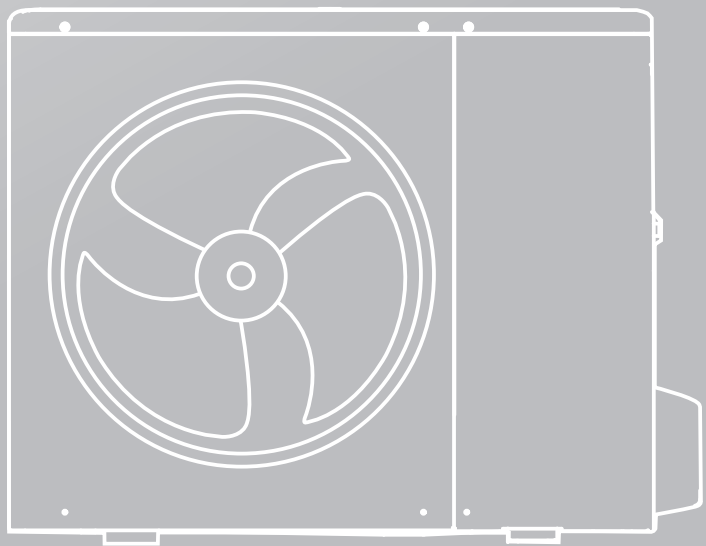


TECHNICAL DATA MANUAL

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	Outdoor unit sound power	Average climate			Colder climate			Warmer climate		
					Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption
		-	dB	dB	kW	%	kWh	kW	%	kWh	kW	%	kWh
MHA-V4WD2N12	HB-A60CGN12	A++	38	56	5.8	142.1	3304	4.0	114.1	3369	5.0	166.8	1573
MHA-V4WD2N12	HB-A60CD***GN12	A++	38	56	5.8	142.1	3304	4.0	114.1	3369	5.0	166.8	1573
MHA-V6WD2N12	HB-A60CGN12	A++	38	59	5.8	142.1	3304	5.0	118.3	4065	6.0	174.2	1810
MHA-V6WD2N12	HB-A60CD***GN12	A++	38	59	5.8	142.1	3304	5.0	118.3	4065	6.0	174.2	1810
MHA-V8WD2N12	HB-A100CGN12	A++	40	60	7.8	146.8	4303	7.0	128.0	5268	8.0	174.3	2411
MHA-V8WD2N12	HB-A100CD***GN12	A++	40	60	7.8	146.8	4303	7.0	128.0	5268	8.0	174.3	2411
MHA-V10WD2N12	HB-A100CGN12	A++	40	61	9.2	142.9	5210	8.2	130.7	6048	9.6	180.0	2804
MHA-V10WD2N12	HB-A100CD***GN12	A++	40	61	9.2	142.9	5210	8.2	130.7	6048	9.6	180.0	2804

Unit type explanation:

- 1.HB-A***CGN12, without back-up heater ,
- 2.HB-A***CD30GN12, with 3kW back-up heater and 1-Phase power source
- 3.HB-A***CDS60GN12, with 6kW back-up heater and 3-Phase power source
- 4.HB-A***CDS90GN12, with 9kW back-up heater and 3-Phase power source

Model		For low - temperature appl ication											
Outdoor unit	Indoor unit	Energy efficiency class	Indoor unit sound power	Outdoor unit sound power	Average climate			Colder climate			Warmer climate		
					Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption
		-	dB	dB	kW	%	kWh	kW	%	kWh	kW	%	kWh
MHA-V4WD2N12	HB-A60CGN12	A+++	38	56	5.0	187.9	2164	4.0	159.6	2426	5.0	238.3	1107
MHA-V4WD2N12	HB-A60CD***GN12	A+++	38	56	5.0	187.9	2164	4.0	159.6	2426	5.0	238.3	1107
MHA-V6WD2N12	HB-A60CGN12	A+++	38	59	5.8	186.3	2533	5.0	163.9	2954	6.0	241.1	1314
MHA-V6WD2N12	HB-A60CD***GN12	A+++	38	59	5.8	186.3	2533	5.0	163.9	2954	6.0	241.1	1314
MHA-V8WD2N12	HB-A100CGN12	A+++	40	60	7.8	190.3	3334	7.0	168.2	4032	8.0	257.7	1640
MHA-V8WD2N12	HB-A100CD***GN12	A+++	40	60	7.8	190.3	3334	7.0	168.2	4032	8.0	257.7	1640
MHA-V10WD2N12	HB-A100CGN12	A+++	40	61	9.2	183.5	4076	8.2	165.6	4796	9.6	253.4	2001
MHA-V10WD2N12	HB-A100CD***GN12	A+++	40	61	9.2	183.5	4076	8.2	165.6	4796	9.6	253.4	2001

Unit type explanation:

- 1.HB-A***CGN12, without back-up heater,
- 2.HB-A***CD30GN12, with 3kW back-up heater and 1-Phase power source
- 3.HB-A***CDS60GN12, with 6kW back-up heater and 3-Phase power source
- 4.HB-A***CDS90GN12, with 9kW back-up heater and 3-Phase power source

Product fiche 1

Heat pump space heater											
Indoor unit sound power (*)		Outdoor		MHA-V4WD2N12		MHA-V6WD2N12		MHA-V8WD2N12		MHA-V10WD2N12	
		Indoor		HB-A60CGN12 HB-A60CD***GN12		HB-A60CGN12 HB-A60CD***GN12		HB-A100CGN12 HB-A100CD***GN12		HB-A100CGN12 HB-A100CD***GN12	
Average climate low temperature application		dB		38		38		40		40	
Average climate medium temperature application		dB		56		59		60		61	
Average climate high temperature application		dB		56		59		60		61	
Capacity of the back-up heater integrated in the unit		[kW]		0/3/6/9		0/3/6/9		0/3/6/9		0/3/6/9	
Space heating		-		A+++		A+++		A+++		A+++	
Space heating		-		A++		A++		A++		A++	
Average climate (Design temperature = -10°C)											
Space heating 35°C		[kW]		5.0		5.8		7.8		9.2	
Seasonal space heating efficiency (ηs)		[%]		187.9		186.3		190.3		183.5	
Annual energy consumption		[kWh]		2164		2533		3334		4076	
Prated (declared heating capacity) @ -10°C		[kW]		5.8		5.8		7.8		9.2	
Seasonal space heating efficiency (ηs)		[%]		142.1		142.1		146.8		142.9	
Annual energy consumption		[kWh]		3304		3304		4303		5210	
Part load conditions space heating average climate low temperature application											
Pdh (declared heating capacity)		[kW]		4.41		5.24		6.98		8.14	
COPd (declared COP)		-		3.01		2.86		2.94		2.76	
Cdh(degradation coefficient)		-		0.90		0.90		0.90		0.90	
Pdh (declared heating capacity)		[kW]		2.68		3.17		4.29		5.04	
COPd (declared COP)		-		4.74		4.65		4.60		4.45	
Cdh(degradation coefficient)		-		0.90		0.90		0.90		0.90	
Pdh (declared heating capacity)		[kW]		2.34		2.35		2.70		3.20	
COPd (declared COP)		-		6.39		6.50		6.84		6.68	
Cdh(degradation coefficient)		-		0.90		0.90		0.90		0.90	
Pdh (declared heating capacity)		[kW]		2.75		2.73		2.63		2.63	
COPd (declared COP)		-		8.06		8.07		8.20		8.27	
Cdh(degradation coefficient)		-		0.90		0.90		0.90		0.90	
Tol (temperature operating limit)		[°C]		-10.00		-10.00		-10.00		-10.00	
Pdh (declared heating capacity)		[kW]		4.98		5.84		7.83		8.29	
COPd (declared COP)		-		2.72		2.51		2.51		2.36	
WTOL (Heating water Operation Limit)		[°C]		70		70		70		70	

Product fiche 2

Heat pump space heater						
		Outdoor	MHA-V4WD2N12	MHA-V6WD2N12	MHA-V8WD2N12	MHA-V10WD2N12
		Indoor	HB-A60CGN12 HB-A60CD***GN12	HB-A60CGN12 HB-A60CD***GN12	HB-A100CGN12 HB-A100CD***GN12	HB-A100CGN12 HB-A100CD***GN12
(F) Tbivalent temperature	Tblv	[°C]	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	4.41	5.24	6.98	8.14
	COPd (declared COP)	-	3.01	2.86	2.94	2.76
Supplementary capacity at P_design	Psup (@Tdesignh: -10°C)	[kW]	0.02	0.00	0.00	0.91
Part load conditions space heating average climate medium temperature application						
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	5.18	5.18	6.88	8.08
	COPd (declared COP)	-	2.21	2.21	2.34	2.17
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	3.06	3.06	4.39	5.07
	COPd (declared COP)	-	3.61	3.61	3.54	3.41
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	2.13	2.13	2.76	3.24
	COPd (declared COP)	-	4.70	4.70	5.18	5.35
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	2.64	2.64	2.63	2.62
	COPd (declared COP)	-	6.54	6.54	6.86	6.90
	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]	5.12	5.29	7.18	7.72
	COPd (declared COP)	-	1.90	1.83	2.00	1.89
(F) Tbivalent temperature	WTOL (Heating water Operation Limit)	[°C]	70	70	70	70
	Tblv	[°C]	-7.00	-7.00	-7.00	-7.00
	Pdh (declared heating capacity)	[kW]	5.18	5.18	6.88	8.08
Supplementary capacity at P_design	COPd (declared COP)	-	2.21	2.21	2.34	2.17
	Psup (@Tdesignh: -10°C)	[kW]	0.51	0.51	0.62	1.48
	Colder climate (Design temperature = -22°C)					
Space heating 35°C	Prated (declared heating capacity) @ -22°C	[kW]	4.0	5.0	7.0	8.2
	Seasonal space heating efficiency (ηs)	[%]	159.6	163.9	168.2	165.6
	Annual energy consumption	[kWh]	2426	2954	4032	4796

