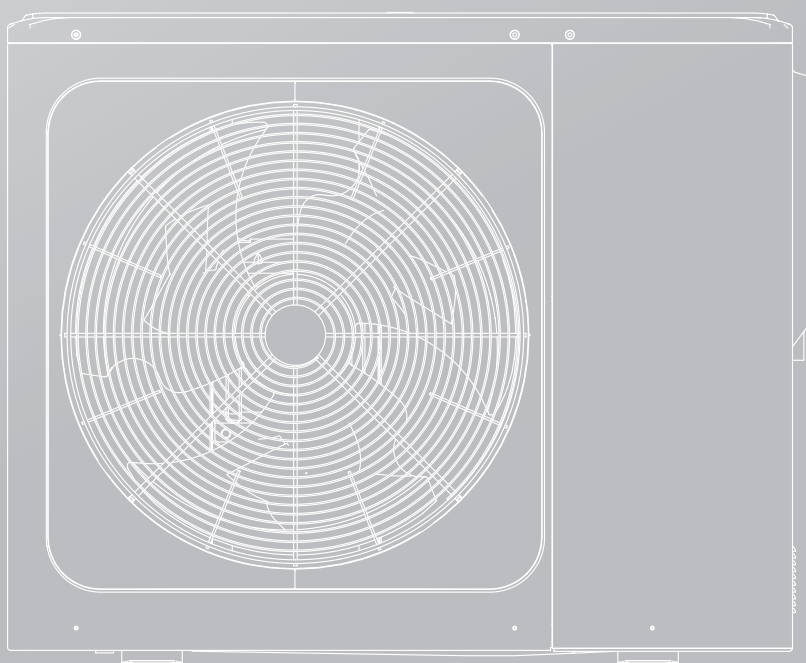


TECHNICAL DATA MANUAL

Mini Inverter 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.

Temperature application

Model	For medium - temperature application												
	Energy efficiency class	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	kW	%	kWh	kW	%	kWh	kW	%	kWh	kW	%	kWh
MGC-V5WD2N8-B	A++	60	6.4	140.7	3655	5.2	113.1	4428	6.2	170.9	1895		
MGC-V7WD2N8-B	A++	63	7.3	143.6	4088	6.1	117.7	4948	8.1	185.3	2303		
MGC-V9WD2N8-B	A++	65	8.2	145.5	4539	7.2	122.4	5665	9.0	193.4	2458		
MGC-V12WD2N8-B	A++	70	12.5	141.6	7148	11.3	126.0	8628	12.0	179.0	3524		
MGC-V12WD2RN8-B	A++	70	12.5	141.6	7146	11.3	126.0	8639	12.0	178.8	3527		
MGC-V14WD2N8-B	A++	72	14.2	141.8	8079	12.5	126.6	9496	14.2	184.6	4040		
MGC-V14WD2RN8-B	A++	72	14.2	141.8	8106	12.5	126.6	9508	14.2	183.1	4079		
MGC-V16WD2N8-B	A++	72	14.7	140.6	8471	13.5	124.3	10473	14.5	184.0	4154		
MGC-V16WD2RN8-B	A++	72	14.7	140.6	8457	13.5	124.3	10459	14.5	184.0	4145		

Model	For low - temperature application												
	Energy efficiency class	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	kW	%	kWh	kW	%	kWh	kW	%	kWh	kW	%	kWh
MGC-V5WD2N8-B	A+++	60	6.5	201.8	2631	6.1	173.4	3425	6.2	268.2	1229		
MGC-V7WD2N8-B	A+++	63	7.9	204.0	3155	7.5	174.6	4166	8.1	274.7	1551		
MGC-V9WD2N8-B	A+++	65	9.1	201.9	3654	8.3	174.6	4591	9.0	279.1	1714		
MGC-V12WD2N8-B	A+++	70	12.3	200.1	5004	12.5	168.8	7153	12.1	262.3	2437		
MGC-V12WD2RN8-B	A+++	70	12.3	200.1	5004	12.5	168.8	7175	12.1	262.1	2439		
MGC-V14WD2N8-B	A+++	72	14.2	192.5	5984	14.3	171.3	8095	13.2	260.5	2684		
MGC-V14WD2RN8-B	A+++	72	14.2	192.4	6005	14.3	171.3	8090	13.2	260.5	2677		
MGC-V16WD2N8-B	A+++	72	15.2	190.5	6510	15.1	170.9	8546	14.2	255.3	2937		
MGC-V16WD2RN8-B	A+++	72	15.2	190.5	6491	15.1	170.9	8563	14.2	255.2	2939		

Product fiche 1

Mini Inverter heat pump space heating						
	Outdoor	MGC-V5WD2N8-B	MGC-V7WD2N8-B	MGC-V9WD2N8-B	MGC-V12WD2N8-B	MGC-V14WD2N8-B
Outdoor unit sound power (*)	dB	60	63	65	70	72
Average climate low temperature application	dB	60	63	65	70	72
Average climate medium temperature application	-	A+++	A+++	A+++	A+++	A+++
Energy efficiency class 35°C (Low temp. app.)	-	A++	A++	A++	A++	A++
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]	6.5	7.9	9.1	12.3
	Seasonal space heating efficiency (ηs)	[%]	201.8	204.0	201.9	200.1
	Annual energy consumption	[kWh]	2,631	3,155	3,654	5,004
Space heating 55°C	Prated (declared heating capacity) @ -10°C	[kW]	6.4	7.3	8.2	12.5
	Seasonal space heating efficiency (ηs)	[%]	140.7	143.6	145.5	141.6
	Annual energy consumption	[kWh]	3,655	4,088	4,539	7,148
Part load conditions space heating average climate low temperature application						
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	5.77	6.99	8.02	10.85
	COPd (declared COP)	-	3.43	3.29	3.09	3.11
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	3.74	4.51	5.06	6.79
	COPd (declared COP)	-	5.04	4.99	4.92	4.86
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	2.32	2.81	3.22	4.79
	COPd (declared COP)	-	6.06	6.72	7.03	6.98
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.87	1.87	1.87	3.73
	COPd (declared COP)	-	9.12	9.12	9.12	9.02
	Cdh(degradation coefficient)	-	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
	Pdh (declared heating capacity)	[kW]	6.52	7.46	7.88	12.30
	COPd (declared COP)	-	3.00	2.87	2.87	2.80
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65

