	7896	11.8	121.8	9310	13.8	175.9	4116

Indoor unit type explanation:

1. HB-\*\*\*/CGN8-B, without back-up heater,
2. HB-\*\*\*/CD30GN8-B, with 3kW back-up heater and 1-Phase Source
3. HB-\*\*\*/CSD90GN8-B, with 9kW back-up heater and 3-Phase Source

# Product fiche 1

Heat pump space heater		Outdoor	MHA-V14W/D2N8-B	MHA-V16W/D2N8-B	MHA-V12W/D2RN8-B	MHA-V14W/D2RN8-B	MHA-V16W/D2RN8-B
		Indoor	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B
Indoor unit sound power (*)		[dB(A)]	43.0	43.0	43.0	43.0	43.0
Outdoor unit sound power (*)	Average climate low temperature application	[dB(A)]	65.0	68.0	64.0	65.0	68.0
	Average climate medium temperature application	[dB(A)]	65.0	68.0	64.0	65.0	68.0
Capacity of the back-up heater integrated in the unit	Psup back-up heater (optional)	[kW]	0/3/9	0/3/9	0/3/9	0/3/9	0/3/9
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]	13.7	15.2	12.0	13.7	15.2
	Seasonal space heating efficiency (ηs)	[%]	185.7	181.7	189.3	185.6	181.6
	Annual energy consumption	[kWh]	6,012	6,804	5,153	6,013	6,805
Space heating 55°C	Prated (declared heating capacity) @ -10°C	[kW]	12.1	13.0	11.6	12.1	13.0
	Seasonal space heating efficiency (ηs)	[%]	135.6	133.3	135.1	135.6	133.2
	Annual energy consumption	[kWh]	7,202	7,895	6,928	7,203	7,896
Part load conditions space heating average climate low temperature application							
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	12.14	13.45	10.61	12.14	13.45
	COPd (declared COP)	-	2.79	2.72	2.88	2.79	2.72
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	7.94	8.56	6.69	7.94	8.56
	COPd (declared COP)	-	4.52	4.41	4.65	4.52	4.41
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	5.20	5.70	4.44	5.20	5.70
	COPd (declared COP)	-	6.68	6.56	6.62	6.68	6.56
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.75	3.78	3.74	3.75	3.78
	COPd (declared COP)	-	8.52	8.51	8.47	8.52	8.51
	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]	11.47	12.52	10.74	11.47	12.52
	COPd (declared COP)	-	2.59	2.48	2.77	2.59	2.48
	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00	60.00

# Product fiche 2

Heat pump space heater		Outdoor	MHA-V14W/D2N8-B	MHA-V16W/D2N8-B	MHA-V12W/D2RN8-B	MHA-V14W/D2RN8-B	MHA-V16W/D2RN8-B
		Indoor	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B
(F) Tbivalent temperature	Tblv	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	12.14	13.45	10.61	12.14	13.45
	COPd (declared COP)	-	2.79	2.72	2.88	2.79	2.72
Supplementary capacity at P_design	Psup (@Tdesignh: -10°C)	[kW]	2.23	2.68	1.26	2.23	2.68
Part load conditions space heating average climate medium temperature application							
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	10.68	11.52	10.24	10.68	11.52
	COPd (declared COP)	-	2.01	1.99	2.01	2.01	1.99
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	6.86	7.18	6.52	6.86	7.18
	COPd (declared COP)	-	3.43	3.34	3.44	3.43	3.34
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	4.63	4.67	4.36	4.63	4.67
	COPd (declared COP)	-	4.66	4.61	4.59	4.66	4.61
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.31	3.32	3.29	3.31	3.32
	COPd (declared COP)	-	6.13	6.07	6.05	6.13	6.07
	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]	9.19	10.33	9.10	9.19	10.33
	COPd (declared COP)	-	1.76	1.80	1.79	1.76	1.80
	WTOL (Heating water Operation Limit)	[°C]	60.00	60.00	60.00	60.00	60.00
(F) Tbivalent temperature	Tblv	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	10.68	11.52	10.27	10.68	11.52
	COPd (declared COP)	-	2.01	1.99	2.01	2.01	1.99
Supplementary capacity at P_design	Psup (@Tdesignh: -10°C)	[kW]	2.91	2.67	2.50	2.91	2.67
Colder climate (Design temperature = -22°C)							
Space heating 35°C	Prated (declared heating capacity) @ -22°C	[kW]	12.6	13.7	11.4	12.6	13.7
	Seasonal space heating efficiency (ηs)	[%]	159.6	157.8	160.2	159.6	157.8
	Annual energy consumption	[kWh]	7,667	8,431	6,871	7,667	8,431

