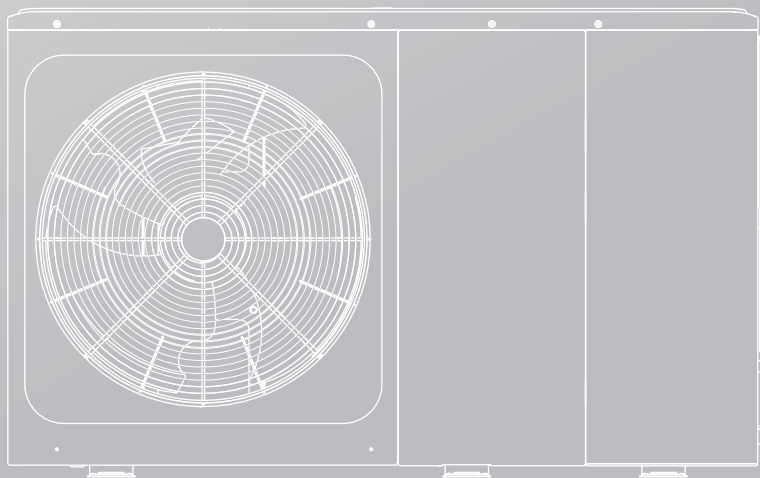


TECHNICAL DATA MANUAL

M-thermal Semi Monoblock
ATW Heat Pump



IMPORTANT NOTE:

Thank you very much for purchasing our product,
Before using your unit , please read this manual carefully and keep it for future reference.

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
MHP-V4WD2N8	HB-P100CG	A++	38	55	4.3	125.2	2739	3.1	93.6	3169	4.8	155.5	1622
	HB-P100CD30G	A++	38	55	4.3	125.2	2739	3.1	93.6	3169	4.8	155.5	1622
	HB-P100CG	A++	38	58	5.5	132	3355	4.0	103.6	3700	5.0	158.0	1644
	HB-P100CD30G	A++	38	58	5.5	132	3355	4.0	103.6	3700	5.0	158.0	1644
MHP-V8WD2N8	HB-P100CG	A++	42	59	6.4	126.8	4067	5.5	106.6	4964	8.4	169.4	2594
	HB-P100CD30G	A++	42	59	6.4	126.8	4067	5.5	106.6	4964	8.4	169.4	2594
	HB-P100CD60G	A++	42	59	6.4	126.8	4067	5.5	106.6	4964	8.4	169.4	2594
	HB-P100CD90G	A++	42	59	6.4	126.8	4067	5.5	106.6	4964	8.4	169.4	2594
MHP-V10WD2N8	HB-P100CG	A++	42	60	7.4	131.5	4578	6.5	111.5	5555	8.4	176.0	2515
	HB-P100CD30G	A++	42	60	7.4	131.5	4578	6.5	111.5	5555	8.4	176.0	2515
	HB-P100CD60G	A++	42	60	7.4	131.5	4578	6.5	111.5	5555	8.4	176.0	2515
	HB-P100CD90G	A++	42	60	7.4	131.5	4578	6.5	111.5	5555	8.4	176.0	2515
MHP-V12WD2N8	HB-P160CG	A++	43	65	11.4	132.6	6925	10.1	114.6	8429	12.3	171.2	3777
	HB-P160CD30G	A++	43	65	11.4	132.6	6925	10.1	114.6	8429	12.3	171.2	3777
	HB-P160CD60G	A++	43	65	11.4	132.6	6925	10.1	114.6	8429	12.3	171.2	3777
	HB-P160CD90G	A++	43	65	11.4	132.6	6925	10.1	114.6	8429	12.3	171.2	3777
MHP-V14WD2RN8	HB-P160CG	A++	43	65	11.4	132.5	6927	10.1	114.6	8430	12.3	171.0	3781
	HB-P160CD30G	A++	43	65	11.4	132.5	6927	10.1	114.6	8430	12.3	171.0	3781
	HB-P160CD60G	A++	43	65	11.4	132.5	6927	10.1	114.6	8430	12.3	171.0	3781
	HB-P160CD90G	A++	43	65	11.4	132.5	6927	10.1	114.6	8430	12.3	171.0	3781
MHP-V16WD2N8	HB-P160CG	A++	43	65	11.9	133.0	7204	10.8	115.9	8952	14.2	172.7	4310
	HB-P160CD30G	A++	43	65	11.9	133.0	7204	10.8	115.9	8952	14.2	172.7	4310
	HB-P160CD60G	A++	43	65	11.9	133.0	7204	10.8	115.9	8952	14.2	172.7	4310
	HB-P160CD90G	A++	43	65	11.9	133.0	7204	10.8	115.9	8952	14.2	172.7	4310
MHP-V14WD2RN8	HB-P160CG	A++	43	65	11.9	133.0	7206	10.8	115.9	8953	14.2	172.5	4315
	HB-P160CD30G	A++	43	65	11.9	133.0	7206	10.8	115.9	8953	14.2	172.5	4315
	HB-P160CD60G	A++	43	65	11.9	133.0	7206	10.8	115.9	8953	14.2	172.5	4315
	HB-P160CD90G	A++	43	65	11.9	133.0	7206	10.8	115.9	8953	14.2	172.5	4315
MHP-V16WD2N8	HB-P160CG	A++	43	68	12.8	130.9	7905	11.5	118.9	9320	14.2	173.8	4284
	HB-P160CD30G	A++	43	68	12.8	130.9	7905	11.5	118.9	9320	14.2	173.8	4284
	HB-P160CD60G	A++	43	68	12.8	130.9	7905	11.5	118.9	9320	14.2	173.8	4284
	HB-P160CD90G	A++	43	68	12.8	130.9	7905	11.5	118.9	9320	14.2	173.8	4284
MHP-V16WD2RN8	HB-P160CG	A++	43	68	12.8	130.9	7906	11.5	118.9	9321	14.2	173.6	4288
	HB-P160CD30G	A++	43	68	12.8	130.9	7906	11.5	118.9	9321	14.2	173.6	4288
	HB-P160CD60G	A++	43	68	12.8	130.9	7906	11.5	118.9	9321	14.2	173.6	4288
	HB-P160CD90G	A++	43	68	12.8	130.9	7906	11.5	118.9	9321	14.2	173.6	4288