Product fiche 3

Heat pump space heater													
				Outdoor		MHA-V4WD2N12		MHA-V6WD2N12		MHA-V8WD2N12		MHA-V10WD2N12	
				Indoor		HB-A60CGN12 HB-A60CD***GN12		HB-A60CGN12 HB-A60CD***GN12		HB-A100CGN12 HB-A100CD***GN12		HB-A100CGN12 HB-A100CD***GN12	
Space heating 55°C		Prated (declared heating capacity) @ -22°C				[kW]		5.0		7.0		8.2	
		Seasonal space heating efficiency (ηs)				[%]		118.3		128.0		130.7	
		Annual energy consumption				[kWh]		4065		5268		6048	
Part load conditions space heating colder climate low temperature application													
(A) condition (-7°C)		Pd _h (declared heating capacity)				[kW]		3.03		4.33		4.98	
		COP _d (declared COP)				-		3.59		3.67		3.56	
		C _d _h (degradation coefficient)				-		0.90		0.90		0.90	
(B) condition (2°C)		Pd _h (declared heating capacity)				[kW]		2.04		2.84		3.12	
		COP _d (declared COP)				-		5.13		5.15		5.15	
		C _d _h (degradation coefficient)				-		0.90		0.90		0.90	
(C) condition (7°C)		Pd _h (declared heating capacity)				[kW]		2.33		2.33		2.32	
		COP _d (declared COP)				-		6.42		6.85		7.03	
		C _d _h (degradation coefficient)				-		0.90		0.90		0.90	
(D) condition (12°C)		Pd _h (declared heating capacity)				[kW]		2.61		2.69		2.59	
		COP _d (declared COP)				-		7.48		8.10		7.80	
		C _d _h (degradation coefficient)				-		0.90		0.90		0.90	
(E) Tol (temperature operating limit)		Tol (temperature operating limit)				[°C]		-22.00		-22.00		-22.00	
		Pd _h (declared heating capacity)				[kW]		4.24		5.67		5.96	
		COP _d (declared COP)				-		1.83		1.86		1.83	
(F) Tbiivalent temperature		WTOL (Heating water Operation Limit)				[°C]		70		70		70	
		Tbiv				[°C]		-15.00		-15.00		-15.00	
		Pd _h (declared heating capacity)				[kW]		4.06		5.83		6.79	
Supplementary capacity at P _{design}		COP _d (declared COP)				-		2.56		2.60		2.42	
		Psup (@Tdesign _h : -22°C)				[kW]		0.76		1.33		2.24	
Part load conditions space heating colder climate medium temperature application													
(A) condition (-7°C)		Pd _h (declared heating capacity)				[kW]		3.03		4.32		5.05	
		COP _d (declared COP)				-		2.65		2.87		2.86	
		C _d _h (degradation coefficient)				-		0.90		0.90		0.90	

Product fiche 4

Heat pump space heater						
		Outdoor		MHA-V4WD2N12	MHA-V6WD2N12	MHA-V8WD2N12
		Indoor		HB-A60CGN12 HB-A60CD***GN12	HB-A60CGN12 HB-A60CD***GN12	HB-A100CGN12 HB-A100CD***GN12
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]		1.78	1.94	2.68
	COPd (declared COP)	-		3.53	3.62	3.84
	Cdh(degradation coefficient)	-		0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]		2.17	2.18	1.99
	COPd (declared COP)	-		4.91	4.98	4.54
	Cdh(degradation coefficient)	-		0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]		2.68	2.68	2.71
	COPd (declared COP)	-		6.74	6.77	7.13
	Cdh(degradation coefficient)	-		0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]		-22.00	-22.00	-22.00
	Pdh (declared heating capacity)	[kW]		3.31	3.70	5.05
	COPd (declared COP)	-		1.44	1.32	1.50
	WTOL (Heating water Operation Limit)	[°C]		70	70	70
(F) Tbiivalent temperature	Tblv	[°C]		-15.00	-15.00	-15.00
	Pdh (declared heating capacity)	[kW]		3.29	4.04	5.79
Supplementary capacity at P_design	COPd (declared COP)	-		1.68	1.70	2.05
	Psup (@Tdesignh: -22°C)	[kW]		0.69	1.30	1.95
Warmer climate (Design temperature = 2°C)						
Space heating 35°C	Prated (declared heating capacity) @ 2°C	[kW]		5.0	6.0	8.0
	Seasonal space heating efficiency (ηs)	[%]		238.3	241.1	257.7
	Annual energy consumption	[kWh]		1107	1314	1640
Space heating 55°C	Prated (declared heating capacity) @ 2°C	[kW]		5.0	6.0	8.0
	Seasonal space heating efficiency (ηs)	[%]		166.8	174.2	174.3
	Annual energy consumption	[kWh]		1573	1810	2411
Part load conditions space heating warmer climate low temperature application						
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]		5.00	5.98	8.09
	COPd (declared COP)	-		3.65	3.44	3.40
	Cdh(degradation coefficient)	-		0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]		3.31	3.83	5.28
	COPd (declared COP)	-		5.68	5.62	5.57
	Cdh(degradation coefficient)	-		0.90	0.90	0.90

Product fiche 5

Heat pump space heater									
		Outdoor	MHA-V4WD2N12	MHA-V6WD2N12	MHA-V8WD2N12	MHA-V10WD2N12			
		Indoor	HB-A60CGN12 HB-A60CD***GN12	HB-A60CGN12 HB-A60CD***GN12	HB-A100CGN12 HB-A100CD***GN12	HB-A100CGN12 HB-A100CD***GN12			
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	2.66	2.65	2.79	2.82			
	COPd (declared COP)	-	7.57	7.67	8.60	8.54			
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90			
	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00			
(E) Tol (temperature operating limit)	Pdh (declared heating capacity)	[kW]	5.00	5.98	8.09	9.71			
	COPd (declared COP)	-	3.65	3.44	3.40	2.89			
	WTOL (Heating water Operation Limit)	[°C]	70	70	70	70			
	Tblv	[°C]	7.00	7.00	7.00	7.00			
(F) Tbivalent temperature	Pdh (declared heating capacity)	[kW]	5.68	3.83	5.28	6.32			
	COPd (declared COP)	-	0.90	5.62	5.57	5.44			
	Psup (@Tdesignh: 2°C)	[kW]	0.00	0.02	0.00	0.00			
	Supplementary capacity at P_design								
Part load conditions space heating warmer climate medium temperature application									
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	5.20	6.08	7.89	8.96			
	COPd (declared COP)	-	2.49	2.34	2.43	2.35			
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90			
	Pdh (declared heating capacity)	[kW]	3.25	3.88	5.27	6.32			
(C) condition (7°C)	COPd (declared COP)	-	3.64	3.83	3.66	3.65			
	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90			
	Pdh (declared heating capacity)	[kW]	2.58	2.59	2.51	2.88			
	COPd (declared COP)	-	5.79	5.92	5.89	6.58			
(D) condition (12°C)	Cdh(degradation coefficient)	-	0.90	0.90	0.90	0.90			
	Tol (temperature operating limit)	[°C]	2.00	2.00	2.00	2.00			
	Pdh (declared heating capacity)	[kW]	5.20	6.08	7.89	8.96			
	COPd (declared COP)	-	2.49	2.34	2.43	2.35			
(E) Tol (temperature operating limit)	WTOL (Heating water Operation Limit)	[°C]	70	70	70	70			
	Tblv	[°C]	7.00	7.00	7.00	7.00			
	Pdh (declared heating capacity)	[kW]	3.25	3.88	5.70	6.32			
	COPd (declared COP)	-	3.64	3.83	3.66	3.65			
(F) Tbivalent temperature	Psup (@Tdesignh: 2°C)	[kW]	0.00	0.00	0.11	0.64			
	Supplementary capacity at P_design								