## Product fiche 3

Heat pump space heater		Outdoor	MHA-V14W/D2N8-B	MHA-V16W/D2N8-B	MHA-V12W/D2RN8-B	MHA-V14W/D2RN8-B	MHA-V16W/D2RN8-B
		Indoor	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B
Space heating 55°C	Prated (declared heating capacity) @ -22°C	[kW]	11.0	11.8	10.3	11.0	11.8
	Seasonal space heating efficiency (ηs)	[%]	118.9	121.8	117.7	118.9	121.8
	Annual energy consumption	[kWh]	8,866	9,309	8,420	8,867	9,310
Part load conditions space heating colder climate low temperature application							
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	7.96	8.31	7.05	7.96	8.31
	COPd (declared COP)	-	3.44	3.37	3.48	3.44	3.37
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	5.05	5.26	4.67	5.05	5.26
	COPd (declared COP)	-	4.92	4.86	4.96	4.92	4.86
	Cdh(degradation coefficient)	-	0.00	0.00	0.90	0.00	0.00
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	3.15	3.62	3.14	3.15	3.62
	COPd (declared COP)	-	6.11	6.49	6.10	6.11	6.49
	Cdh(degradation coefficient)	-	0.00	0.90	0.90	0.00	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.57	3.34	3.57	3.57	3.34
	COPd (declared COP)	-	7.82	7.40	7.87	7.82	7.40
	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]	7.57	8.88	7.01	7.57	8.88
	COPd (declared COP)	-	1.92	1.97	1.98	1.92	1.97
	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	51.00
(F) Tbivalent temperature	Tblv	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	Pdh (declared heating capacity)	[kW]	10.31	11.22	9.28	10.31	11.22
	COPd (declared COP)	-	2.53	2.43	2.59	2.53	2.43
Supplementary capacity at P_design	Psup (@Tdesignh: -22°C)	[kW]	5.03	4.82	4.40	5.03	4.82
Part load conditions space heating colder climate medium temperature application							
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	6.89	7.64	6.63	6.89	7.64
	COPd (declared COP)	-	2.66	2.65	2.63	2.66	2.65
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00

# Product fiche 4

Heat pump space heater		Outdoor	MHA-V14W/D2N8-B	MHA-V16W/D2N8-B	MHA-V12W/D2RN8-B	MHA-V14W/D2RN8-B	MHA-V16W/D2RN8-B
		Indoor	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	4.32	4.42	4.06	4.32	4.42
	COPd (declared COP)	-	3.66	3.79	3.60	3.66	3.79
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	3.06	2.97	2.78	3.06	2.97
	COPd (declared COP)	-	4.72	4.81	4.54	4.72	4.81
	Cdh(degradation coefficient)	-	0.90	0.00	0.00	0.90	0.00
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.33	3.43	3.33	3.33	3.43
	COPd (declared COP)	-	6.25	6.29	6.25	6.25	6.29
	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]	4.20	5.21	4.19	4.20	5.21
	COPd (declared COP)	-	1.13	1.23	1.13	1.13	1.23
	WTOL (Heating water Operation Limit)	[°C]	51.00	51.00	51.00	51.00	51.00
(F) Tbivalent temperature	Tblv	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	Pdh (declared heating capacity)	[kW]	8.94	9.61	8.41	8.94	9.61
	COPd (declared COP)	-	1.79	1.86	1.84	1.79	1.86
Supplementary capacity at P_design	Psup (@Tdesignh: -22°C)	[kW]	6.76	6.59	6.12	6.76	6.59
Warmer climate (Design temperature = 2°C)							
Space heating 35°C	Prated (declared heating capacity) @ 2 °C	[kW]	12.1	13.1	11.1	12.1	13.1
	Seasonal space heating efficiency (ηs)	[%]	260.3	248.5	255.6	259.8	248.1
	Annual energy consumption	[kWh]	2,457	2,781	2,296	2,462	2,786
Space heating 55°C	Prated (declared heating capacity) @ 2 °C	[kW]	13.7	13.8	12.5	13.7	13.8
	Seasonal space heating efficiency (ηs)	[%]	176.5	176.1	173.8	176.4	175.9
	Annual energy consumption	[kWh]	4,088	4,112	3,780	4,092	4,116
Part load conditions space heating warmer climate low temperature application							
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	12.04	13.10	11.26	12.04	13.10
	COPd (declared COP)	-	3.44	3.35	3.59	3.44	3.35
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	7.78	8.41	7.14	7.78	8.41
	COPd (declared COP)	-	5.84	5.36	5.87	5.84	5.36
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00