Product fiche 1

Mini Inverter heat pump space heating						
	Average climate low temperature application	Outdoor	MGC-V16WD2N8-B	MGC-V12WD2RN8-B	MGC-V14WD2RN8-B	MGC-V16WD2RN8-B
Outdoor unit sound power (*)	dB		72	70	72	72
Space heating	dB		72	70	72	72
Space heating	-		A+++	A+++	A+++	A+++
Space heating	-		A++	A++	A++	A++
Average climate (Design temperature = -10°C)						
Space heating 35°C	Prated (declared heating capacity) @ -10°C	[kW]	15.2	12.3	14.2	15.2
	Seasonal space heating efficiency (ηs)	[%]	190.5	200.1	192.4	190.5
	Annual energy consumption	[kWh]	6,510	5,004	6,005	6,491
Space heating 55°C	Prated (declared heating capacity) @ -10°C	[kW]	14.7	12.5	14.2	14.7
	Seasonal space heating efficiency (ηs)	[%]	140.6	141.6	141.8	140.7
	Annual energy consumption	[kWh]	8,471	7,146	8,106	8,457
Part load conditions space heating average climate low temperature application						
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	13.49	10.85	12.52	13.49
	COPd (declared COP)	-	2.87	3.11	2.97	2.87
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	8.59	6.79	7.98	8.59
	COPd (declared COP)	-	4.53	4.86	4.56	4.53
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	5.55	4.79	5.04	5.55
	COPd (declared COP)	-	7.01	6.98	7.01	7.01
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	3.73	3.73	3.73	3.73
	COPd (declared COP)	-	9.02	9.02	9.02	9.02
	Cdh(degradation coefficient)	-	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
	Pdh (declared heating capacity)	[kW]	14.05	12.30	13.41	14.05
	COPd (declared COP)	-	2.65	2.80	2.66	2.65
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65

Product fiche 2

Mini Inverter heat pump space heating							
	Tbiv	Outdoor	MGC-V5WD2N8-B	MGC-V7WD2N8-B	MGC-V9WD2N8-B	MGC-V12WD2N8-B	MGC-V14WD2N8-B
(F) Tivalent temperature		[°C]	-7.00	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	5.77	6.99	8.02	10.85	12.52
	COPd (declared COP)	-	3.43	3.29	3.09	3.11	2.97
	Psup (@Tdesignh: -10°C)	[kW]	0.00	0.44	1.18	0.00	0.75
Part load conditions space heating average climate medium temperature application							
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	5.62	6.42	7.21	11.06	12.52
	COPd (declared COP)	-	2.36	2.31	2.24	2.15	2.20
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	3.52	4.03	4.56	6.91	7.71
	COPd (declared COP)	-	3.70	3.76	3.86	3.59	3.58
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	2.20	2.56	2.84	4.64	5.07
	COPd (declared COP)	-	4.21	4.48	4.58	5.07	5.06
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.31	1.31	1.31	2.15	2.15
	COPd (declared COP)	-	4.96	4.96	4.96	4.52	4.52
	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]	6.04	6.85	7.01	10.97	11.51
	COPd (declared COP)	-	2.02	1.98	1.97	1.98	1.96
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
(F) Tivalent temperature	Tbiv	[°C]	-7.00	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	5.62	6.42	7.21	11.06	12.52
	COPd (declared COP)	-	2.36	2.31	2.24	2.15	2.20
	Psup (@Tdesignh: -10°C)	[kW]	0.32	0.40	1.14	1.53	2.65
Colder climate (Design temperature = -22°C)							
Space heating 35°C	Prated (declared heating capacity) @ -22°C	[kW]	6.1	7.5	8.3	12.5	14.3
	Seasonal space heating efficiency (ηs)	[%]	173.4	174.6	174.6	168.8	171.3
	Annual energy consumption	[kWh]	3,425	4,166	4,591	7,153	8,095