Product fiche 6

Heat pump space heater							
Product description	Outdoor	MHA-V4WD2N12					
		Indoor					
	Air-to-water heat pump	Y/N	Yes	MHA-V6WD2N12	MHA-V8WD2N12	MHA-V10WD2N12	
	Water-to-water heat pump	Y/N	No	HB-A60CGN12	HB-A100CGN12	HB-A100CGN12	
	Brine-to-water heat pump	Y/N	No	HB-A60CD***GN12	HB-A100CD***GN12	HB-A100CD***GN12	
	Low-temperature heat pump	Y/N	No	No	No	No	
	Equipped with a supplementary heater	Y/N	Yes	Yes	Yes	Yes	
	Heat pump combination heater	Y/N	No	No	No	No	
	Air to water unit	Rated airflow (outdoor)	[m³/h]	3300	3600	4800	5000
	Brine/water to water unit	Rated water/brine flow (outdoor H/E)		/	/	/	/
Other	Capacity control	-	Inverter	Inverter	Inverter	Inverter	
	Poff (Power consumption Off mode)	[kW]	0.010	0.010	0.010	0.010	
	Pto (Power consumption Thermostat off mode)	[kW]	0.015	0.015	0.015	0.015	
	Psb (Power consumption Standby mode)	[kW]	0.010	0.010	0.010	0.010	
	PCK (Power crankcase heater model)	[kW]	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							
Indoor unit sound power (*)		Outdoor	MHA-V4WD2N12	MHA-V6WD2N12	MHA-V8WD2N12	MHA-V10WD2N12	
		Indoor	HB-A60CGN12 HB-A60CD***GN12	HB-A60CGN12 HB-A60CD***GN12	HB-A100CGN12 HB-A100CD***GN12	HB-A100CGN12 HB-A100CD***GN12	
		dB	38	38	40	40	
Outdoor unit sound power (*)		dB	56	60	62	63	
		dB	56	60	62	63	
Space cooling 7°C		[kW]	4.0	5.6	6.8	6.8	
		[%]	159.1	157.3	172.5	172.5	
		[kWh]	592.0	838	930	930	
Space cooling 18°C		[kW]	4.0	5.6	7.8	8.4	
		[%]	209.2	216.6	245.4	244.4	
		[kWh]	452	612	725	825	
Part load conditions space cooling : low temperature application@7°C							
(A) condition (35°C)	Pdc (declared cooling capacity)		4.00	5.60	6.80	6.80	
	EERd (declared EER)		2.75	2.20	2.25	2.25	
	Cdc(degradation coefficient)		0.90	0.90	0.90	0.90	
(B) condition (30°C)	Pdc (declared cooling capacity)		3.06	4.23	5.03	5.03	
	EERd (declared EER)		3.59	3.54	3.79	3.79	
	Cdc(degradation coefficient)		0.90	0.90	0.90	0.90	
(C) condition (25°C)	Pdc (declared cooling capacity)		1.96	2.77	3.22	3.22	
	EERd (declared EER)		4.65	4.58	5.06	5.06	
	Cdc(degradation coefficient)		0.90	0.90	0.90	0.90	
(D) condition (20°C)	Pdc (declared cooling capacity)		1.94	1.93	2.11	2.11	
	EERd (declared EER)		5.56	5.51	6.15	6.15	
	Cdc(degradation coefficient)		0.90	0.90	0.90	0.90	

Product fiche 8

Heat pump space cooling						
Outdoor		MHA-V4WD2N12	MHA-V6WD2N12	MHA-V8WD2N12	MHA-V10WD2N12	
Indoor		HB-A60CGN12 HB-A60CD**GN12	HB-A60CGN12 HB-A60CD**GN12	HB-A100CGN12 HB-A100CD**GN12	HB-A100CGN12 HB-A100CD**GN12	
Part load conditions space cooling : medium temperature application@18°C						
(A) condition (35°C)	Pdc (declared cooling capacity)	[kW]	4.00	5.60	7.80	8.40
	EERd (declared EER)	-	4.05	3.61	3.75	3.61
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90
(B) condition (30°C)	Pdc (declared cooling capacity)	[kW]	3.01	4.16	5.50	5.95
	EERd (declared EER)	-	5.12	5.00	5.38	5.34
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90
(C) condition (25°C)	Pdc (declared cooling capacity)	[kW]	2.34	2.67	3.56	3.82
	EERd (declared EER)	-	6.12	6.24	7.07	6.97
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90
(D) condition (20°C)	Pdc (declared cooling capacity)	[kW]	2.37	2.43	2.67	2.68
	EERd (declared EER)	-	7.12	7.32	8.53	8.56
	Cdc(degradation coefficient)	-	0.90	0.90	0.90	0.90
Air to water unit	Rated airflow (outdoor)	[m³/h]	3300	3600	4800	5000
Brine/water to water unit	Rated water/brine flow (outdoor H/E)		/	/	/	/
Other	Capacity control	-	Inverter	Inverter	Inverter	Inverter
	Poff (Power consumption Off mode)	[kW]	0.010	0.010	0.010	0.010
	Pto (Power consumption Thermostat off mode)	[kW]	0.011	0.011	0.011	0.011
	Psb (Power consumption Standby mode)	[kW]	0.010	0.010	0.010	0.010
	PCK (Power crankcase heater model)	[kW]	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.						

Condition(°C)	Model		Capacity (kW)	Power input (kW)	EER/COP (/)
	Outdoor unit	Indoor unit			
Ambient Temperature: 35/24 Water temperature: 23/18	MHA-V4WD2N12	HB-A60CGN12	4.00	0.99	4.05
	MHA-V4WD2N12	HB-A60CD***GN12	4.00	0.99	4.05
	MHA-V6WD2N12	HB-A60CGN12	5.60	1.55	3.61
	MHA-V6WD2N12	HB-A60CD***GN12	5.60	1.55	3.61
	MHA-V8WD2N12	HB-A100CGN12	7.80	2.08	3.75
	MHA-V8WD2N12	HB-A100CD***GN12	7.80	2.08	3.75
	MHA-V10WD2N12	HB-A100CGN12	8.40	2.33	3.61
	MHA-V10WD2N12	HB-A100CD***GN12	8.40	2.33	3.61
Ambient Temperature: 35/24 Water temperature: 12/7	MHA-V4WD2N12	HB-A60CGN12	4.00	1.46	2.75
	MHA-V4WD2N12	HB-A60CD***GN12	4.00	1.46	2.75
	MHA-V6WD2N12	HB-A60CGN12	5.60	2.55	2.20
	MHA-V6WD2N12	HB-A60CD***GN12	5.60	2.55	2.20
	MHA-V8WD2N12	HB-A100CGN12	6.80	3.02	2.25
	MHA-V8WD2N12	HB-A100CD***GN12	6.80	3.02	2.25
	MHA-V10WD2N12	HB-A100CGN12	6.80	3.02	2.25
	MHA-V10WD2N12	HB-A100CD***GN12	6.80	3.02	2.25
Ambient Temperature: 7/6 Water temperature: 30/35	MHA-V4WD2N12	HB-A60CGN12	4.00	0.82	4.90
	MHA-V4WD2N12	HB-A60CD***GN12	4.00	0.82	4.90
	MHA-V6WD2N12	HB-A60CGN12	5.80	1.28	4.55
	MHA-V6WD2N12	HB-A60CD***GN12	5.80	1.28	4.55
	MHA-V8WD2N12	HB-A100CGN12	7.80	1.73	4.50
	MHA-V8WD2N12	HB-A100CD***GN12	7.80	1.73	4.50
	MHA-V10WD2N12	HB-A100CGN12	9.50	2.29	4.15
	MHA-V10WD2N12	HB-A100CD***GN12	9.50	2.29	4.15
Ambient Temperature: 2/1 Water temperature: 30/35	MHA-V4WD2N12	HB-A60CGN12	4.00	1.04	3.85
	MHA-V4WD2N12	HB-A60CD***GN12	4.00	1.04	3.85
	MHA-V6WD2N12	HB-A60CGN12	6.00	1.77	3.40
	MHA-V6WD2N12	HB-A60CD***GN12	6.00	1.77	3.40
	MHA-V8WD2N12	HB-A100CGN12	7.10	2.00	3.55
	MHA-V8WD2N12	HB-A100CD***GN12	7.10	2.00	3.55
	MHA-V10WD2N12	HB-A100CGN12	8.20	2.41	3.40
	MHA-V10WD2N12	HB-A100CD***GN12	8.20	2.41	3.40
Ambient Temperature: -7/-8 Water temperature: 30/35	MHA-V4WD2N12	HB-A60CGN12	4.00	1.29	3.10
	MHA-V4WD2N12	HB-A60CD***GN12	4.00	1.29	3.10
	MHA-V6WD2N12	HB-A60CGN12	5.60	2.07	2.70
	MHA-V6WD2N12	HB-A60CD***GN12	5.60	2.07	2.70
	MHA-V8WD2N12	HB-A100CGN12	7.10	2.45	2.90
	MHA-V8WD2N12	HB-A100CD***GN12	7.10	2.45	2.90
	MHA-V10WD2N12	HB-A100CGN12	7.80	2.89	2.70
	MHA-V10WD2N12	HB-A100CD***GN12	7.80	2.89	2.70
Ambient Temperature: 7/6 Water temperature: 40/45	MHA-V4WD2N12	HB-A60CGN12	4.20	1.14	3.70
	MHA-V4WD2N12	HB-A60CD***GN12	4.20	1.14	3.70
	MHA-V6WD2N12	HB-A60CGN12	6.00	1.71	3.50
	MHA-V6WD2N12	HB-A60CD***GN12	6.00	1.71	3.50
	MHA-V8WD2N12	HB-A100CGN12	8.00	2.35	3.40
	MHA-V8WD2N12	HB-A100CD***GN12	8.00	2.35	3.40
	MHA-V10WD2N12	HB-A100CGN12	9.50	2.88	3.30
	MHA-V10WD2N12	HB-A100CD***GN12	9.50	2.88	3.30