## Product fiche 5

Heat pump space heater		Outdoor	MHA-V14W/D2N8-B	MHA-V16W/D2N8-B	MHA-V12W/D2RN8-B	MHA-V14W/D2RN8-B	MHA-V16W/D2RN8-B
		Indoor	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.75	3.87	3.55	3.75	3.87
	COPd (declared COP)	-	8.25	8.11	7.94	8.25	8.11
	Cdh(degradation coefficient)	-	0.00	0.00	0.90	0.00	0.00
(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]	12.04	13.10	11.26	12.04	13.10
	COPd (declared COP)	-	3.44	3.35	3.59	3.44	3.35
	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	62.00	62.00
(F) Tivalent temperature	Tblv	[°C]	7.00	7.00	7.00	7.00	7.00
	Pdh (declared heating capacity)	[kW]	7.78	8.41	7.14	7.78	8.41
	COPd (declared COP)	-	5.84	5.36	5.87	5.84	5.36
Supplementary capacity at P_design	Psup (@Tdesignh: 2°C)	[kW]	0.00	0.00	0.00	0.00	0.00
<b>Part load conditions space heating warmer climate medium temperature application</b>							
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	13.04	13.38	12.07	13.04	13.38
	COPd (declared COP)	-	2.20	2.29	2.31	2.20	2.29
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	8.83	8.86	8.04	8.83	8.86
	COPd (declared COP)	-	3.91	3.84	3.86	3.91	3.84
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	4.08	4.06	3.75	4.08	4.06
	COPd (declared COP)	-	5.90	5.86	5.70	5.90	5.86
	Cdh(degradation coefficient)	-	0.00	0.00	0.00	0.00	0.00
(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]	13.04	13.38	12.07	13.04	13.38
	COPd (declared COP)	-	2.20	2.29	2.31	2.20	2.29
	WTOL (Heating water Operation Limit)	[°C]	62.00	62.00	62.00	62.00	62.00
(F) Tivalent temperature	Tblv	[°C]	7.00	7.00	7.00	7.00	7.00
	Pdh (declared heating capacity)	[kW]	8.83	8.86	8.04	8.83	8.86
	COPd (declared COP)	-	3.91	3.84	3.86	3.91	3.84
Supplementary capacity at P_design	Psup (@Tdesignh: 2°C)	[kW]	0.66	0.42	0.43	0.66	0.42



## Product fiche 6

Heat pump space heater		Outdoor	MHA-V14W/D2N8-B	MHA-V16W/D2N8-B	MHA-V12W/D2RN8-B	MHA-V14W/D2RN8-B	MHA-V16W/D2RN8-B
		Indoor	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B	HB-A160/C***GN8-B
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	NBVCXZ	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	No	No	No	No	No
Air to water unit	Rated airflow (outdoor)	[m <sup>3</sup> /h]	4060	4650	4060	4060	4650
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	0.02	0.02	0.02
	Pto (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.030	0.030	0.030
	Psb (Power consumption Standby mode)	[kW]	0.014	0.014	0.02	0.02	0.02
	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]	/	/	/	/	/