Product fiche 2

Mini Inverter heat pump space heating						
	Outdoor	MGC-V16WD2N8-B	MGC-V12WD2RN8-B	MGC-V14WD2RN8-B	MGC-V16WD2RN8-B	
(F) Tivalent temperature	Tbiv [°C]	-7.00	-7.00	-7.00	-7.00	
	Pdh (declared heating capacity) [kW]	13.49	10.85	12.52	13.49	
	COPd (declared COP) -	2.87	3.11	2.97	2.87	
Supplementary capacity at P_design	Psup (@Tdesignh: -10°C) [kW]	1.18	0.00	0.75	1.18	
Part load conditions space heating average climate medium temperature application						
(A) condition (-7°C)	Pdh (declared heating capacity) [kW]	13.03	11.06	12.52	13.03	
	COPd (declared COP) -	2.16	2.15	2.20	2.16	
	Cdh(degradation coefficient) -	0.90	0.90	0.90	0.90	
(B) condition (2°C)	Pdh (declared heating capacity) [kW]	8.50	6.91	7.71	8.50	
	COPd (declared COP) -	3.55	3.59	3.58	3.55	
	Cdh(degradation coefficient) -	0.90	0.90	0.90	0.90	
(C) condition (7°C)	Pdh (declared heating capacity) [kW]	5.27	4.64	5.07	5.27	
	COPd (declared COP) -	5.05	5.07	5.06	5.05	
	Cdh(degradation coefficient) -	0.90	0.90	0.90	0.90	
(D) condition (12°C)	Pdh (declared heating capacity) [kW]	2.15	2.15	2.15	2.15	
	COPd (declared COP) -	4.52	4.52	4.52	4.52	
	Cdh(degradation coefficient) -	0.90	0.90	0.90	0.90	
(E) ToI (temperature operating limit)	ToI (temperature operating limit) [°C]	-10.00	-10.00	-10.00	-10.00	
	Pdh (declared heating capacity) [kW]	12.07	10.97	11.51	12.07	
	COPd (declared COP) -	1.94	1.98	1.96	1.94	
	WTOL (Heating water Operation Limit) [°C]	65	65	65	65	
(F) Tivalent temperature	Tbiv [°C]	-7.00	-7.00	-7.00	-7.00	
	Pdh (declared heating capacity) [kW]	13.03	11.06	12.52	13.03	
	COPd (declared COP) -	2.16	2.15	2.20	2.16	
Supplementary capacity at P_design	Psup (@Tdesignh: -10°C) [kW]	2.63	1.53	2.65	2.63	
Colder climate (Design temperature = -22°C)						
Space heating 35°C	Prated (declared heating capacity) @ -22°C [kW]	15.1	12.5	14.3	15.1	
	Seasonal space heating efficiency (ηs) [%]	170.9	168.8	171.3	170.9	
	Annual energy consumption [kWh]	8,546	7,175	8,090	8,563	

Product fiche 3

Mini Inverter heat pump space heating						
	Outdoor	MGC-V5WD2N8-B	MGC-V7WD2N8-B	MGC-V9WD2N8-B	MGC-V12WD2N8-B	MGC-V14WD2N8-B
Space heating 55°C						
Prated (declared heating capacity) @ -22°C	[kW]	5.2	6.1	7.2	11.3	12.5
Seasonal space heating efficiency (ηs)	[%]	113.1	117.7	122.4	126.0	126.6
Annual energy consumption	[kWh]	4,428	4,948	5,665	8,628	9,496
Part load conditions space heating colder climate low temperature application						
(A) condition (-7°C)						
Pdh (declared heating capacity)	[kW]	4.11	4.42	5.42	8.08	8.74
COPd (declared COP)	-	3.76	3.67	3.72	3.64	3.59
Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (2°C)						
Pdh (declared heating capacity)	[kW]	2.38	2.99	3.14	4.93	5.52
COPd (declared COP)	-	5.33	5.50	5.56	5.34	5.35
Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)						
Pdh (declared heating capacity)	[kW]	1.66	2.03	2.16	3.17	3.70
COPd (declared COP)	-	5.78	6.69	6.55	5.28	7.06
Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)						
Pdh (declared heating capacity)	[kW]	1.87	1.87	1.87	3.69	3.69
COPd (declared COP)	-	9.12	9.12	9.12	9.34	9.34
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]	4.21	4.78	5.08	8.72	9.14
COPd (declared COP)	-	2.12	2.16	2.01	2.08	2.02
WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
(F) Tivalent temperature						
Tbiv (Tivalent temperature)	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
Pdh (declared heating capacity)	[kW]	5.00	6.12	6.75	10.17	11.67
COPd (declared COP)	-	3.02	2.70	2.59	2.66	2.58
Supplementary capacity at P_design						
Psup (@Tdesign: -22°C)	[kW]	1.92	2.72	3.19	3.78	5.17
Part load conditions space heating colder climate medium temperature application						
(A) condition (-7°C)						
Pdh (declared heating capacity)	[kW]	3.21	3.95	4.59	7.09	7.80
COPd (declared COP)	-	2.60	2.75	2.72	2.75	2.77
Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90

Product fiche 3

Mini Inverter heat pump space heating						
	Outdoor	MGC-V16WD2N8-B	MGC-V12WD2RN8-B	MGC-V14WD2RN8-B	MGC-V16WD2RN8-B	
Space heating 55°C						
	[kW]	13.5	11.3	12.5	13.5	
	[%]	124.3	126.0	126.6	124.3	
	[kWh]	10,473	8,639	9,508	10,459	
Part load conditions space heating colder climate low temperature application						
(A) condition (-7°C)	[kW]	9.26	8.08	8.74	9.26	
	-	3.59	3.64	3.59	3.59	
	-	0.90	0.90	0.90	0.90	
(B) condition (2°C)	[kW]	5.76	4.93	5.52	5.76	
	-	5.35	5.34	5.35	5.35	
	-	0.90	0.90	0.90	0.90	
(C) condition (7°C)	[kW]	3.76	3.17	3.70	3.76	
	-	7.04	5.28	7.06	7.04	
	-	0.90	0.90	0.90	0.90	
(D) condition (12°C)	[kW]	3.72	3.69	3.69	3.72	
	-	8.78	9.34	9.34	8.78	
	-	0.90	0.90	0.90	0.90	
(E) Toi (temperature operating limit)	[°C]	-22.00	-22.00	-22.00	-22.00	
	[kW]	9.43	8.72	9.14	9.43	
	-	2.00	2.08	2.02	2.00	
	[°C]	65	65	65	65	
	[°C]	-15.00	-15.00	-15.00	-15.00	
(F) Tbivalent temperature	[kW]	12.30	10.17	11.67	12.30	
	-	2.58	2.66	2.58	2.58	
Supplementary capacity at P_design	[kW]	5.67	3.78	5.17	5.67	
Part load conditions space heating colder climate medium temperature application						
(A) condition (-7°C)	[kW]	8.43	7.09	7.80	8.43	
	-	2.77	2.75	2.77	2.77	
	-	0.90	0.90	0.90	0.90	