Condition(°C)	Model		Capacity (kW)	Power input (kW)	EER/COP (/)
	Outdoor unit	Indoor unit			
Ambient Temperature: 2/1 Water temperature: 40/45	MHA-V4WD2N12	HB-A60CGN12	4.00	1.31	3.05
	MHA-V4WD2N12	HB-A60CD***GN12	4.00	1.31	3.05
	MHA-V6WD2N12	HB-A60CGN12	5.80	2.11	2.75
	MHA-V6WD2N12	HB-A60CD***GN12	5.80	2.11	2.75
	MHA-V8WD2N12	HB-A100CGN12	7.10	2.48	2.86
	MHA-V8WD2N12	HB-A100CD***GN12	7.10	2.48	2.86
	MHA-V10WD2N12	HB-A100CGN12	8.10	2.97	2.73
	MHA-V10WD2N12	HB-A100CD***GN12	8.10	2.97	2.73
Ambient Temperature: -7/-8 Water temperature: 40/45	MHA-V4WD2N12	HB-A60CGN12	4.00	1.57	2.55
	MHA-V4WD2N12	HB-A60CD***GN12	4.00	1.57	2.55
	MHA-V6WD2N12	HB-A60CGN12	5.40	2.40	2.25
	MHA-V6WD2N12	HB-A60CD***GN12	5.40	2.40	2.25
	MHA-V8WD2N12	HB-A100CGN12	6.80	2.79	2.44
	MHA-V8WD2N12	HB-A100CD***GN12	6.80	2.79	2.44
	MHA-V10WD2N12	HB-A100CGN12	7.50	3.22	2.33
	MHA-V10WD2N12	HB-A100CD***GN12	7.50	3.22	2.33
Ambient Temperature: 7/6 Water temperature: 47/55	MHA-V4WD2N12	HB-A60CGN12	4.40	1.44	3.05
	MHA-V4WD2N12	HB-A60CD***GN12	4.40	1.44	3.05
	MHA-V6WD2N12	HB-A60CGN12	6.00	2.07	2.90
	MHA-V6WD2N12	HB-A60CD***GN12	6.00	2.07	2.90
	MHA-V8WD2N12	HB-A100CGN12	8.00	2.71	2.95
	MHA-V8WD2N12	HB-A100CD***GN12	8.00	2.71	2.95
	MHA-V10WD2N12	HB-A100CGN12	9.50	3.39	2.80
	MHA-V10WD2N12	HB-A100CD***GN12	9.50	3.39	2.80
Ambient Temperature: 2/1 Water temperature: 47/55	MHA-V4WD2N12	HB-A60CGN12	4.00	1.54	2.59
	MHA-V4WD2N12	HB-A60CD***GN12	4.00	1.54	2.59
	MHA-V6WD2N12	HB-A60CGN12	5.60	2.29	2.45
	MHA-V6WD2N12	HB-A60CD***GN12	5.60	2.29	2.45
	MHA-V8WD2N12	HB-A100CGN12	7.00	2.75	2.55
	MHA-V8WD2N12	HB-A100CD***GN12	7.00	2.75	2.55
	MHA-V10WD2N12	HB-A100CGN12	8.00	3.29	2.43
	MHA-V10WD2N12	HB-A100CD***GN12	8.00	3.29	2.43
Ambient Temperature: -7/-8 Water temperature: 47/55	MHA-V4WD2N12	HB-A60CGN12	3.80	1.82	2.09
	MHA-V4WD2N12	HB-A60CD***GN12	3.80	1.82	2.09
	MHA-V6WD2N12	HB-A60CGN12	5.20	2.54	2.05
	MHA-V6WD2N12	HB-A60CD***GN12	5.20	2.54	2.05
	MHA-V8WD2N12	HB-A100CGN12	6.40	2.86	2.24
	MHA-V8WD2N12	HB-A100CD***GN12	6.40	2.86	2.24
	MHA-V10WD2N12	HB-A100CGN12	7.00	3.23	2.17
	MHA-V10WD2N12	HB-A100CD***GN12	7.00	3.23	2.17

Unit type explanation:

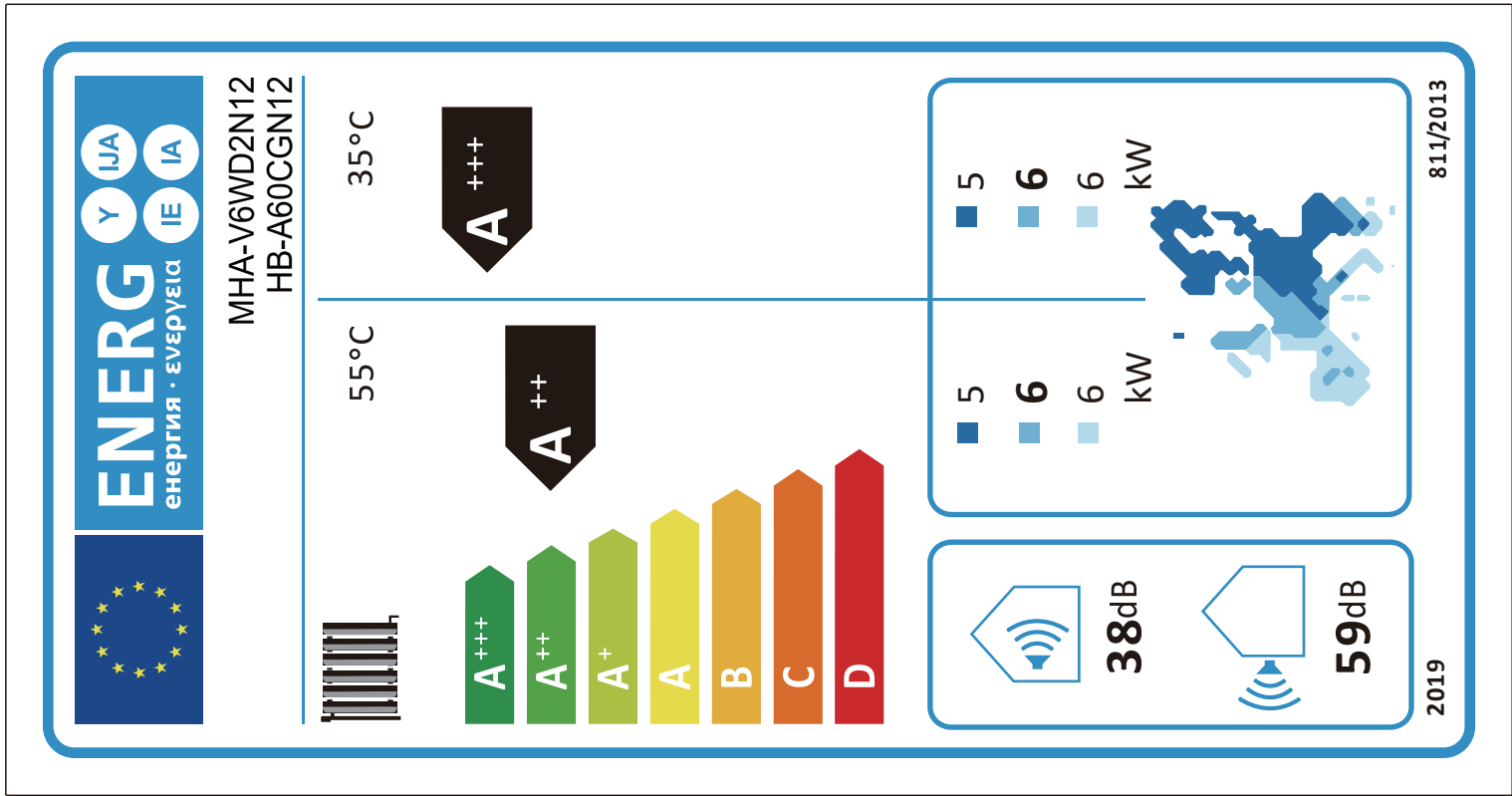
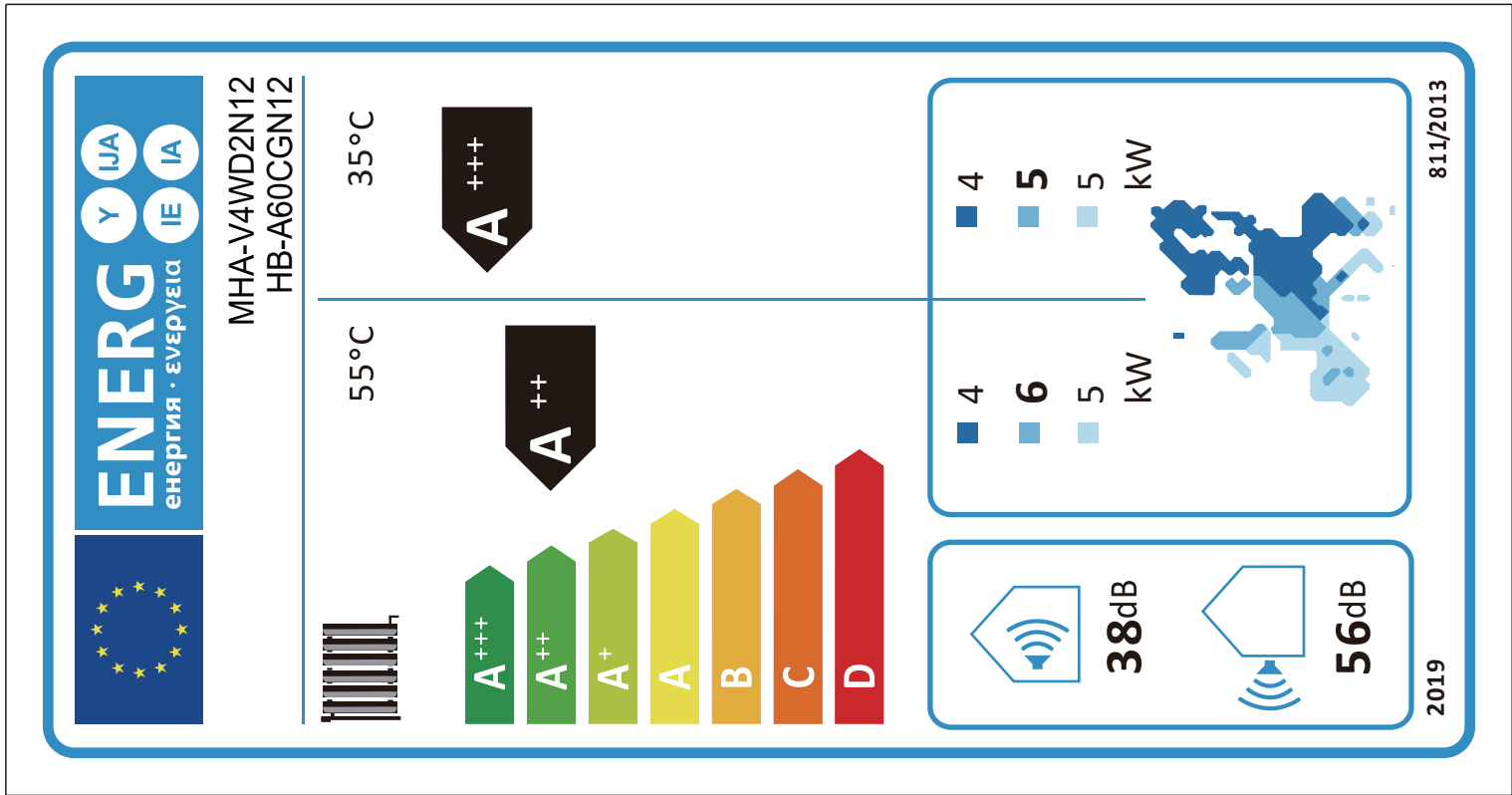
1.HB-A***CGN12, without back-up heater,