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 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			
MHP-V4WD2N8	HB-P100CG	A+++	38	55	5.4	185.3	2356	4.4	152.4	2776	5.4	247.8	1154			
	HB-P100CD30G	A+++	38	55	5.4	185.3	2356	4.4	152.4	2776	5.4	247.8	1154			
	HB-P100CG	A+++	38	58	6.0	190.3	1251	5.4	159.9	3293	6.0	252.9	1251			
	HB-P100CD30G	A+++	38	58	6.0	190.3	1251	5.4	159.9	3293	6.0	252.9	1251			
MHP-V8WD2N8	HB-P100CG	A+++	42	59	8.0	201.1	3225	6.8	165.0	3985	8.0	270.5	1563			
	HB-P100CD30G	A+++	42	59	8.0	201.1	3225	6.8	165.0	3985	8.0	270.5	1563			
	HB-P100CD60G	A+++	42	59	8.0	201.1	3225	6.8	165.0	3985	8.0	270.5	1563			
	HB-P100CDS90G	A+++	42	59	8.0	201.1	3225	6.8	165.0	3985	8.0	270.5	1563			
MHP-V10WD2N8	HB-P100CG	A+++	42	60	9.0	201.0	3649	7.6	165.3	4431	8.5	274.5	1630			
	HB-P100CD30G	A+++	42	60	9.0	201.0	3649	7.6	165.3	4431	8.5	274.5	1630			
	HB-P100CD60G	A+++	42	60	9.0	201.0	3649	7.6	165.3	4431	8.5	274.5	1630			
	HB-P100CDS90G	A+++	42	60	9.0	201.0	3649	7.6	165.3	4431	8.5	274.5	1630			
MHP-V12WD2N8	HB-P160CG	A+++	43	65	11.8	186.9	5155	11.2	157.6	6872	11.0	253.3	2291			
	HB-P160CD30G	A+++	43	65	11.8	186.9	5155	11.2	157.6	6872	11.0	253.3	2291			
	HB-P160CD60G	A+++	43	65	11.8	186.9	5155	11.2	157.6	6872	11.0	253.3	2291			
	HB-P160CDS90G	A+++	43	65	11.8	186.9	5155	11.2	157.6	6872	11.0	253.3	2291			
MHP-V12WD2RN8	HB-P160CG	A+++	43	65	11.8	186.8	5156	11.2	157.5	6872	11.0	252.8	2295			
	HB-P160CD30G	A+++	43	65	11.8	186.8	5156	11.2	157.5	6872	11.0	252.8	2295			
	HB-P160CD60G	A+++	43	65	11.8	186.8	5156	11.2	157.5	6872	11.0	252.8	2295			
	HB-P160CDS90G	A+++	43	65	11.8	186.8	5156	11.2	157.5	6872	11.0	252.8	2295			
MHP-V14WD2N8	HB-P160CG	A+++	43	65	13.6	183.5	6013	12.5	156.0	7739	12.0	257.7	2456			
	HB-P160CD30G	A+++	43	65	13.6	183.5	6013	12.5	156.0	7739	12.0	257.7	2456			
	HB-P160CD60G	A+++	43	65	13.6	183.5	6013	12.5	156.0	7739	12.0	257.7	2456			
	HB-P160CDS90G	A+++	43	65	13.6	183.5	6013	12.5	156.0	7739	12.0	257.7	2456			
MHP-V14WD2RN8	HB-P160CG	A+++	43	65	13.6	183.5	6014	12.5	155.9	7739	12.0	257.2	2461			
	HB-P160CD30G	A+++	43	65	13.6	183.5	6014	12.5	155.9	7739	12.0	257.2	2461			
	HB-P160CD60G	A+++	43	65	13.6	183.5	6014	12.5	155.9	7739	12.0	257.2	2461			
	HB-P160CDS90G	A+++	43	65	13.6	183.5	6014	12.5	155.9	7739	12.0	257.2	2461			
MHP-V16WD2N8	HB-P160CG	A+++	43	68	15.1	179.8	6807	13.6	155.7	8429	13.0	246.2	2780			
	HB-P160CD30G	A+++	43	68	15.1	179.8	6807	13.6	155.7	8429	13.0	246.2	2780			
	HB-P160CD60G	A+++	43	68	15.1	179.8	6807	13.6	155.7	8429	13.0	246.2	2780			
	HB-P160CDS90G	A+++	43	68	15.1	179.8	6807	13.6	155.7	8429	13.0	246.2	2780			
MHP-V16WD2RN8	HB-P160CG	A+++	43	68	15.1	179.7	6808	13.6	155.7	8430	13.0	245.8	2784			
	HB-P160CD30G	A+++	43	68	15.1	179.7	6808	13.6	155.7	8430	13.0	245.8	2784			
	HB-P160CD60G	A+++	43	68	15.1	179.7	6808	13.6	155.7	8430	13.0	245.8	2784			
	HB-P160CDS90G	A+++	43	68	15.1	179.7	6808	13.6	155.7	8430	13.0	245.8	2784			

Product fiche 1

Heat pump space heater		Outdoor				
		MHP-V4WD2N8 HB-P100CG HB-P100CD30G	MHP-V6WD2N8 HB-P100CG HB-P100CD30G	MHP-V8WD2N8 HB-P100CG HB-P100CD30G HB-P100CDS60G HB-P100CDS90G	MHP-V10WD2N8 HB-P100CG HB-P100CD30G HB-P100CDS60G HB-P100CDS90G	MHP-V12WD2N8 HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G
Indoor unit sound power (*)		38	38	42	42	43
Outdoor unit sound power (*)	Average climate low temperature application	55	58	59	60	65
Capacity of the back-up heater integrated in the unit	Average climate medium temperature application	55	58	59	60	65
Space heating	Psup back-up heater (optional)	0/3	0/3	0/3/6/9	0/3/6/9	0/3/6/9
Space heating	Energy efficiency class 35°C (Low temp. app.)	A+++	A+++	A+++	A+++	A+++
Average climate (Design temperature = -10°C)	Energy efficiency class 55°C (Medium temp. app.)	A++	A++	A++	A++	A++
Space heating 35°C	Prated (declared heating capacity) @ -10°C	5.4	6.7	8.0	9.0	11.8
Space heating 55°C	Seasonal space heating efficiency (ηs)	185.3	190.3	201.1	201.0	186.9
Part load conditions space heating average climate low temperature application	Annual energy consumption	2,356	2,850	3,225	3,649	5,155
(A) condition (-7°C)	Prated (declared heating capacity) @ -10°C	4.2	5.5	6.5	7.5	11.4
(B) condition (2°C)	Seasonal space heating efficiency (ηs)	125.2	132.0	126.8	131.5	132.6
(C) condition (7°C)	Annual energy consumption	2,739	3,355	4,067	4,578	6,925
(D) condition (12°C)	Pdh (declared heating capacity)	4.75	5.90	7.05	7.97	10.48
(E) Tol (temperature operating limit)	COPd (declared COP)	3.10	3.02	3.29	3.18	2.84
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	2.96	3.79	4.56	5.09	6.60
	COPd (declared COP)	4.64	4.74	4.99	4.92	4.59
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	1.87	2.33	2.84	3.26	4.38
	COPd (declared COP)	5.92	6.45	6.67	6.94	6.52
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	1.44	1.35	1.59	1.61	3.70
	COPd (declared COP)	7.84	7.71	8.15	8.38	8.38
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
	Tol (temperature operating limit)	-10.00	-10.00	-10.00	-10.00	-10.00
	Pdh (declared heating capacity)	4.26	5.21	6.29	7.25	10.59
	COPd (declared COP)	2.77	2.69	2.97	2.90	2.73
	WTOL (Heating water Operation Limit)	65	65	65	65	65

Note :

All capability data in the product fiche data are derived from experimental measurements ;

In the test, the length of the water pipe between indoor unit and outdoor unit is 5m, the inner diameter of the water pipe is 38mm, the outer diameter is 42mm, and the thickness of the water pipe insulation cotton is 25mm.

Product fiche 1

Heat pump space heater		Outdoor				
		MHP-V14WD2N8	MHP-V16WD2N8	MHP-V12WD2RN8	MHP-V14WD2RN8	MHP-V16WD2RN8
Indoor unit sound power (*)		43	43	43	43	43
Average climate low temperature application		65	68	65	65	68
Average climate medium temperature application		65	68	65	65	68
Capacity of the back-up heater integrated in the unit		0/3/6/9	0/3/6/9	0/3/6/9	0/3/6/9	0/3/6/9
Space heating		A+++	A+++	A+++	A+++	A+++
Space heating		A++	A++	A++	A++	A++
Average climate (Design temperature = -10°C)						
Space heating 35°C		13.6	15.1	11.8	13.6	15.1
Seasonal space heating efficiency (ηs)		183.5	179.8	186.8	183.5	179.7
Annual energy consumption		6,013	6,807	5,156	6,014	6,808
Prated (declared heating capacity) @ -10°C		11.9	12.8	11.4	11.9	12.8
Seasonal space heating efficiency (ηs)		133.0	130.9	132.5	133.0	130.9
Annual energy consumption		7,204	7,905	6,927	7,206	7,906
Part load conditions space heating average climate low temperature application						
(A) condition (-7°C)		12.01	13.32	10.48	12.01	13.32
COPd (declared COP)		2.76	2.69	2.84	2.76	2.69
Cdh(degradation coefficient)		0.90	0.90	0.90	0.90	0.90
Pdh (declared heating capacity)		7.85	8.47	6.60	7.85	8.47
COPd (declared COP)		4.47	4.36	4.59	4.47	4.36
Cdh(degradation coefficient)		0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)		5.14	5.64	4.38	5.14	5.64
COPd (declared COP)		6.60	6.49	6.52	6.60	6.49
Cdh(degradation coefficient)		0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)		3.71	3.74	3.70	3.71	3.74
COPd (declared COP)		8.43	8.42	8.38	8.43	8.42
Cdh(degradation coefficient)		0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)		-10.00	-10.00	-10.00	-10.00	-10.00
Pdh (declared heating capacity)		11.32	12.37	10.59	11.32	12.37
COPd (declared COP)		2.56	2.45	2.73	2.56	2.45
WTOL (Heating water Operation Limit)		65	65	65	65	65