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

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

## Technical parameters

Model(s):	Outdoor unit: MHA-V14W/D2N8-B Indoor unit: HB-A160/CGN8-B
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO
Heat pump combination heater:	NO
Declared climate condition:	AVERAGE

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	12.08	kW	Seasonal space heating energy efficiency	$\eta_s$	135.6	%
Declared capacity for heating for part load at indoor temperature 20 °C and outdoor temperature Tj				Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj			
Tj = -7 °C	Pdh	10.68	kW	Tj = -7 °C	COPd	2.01	-
Tj = 2 °C	Pdh	6.86	kW	Tj = 2 °C	COPd	3.43	-
Tj = 7 °C	Pdh	4.63	kW	Tj = 7 °C	COPd	4.66	-
Tj = 12 °C	Pdh	3.31	kW	Tj = 12 °C	COPd	6.13	-
Tj = bivalent temperature	Pdh	10.68	kW	Tj = bivalent temperature	COPd	2.01	-
Tj = operating limit	Pdh	9.19	kW	Tj = operating limit	COPd	1.76	-
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
Bivalent temperature	Tbiv	-7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-10	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	60	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	1.40	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m <sup>3</sup> /h
Sound power level, indoors/outdoors	LWA	43/65	dB	For water-or brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger	-	-	m <sup>3</sup> /h
Annual energy consumption	QHE	7202	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Q <sub>elec</sub>	-	kWh	Daily fuel consumption	Q <sub>fuel</sub>	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: 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: MHA-V14W/D2N8-B Indoor unit: HB-A160/CGN8-B
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO
Heat pump combination heater:	NO
Declared climate condition:	COLDER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	11.0	kW	Seasonal space heating energy efficiency	$\eta_s$	118.9	%
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			
Tj = -7 °C	Pdh	6.89	kW	Tj = -7 °C	COPd	2.66	-
Tj = 2 °C	Pdh	4.32	kW	Tj = 2 °C	COPd	3.66	-
Tj = 7 °C	Pdh	3.06	kW	Tj = 7 °C	COPd	4.72	-
Tj = 12 °C	Pdh	3.33	kW	Tj = 12 °C	COPd	6.25	-
Tj = bivalent temperature	Pdh	8.94	kW	Tj = bivalent temperature	COPd	1.79	-
Tj = operating limit	Pdh	4.20	kW	Tj = operating limit	COPd	1.13	-
For air-to-water heat pumps: Tj = -15 °C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15 °C	COPd	-	-
Bivalent temperature	Tbiv	-15	°C	For air-to-water heat pumps: Operation limit temperature	TOL	-22	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	51	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	6.80	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m <sup>3</sup> /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 <sup>3</sup> /h
Annual energy consumption	QHE	8866	kWh				

For heat pump combination heater:

Declared load profile	-			Water heating energy efficiency	$\eta_{wh}$	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	kWh	Annual fuel consumption	AFC	-	GJ

Contact details: 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: MHA-V14W/D2N8-B Indoor unit: HB-A160/CGN8-B
Air-to-water heat pump:	YES
Water-to-water heat pump:	NO
Brine-to-water heat pump:	NO
Low-temperature heat pump:	NO
Equipped with a supplementary heater:	NO
Heat pump combination heater:	NO
Declared climate condition:	WARMER

Parameters are declared for medium-temperature application.

Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Rated heat output (*)	Prated	13.7	kW	Seasonal space heating energy efficiency	$\eta_s$	176.5	%
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	13.04	kW	Tj = 2°C	COPd	2.20	-
Tj = 7°C	Pdh	8.83	kW	Tj = 7°C	COPd	3.91	-
Tj = 12°C	Pdh	4.08	kW	Tj = 12°C	COPd	5.90	-
Tj = bivalent temperature	Pdh	8.83	kW	Tj = bivalent temperature	COPd	3.91	-
Tj = operating limit	Pdh	13.04	kW	Tj = operating limit	COPd	2.20	-
For air-to-water heat pumps: Tj = -15°C	Pdh	-	kW	For air-to-water heat pumps: Tj = -15°C	COPd	-	-
Bivalent temperature	Tbiv	7	°C	For air-to-water heat pumps: Operation limit temperature	TOL	2	°C
Cycling interval capacity for heating	Pcyc	-	kW	Cycling interval efficiency	COPcyc	-	-
Degradation co-efficient (**)	Cdh	0.9	--	Heating water operating limit temperature	WTOL	62	°C
Power consumption in modes other than active mode				Supplementary heater			
Off mode	Poff	0.014	kW	Rated heat output (**)	Psup	0.66	kW
Standby mode	Psb	0.014	kW	Type of energy input	Electrical		
Thermostat-off mode	Pto	0.024	kW				
Crankcase heater mode	Pck	0.000	kW				

Other items							
Capacity control	variable			For air-to-water heat pumps: Rated air flow rate, outdoors	-	4060	m <sup>3</sup> /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 <sup>3</sup> /h
Annual energy consumption	QHE	4088	kWh				

For heat pump combination heater:

Declared load profile	-			<b>Water heating energy efficiency</b>	$\eta_{wh}$	-	%
Daily electricity consumption	Qelec	-	kWh	Daily fuel consumption	Qfuel	-	kWh
Annual electricity consumption	AEC	-	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: MHA-V14W/D2N8-B Indoor unit: HB-A160/CGN8-B						
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	$P_{rated,c}$	12.2	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	191.4	%
Declared cooling capacity for part load at given outdoor temperature $T_j$				Declared energy efficiency ratio for part load at given outdoor temperature $T_j$			
$T_j=+35^{\circ}\text{C}$	$P_{dc}$	12.19	kW	$T_j=+35^{\circ}\text{C}$	EER <sub>d</sub>	2.46	-
$T_j=+30^{\circ}\text{C}$	$P_{dc}$	9.41	kW	$T_j=+30^{\circ}\text{C}$	EER <sub>d</sub>	3.85	-
$T_j=+25^{\circ}\text{C}$	$P_{dc}$	6.16	kW	$T_j=+25^{\circ}\text{C}$	EER <sub>d</sub>	5.80	-
$T_j=+20^{\circ}\text{C}$	$P_{dc}$	2.63	kW	$T_j=+20^{\circ}\text{C}$	EER <sub>d</sub>	6.74	-
Degradation co-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 <sup>3</sup> /h
Sound power level, indoors / outdoors	$L_{WA}$	44/65	dB				
Emissions of nitrogen oxides (if applicable)	$NO_x(**)$	-	mg/kWh input GCV	For water /brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m <sup>3</sup> /h
GWP of the refrigerant	-	675	kg CO <sub>2</sub> 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: MHA-V14W/D2N8-B Indoor unit: HB-A160/CGN8-B			
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	$P_{rated,c}$	13.3	kW	Seasonal space cooling energy efficiency	$\eta_{s,c}$	272.8	%
Declared cooling capacity for part load at given outdoor temperature $T_j$				Declared energy efficiency ratio for part load at given outdoor temperature $T_j$			
$T_j=+35^{\circ}\text{C}$	$P_{dc}$	13.30	kW	$T_j=+35^{\circ}\text{C}$	$EER_d$	3.47	-
$T_j=+30^{\circ}\text{C}$	$P_{dc}$	10.20	kW	$T_j=+30^{\circ}\text{C}$	$EER_d$	5.26	-
$T_j=+25^{\circ}\text{C}$	$P_{dc}$	6.57	kW	$T_j=+25^{\circ}\text{C}$	$EER_d$	8.45	-
$T_j=+20^{\circ}\text{C}$	$P_{dc}$	3.33	kW	$T_j=+20^{\circ}\text{C}$	$EER_d$	10.07	-
Degradation co-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 <sup>3</sup> /h
Sound power level, indoors / outdoors	$L_{WA}$	44/64	dB				
Emissions of nitrogen oxides (if applicable)	$NO_x(**)$	-	mg/kWh input GCV	For water /brine-to-water chillers: Rated brine or water flow rate, outdoor side heat exchanger	-	-	m <sup>3</sup> /h
GWP of the refrigerant	-	675	kg CO <sub>2</sub> 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	MHA-V4W/D2N8-B	HB-A60/CGN8-B	4.70	1.36	3.45
	MHA-V6W/D2N8-B	HB-A60/CGN8-B	7.00	2.33	3.00
	MHA-V8W/D2N8-B	HB-A100/CGN8-B	7.40	2.19	3.38
	MHA-V10W/D2N8-B	HB-A100/CGN8-B	8.20	2.48	3.30
	MHA-V12W/D2N8-B	HB-A160/CGN8-B	11.60	4.22	2.75