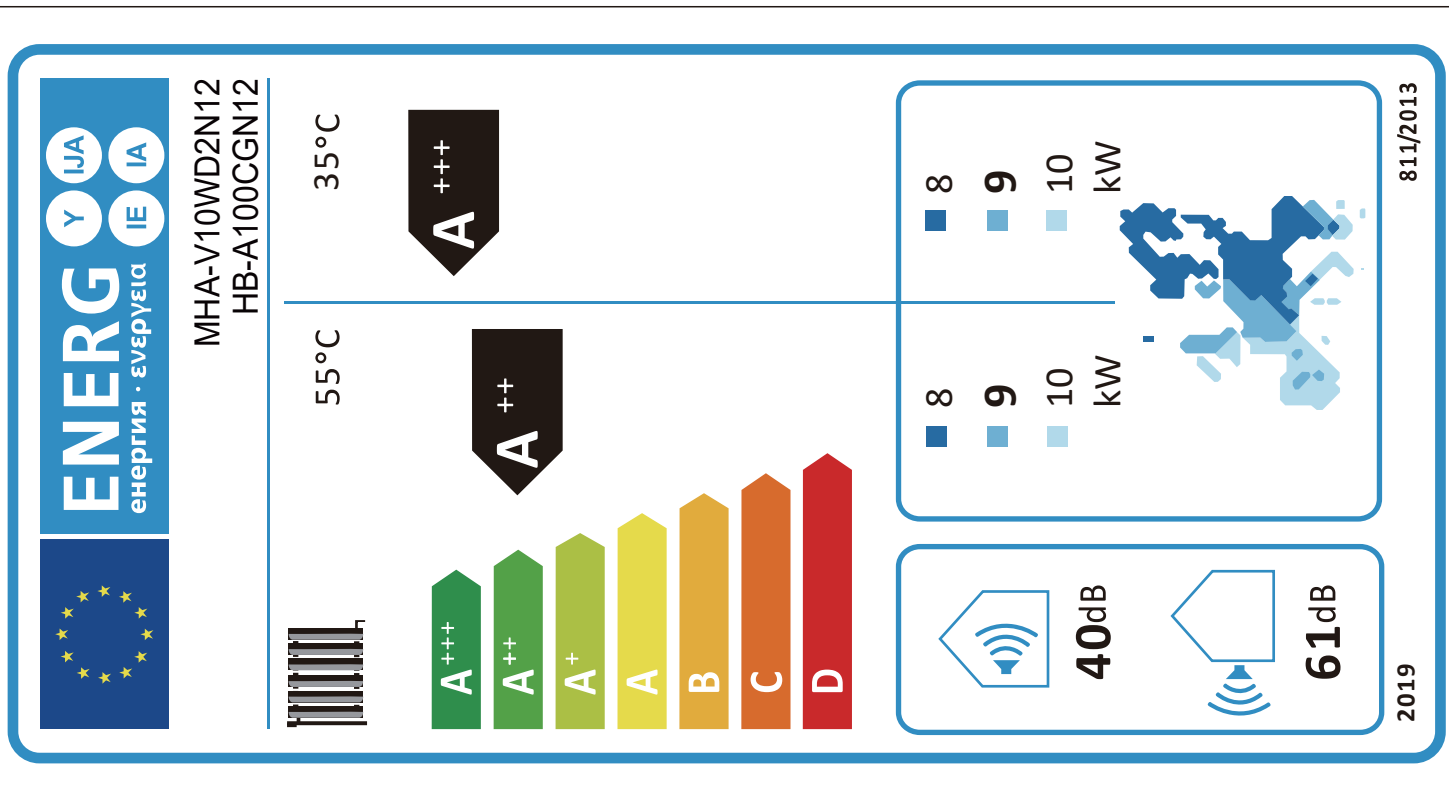
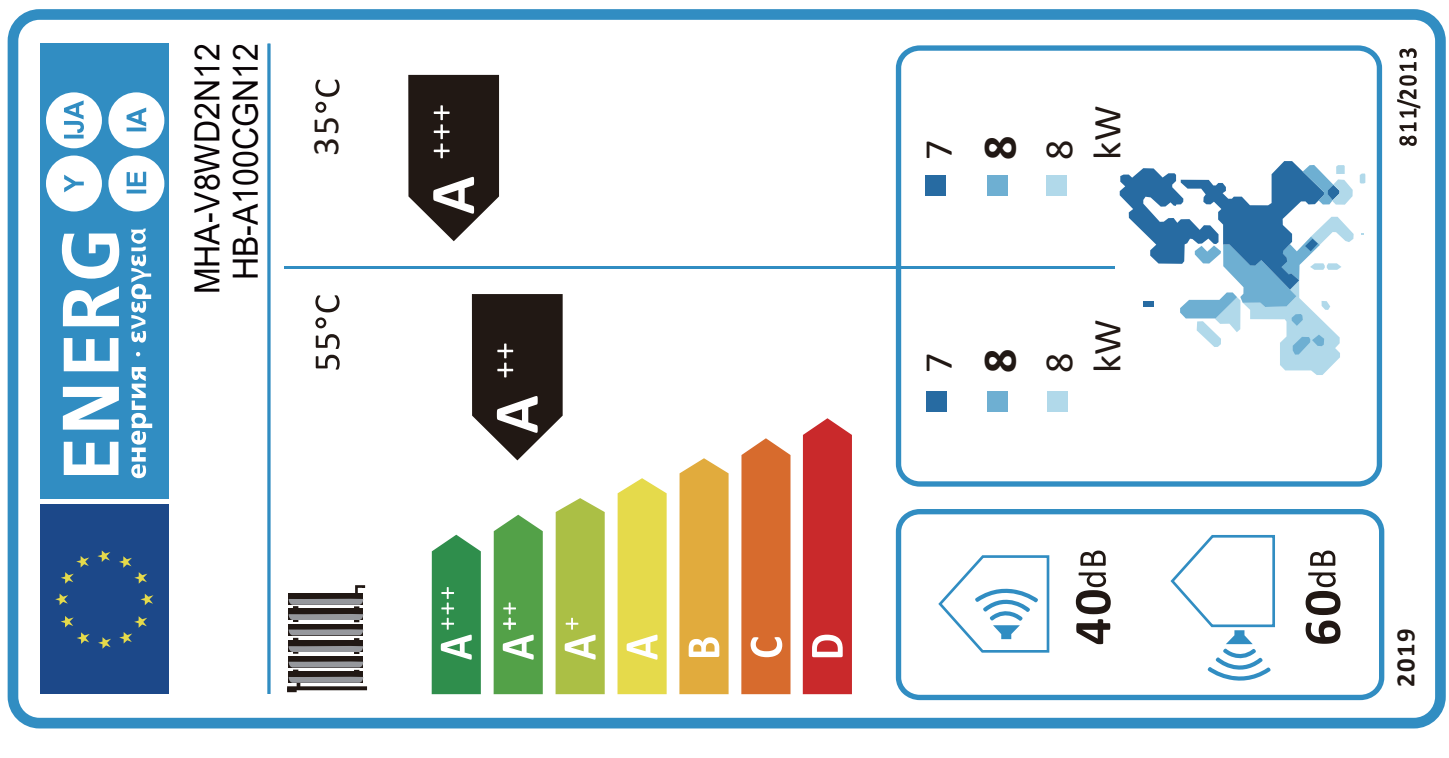
2.HB-A***CD30GN12, with 3 kW back-up heater and 1-Phase power source