Product fiche 2

Heat pump space heater		Outdoor				
		MHP-V4WD2N8	MHP-V6WD2N8	MHP-V8WD2N8	MHP-V10WD2N8	MHP-V12WD2N8
(F) Tivalent temperature	Tblv	-7.00	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	4.75	5.90	7.05	7.97	10.48
Supplementary capacity at P_design	COPd (declared COP)	3.10	3.02	3.29	3.18	2.84
	Psup (@Tdesignh: -10°C)	1.10	1.45	1.67	1.75	1.25
Part load conditions space heating average climate medium temperature application						
(A) condition (-7°C)	Pdh (declared heating capacity)	3.76	4.85	5.65	6.59	10.05
	COPd (declared COP)	2.10	2.09	2.09	2.18	1.97
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	2.31	2.99	3.62	4.10	6.39
	COPd (declared COP)	3.20	3.36	3.19	3.28	3.37
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	2.85	1.99	2.33	2.68	4.27
	COPd (declared COP)	4.27	4.34	4.17	4.37	4.49
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	1.26	1.22	1.33	1.52	3.23
	COPd (declared COP)	5.41	5.34	5.11	5.47	5.94
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	-10.00	-10.00	-10.00	-10.00	-10.00
	Pdh (declared heating capacity)	3.21	4.31	4.69	5.17	8.89
	COPd (declared COP)	1.79	1.85	1.79	1.78	1.76
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	65	65	65	65	65
	Tblv	-7.00	-7.00	-7.00	-7.00	-7.00
Supplementary capacity at P_design	Pdh (declared heating capacity)	3.76	4.91	5.71	6.65	10.11
	COPd (declared COP)	2.10	2.11	2.11	2.20	1.98
Colder climate (Design temperature = -22°C)		0.97	1.24	1.76	2.34	2.54
Space heating 35°C	Prated (declared heating capacity) @ -22°C	4.4	5.5	6.8	7.6	11.2
	Seasonal space heating efficiency (ηs)	152.4	159.9	165.0	165.3	157.6
	Annual energy consumption	2,776	3,293	3,985	4,431	5,872

Product fiche 2

Heat pump space heater		Outdoor				
		MHP-V14WD2N8	MHP-V16WD2N8	MHP-V12WD2RN8	MHP-V14WD2RN8	MHP-V16WD2RN8
(F) Tivalent temperature	Tblv	-7.00	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	12.01	13.32	10.48	12.01	13.32
Supplementary capacity at P_design	COPd (declared COP)	2.76	2.69	2.84	2.76	2.69
	Psup (@Tdesignh: -10°C)	2.25	2.68	1.25	2.25	2.68
Part load conditions space heating average climate medium temperature application						
(A) condition (-7°C)	Pdh (declared heating capacity)	10.49	11.33	10.05	10.49	11.33
	COPd (declared COP)	1.97	1.96	1.97	1.97	1.96
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	6.73	7.05	6.39	6.73	7.05
	COPd (declared COP)	3.37	3.28	3.37	3.37	3.28
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	4.54	4.58	4.27	4.54	4.58
	COPd (declared COP)	4.57	4.52	4.49	4.57	4.52
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	3.25	3.25	3.23	3.25	3.25
	COPd (declared COP)	6.02	5.96	5.94	6.02	5.96
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	-10.00	-10.00	-10.00	-10.00	-10.00
	Pdh (declared heating capacity)	8.98	10.12	8.89	8.98	10.12
	COPd (declared COP)	1.72	1.76	1.76	1.72	1.76
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	65	65	65	65	65
	Tblv	-7.00	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	10.49	11.33	10.11	10.49	11.33
Supplementary capacity at P_design	COPd (declared COP)	1.97	1.96	1.98	1.97	1.96
	Psup (@Tdesignh: -10°C)	2.94	2.68	2.54	2.94	2.68
Colder climate (Design temperature = -22°C)						
Space heating 35°C	Prated (declared heating capacity) @ -22°C	12.5	13.6	11.2	12.5	13.6
	Seasonal space heating efficiency (ηs)	156.0	155.7	157.5	155.9	155.7
	Annual energy consumption	7,739	8,429	6,872	7,739	8,430

Product fiche 3

Heat pump space heater		MHP-V4WD2N8						MHP-V6WD2N8						MHP-V8WD2N8						MHP-V10WD2N8						MHP-V12WD2N8											
		Outdoor		Indoor		[kW]		[%]		[kWh]		3.1		4.0		103.6		3,700		4.0		106.6		4,964		5.5		111.5		5,555		6.5		10.1		114.6	
Space heating 55°C		Prated (declared heating capacity) @ -22°C		[kW]		3.1		4.0		103.6		3,700		4.0		106.6		4,964		5.5		111.5		5,555		6.5		10.1		114.6		8,429					
Space heating 55°C		Seasonal space heating efficiency (ηs)		[%]		93.6		103.6		3,700		4.0		106.6		4,964		5.5		111.5		5,555		6.5		10.1		114.6		8,429							
Space heating 55°C		Annual energy consumption		[kWh]		3,169		3,700		4,964		5,555		6,429		7,429		8,429		9,429		10,429		11,429		12,429		13,429		14,429		15,429					
Part load conditions space heating colder climate low temperature application		Pd _h (declared heating capacity)		[kW]		2.63		3.30		4.34		5.47		6.60		7.73		8.86		9.99		11.12		12.25		13.38		14.51		15.64		16.77					
(A) condition (-7°C)	COP _d (declared COP)		-		3.34		3.46		3.56		3.66		3.76		3.86		3.96		4.06		4.16		4.26		4.36		4.46		4.56		4.66						
	C _d _h (degradation 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		0.90						
	Pd _h (declared heating capacity)		[kW]		1.69		1.98		2.61		3.24		3.87		4.50		5.13		5.76		6.39		7.02		7.65		8.28		8.91		9.54		10.17				
(B) condition (2°C)	COP _d (declared COP)		-		4.72		5.01		5.04		5.07		5.10		5.13		5.16		5.19		5.22		5.25		5.28		5.31		5.34		5.37		5.40				
	C _d _h (degradation 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		0.90		0.90				
	Pd _h (declared heating capacity)		[kW]		1.11		1.40		1.59		1.78		1.97		2.16		2.35		2.54		2.73		2.92		3.11		3.30		3.49		3.68		3.87				
(C) condition (7°C)	COP _d (declared COP)		-		5.26		5.99		6.30		6.61		6.92		7.23		7.54		7.85		8.16		8.47		8.78		9.09		9.40		9.71		10.02				
	C _d _h (degradation 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		0.90		0.90				
	Pd _h (declared heating capacity)		[kW]		1.39		1.40		1.61		1.77		1.93		2.09		2.25		2.41		2.57		2.73		2.89		3.05		3.21		3.37		3.53				
(D) condition (12°C)	COP _d (declared COP)		-		7.46		7.45		7.77		8.09		8.41		8.73		9.05		9.37		9.69		10.01		10.33		10.65		10.97		11.29		11.61				
	C _d _h (degradation 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		0.90		0.90				
	Pd _h (declared heating capacity)		[kW]		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		0.90		0.90				
(E) Tol (temperature operating limit)	Tol (temperature operating limit)		[°C]		-22.00		-22.00		-22.00		-22.00		-22.00		-22.00		-22.00		-22.00		-22.00		-22.00		-22.00		-22.00		-22.00		-22.00		-22.00				
	Pd _h (declared heating capacity)		[kW]		2.62		3.30		3.88		4.46		5.04		5.62		6.20		6.78		7.36		7.94		8.52		9.10		9.68		10.26		10.84				
	COP _d (declared COP)		-		1.84		1.86		1.86		1.86		1.86		1.86		1.86		1.86		1.86		1.86		1.86		1.86		1.86		1.86		1.86				
(F) Tivalent temperature	WTOL (Heating water Operation Limit)		[°C]		65		65		65		65		65		65		65		65		65		65		65		65		65		65						
	T _b _{iv}		[°C]		-15.00		-15.00		-15.00		-15.00		-15.00		-15.00		-15.00		-15.00		-15.00		-15.00		-15.00		-15.00		-15.00		-15.00		-15.00				
	Pd _h (declared heating capacity)		[kW]		3.57		4.44		5.54		6.64		7.74		8.84		9.94		11.04		12.14		13.24		14.34		15.44		16.54		17.64		18.74				
Supplementary capacity at P _{design}	COP _d (declared COP)		-		2.47		2.45		2.75		3.05		3.35		3.65		3.95		4.25		4.55		4.85		5.15		5.45		5.75		6.05						
	P _{sup} (@T _{design} : -22°C)		[kW]		1.76		2.17		2.94		3.71		4.48		5.25		6.02		6.79		7.56		8.33		9.10		9.87		10.64		11.41		12.18				
	Pd _h (declared heating capacity)		[kW]		2.63		3.30		4.34		5.47		6.60		7.73		8.86		9.99		11.12		12.25		13.38		14.51		15.64		16.77		17.90				
Part load conditions space heating colder climate medium temperature application		Pd _h (declared heating capacity)		[kW]		1.97		2.54		3.70		4.86		6.02		7.18		8.34		9.50		10.66		11.82		12.98		14.14		15.30		16.46					
(A) condition (-7°C)	COP _d (declared COP)		-		2.14		2.31		2.39		2.46		2.53		2.60		2.67		2.74		2.81		2.88		2.95		3.02		3.09		3.16						
	C _d _h (degradation 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		0.90						
	Pd _h (declared heating capacity)		[kW]		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		0.90						