	MHA-V14W/D2N8-B	HB-A160/CGN8-B	12.70	4.98	2.55
	MHA-V16W/D2N8-B	HB-A160/CGN8-B	14.00	5.71	2.45
	MHA-V12W/D2RN8-B	HB-A160/CGN8-B	11.60	4.22	2.75
	MHA-V14W/D2RN8-B	HB-A160/CGN8-B	12.70	4.98	2.55
	MHA-V16W/D2RN8-B	HB-A160/CGN8-B	14.00	5.71	2.45
Ambient Temperature: 35/24 Water temperature: 23/18	MHA-V4W/D2N8-B	HB-A60/CGN8-B	4.50	0.81	5.55
	MHA-V6W/D2N8-B	HB-A60/CGN8-B	6.55	1.34	4.90
	MHA-V8W/D2N8-B	HB-A100/CGN8-B	8.40	1.66	5.05
	MHA-V10W/D2N8-B	HB-A100/CGN8-B	10.00	2.08	4.80
	MHA-V12W/D2N8-B	HB-A160/CGN8-B	12.00	3.00	4.00
	MHA-V14W/D2N8-B	HB-A160/CGN8-B	13.50	3.75	3.60
	MHA-V16W/D2N8-B	HB-A160/CGN8-B	14.90	4.38	3.40
	MHA-V12W/D2RN8-B	HB-A160/CGN8-B	12.00	3.00	4.00
	MHA-V14W/D2RN8-B	HB-A160/CGN8-B	13.50	3.75	3.60
	MHA-V16W/D2RN8-B	HB-A160/CGN8-B	14.90	4.38	3.40
Ambient Temperature: 7/6 Water temperature: 30/35	MHA-V4W/D2N8-B	HB-A60/CGN8-B	4.25	0.82	5.20
	MHA-V6W/D2N8-B	HB-A60/CGN8-B	6.20	1.24	5.00
	MHA-V8W/D2N8-B	HB-A100/CGN8-B	8.30	1.60	5.20
	MHA-V10W/D2N8-B	HB-A100/CGN8-B	10.00	2.00	5.00
	MHA-V12W/D2N8-B	HB-A160/CGN8-B	12.10	2.44	4.95
	MHA-V14W/D2N8-B	HB-A160/CGN8-B	14.50	3.09	4.70
	MHA-V16W/D2N8-B	HB-A160/CGN8-B	16.00	3.56	4.50
	MHA-V12W/D2RN8-B	HB-A160/CGN8-B	12.10	2.44	4.95
	MHA-V14W/D2RN8-B	HB-A160/CGN8-B	14.50	3.09	4.70
	MHA-V16W/D2RN8-B	HB-A160/CGN8-B	16.00	3.56	4.50
Ambient Temperature: 2/1 Water temperature: 30/35	MHA-V4W/D2N8-B	HB-A60/CGN8-B	4.45	1.10	4.05
	MHA-V6W/D2N8-B	HB-A60/CGN8-B	5.50	1.39	3.95
	MHA-V8W/D2N8-B	HB-A100/CGN8-B	7.10	1.73	4.10
	MHA-V10W/D2N8-B	HB-A100/CGN8-B	8.20	2.02	4.05
	MHA-V12W/D2N8-B	HB-A160/CGN8-B	9.30	2.35	3.95
	MHA-V14W/D2N8-B	HB-A160/CGN8-B	11.40	3.12	3.65
	MHA-V16W/D2N8-B	HB-A160/CGN8-B	13.00	3.71	3.50
	MHA-V12W/D2RN8-B	HB-A160/CGN8-B	9.30	2.35	3.95
	MHA-V14W/D2RN8-B	HB-A160/CGN8-B	11.40	3.12	3.65
	MHA-V16W/D2RN8-B	HB-A160/CGN8-B	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	MHA-V4W/D2N8-B	HB-A60/CGN8-B	4.80	1.52	3.15
	MHA-V6W/D2N8-B	HB-A60/CGN8-B	6.10	2.00	3.05
	MHA-V8W/D2N8-B	HB-A100/CGN8-B	7.10	2.18	3.25
	MHA-V10W/D2N8-B	HB-A100/CGN8-B	8.25	2.62	3.15
	MHA-V12W/D2N8-B	HB-A160/CGN8-B	10.00	3.33	3.00
	MHA-V14W/D2N8-B	HB-A160/CGN8-B	12.00	4.29	2.80
	MHA-V16W/D2N8-B	HB-A160/CGN8-B	13.30	4.93	2.70
	MHA-V12W/D2RN8-B	HB-A160/CGN8-B	10.00	3.33	3.00
	MHA-V14W/D2RN8-B	HB-A160/CGN8-B	12.00	4.29	2.80
	MHA-V16W/D2RN8-B	HB-A160/CGN8-B	13.30	4.93	2.70
Ambient Temperature: 7/6 Water temperature: 40/45	MHA-V4W/D2N8-B	HB-A60/CGN8-B	4.35	1.14	3.80
	MHA-V6W/D2N8-B	HB-A60/CGN8-B	6.35	1.69	3.75
	MHA-V8W/D2N8-B	HB-A100/CGN8-B	8.20	2.08	3.95
	MHA-V10W/D2N8-B	HB-A100/CGN8-B	10.00	2.63	3.80
	MHA-V12W/D2N8-B	HB-A160/CGN8-B	12.30	3.24	3.80
	MHA-V14W/D2N8-B	HB-A160/CGN8-B	14.20	3.89	3.65
	MHA-V16W/D2N8-B	HB-A160/CGN8-B	16.00	4.44	3.60