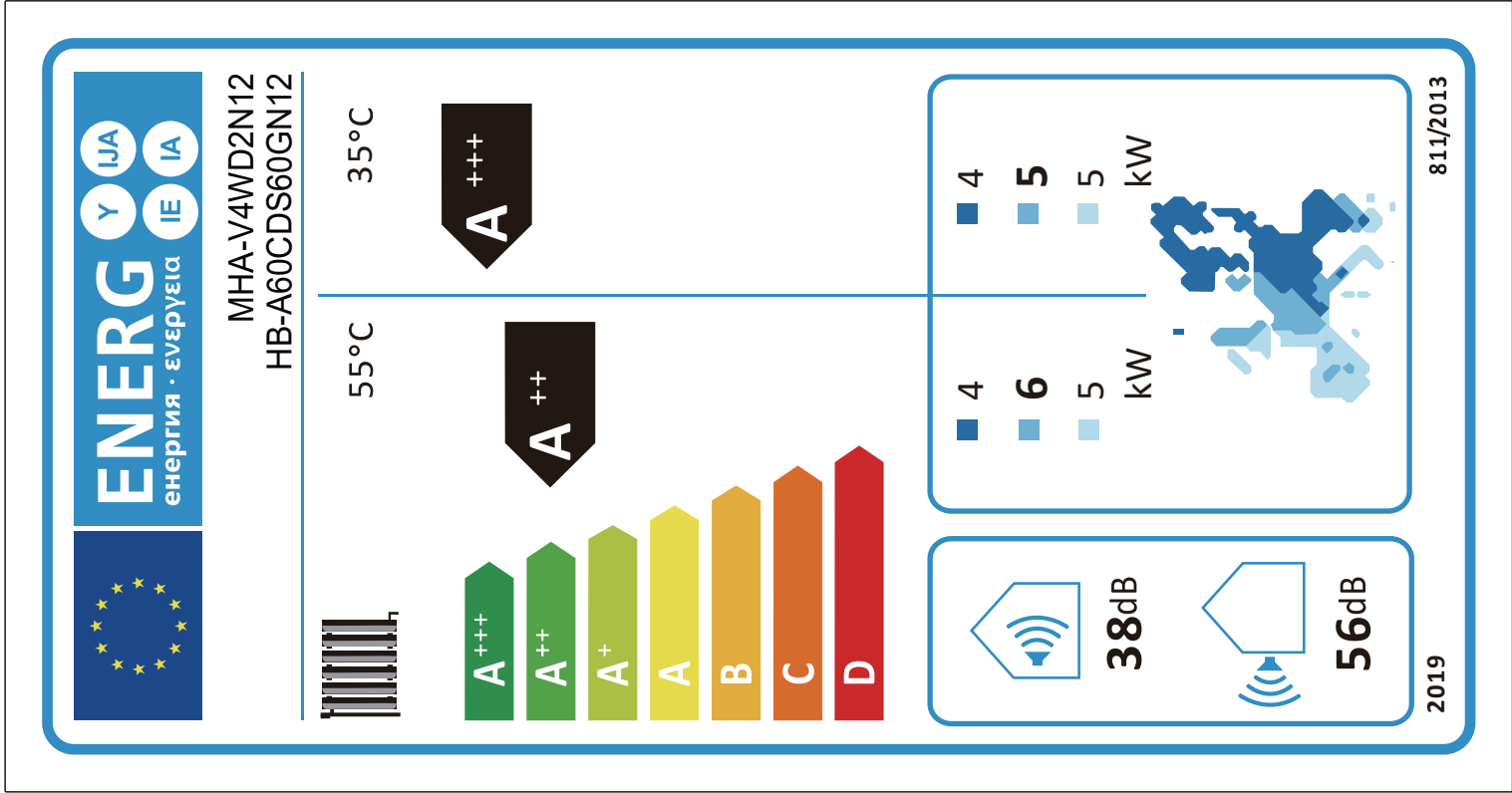
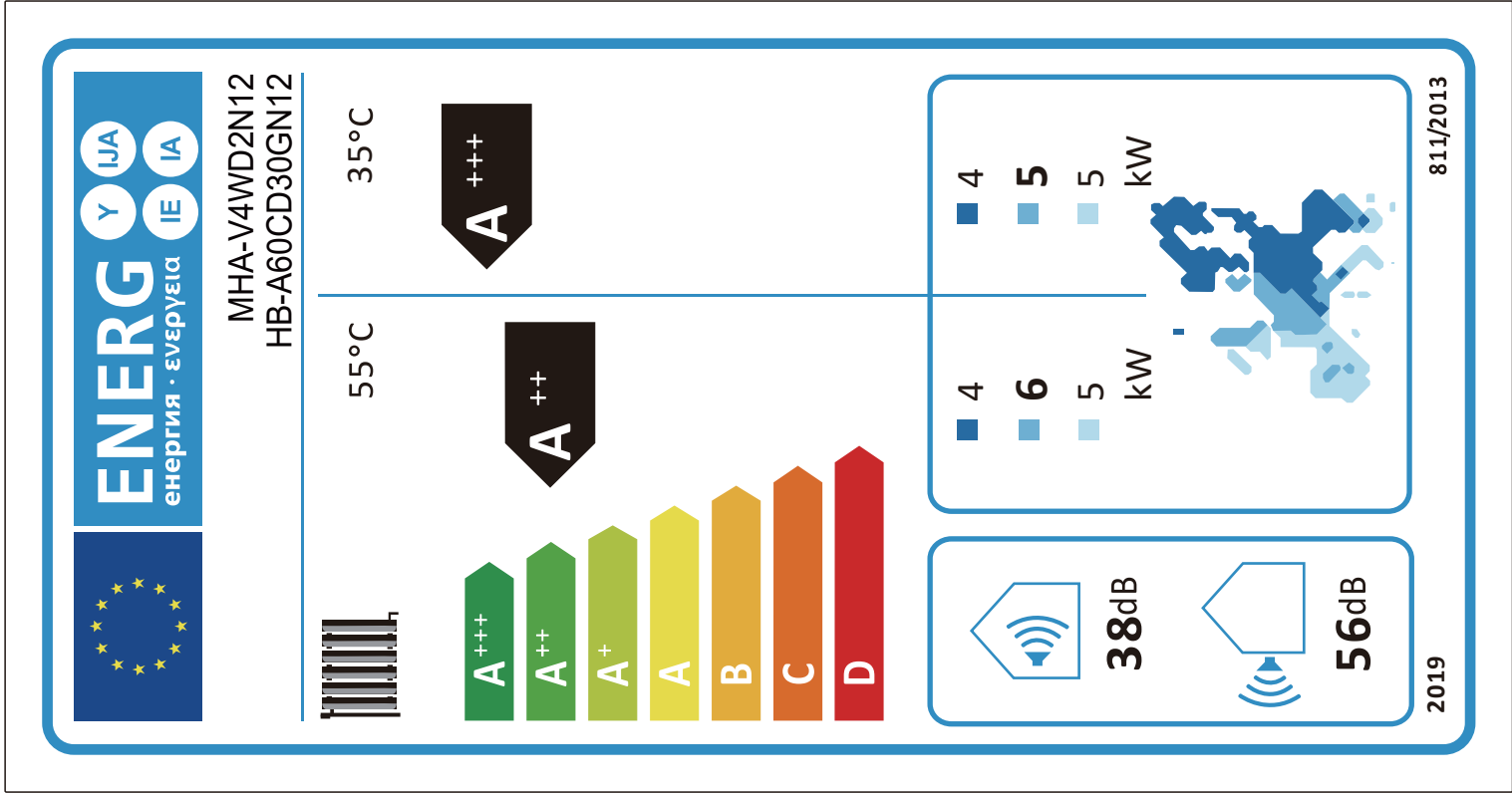
3.HB-A***CDS60GN12, with 6 kW back-up heater and 3-Phase power source