Product fiche 3

Heat pump space heater		Outdoor					
		MHP-V14WD2N8	MHP-V16WD2N8	MHP-V12WD2RN8	MHP-V14WD2RN8	MHP-V16WD2RN8	MHP-V16WD2RN8
Space heating 55°C	Prated (declared heating capacity) @ -22°C	10.8	11.5	10.1	10.8	11.5	11.5
	Seasonal space heating efficiency (ηs)	115.9	118.9	114.6	115.9	118.9	118.9
	Annual energy consumption	8,952	9,320	8,430	8,953	9,321	9,321
Part load conditions space heating colder climate low temperature application							
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	7.84	8.19	6.93	7.84	8.19
	COPd (declared COP)	-	3.39	3.32	3.42	3.39	3.32
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	4.97	5.18	4.59	4.97	5.18
	COPd (declared COP)	-	4.84	4.79	4.87	4.84	4.79
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	3.09	3.56	3.08	3.09	3.56
	COPd (declared COP)	-	6.00	6.39	5.99	6.00	6.39
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.53	3.30	3.53	3.53	3.30
	COPd (declared COP)	-	7.74	7.31	7.78	7.74	7.31
	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]	7.39	8.70	6.83	7.39	8.70
	COPd (declared COP)	-	1.87	1.93	1.93	1.87	1.93
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
	Tblv	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	Pdh (declared heating capacity)	[kW]	10.16	11.07	9.13	10.16	11.07
Supplementary capacity at P_design	COPd (declared COP)	-	2.49	2.40	2.55	2.49	2.40
Part load conditions space heating colder climate medium temperature application	Psup (@Tdesignh: -22°C)	[kW]	5.04	4.84	4.34	5.04	4.84
	Pdh (declared heating capacity)	[kW]	6.73	7.48	6.50	6.76	7.51
	COPd (declared COP)	-	2.60	2.59	2.58	2.61	2.60
(A) condition (-7°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90

Product fiche 4

Heat pump space heater

	Outdoor					
	MHP-V4WD2N8 HB-P100CG HB-P100CD30G	MHP-V6WD2N8 HB-P100CG HB-P100CD30G	MHP-V8WD2N8 HB-P100CG HB-P100CD30G HB-P100CDS60G HB-P100CDS90G	MHP-V10WD2N8 HB-P100CG HB-P100CD30G HB-P100CDS60G HB-P100CDS90G	MHP-V12WD2N8 HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	
(B) condition (2°C)	Pdh (declared heating capacity)	1.17	1.49	2.10	2.46	3.95
	COPd (declared COP)	2.73	3.12	3.15	3.33	3.48
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	0.93	0.94	1.36	1.57	2.70
	COPd (declared COP)	3.55	3.63	3.73	4.02	4.32
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	1.31	1.32	1.41	1.42	3.28
	COPd (declared COP)	6.04	6.11	5.38	5.42	6.00
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(E) ToI (temperature operating limit)	ToI (temperature operating limit)	-22.00	-22.00	-22.00	-22.00	-22.00
	Pdh (declared heating capacity)	1.39	1.84	2.55	2.55	3.94
	COPd (declared COP)	0.87	1.00	1.16	1.16	1.09
(F) TbiValent temperature	WTOL (Heating water Operation Limit)	65	65	65	65	65
	TbiVal	-15.00	-15.00	-15.00	-15.00	-15.00
	Pdh (declared heating capacity)	2.53	3.26	4.50	5.26	8.20
Supplementary capacity at P_design	COPd (declared COP)	1.61	1.75	1.82	1.92	1.79
	Psup (@Tdesign: -22°C)	1.71	2.16	2.97	3.90	6.11
	Warmer climate (Design temperature = 2°C)					
Space heating 35°C	Prated (declared heating capacity) @ 2°C	5.4	6.0	8.0	8.5	11.0
	Seasonal space heating efficiency (ηs)	247.8	252.9	270.5	274.5	253.3
	Annual energy consumption	1,154	1,251	1,563	1,630	2,291
Space heating 55°C	Prated (declared heating capacity) @ 2°C	4.8	5.0	8.2	8.4	12.3
	Seasonal space heating efficiency (ηs)	155.5	158.0	170.3	176.0	171.2
	Annual energy consumption	1,622	1,644	2,520	2,515	3,777
Part load conditions space heating warmer climate low temperature application						
(B) condition (2°C)	Pdh (declared heating capacity)	5.23	5.82	7.45	8.33	10.99
	COPd (declared COP)	3.86	3.84	3.92	3.79	3.56
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	3.48	3.85	5.14	5.44	7.06
	COPd (declared COP)	5.79	5.77	6.17	6.09	5.81
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90

Product fiche 4

Heat pump space heater		Outdoor					
		MHP-V14WD2N8	MHP-V16WD2N8	MHP-V12WD2RN8	MHP-V14WD2RN8	MHP-V16WD2RN8	
(B) condition (2°C)	Pdh (declared heating capacity)	[KW]	4.21	4.31	3.95	4.21	4.31
	COPd (declared COP)	-	3.56	3.69	3.48	3.56	3.69
(C) condition (7°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[KW]	2.98	2.89	2.70	2.98	2.89
	COPd (declared COP)	-	4.60	4.68	4.32	4.60	4.68
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[KW]	3.28	3.38	3.28	3.28	3.38
(D) condition (12°C)	COPd (declared COP)	-	6.15	6.20	6.00	6.15	6.20
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	Tol (temperature operating limit)	[°C]	-22.00	-22.00	-22.00	-22.00	-22.00
(E) T _{ol} (temperature operating limit)	Pdh (declared heating capacity)	[KW]	3.95	4.96	3.94	3.95	4.96
	COPd (declared COP)	-	1.06	1.17	1.09	1.06	1.17
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
(F) T _{bi} valent temperature	T _{bi} v	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	Pdh (declared heating capacity)	[KW]	8.73	9.40	8.20	8.73	9.40
	COPd (declared COP)	-	1.75	1.82	1.79	1.75	1.82
Supplementary capacity at P _{design}	Psup (@Tdesign: -22°C)	[KW]	6.85	6.57	6.11	6.85	6.57
Warmer climate (Design temperature = 2°C)							
Space heating 35°C	Prated (declared heating capacity) @ 2°C	[KW]	12.0	13.0	11.0	12.0	13.0
	Seasonal space heating efficiency (ηs)	[%]	257.7	246.2	252.8	257.2	245.8
	Annual energy consumption	[kWh]	2,456	2,780	2,295	2,461	2,784
Space heating 55°C	Prated (declared heating capacity) @ 2°C	[KW]	14.2	14.2	12.3	14.2	14.2
	Seasonal space heating efficiency (ηs)	[%]	172.7	173.8	171.0	172.5	173.6
	Annual energy consumption	[kWh]	4,310	4,284	3,781	4,315	4,288
Part load conditions space heating warmer climate low temperature application							
(B) condition (2°C)	Pdh (declared heating capacity)	[KW]	11.93	12.99	10.90	11.90	12.90
	COPd (declared COP)	-	3.41	3.32	3.55	3.40	3.32
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[KW]	7.70	8.33	7.01	7.65	8.28
	COPd (declared COP)	-	5.78	5.31	5.76	5.74	5.28
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90