Product fiche 4

Mini Inverter heat pump space heating		Outdoor	MGC-V5WD2N8-B	MGC-V7WD2N8-B	MGC-V9WD2N8-B	MGC-V12WD2N8-B	MGC-V14WD2N8-B
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	2.03	2.25	2.82	4.44	4.64
	COPd (declared COP)	-	3.18	3.30	3.60	3.88	3.91
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	1.56	1.56	1.76	3.00	3.00
	COPd (declared COP)	-	4.50	4.50	4.84	4.88	4.88
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	1.44	1.44	1.44	3.60	3.61
	COPd (declared COP)	-	5.83	5.83	5.83	6.61	6.61
	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]	3.24	3.24	3.24	7.00	7.28
	COPd (declared COP)	-	1.32	1.32	1.32	1.38	1.35
(F) Tbivalent temperature	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
	Tbiv	[°C]	-15.00	-15.00	-15.00	-15.00	-15.00
	Pdh (declared heating capacity)	[kW]	4.25	4.94	5.88	9.21	10.19
Supplementary capacity at P_design	Ps up (@Tdesign: -22°C)	[kW]	2.00	2.08	2.10	1.92	1.91
Warmer climate (Design temperature = 2°C)							
Space heating 35°C	Prated (declared heating capacity) @ 2°C	[kW]	6.2	8.1	9.0	12.1	13.2
	Seasonal space heating efficiency (ηs)	[%]	268.2	274.7	279.1	262.3	260.5
	Annual energy consumption	[kWh]	1,229	1,551	1,714	2,437	2,684
Space heating 55°C	Prated (declared heating capacity) @ 2°C	[kW]	6.2	8.1	9.0	12.0	14.2
	Seasonal space heating efficiency (ηs)	[%]	170.9	185.3	193.4	179.0	184.6
	Annual energy consumption	[kWh]	1,895	2,303	2,458	3,524	4,040
Part load conditions space heating warmer climate low temperature application							
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	5.69	7.23	8.29	12.10	12.94
	COPd (declared COP)	-	4.31	4.04	3.85	3.53	3.51
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	4.01	5.18	5.81	7.78	8.51
	COPd (declared COP)	-	6.39	6.35	6.24	5.82	5.72
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90

Product fiche 4

Mini Inverter heat pump space heating		Outdoor	MGC-V16WD2N8-B	MGC-V12WD2RN8-B	MGC-V14WD2RN8-B	MGC-V16WD2RN8-B
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	5.20	4.44	4.64	5.20
	COPd (declared COP)	-	3.74	3.88	3.91	3.74
(C) condition (7°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	3.53	3.00	3.00	3.53
(D) condition (12°C)	COPd (declared COP)	-	5.19	4.88	4.88	5.19
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Pdh (declared heating capacity)	[kW]	3.61	3.60	3.61	3.61
	Cdh(degradation coefficient)	-	6.61	6.61	6.61	6.61
Warmer climate (Design temperature = 2°C)	Tol (temperature operating limit)	[°C]	-22.00	-22.00	-22.00	-22.00
	Pdh (declared heating capacity)	[kW]	7.52	7.00	7.28	7.52
Space heating 35°C	COPd (declared COP)	-	1.30	1.38	1.35	1.30
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65
Space heating 55°C	Tbiv	[°C]	-15.00	-15.00	-15.00	-15.00
	Pdh (declared heating capacity)	[kW]	11.03	9.21	10.19	11.03
Part load conditions space heating warmer climate low temperature application	COPd (declared COP)	-	1.85	1.92	1.91	1.85
	Psup (@Tdesignh: -22°C)	[kW]	6.00	4.30	5.21	6.00
Warmer climate (Design temperature = 2°C)						
Space heating 35°C	Prated (declared heating capacity) @ 2°C	[kW]	14.2	12.1	13.2	14.2
	Seasonal space heating efficiency (ηs)	[%]	255.3	262.1	260.5	255.2
Space heating 55°C	Annual energy consumption	[kWh]	2,937	2,439	2,677	2,939
	Prated (declared heating capacity) @ 2°C	[kW]	14.5	12.0	14.2	14.5
Part load conditions space heating warmer climate low temperature application	Seasonal space heating efficiency (ηs)	[%]	184.0	178.8	183.1	184.0
	Annual energy consumption	[kWh]	4,154	3,527	4,079	4,145
Part load conditions space heating warmer climate low temperature application						
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	14.20	12.10	12.94	14.20
	COPd (declared COP)	-	3.22	3.53	3.51	3.22
(C) condition (7°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	9.15	7.78	8.51	9.15
Warmer climate (Design temperature = 2°C)	COPd (declared COP)	-	5.41	5.82	5.72	5.41
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90