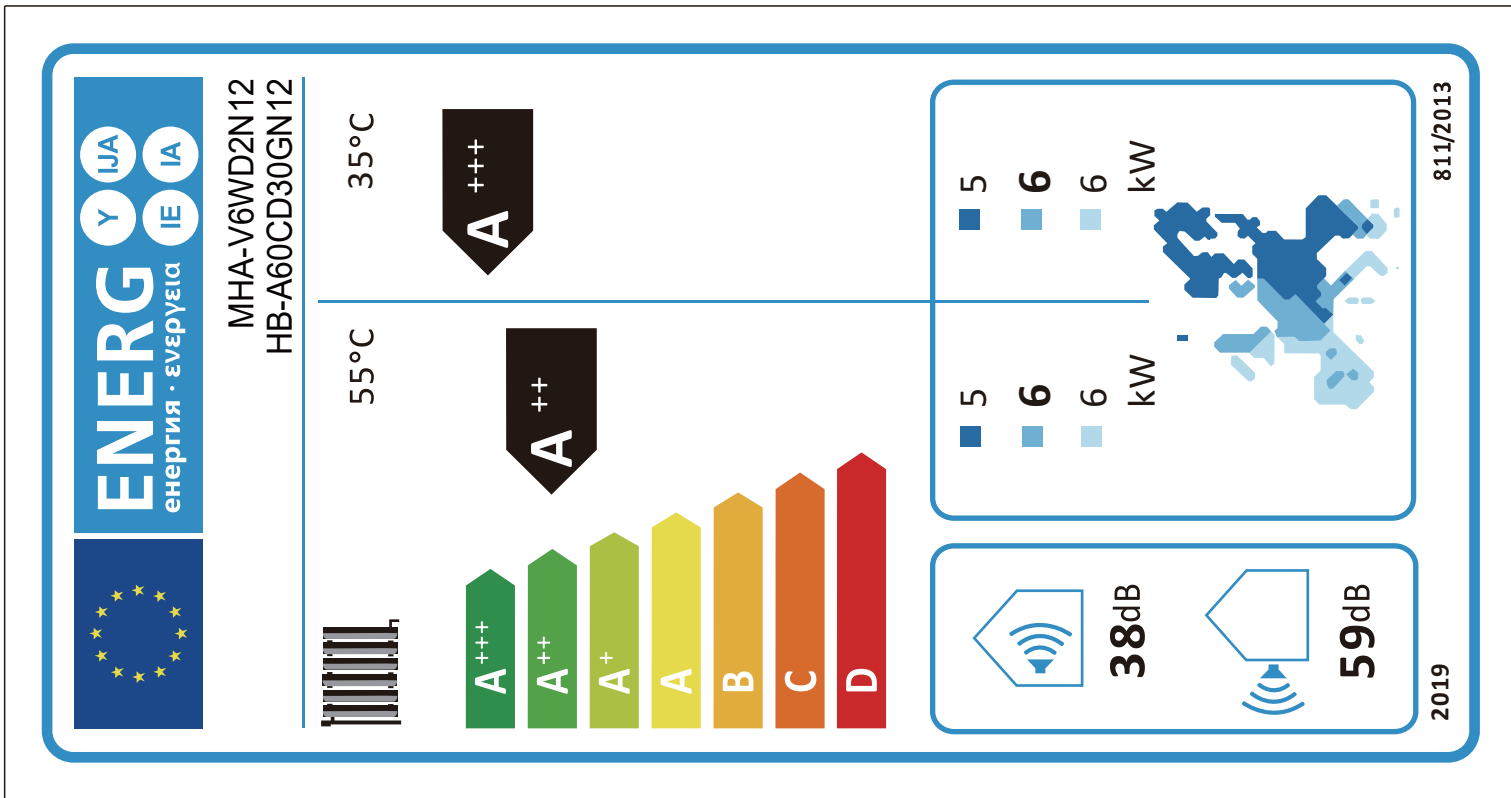
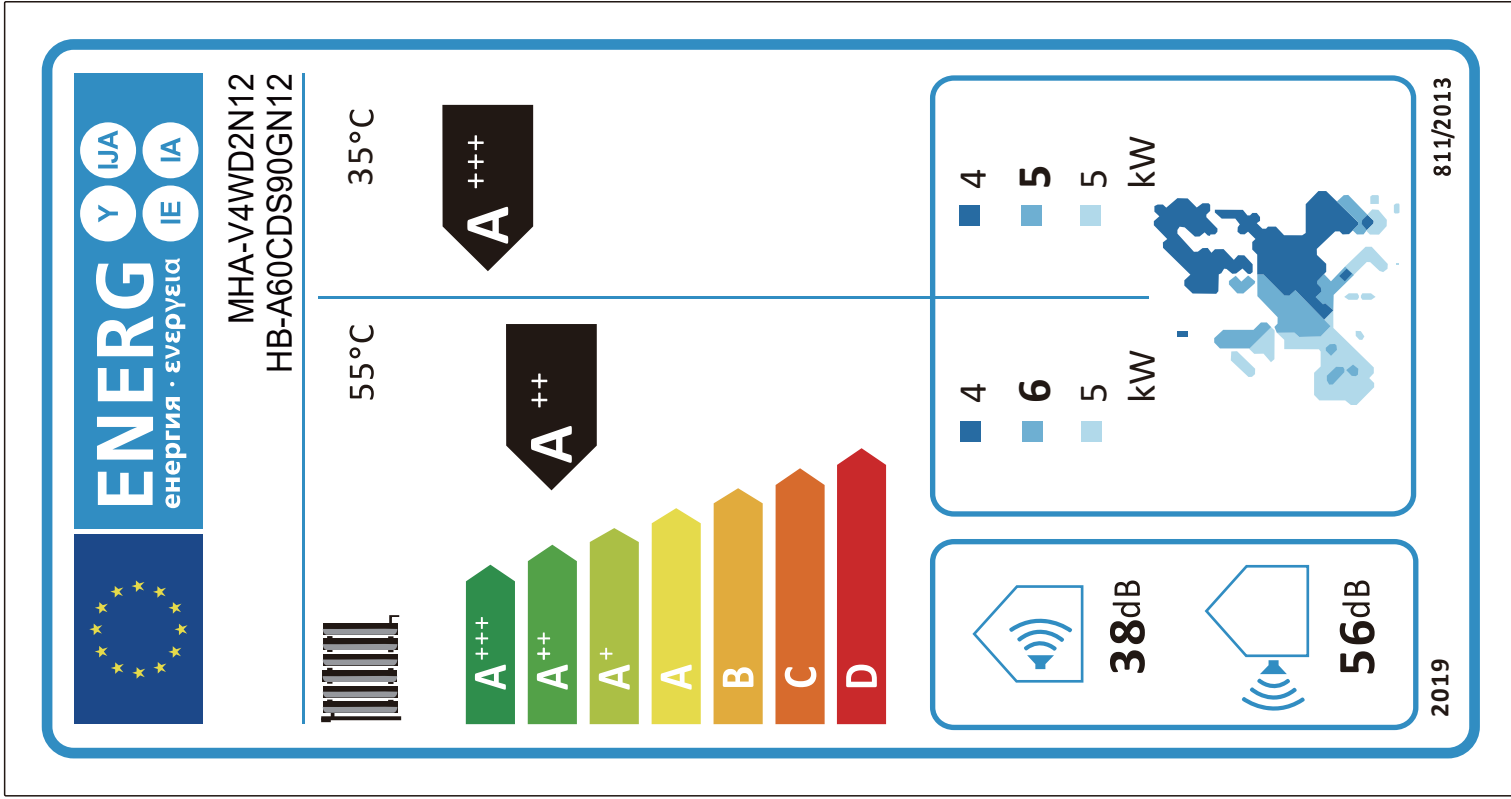
4.HB-A***CDS90GN12, with 9 kW back-up heater and 3-Phase power source