Product fiche 5

Heat pump space heater		Outdoor				
		MHP-V4WD2N8	MHP-V6WD2N8	MHP-V8WD2N8	MHP-V10WD2N8	MHP-V12WD2N8
(D) condition (12°C)	Pdh (declared heating capacity)	1.58	1.74	2.57	2.57	3.50
	COPd (declared COP)	7.69	7.99	9.07	8.88	7.84
(E) Tol (temperature operating limit)	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
	Tol (temperature operating limit)	2.00	2.00	2.00	2.00	2.00
	Pdh (declared heating capacity)	5.23	5.82	7.45	8.33	10.99
	COPd (declared COP)	3.86	3.84	3.92	3.79	3.56
	WTOL (Heating water Operation Limit)	65	65	65	65	65
(F) Tivalent temperature	Tblv	7.00	7.00	7.00	7.00	7.00
	Pdh (declared heating capacity)	3.48	3.85	5.14	5.44	7.06
	COPd (declared COP)	5.79	5.77	6.17	6.09	5.76
Supplementary capacity at P_design	Psup (@Tdesignh: 2°C)	0.18	0.17	0.55	0.13	0.00
Part load conditions space heating warmer climate medium temperature application						
(B) condition (2°C)	Pdh (declared heating capacity)	4.66	4.85	7.38	7.89	11.90
	COPd (declared COP)	2.42	2.40	2.53	2.53	2.28
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	3.09	3.18	5.38	5.41	7.91
	COPd (declared COP)	3.54	3.53	4.01	4.01	3.80
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	1.40	1.53	2.24	2.46	3.68
	COPd (declared COP)	4.90	5.06	5.38	5.66	5.59
	Cdh(degradation coefficient)	0.90	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	2.00	2.00	2.00	2.00	2.00
	Pdh (declared heating capacity)	4.66	4.85	7.38	7.89	11.90
	COPd (declared COP)	2.42	2.40	2.53	2.53	2.28
	WTOL (Heating water Operation Limit)	65	65	65	65	65
	Tblv	7.00	7.00	7.00	7.00	7.00
(F) Tivalent temperature	Pdh (declared heating capacity)	3.09	3.18	5.38	5.41	7.91
	COPd (declared COP)	3.54	3.53	4.01	4.01	3.80
	Psup (@Tdesignh: 2°C)	0.15	0.10	0.79	0.53	0.41

Product fiche 5

Heat pump space heater		Outdoor					
		MHP-V14WD2N8	MHP-V16WD2N8	MHP-V12WD2RN8	MHP-V14WD2RN8	MHP-V16WD2RN8	MHP-V16WD2RN8
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.70	3.82	3.50	3.70	3.82
	COPd (declared COP)	-	8.15	8.02	7.84	8.15	8.02
(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
	Pdh (declared heating capacity)	[kW]	11.93	12.99	10.99	11.93	12.99
	COPd (declared COP)	-	3.41	3.32	3.56	3.41	3.32
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
	Tblv	[°C]	7.00	7.00	7.00	7.00	7.00
	Pdh (declared heating capacity)	[kW]	7.70	8.33	7.06	7.70	8.33
	COPd (declared COP)	-	5.78	5.31	5.76	5.78	5.31
Supplementary capacity at P_design	Psup (@Tdesign: 2°C)	[kW]	0.05	0.00	0.00	0.05	0.00
Part load conditions space heating warmer climate medium temperature application							
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	12.87	13.21	11.90	12.87	13.21
	COPd (declared COP)	-	2.17	2.26	2.28	2.17	2.26
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	9.11	9.11	7.91	9.11	9.11
	COPd (declared COP)	-	3.89	3.89	3.80	3.89	3.89
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	4.01	3.99	3.68	4.01	3.99
	COPd (declared COP)	-	5.80	5.76	5.59	5.80	5.76
	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]	12.87	13.21	11.90	12.87	13.21
	COPd (declared COP)	-	2.17	2.26	2.28	2.17	2.26
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
(F) Tivalent temperature	Tblv	[°C]	7.00	7.00	7.00	7.00	7.00
	Pdh (declared heating capacity)	[kW]	9.11	9.11	7.91	9.11	9.11
	COPd (declared COP)	-	3.89	3.89	3.80	3.89	3.89
	Psup (@Tdesign: 2°C)	[kW]	1.30	0.96	0.41	1.30	0.96

Product fiche 6

Heat pump space heater		MHP-V4WD2N8	MHP-V6WD2N8	MHP-V8WD2N8	MHP-V10WD2N8	MHP-V12WD2N8
		HB-P100CG HB-P100CD30G	HB-P100CG HB-P100CD30G	HB-P100CG HB-P100CD30G HB-P100CDS60G HB-P100CDS90G	HB-P100CG HB-P100CD30G HB-P100CDS60G HB-P100CDS90G	HB-P100CG HB-P100CD30G HB-P100CDS60G HB-P100CDS90G
Product description	Air-to-water heat pump	Y/N	Yes	Yes	Yes	Yes
	Water-to-water heat pump	Y/N	No	No	No	No
	Brine-to-water heat pump	Y/N	No	No	No	No
	Low-temperature heat pump	Y/N	No	No	No	No
	Equipped with a supplementary heater	Y/N	Yes	Yes	Yes	Yes
Air to water unit	Heat pump combination heater	Y/N	Yes	Yes	Yes	Yes
	Rated airflow (outdoor)	[m ³ /h]	2770	2770	4030	4060
Brine/water to water unit	Rated water/brine flow (outdoor H/E)		/	/	/	/
	Capacity control	-	Inverter	Inverter	Inverter	Inverter
Other	P _{off} (Power consumption Off mode)	[kW]	0.014	0.014	0.014	0.014
	P _{to} (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.024	0.024
	P _{sb} (Power consumption Standby mode)	[kW]	0.014	0.014	0.014	0.014
	P _{CK} (Power crankcase heater mode)	[kW]	0.000	0.000	0.000	0.000
	Q _{elec} (Daily electricity consumption)	[kWh]	/	/	/	/
	Q _{fuel} (Daily fuel consumption)	[kWh]	/	/	/	/

Note :

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.

Product fiche 6

Heat pump space heater		Outdoor	MHP-V14WD2N8	MHP-V16WD2N8	MHP-V12WD2RN8	MHP-V14WD2RN8	MHP-V16WD2RN8	
		Indoor	HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G
Product description	Air-to-water heat pump	Y/N	Yes	Yes	Yes	Yes	Yes	Yes
	Water-to-water heat pump	Y/N	No	No	No	No	No	No
	Brine-to-water heat pump	Y/N	No	No	No	No	No	No
	Low-temperature heat pump	Y/N	No	No	No	No	No	No
	Equipped with a supplementary heater	Y/N	Yes	Yes	Yes	Yes	Yes	Yes
	Heat pump combination heater	Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Air to water unit	Rated airflow (outdoor)	[m ³ /h]	4060	4650	4060	4060	4060	4650
Other	Brine/water to water unit		/	/	/	/	/	/
	Capacity control	-	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
	Poff (Power consumption Off mode)	[kW]	0.014	0.014	0.020	0.020	0.020	0.020
	Pto (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.030	0.030	0.030	0.030
	Psb (Power consumption Standby mode)	[kW]	0.014	0.014	0.020	0.020	0.020	0.020
	PCK (Power crankcase heater mode)	[kW]	0.000	0.000	0.000	0.000	0.000	0.000
	Qelec (Daily electricity consumption)	[kWh]	/	/	/	/	/	/
	Qfuel (Daily fuel consumption)	[kWh]	/	/	/	/	/	/

Note :

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.