Product fiche 5

Mini Inverter heat pump space heating		Outdoor	MGC-V5WD2N8-B	MGC-V7WD2N8-B	MGC-V9WD2N8-B	MGC-V12WD2N8-B	MGC-V14WD2N8-B
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	2.07	2.46	2.67	3.64	3.96
	COPd (declared COP)	-	8.71	9.30	9.63	8.31	8.51
	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
(E) Tol (temperature operating limit)	Pdh (declared heating capacity)	[kW]	5.69	7.23	8.29	12.10	12.94
	COPd (declared COP)	-	4.31	4.04	3.85	3.53	3.51
	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
	Tbiv	[°C]	7.00	7.00	7.00	7.00	7.00
(F) Tivalent temperature	Pdh (declared heating capacity)	[kW]	4.01	5.18	5.81	7.78	8.51
	COPd (declared COP)	-	6.39	6.35	6.24	5.82	5.72
	Psup (@Tdesignh: 2°C)	[kW]	0.55	0.84	0.75	0.00	0.26
	Supplementary capacity at P_design						
Part load conditions space heating warmer climate medium temperature application							
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	6.17	7.80	8.42	12.00	13.01
	COPd (declared COP)	-	2.77	2.68	2.68	2.39	2.37
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	3.97	5.22	5.81	7.73	9.12
(C) condition (7°C)	COPd (declared COP)	-	3.90	4.07	4.16	3.86	3.95
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
	Pdh (declared heating capacity)	[kW]	2.06	2.36	2.74	3.59	4.26
	COPd (declared COP)	-	5.28	6.07	6.64	5.88	6.37
(D) condition (12°C)	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]	6.17	7.80	8.42	12.00	13.01
	COPd (declared COP)	-	2.77	2.68	2.68	2.39	2.37
(E) Tol (temperature operating limit)	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65	65
	Tbiv	[°C]	7.00	7.00	7.00	7.00	7.00
	Pdh (declared heating capacity)	[kW]	3.97	5.22	5.81	7.73	9.12
	COPd (declared COP)	-	3.90	4.07	4.16	3.86	3.95
(F) Tivalent temperature	Psup (@Tdesignh: 2°C)	[kW]	0.00	0.32	0.61	0.00	1.18
	Supplementary capacity at P_design						

Product fiche 5

Mini Inverter heat pump space heating		Outdoor	MGC-V16WD2N8-B	MGC-V12WD2RN8-B	MGC-V14WD2RN8-B	MGC-V16WD2RN8-B
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	4.24	3.64	3.96	4.24
	COPd (declared COP)	-	8.56	8.31	8.51	8.56
	Cdh (degradation coefficient)	-	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
	Pdh (declared heating capacity)	[kW]	14.20	12.10	12.94	14.20
	COPd (declared COP)	-	3.22	3.53	3.51	3.22
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65
	Tbiv	[°C]	7.00	7.00	7.00	7.00
	Pdh (declared heating capacity)	[kW]	9.15	7.78	8.51	9.15
Supplementary capacity at P_design	COPd (declared COP)	-	5.41	5.82	5.72	5.41
	Psup (@Tdesignh: 2°C)	[kW]	0.00	0.00	0.26	0.00
Part load conditions space heating warmer climate medium temperature application						
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	13.62	12.00	13.01	13.62
	COPd (declared COP)	-	2.35	2.39	2.37	2.35
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	9.35	7.73	9.12	9.35
	COPd (declared COP)	-	3.94	3.86	3.95	3.94
	Cdh (degradation coefficient)	-	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	4.26	3.59	4.26	4.26
	COPd (declared COP)	-	6.37	5.88	6.37	6.37
	Cdh (degradation coefficient)	-	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
	Pdh (declared heating capacity)	[kW]	13.62	12.00	13.01	13.62
	COPd (declared COP)	-	2.35	2.39	2.37	2.35
(F) Tivalent temperature	WTOL (Heating water Operation Limit)	[°C]	65	65	65	65
	Tbiv	[°C]	7.00	7.00	7.00	7.00
	Pdh (declared heating capacity)	[kW]	9.35	7.73	9.12	9.35
Supplementary capacity at P_design	COPd (declared COP)	-	3.94	3.86	3.95	3.94
	Psup (@Tdesignh: 2°C)	[kW]	0.91	0.00	1.18	0.91

Product fiche 6

Mini Inverter heat pump space heating		Outdoor	MGC-V5WD2N8-B	MGC-V7WD2N8-B	MGC-V9WD2N8-B	MGC-V12WD2N8-B	MGC-V14WD2N8-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	Y/N	No	No	No	No	No
	Low-temperature heat pump	Y/N	No	No	No	No	No
	Equipped with a supplementary heater	Y/N	Yes	Yes	Yes	Yes	Yes
	Heat pump combination heater	Y/N	Yes	Yes	Yes	Yes	Yes
	Rated airflow (outdoor)	[m ³ /h]	3900	4500	4500	5200	5200
	Rated water/brine flow (outdoor H/E)	-	/	/	/	/	/
Air to water unit	Capacity control	-	Inverter	Inverter	Inverter	Inverter	Inverter
	P _{off} (Power consumption Off mode)	[kW]	0.013	0.013	0.013	0.013	0.013
	P _{to} (Power consumption Thermostat off mode)	[kW]	0.020	0.020	0.020	0.020	0.020
	P _{sb} (Power consumption Standby mode)	[kW]	0.013	0.013	0.013	0.013	0.013
	P _{ck} (Power crankcase heater model)	[kW]	0.000	0.000	0.000	0.000	0.000
	Q _{elec} (Daily electricity consumption)	[kWh]	/	/	/	/	/
	Q _{fuel} (Daily fuel consumption)	[kWh]	/	/	/	/	/
	Other						