	MHA-V12W/D2RN8-B	HB-A160/CGN8-B	12.30	3.24	3.80
	MHA-V14W/D2RN8-B	HB-A160/CGN8-B	14.20	3.89	3.65
	MHA-V16W/D2RN8-B	HB-A160/CGN8-B	16.00	4.44	3.60
Ambient Temperature: 2/1 Water temperature: 40/45	MHA-V4W/D2N8-B	HB-A60/CGN8-B	5.10	1.70	3.00
	MHA-V6W/D2N8-B	HB-A60/CGN8-B	5.80	1.93	3.00
	MHA-V8W/D2N8-B	HB-A100/CGN8-B	7.40	2.28	3.25
	MHA-V10W/D2N8-B	HB-A100/CGN8-B	7.85	2.45	3.20
	MHA-V12W/D2N8-B	HB-A160/CGN8-B	10.70	3.57	3.00
	MHA-V14W/D2N8-B	HB-A160/CGN8-B	11.70	4.09	2.86
	MHA-V16W/D2N8-B	HB-A160/CGN8-B	12.80	4.49	2.85
	MHA-V12W/D2RN8-B	HB-A160/CGN8-B	10.70	3.57	3.00
	MHA-V14W/D2RN8-B	HB-A160/CGN8-B	11.70	4.09	2.86
	MHA-V16W/D2RN8-B	HB-A160/CGN8-B	12.80	4.49	2.85
Ambient Temperature: -7/-8 Water temperature: 40/45	MHA-V4W/D2N8-B	HB-A60/CGN8-B	4.30	1.83	2.35
	MHA-V6W/D2N8-B	HB-A60/CGN8-B	5.40	2.25	2.40
	MHA-V8W/D2N8-B	HB-A100/CGN8-B	6.60	2.59	2.55
	MHA-V10W/D2N8-B	HB-A100/CGN8-B	7.35	2.88	2.55
	MHA-V12W/D2N8-B	HB-A160/CGN8-B	10.20	4.25	2.40
	MHA-V14W/D2N8-B	HB-A160/CGN8-B	11.80	5.02	2.35
	MHA-V16W/D2N8-B	HB-A160/CGN8-B	12.90	5.78	2.23
	MHA-V12W/D2RN8-B	HB-A160/CGN8-B	10.20	4.25	2.40
	MHA-V14W/D2RN8-B	HB-A160/CGN8-B	11.80	5.02	2.35
	MHA-V16W/D2RN8-B	HB-A160/CGN8-B	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	MHA-V4W/D2N8-B	HB-A60/CGN8-B	4.40	1.49	2.95
	MHA-V6W/D2N8-B	HB-A60/CGN8-B	6.00	2.00	3.00
	MHA-V8W/D2N8-B	HB-A100/CGN8-B	7.50	2.36	3.18
	MHA-V10W/D2N8-B	HB-A100/CGN8-B	9.50	3.06	3.10
	MHA-V12W/D2N8-B	HB-A160/CGN8-B	12.00	3.87	3.10
	MHA-V14W/D2N8-B	HB-A160/CGN8-B	13.80	4.60	3.00
	MHA-V16W/D2N8-B	HB-A160/CGN8-B	16.00	5.52	2.90
	MHA-V12W/D2RN8-B	HB-A160/CGN8-B	12.00	3.87	3.10
	MHA-V14W/D2RN8-B	HB-A160/CGN8-B	13.80	4.60	3.00
	MHA-V16W/D2RN8-B	HB-A160/CGN8-B	16.00	5.52	2.90
Ambient Temperature: 2/1 Water temperature: 47/55	MHA-V4W/D2N8-B	HB-A60/CGN8-B	5.10	2.08	2.45
	MHA-V6W/D2N8-B	HB-A60/CGN8-B	5.65	2.31	2.45
	MHA-V8W/D2N8-B	HB-A100/CGN8-B	7.10	2.73	2.60
	MHA-V10W/D2N8-B	HB-A100/CGN8-B	8.10	3.16	2.56
	MHA-V12W/D2N8-B	HB-A160/CGN8-B	11.40	4.47	2.55
	MHA-V14W/D2N8-B	HB-A160/CGN8-B	12.40	5.06	2.45
	MHA-V16W/D2N8-B	HB-A160/CGN8-B	13.40	5.58	2.40
	MHA-V12W/D2RN8-B	HB-A160/CGN8-B	11.40	4.47	2.55
	MHA-V14W/D2RN8-B	HB-A160/CGN8-B	11.80	4.82	2.45
	MHA-V16W/D2RN8-B	HB-A160/CGN8-B	13.40	5.58	2.40
Ambient Temperature: -7/-8 Water temperature: 47/55	MHA-V4W/D2N8-B	HB-A60/CGN8-B	4.00	2.05	1.95
	MHA-V6W/D2N8-B	HB-A60/CGN8-B	5.15	2.58	2.00
	MHA-V8W/D2N8-B	HB-A100/CGN8-B	6.15	3.00	2.05
	MHA-V10W/D2N8-B	HB-A100/CGN8-B	6.85	3.43	2.00
	MHA-V12W/D2N8-B	HB-A160/CGN8-B	10.00	4.88	2.05
	MHA-V14W/D2N8-B	HB-A160/CGN8-B	11.00	5.37	2.05
	MHA-V16W/D2N8-B	HB-A160/CGN8-B	12.50	6.19	2.02
	MHA-V12W/D2RN8-B	HB-A160/CGN8-B	10.00	4.88	2.05
	MHA-V14W/D2RN8-B	HB-A160/CGN8-B	11.00	5.37	2.05
	MHA-V16W/D2RN8-B	HB-A160/CGN8-B	12.50	6.19	2.02