Product fiche 7

Heat pump space cooling		Outdoor		MHP-V4WD2N8	MHP-V6WD2N8	MHP-V8WD2N8	MHP-V10WD2N8	MHP-V12WD2N8
		Indoor		HB-P100CG HB-P100CD30G	HB-P100CG HB-P100CD30G	HB-P100CG HB-P100CD30G HB-P100CDS60G HB-P100CDS90G	HB-P100CG HB-P100CD30G HB-P100CDS60G HB-P100CDS90G	HB-P100CG HB-P100CD30G HB-P100CDS60G HB-P100CDS90G
Indoor unit sound power (*)		dB		38	40	42	42	43
Outdoor unit sound power (*)		dB		56	60	60	60	65
Average climate low temperature application		dB		56	58	60	60	64
Average climate medium temperature application		dB		4.6	6.9	7.3	8.1	11.4
Prated (declared cooling capacity) @ 35°C		[kW]		190.2	205.3	225.6	231.2	191.8
Seasonal space cooling efficiency (ηs)		[%]		569	792	769	828	1,402
Annual energy consumption		[kWh]		4.4	6.4	8.2	9.8	11.9
Prated (declared cooling capacity) @ 35°C		[kW]		302.5	322.1	351.6	343.8	280.3
Seasonal space cooling efficiency (ηs)		[%]		348	474	557	680	1,010
Annual energy consumption		[kWh]						
Part load conditions space cooling: low temperature application@7°C								
Pdc (declared cooling capacity)		[kW]		4.58	6.88	7.33	8.08	11.38
EERd (declared EER)		-		3.36	2.95	3.29	3.20	2.72
Cdc(degradation coefficient)		-		0.90	0.90	0.90	0.90	0.90
Pdc (declared cooling capacity)		[kW]		3.57	5.04	5.63	6.59	8.67
EERd (declared EER)		-		4.64	3.93	4.63	4.41	3.89
Cdc(degradation coefficient)		-		0.90	0.90	0.90	0.90	0.90
Pdc (declared cooling capacity)		[kW]		2.14	3.41	3.55	4.19	5.74
EERd (declared EER)		-		5.55	6.33	6.53	6.91	5.67
Cdc(degradation coefficient)		-		0.90	0.90	0.90	0.90	0.90
Pdc (declared cooling capacity)		[kW]		0.90	1.49	1.60	1.90	2.59
EERd (declared EER)		-		5.49	7.54	8.36	9.36	6.65
Cdc(degradation coefficient)		-		0.90	0.90	0.90	0.90	0.90

Product fiche 7

Heat pump space cooling		Outdoor							
		MHP-V14WD2N8 HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	MHP-V16WD2N8 HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	MHP-V12WD2RN8 HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	MHP-V14WD2RN8 HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	MHP-V16WD2RN8 HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	MHP-V16WD2RN8 HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G		
Indoor unit sound power (*)	Indoor	44	44	43	44	44	44	44	44
Outdoor unit sound power (*)	Outdoor	65	69	65	65	65	65	65	69
Average climate low temperature application	dB	64	69	64	64	64	64	64	69
Average climate medium temperature application	dB	12.3	13.9	11.4	12.3	12.3	12.3	12.3	13.9
Prated (declared cooling capacity) @ 35°C	[kW]	189.7	182.8	190.7	188.7	188.7	188.7	188.7	181.9
Seasonal space cooling efficiency (ηs)	[%]	1,529	1,793	1,410	1,537	1,537	1,537	1,537	1,801
Annual energy consumption	[kWh]	13.4	14.1	11.9	13.4	13.4	13.4	13.4	14.1
Prated (declared cooling capacity) @ 35°C	[kW]	273.0	265.5	278.0	271.0	271.0	271.0	271.0	263.7
Seasonal space cooling efficiency (ηs)	[%]	1,168	1,263	1,019	1,176	1,176	1,176	1,176	1,271
Annual energy consumption	[kWh]								
Part load conditions space cooling: low temperature application@7°C									
(A) condition (35°C)	Pdc (declared cooling capacity)	12.28	13.88	11.38	12.28	12.28	12.28	12.28	13.88
	EERd (declared EER)	2.48	2.48	2.72	2.48	2.48	2.48	2.48	2.48
	Cdc(degradation coefficient)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(B) condition (30°C)	Pdc (declared cooling capacity)	9.32	10.59	8.67	9.32	9.32	9.32	9.32	10.59
	EERd (declared EER)	3.81	3.60	3.89	3.81	3.81	3.81	3.81	3.60
	Cdc(degradation coefficient)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(C) condition (25°C)	Pdc (declared cooling capacity)	6.09	6.69	5.74	6.09	6.09	6.09	6.09	6.69
	EERd (declared EER)	5.74	5.22	5.67	5.74	5.74	5.74	5.74	5.22
	Cdc(degradation coefficient)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
(D) condition (20°C)	Pdc (declared cooling capacity)	2.59	3.37	2.59	2.59	2.59	2.59	2.59	3.37
	EERd (declared EER)	6.64	7.21	6.65	6.64	6.64	6.64	6.64	7.21
	Cdc(degradation coefficient)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90

Product fiche 8

Heat pump space cooling		Part load conditions space cooling : medium temperature application@18°C					
		Outdoor	MHP-V4WD2N8 HB-P100CG HB-P100CD30G	MHP-V6WD2N8 HB-P100CG HB-P100CD30G	MHP-V8WD2N8 HB-P100CG HB-P100CD30G HB-P100CDS60G HB-P100CDS90G	MHP-V10WD2N8 HB-P100CG HB-P100CD30G HB-P100CDS60G HB-P100CDS90G	MHP-V12WD2N8 HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G
(A) condition (35°C)	Pdc (declared cooling capacity)	[kW]	4.43	6.43	8.23	9.83	11.93
	EERd (declared EER)	-	5.41	4.74	5.00	4.52	3.93
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (30°C)	Pdc (declared cooling capacity)	[kW]	3.39	4.79	6.42	7.66	9.16
	EERd (declared EER)	-	7.12	7.08	6.96	6.41	5.47
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (25°C)	Pdc (declared cooling capacity)	[kW]	2.16	3.23	4.28	5.00	5.71
	EERd (declared EER)	-	8.81	9.55	10.59	10.30	8.61
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (20°C)	Pdc (declared cooling capacity)	[kW]	1.11	1.39	1.78	2.30	3.31
	EERd (declared EER)	-	10.28	11.30	13.44	14.84	10.00
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
Air to water unit	Rated airflow (outdoor)	[m3/h]	2770	2770	4030	4030	4060
Brine/water to water unit	Rated water/brine flow (outdoor H/E)		/	/	/	/	/
	Capacity control	-	Inverter	Inverter	Inverter	Inverter	Inverter
Other	Poff (Power consumption Off mode)	[kW]	0.014	0.014	0.014	0.014	0.014
	Pto (Power consumption Thermostat off mode)	[kW]	0.010	0.010	0.010	0.010	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]	/	/	/	/	/

Product fiche 8

Heat pump space cooling		Part load conditions space cooling: medium temperature application@18°C					
		MHP-V14WD2N8	MHP-V16WD2N8	MHP-V12WD2RN8	MHP-V14WD2RN8	MHP-V16WD2RN8	
(A) condition (35°C)	Outdoor	13.43	14.13	11.93	13.43	14.13	
	Indoor	HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	HB-P160CG HB-P160CD30G HB-P160CDS60G HB-P160CDS90G	
(B) condition (30°C)	Pdc (declared cooling capacity)	[kW]	13.43	14.13	11.93	13.43	14.13
	EERd (declared EER)	-	3.59	3.59	3.93	3.59	3.59
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (25°C)	Pdc (declared cooling capacity)	[kW]	10.15	11.37	9.16	10.15	11.37
	EERd (declared EER)	-	5.23	5.12	5.47	5.23	5.12
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (20°C)	Pdc (declared cooling capacity)	[kW]	6.54	7.24	5.71	6.54	7.24
	EERd (declared EER)	-	8.41	7.80	8.61	8.41	7.80
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
Air to water unit	Pdc (declared cooling capacity)	[kW]	3.31	3.38	3.31	3.31	3.38
	EERd (declared EER)	-	10.00	10.28	10.00	10.00	10.28
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
Brine/water to water unit	Rated airflow (outdoor)	[m3/h]	4060	4650	4060	4060	4650
	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	0.020	0.020	0.020
	Pto (Power consumption Thermostat off mode)	[kW]	0.010	0.010	0.010	0.010	0.010
	Psb (Power consumption Standby mode)	[kW]	0.014	0.014	0.020	0.020	0.020
	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]	/	/	/	/	/