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

Mini Inverter heat pump space heating		MGC-V16WD2N8-B	MGC-V12WD2RN8-B	MGC-V14WD2RN8-B	MGC-V16WD2RN8-B
Product description	Air-to-water heat pump	Yes	Yes	Yes	Yes
	Water-to-water heat pump	No	No	No	No
	Brine-to-water heat pump	No	No	No	No
	Low-temperature heat pump	No	No	No	No
	Equipped with a supplementary heater	Yes	Yes	Yes	Yes
	Heat pump combination heater	Yes	Yes	Yes	Yes
	Rated airflow (outdoor)	[m ³ /h]	5200	5200	5200
Air to water unit	Rated water/brine flow (outdoor H/E)	-	/	/	/
	Capacity control	-	Inverter	Inverter	Inverter
Other	Poff (Power consumption Off mode)	[kW]	0.013	0.015	0.015
	Pto (Power consumption Thermostat off mode)	[kW]	0.020	0.023	0.023
	Psb (Power consumption Standby mode)	[kW]	0.013	0.015	0.015
	Pck (Power crankcase heater model)	[kW]	0.000	0.000	0.000
	Qelec (Daily electricity consumption)	[kWh]	/	/	/
	Qfuel (Daily fuel consumption)	[kWh]	/	/	/

Note :

a) represents the hydraulic module series ;

b) represents the m-thermal tank series ;

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

Mini Inverter heat pump space cooling		Outdoor	MGC-V5WD2N8-B	MGC-V7WD2N8-B	MGC-V9WD2N8-B	MGC-V12WD2N8-B	MGC-V14WD2N8-B
Outdoor unit sound power (*)	Average climate low temperature application	dB	62	64	66	69	71
	Average climate medium temperature application	dB	62	64	66	69	71
Space cooling 7°C	Prated (declared cooling capacity) @ 35°C	[kW]	5.6	7.4	9.0	11.7	13.5
	Seasonal space cooling efficiency (ηs)	[%]	200.43	204.71	200.21	199.92	200.65
	Annual energy consumption	[kWh]	658	854	1,063	1,380	1,592
Space cooling 18°C	Prated (declared cooling capacity) @ 35°C	[kW]	6.9	8.6	10.2	12.1	14.0
	Seasonal space cooling efficiency (ηs)	[%]	309.5	320.48	329.48	308.53	300.52
	Annual energy consumption	[kWh]	527	635	739	932	1,109
Part load conditions space cooling : low temperature application@7°C							
(A) condition (35°C)	Pdc (declared cooling capacity)	[kW]	5.58	7.39	9.00	11.67	13.51
	EERd (declared EER)	-	3.38	3.28	2.92	3.11	3.01
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (30°C)	Pdc (declared cooling capacity)	[kW]	4.27	5.63	6.91	8.84	10.06
	EERd (declared EER)	-	4.52	4.54	4.08	4.14	4.17
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (25°C)	Pdc (declared cooling capacity)	[kW]	2.90	3.60	4.58	5.64	6.49
	EERd (declared EER)	-	5.46	5.87	5.95	5.71	5.64
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (20°C)	Pdc (declared cooling capacity)	[kW]	1.33	1.74	2.07	2.75	3.06
	EERd (declared EER)	-	6.91	6.51	6.74	6.76	6.95
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90

Product fiche 7

Mini Inverter heat pump space cooling		Outdoor	MGC-V16WD2N8-B	MGC-V12WD2RN8-B	MGC-V14WD2RN8-B	MGC-V16WD2RN8-B
Outdoor unit sound power (*)	Average climate low temperature application	dB	71	69	71	71
	Average climate medium temperature application	dB	71	69	71	71
Space cooling 7°C	Prated (declared cooling capacity) @ 35°C	[kW]	14.2	11.7	13.5	14.2
	Seasonal space cooling efficiency (ηs)	[%]	201.37	199.52	200.4	201.13
	Annual energy consumption	[kWh]	1,670	1,387	1,593	1,670
	Prated (declared cooling capacity) @ 35°C	[kW]	15.3	12.1	14.0	15.3
Space cooling 18°C	Seasonal space cooling efficiency (ηs)	[%]	296.54	300.86	299.88	296.03
	Annual energy consumption	[kWh]	1,229	934	1,109	1,228
Part load conditions space cooling : low temperature application@7°C						
(A) condition (35°C)	Pdc (declared cooling capacity)	[kW]	14.22	11.67	13.51	14.22
	EERd (declared EER)	-	2.96	3.11	3.01	2.96
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90
(B) condition (30°C)	Pdc (declared cooling capacity)	[kW]	10.62	8.84	10.06	10.62
	EERd (declared EER)	-	4.16	4.14	4.17	4.16
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90
(C) condition (25°C)	Pdc (declared cooling capacity)	[kW]	7.11	5.64	6.49	7.11
	EERd (declared EER)	-	5.72	5.71	5.64	5.72
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90
(D) condition (20°C)	Pdc (declared cooling capacity)	[kW]	3.06	2.75	3.06	3.06
	EERd (declared EER)	-	6.95	6.76	6.95	6.95
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90