Condition(°C)	Model	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: 35/24 Water Temperature: 12/7	CE-LRSJF-V40/N8-C01(B)-B	4.50	1.36	3.30
	CE-LRSJF-V60/N8-C01(B)-B	6.80	2.33	2.90
	CE-LRSJF-V80/N8-5R0(B)-B	7.25	2.22	3.25
	CE-LRSJF-V100/N8-5R0(B)-B	8.00	2.52	3.15
	CE-LRSJF-V120/N8-5R0(B)-B	11.30	4.18	2.70
	CE-LRSJF-V140/N8-5R0(B)-B	12.20	4.96	2.45
	CE-LRSJF-V160/N8-5R0(B)-B	13.80	5.60	2.45
	CE-LRSJF-V120/SN8-5R0(B)-B	11.30	4.18	2.70
	CE-LRSJF-V140/SN8-5R0(B)-B	12.20	4.96	2.45
	CE-LRSJF-V160/SN8-5R0(B)-B	13.80	5.60	2.45
Ambient Temperature: 35/24 Water Temperature: 23/18	CE-LRSJF-V40/N8-C01(B)-B	4.40	0.82	5.35
	CE-LRSJF-V60/N8-C01(B)-B	6.40	1.35	4.75
	CE-LRSJF-V80/N8-5R0(B)-B	8.20	1.64	5.00
	CE-LRSJF-V100/N8-5R0(B)-B	9.80	2.18	4.50
	CE-LRSJF-V120/N8-5R0(B)-B	11.90	3.05	3.90
	CE-LRSJF-V140/N8-5R0(B)-B	13.40	3.71	3.61
	CE-LRSJF-V160/N8-5R0(B)-B	14.20	3.93	3.61
	CE-LRSJF-V120/SN8-5R0(B)-B	11.90	3.05	3.90
	CE-LRSJF-V140/SN8-5R0(B)-B	13.40	3.71	3.61
	CE-LRSJF-V160/SN8-5R0(B)-B	14.20	3.93	3.61
Ambient Temperature: 7/6 Water Temperature: 30/35	CE-LRSJF-V40/N8-C01(B)-B	4.10	0.82	5.00
	CE-LRSJF-V60/N8-C01(B)-B	6.25	1.28	4.90
	CE-LRSJF-V80/N8-5R0(B)-B	8.30	1.63	5.10
	CE-LRSJF-V100/N8-5R0(B)-B	9.90	2.02	4.90
	CE-LRSJF-V120/N8-5R0(B)-B	12.00	2.45	4.90
	CE-LRSJF-V140/N8-5R0(B)-B	14.40	3.16	4.55
	CE-LRSJF-V160/N8-5R0(B)-B	15.80	3.55	4.45
	CE-LRSJF-V120/SN8-5R0(B)-B	12.00	2.45	4.90
	CE-LRSJF-V140/SN8-5R0(B)-B	14.40	3.16	4.55
	CE-LRSJF-V160/SN8-5R0(B)-B	15.80	3.55	4.45
Ambient Temperature: 2/1 Water Temperature: 30/35	CE-LRSJF-V40/N8-C01(B)-B	4.30	1.10	3.90
	CE-LRSJF-V60/N8-C01(B)-B	5.40	1.41	3.80
	CE-LRSJF-V80/N8-5R0(B)-B	7.00	1.73	4.05
	CE-LRSJF-V100/N8-5R0(B)-B	8.10	2.05	3.95
	CE-LRSJF-V120/N8-5R0(B)-B	9.10	2.36	3.85
	CE-LRSJF-V140/N8-5R0(B)-B	10.90	3.06	3.55
	CE-LRSJF-V160/N8-5R0(B)-B	12.90	3.77	3.40
	CE-LRSJF-V120/SN8-5R0(B)-B	9.10	2.36	3.85
	CE-LRSJF-V140/SN8-5R0(B)-B	10.90	3.06	3.55
	CE-LRSJF-V160/SN8-5R0(B)-B	12.90	3.77	3.40

Condition(°C)	Model	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: -7/-8 Water Temperature: 30/35	CE-LRSJF-V40/N8-C01(B)-B	4.50	1.52	2.95
	CE-LRSJF-V60/N8-C01(B)-B	5.80	2.00	2.90
	CE-LRSJF-V80/N8-5R0(B)-B	6.80	2.19	3.10
	CE-LRSJF-V100/N8-5R0(B)-B	7.80	2.62	2.95
	CE-LRSJF-V120/N8-5R0(B)-B	9.80	3.33	2.95
	CE-LRSJF-V140/N8-5R0(B)-B	11.80	4.21	2.80
	CE-LRSJF-V160/N8-5R0(B)-B	12.90	4.85	2.65
	CE-LRSJF-V120/SN8-5R0(B)-B	9.80	3.33	2.95
	CE-LRSJF-V140/SN8-5R0(B)-B	11.80	4.21	2.80
	CE-LRSJF-V160/SN8-5R0(B)-B	12.90	4.85	2.65
Ambient Temperature: 7/6 Water Temperature: 40/45	CE-LRSJF-V40/N8-C01(B)-B	4.10	1.13	3.60
	CE-LRSJF-V60/N8-C01(B)-B	6.10	1.70	3.60
	CE-LRSJF-V80/N8-5R0(B)-B	7.90	2.10	3.75
	CE-LRSJF-V100/N8-5R0(B)-B	9.80	2.67	3.65
	CE-LRSJF-V120/N8-5R0(B)-B	12.10	3.32	3.65
	CE-LRSJF-V140/N8-5R0(B)-B	13.90	3.92	3.55
	CE-LRSJF-V160/N8-5R0(B)-B	15.80	4.57	3.45
	CE-LRSJF-V120/SN8-5R0(B)-B	12.10	3.32	3.65
	CE-LRSJF-V140/SN8-5R0(B)-B	13.90	3.92	3.55
	CE-LRSJF-V160/SN8-5R0(B)-B	15.80	4.57	3.45
Ambient Temperature: 2/1 Water Temperature: 40/45	CE-LRSJF-V40/N8-C01(B)-B	4.90	1.70	2.85
	CE-LRSJF-V60/N8-C01(B)-B	5.60	1.93	2.90
	CE-LRSJF-V80/N8-5R0(B)-B	7.20	2.28	3.15
	CE-LRSJF-V100/N8-5R0(B)-B	7.65	2.45	3.10
	CE-LRSJF-V120/N8-5R0(B)-B	10.40	3.53	2.95
	CE-LRSJF-V140/N8-5R0(B)-B	11.30	4.04	2.80
	CE-LRSJF-V160/N8-5R0(B)-B	12.50	4.46	2.80
	CE-LRSJF-V120/SN8-5R0(B)-B	10.40	3.53	2.95
	CE-LRSJF-V140/SN8-5R0(B)-B	11.30	4.04	2.80
	CE-LRSJF-V160/SN8-5R0(B)-B	12.50	4.46	2.80
Ambient Temperature: -7/-8 Water Temperature: 40/45	CE-LRSJF-V40/N8-C01(B)-B	4.10	1.83	2.25
	CE-LRSJF-V60/N8-C01(B)-B	5.20	2.25	2.30
	CE-LRSJF-V80/N8-5R0(B)-B	6.40	2.59	2.45
	CE-LRSJF-V100/N8-5R0(B)-B	7.15	2.88	2.45
	CE-LRSJF-V120/N8-5R0(B)-B	10.00	4.25	2.35
	CE-LRSJF-V140/N8-5R0(B)-B	11.50	4.98	2.30
	CE-LRSJF-V160/N8-5R0(B)-B	12.60	5.69	2.20
	CE-LRSJF-V120/SN8-5R0(B)-B	10.00	4.25	2.35
	CE-LRSJF-V140/SN8-5R0(B)-B	11.50	4.98	2.30
	CE-LRSJF-V160/SN8-5R0(B)-B	12.60	5.69	2.20

Condition(°C)	Model	Capacity (kW)	Power input (kW)	EER/COP (/)
Ambient Temperature: 7/6 Water Temperature: 47/55	CE-LRSJF-V40/N8-C01(B)-B	4.20	1.49	2.80
	CE-LRSJF-V60/N8-C01(B)-B	5.80	2.03	2.85
	CE-LRSJF-V80/N8-5R0(B)-B	7.30	2.36	3.05
	CE-LRSJF-V100/N8-5R0(B)-B	9.30	3.06	3.00
	CE-LRSJF-V120/N8-5R0(B)-B	11.70	3.90	3.00
	CE-LRSJF-V140/N8-5R0(B)-B	13.60	4.68	2.90
	CE-LRSJF-V160/N8-5R0(B)-B	15.80	5.61	2.80
	CE-LRSJF-V120/SN8-5R0(B)-B	11.70	3.90	3.00
	CE-LRSJF-V140/SN8-5R0(B)-B	13.60	4.68	2.90
	CE-LRSJF-V160/SN8-5R0(B)-B	15.80	5.61	2.80
Ambient Temperature: 2/1 Water Temperature: 47/55	CE-LRSJF-V40/N8-C01(B)-B	4.90	2.08	2.35
	CE-LRSJF-V60/N8-C01(B)-B	5.45	2.31	2.35
	CE-LRSJF-V80/N8-5R0(B)-B	6.90	2.73	2.50
	CE-LRSJF-V100/N8-5R0(B)-B	7.90	3.16	2.50
	CE-LRSJF-V120/N8-5R0(B)-B	11.10	4.52	2.45
	CE-LRSJF-V140/N8-5R0(B)-B	12.20	5.06	2.40
	CE-LRSJF-V160/N8-5R0(B)-B	13.10	5.54	2.35
	CE-LRSJF-V120/SN8-5R0(B)-B	11.10	4.52	2.45
	CE-LRSJF-V140/SN8-5R0(B)-B	12.20	5.06	2.40
	CE-LRSJF-V160/SN8-5R0(B)-B	13.10	5.54	2.35
Ambient Temperature: -7/-8 Water Temperature: 47/55	CE-LRSJF-V40/N8-C01(B)-B	3.80	2.05	1.85
	CE-LRSJF-V60/N8-C01(B)-B	4.95	2.58	1.90
	CE-LRSJF-V80/N8-5R0(B)-B	5.95	3.00	1.95
	CE-LRSJF-V100/N8-5R0(B)-B	6.65	3.43	1.90
	CE-LRSJF-V120/N8-5R0(B)-B	9.60	4.78	2.00
	CE-LRSJF-V140/N8-5R0(B)-B	10.80	5.37	2.00
	CE-LRSJF-V160/N8-5R0(B)-B	12.30	6.25	1.95
	CE-LRSJF-V120/SN8-5R0(B)-B	9.60	4.78	2.00
	CE-LRSJF-V140/SN8-5R0(B)-B	10.80	5.37	2.00
	CE-LRSJF-V160/SN8-5R0(B)-B	12.30	6.25	1.95

ErP Information

Fan Types	Axial fan		
Directive (or Standard) for Regulation	ErP Directive 2009/125/EC COMMISSION REGULATION (EU) No 327/2011		
Model Name	WZDK170-38G-1+ ZL-580*190*15-3	Rev.	
Prepare by			

Specified Information of Fan:

No.	Information Item	Comment
1	$\eta_{\text{target}} =$	29.1%
2	Overall efficiency (η_e) =	33.1%
3	Pass or not (Criteria: $\eta_e \geq \eta_{\text{target}}$)	Pass
4	Measurement category (A-D)	A
5	Efficiency category (static or total)	Static
6	Efficiency grade at optimum energy efficiency point	N =43.9
7	VSD is integrated within the fan	YES
8	Year of Manufacture	Ref. to the Unit Nameplate
9	Manufacturer's name and place of manufacture	Ref. to the Unit Nameplate
10.1	Rated motor power input(s) (kW), at optimum energy efficiency	0.190kw
10.2	Rated motor flow rate(s) at optimum energy efficiency	1.368m ³ /s
10.3	Rated motor pressure(s) at optimum energy efficiency	40Pa
11	Rotations per minute (R.P.M)at the optimum energy efficiency point	800r/min
12	Specific ratio	1.001
13	Information relevant for facilitating disassembly, recycling or disposal at end-of-life	all materials can be recycled
14	Information relevant to minimize impact on the environment and ensure optimal life expectancy as regards installation, use and maintenance of the fan	For installation, the clearance of 500 mm shall be kept from inlet
15	Description of additional items used when determining the fan energy efficiency, such as ducts, that are not described in the measurement category and not supplied with the fan.	Measure ment category A, fan is free inlet and outlet conditions
16	Motor manufacturer	NIDEC SHIBAURA (ZHE JIANG) CORP.

ErP Information

Fan Types	Axial fan		
Directive (or Standard) for Regulation	ErP Directive 2009/125/EC COMMISSION REGULATION (EU) No 327/2011		
Model Name	WZDK170-38G-1+ ZL-580*190*15-3	Rev.	
Prepare by			

Specified Information of Fan:

No.	Information Item	Comment
1	$\eta_{\text{target}} =$	29.1%
2	Overall efficiency (η_e) =	33.7%
3	Pass or not (Criteria: $\eta_e \geq \eta_{\text{target}}$)	Pass
4	Measurement category (A-D)	A
5	Efficiency category (static or total)	Static
6	Efficiency grade at optimum energy efficiency point	N =44.6
7	VSD is integrated within the fan	YES
8	Year of Manufacture	Ref. to the Unit Nameplate
9	Manufacturer's name and place of manufacture	Ref. to the Unit Nameplate
10.1	Rated motor power input(s) (kW), at optimum energy efficiency	0.186kw
10.2	Rated motor flow rate(s) at optimum energy efficiency	1.37m ³ /s
10.3	Rated motor pressure(s) at optimum energy efficiency	40Pa
11	Rotations per minute (R.P.M)at the optimum energy efficiency point	800r/min
12	Specific ratio	1.001
13	Information relevant for facilitating disassembly, recycling or disposal at end-of-life	all materials can be recycled
14	Information relevant to minimize impact on the environment and ensure optimal life expectancy as regards installation, use and maintenance of the fan	For installation, the clearance of 500 mm shall be kept from inlet
15	Description of additional items used when determining the fan energy efficiency,such as ducts, that are not described in the measurement category and not supplied with the fan.	Measurement category A, fan is free inlet and outlet conditions
16	Motor manufacturer	GUANGDONG WELLING MOTOR MANUFACTURING CO.,LTD.

ErP Information

Fan Types	Axial fan		
Directive (or Standard) for Regulation	ErP Directive 2009/125/EC COMMISSION REGULATION (EU) No 327/2011		
Model Name	WZDK170-38G-1+ ZL-580*190*15-3	Rev.	
Prepare by			

Specified Information of Fan:

No.	Information Item	Comment
1	$\eta_{\text{target}} =$	29.0%
2	Overall efficiency (η_e) =	34.6%
3	Pass or not (Criteria: $\eta_e \geq \eta_{\text{target}}$)	Pass
4	Measurement category (A-D)	A
5	Efficiency category (static or total)	Static
6	Efficiency grade at optimum energy efficiency point	N =45.7
7	VSD is integrated within the fan	YES
8	Year of Manufacture	Ref. to the Unit Nameplate
9	Manufacturer's name and place of manufacture	Ref. to the Unit Nameplate
10.1	Rated motor power input(s) (kW), at optimum energy efficiency	0.180kW
10.2	Rated motor flow rate(s) at optimum energy efficiency	1.378m ³ /s
10.3	Rated motor pressure(s) at optimum energy efficiency	40Pa
11	Rotations per minute (R.P.M)at the optimum energy efficiency point	800r/min
12	Specific ratio	1.001
13	Information relevant for facilitating disassembly, recycling or disposal at end-of-life	all materials can be recycled
14	Information relevant to minimize impact on the environment and ensure optimal life expectancy as regards installation, use and maintenance of the fan	For installation, the clearance of 500 mm shall be kept from inlet
15	Description of additional items used when determining the fan energy efficiency,such as ducts, that are not described in the measurement category and not supplied with the fan.	Measurement category A, fan is free inlet and outlet conditions
16	Motor manufacturer	Panasonic Motor (HangZhou) CO.,LTD.

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印刷技术要求

材质	双胶纸80g
规格	210*297(双面)
颜色	黑白
其他	

设计更改记录表（仅做说明用，不做菲林）

版本升级	更改人	更改日期	更改主要内容	涉及更改页面 (印刷页码)
A-B	王勇	23.2.16	修改参数	P1.2.3等
C-D	吴臻茂	23.3.30	见附件更改表	见附件更改表
D-E	王勇	23.6.5	见附件更改表	见附件更改表
V. E-V. F	钟永华	2024. 1. 16	见附件修改记录表	见附件修改记录表