Product fiche 8

Mini Inverter heat pump space cooling		Outdoor	MGC-V5WD2N8-B	MGC-V7WD2N8-B	MGC-V9WD2N8-B	MGC-V12WD2N8-B	MGC-V14WD2N8-B
Part load conditions space cooling : medium temperature application@18°C							
(A) condition (35°C)	Pdc (declared cooling capacity)	[kW]	6.86	8.55	10.24	12.10	14.03
	EERd (declared EER)	-	5.29	4.99	4.42	4.77	4.55
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(B) condition (30°C)	Pdc (declared cooling capacity)	[kW]	5.27	6.66	7.81	9.24	10.60
	EERd (declared EER)	-	7.03	6.56	6.34	6.67	6.43
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(C) condition (25°C)	Pdc (declared cooling capacity)	[kW]	3.32	4.51	5.16	5.83	7.08
	EERd (declared EER)	-	8.14	9.48	9.50	9.38	8.93
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
(D) condition (20°C)	Pdc (declared cooling capacity)	[kW]	1.61	1.96	2.51	3.86	3.89
	EERd (declared EER)	-	11.31	11.08	13.78	9.38	9.38
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90	0.90
Air to water unit	Rated airflow (outdoor)	[m ³ /h]	3900	4500	4500	5200	5200
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]	0.013	0.013	0.013	0.013	0.013
	Pto (Power consumption Thermostat off mode)	[kW]	0.005	0.005	0.005	0.005	0.005
	Psb (Power consumption Standby mode)	[kW]	0.013	0.013	0.013	0.013	0.013
	Pck (Power crankcase heater mode)	[kW]	0.000	0.000	0.000	0.000	0.000
	Qelec (Daily electricity consumption)	[kWh]	/	/	/	/	/
	Qfuel (Daily fuel consumption)	[kWh]	/	/	/	/	/

Product fiche 8

Mini Inverter heat pump space cooling		Outdoor	MGC-V16WD2N8-B	MGC-V12WD2RN8-B	MGC-V14WD2RN8-B	MGC-V16WD2RN8-B
Part load conditions space cooling : medium temperature application@18°C						
(A) condition (35°C)	Pdc (declared cooling capacity)	[kW]	15.34	12.10	14.03	15.34
	EERd (declared EER)	-	4.33	4.77	4.55	4.33
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Pdc (declared cooling capacity)	[kW]	11.44	9.24	10.60	11.44
(B) condition (30°C)	EERd (declared EER)	-	6.14	6.67	6.43	6.14
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Pdc (declared cooling capacity)	[kW]	7.93	5.83	7.08	7.93
(C) condition (25°C)	EERd (declared EER)	-	8.95	9.38	8.93	8.95
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Pdc (declared cooling capacity)	[kW]	3.89	3.86	3.89	3.89
(D) condition (20°C)	EERd (declared EER)	-	9.38	9.38	9.38	9.38
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90
	Rated airflow (outdoor)	[m³/h]	5200	5200	5200	5200
Air to water unit	Rated water/brine flow (outdoor H/E)	-	/	/	/	/
Other	Capacity control	-	Inverter	Inverter	Inverter	Inverter
	Poff (Power consumption Off mode)	[kW]	0.013	0.013	0.013	0.013
	Pto (Power consumption Thermostat off mode)	[kW]	0.005	0.008	0.008	0.008
	Psb (Power consumption Standby mode)	[kW]	0.013	0.013	0.013	0.013
	Pck (Power crankcase heater mode)	[kW]	0.000	0.000	0.000	0.000
	Qelec (Daily electricity consumption)	[kWh]	/	/	/	/
	Qfuel (Daily fuel consumption)	[kWh]	/	/	/	/

Outdoor unit	Ambient Temperature : 35/24 Water temperature : 23/18			Ambient Temperature : 35/24 Water temperature : 12/7			Ambient Temperature : 7/6 Water temperature : 30/35			Ambient Temperature : 2/1 Water temperature : 30/35		
	Capacity kW	Power input kW	EER	Capacity kW	Power input kW	EER	Capacity kW	Power input kW	COP	Capacity kW	Power input kW	COP
MGC-V5WD2N8-B	6.50	1.275	5.10	5.50	1.692	3.25	6.50	1.226	5.30	5.60	1.333	4.20
MGC-V7WD2N8-B	8.30	1.711	4.85	7.40	2.349	3.15	8.40	1.663	5.05	7.10	1.797	3.95
MGC-V9WD2N8-B	10.00	2.326	4.30	9.00	3.103	2.90	10.00	2.128	4.70	8.20	2.158	3.80
MGC-V12WD2N8-B	12.20	2.652	4.60	11.60	3.742	3.10	12.20	2.490	4.90	12.30	3.417	3.60
MGC-V12WD2RN8-B	12.20	2.652	4.60	11.60	3.742	3.10	12.20	2.490	4.90	12.30	3.417	3.60
MGC-V14WD2N8-B	13.90	3.159	4.40	13.40	4.573	2.93	14.10	3.000	4.70	13.00	3.714	3.50
MGC-V14WD2RN8-B	13.90	3.159	4.40	13.40	4.573	2.93	14.10	3.000	4.70	13.00	3.714	3.50
MGC-V16WD2N8-B	15.40	3.667	4.20	14.00	4.828	2.90	16.00	3.556	4.50	14.50	4.462	3.25
MGC-V16WD2RN8-B	15.40	3.667	4.20	14.00	4.828	2.90	16.00	3.556	4.50	14.50	4.462	3.25

Outdoor unit	Ambient Temperature : -7/-8 Water temperature : 30/35			Ambient Temperature : 7/6 Water temperature : 40/45			Ambient Temperature : 2/1 Water temperature : 40/45			Ambient Temperature : -7/-8 Water temperature : 40/45		
	Capacity kW	Power input kW	COP	Capacity kW	Power input kW	COP	Capacity kW	Power input kW	COP	Capacity kW	Power input kW	COP
MGC-V5WD2N8-B	6.20	1.938	3.20	6.60	1.650	4.00	6.50	2.063	3.15	6.10	2.346	2.60
MGC-V7WD2N8-B	7.10	2.254	3.15	8.50	2.237	3.80	7.50	2.459	3.05	6.80	2.720	2.50
MGC-V9WD2N8-B	8.00	2.667	3.00	10.20	2.795	3.65	8.50	2.881	2.95	7.40	3.083	2.40
MGC-V12WD2N8-B	11.60	4.070	2.85	12.50	3.378	3.70	12.00	4.138	2.90	11.50	4.792	2.40
MGC-V12WD2RN8-B	11.60	4.070	2.85	12.50	3.378	3.70	12.00	4.138	2.90	11.50	4.792	2.40
MGC-V14WD2N8-B	12.50	4.464	2.80	14.50	4.085	3.55	13.00	4.643	2.80	12.50	5.435	2.30
MGC-V14WD2RN8-B	12.50	4.464	2.80	14.50	4.085	3.55	13.00	4.643	2.80	12.50	5.435	2.30
MGC-V16WD2N8-B	13.50	5.000	2.70	16.20	4.696	3.45	14.30	5.296	2.70	13.50	6.000	2.25
MGC-V16WD2RN8-B	13.50	5.000	2.70	16.20	4.696	3.45	14.30	5.296	2.70	13.50	6.000	2.25

Outdoor unit	Ambient Temperature: 7/6 Water temperature: 47/55			Ambient Temperature: 2/1 Water temperature: 47/55			Ambient Temperature: -7/-8 Water temperature: 47/55		
	Capacity kW	Power input kW	COP	Capacity kW	Power input kW	COP	Capacity kW	Power input kW	COP
MGC-V5WD2N8-B	6.30	1.969	3.20	6.30	2.250	2.80	5.70	2.651	2.15
MGC-V7WD2N8-B	8.20	2.603	3.15	7.60	2.815	2.70	6.60	3.143	2.10
MGC-V9WD2N8-B	9.40	3.032	3.10	8.40	3.170	2.65	7.20	3.512	2.05
MGC-V12WD2N8-B	12.00	4.000	3.00	12.00	5.106	2.35	10.80	5.143	2.10
MGC-V12WD2RN8-B	12.00	4.000	3.00	12.00	5.106	2.35	10.80	5.143	2.10
MGC-V14WD2N8-B	14.00	4.746	2.95	13.00	5.603	2.32	11.70	5.625	2.08
MGC-V14WD2RN8-B	14.00	4.746	2.95	13.00	5.603	2.32	11.70	5.625	2.08
MGC-V16WD2N8-B	16.00	5.614	2.85	13.50	5.870	2.30	12.80	6.244	2.05
MGC-V16WD2RN8-B	16.00	5.614	2.85	13.50	5.870	2.30	12.80	6.244	2.05

ErP Information

Fan Types	Axial fan		
Directive (or Standard) for Regulation	ErP Directive 2009/125/EC COMMISSION REGULATION (EU) No 327/2011		
Model Name	ZKSN-170-8-3L+ ZL-580*190*12-3	Rev.	
Prepare by			

Specified Information of Fan:

No.	Information Item	Comment
1	$\eta_{\text{target}} =$	28.6%
2	Overall efficiency (η_e) =	34.0%
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 =45.4
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	0.156kw
10.2	Rated motor flow rate(s) at optimum energy efficiency	1.290m ³ /s
10.3	Rated motor pressure(s) at optimum energy efficiency	36Pa
11	Rotations per minute (R.P.M)at the optimum energy efficiency point	750r/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	SHISHISHI TONGDA MOTOR 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	ZKSN-170-8-3L+ ZL-580*190*12-3	Rev.	
Prepare by			

Specified Information of Fan:

No.	Information Item	Comment
1	$\eta_{\text{target}} =$	28.5%
2	Overall efficiency (η_e) =	33.9%
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 =45.4
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	0.153kw
10.2	Rated motor flow rate(s) at optimum energy efficiency	1.248m ³ /s
10.3	Rated motor pressure(s) at optimum energy efficiency	36Pa
11	Rotations per minute (R.P.M)at the optimum energy efficiency point	750r/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	ZKSN-200-10-2L + ZL-580*190*12-3	Rev.	
Prepare by			

Specified Information of Fan:

No.	Information Item	Comment
1	$\eta_{\text{target}} =$	29.1%
2	Overall efficiency (η_e) =	33.6%
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 =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	1.292m ³ /s
10.3	Rated motor pressure(s) at optimum energy efficiency	43Pa
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	ZKSN-200-10-2L+ ZL-580*190*12-3	Rev.	
Prepare by			

Specified Information of Fan:

No.	Information Item	Comment
1	$\eta_{\text{target}} =$	28.9%
2	Overall efficiency (η_e) =	33.0%
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 =44.1
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	0.178kw
10.2	Rated motor flow rate(s) at optimum energy efficiency	1.420m ³ /s
10.3	Rated motor pressure(s) at optimum energy efficiency	36Pa
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	JIANGSU SHANGQI GROUP CO., LTD.

NOTE

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此页不做菲林，仅核对使用

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)
B	赵浩伟	21. 11. 30	升级参数	P1\ P8-11页
V. B-V. C	罗亮	2024. 03. 11	见附件修改记录表	见附件修改记录表