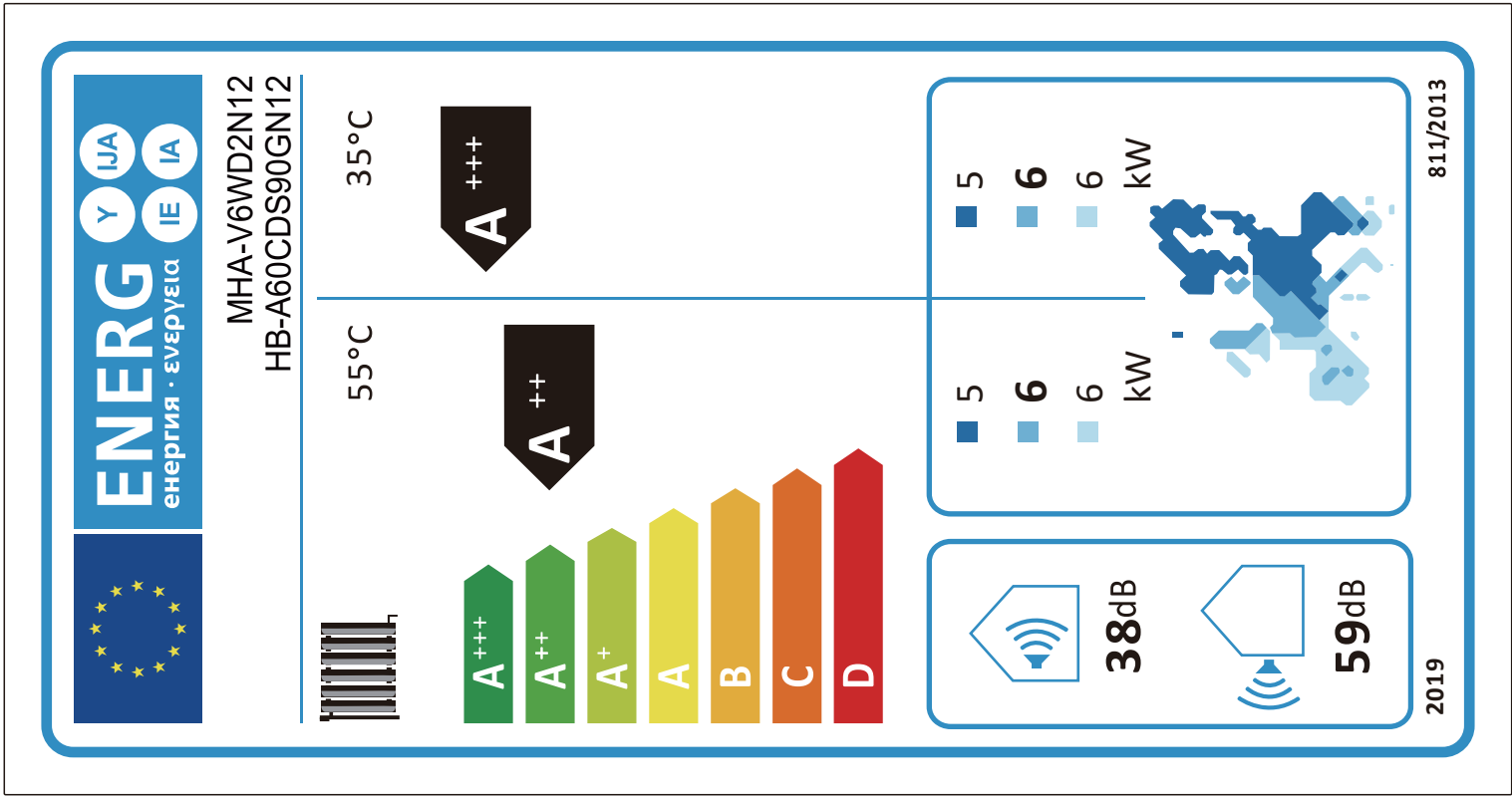
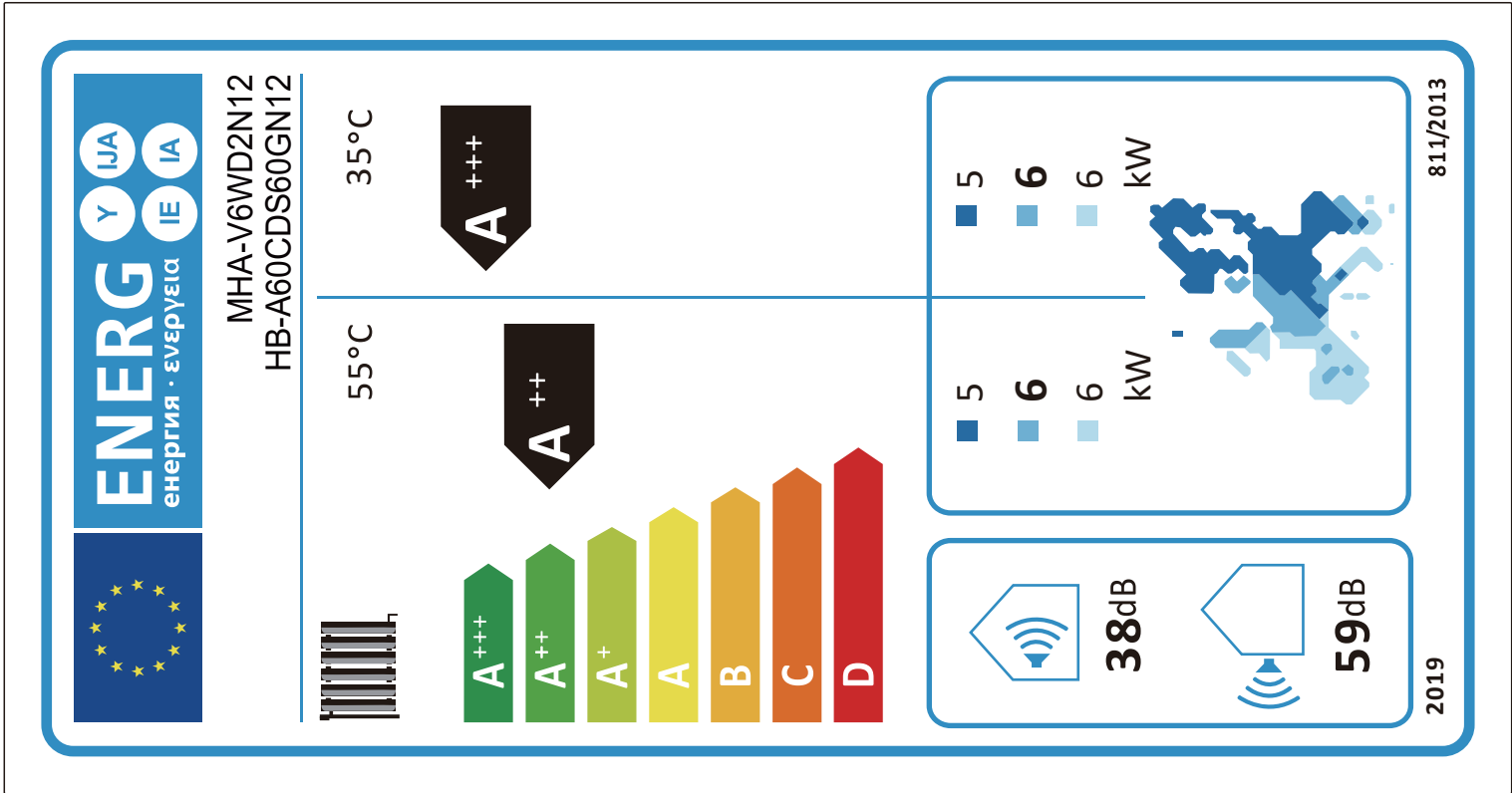
Note: EER and COP calculation is based in accordance to EN14511

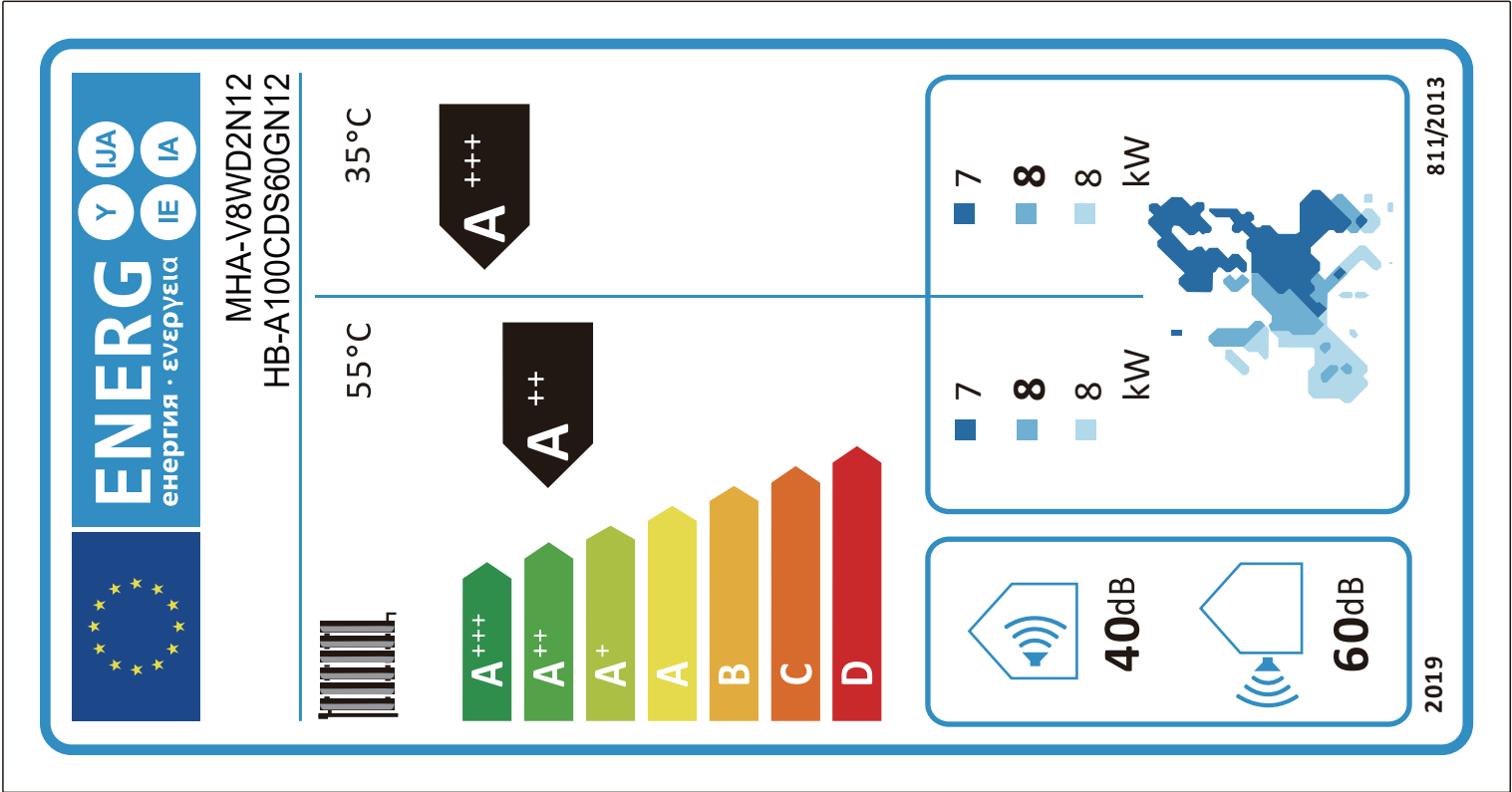
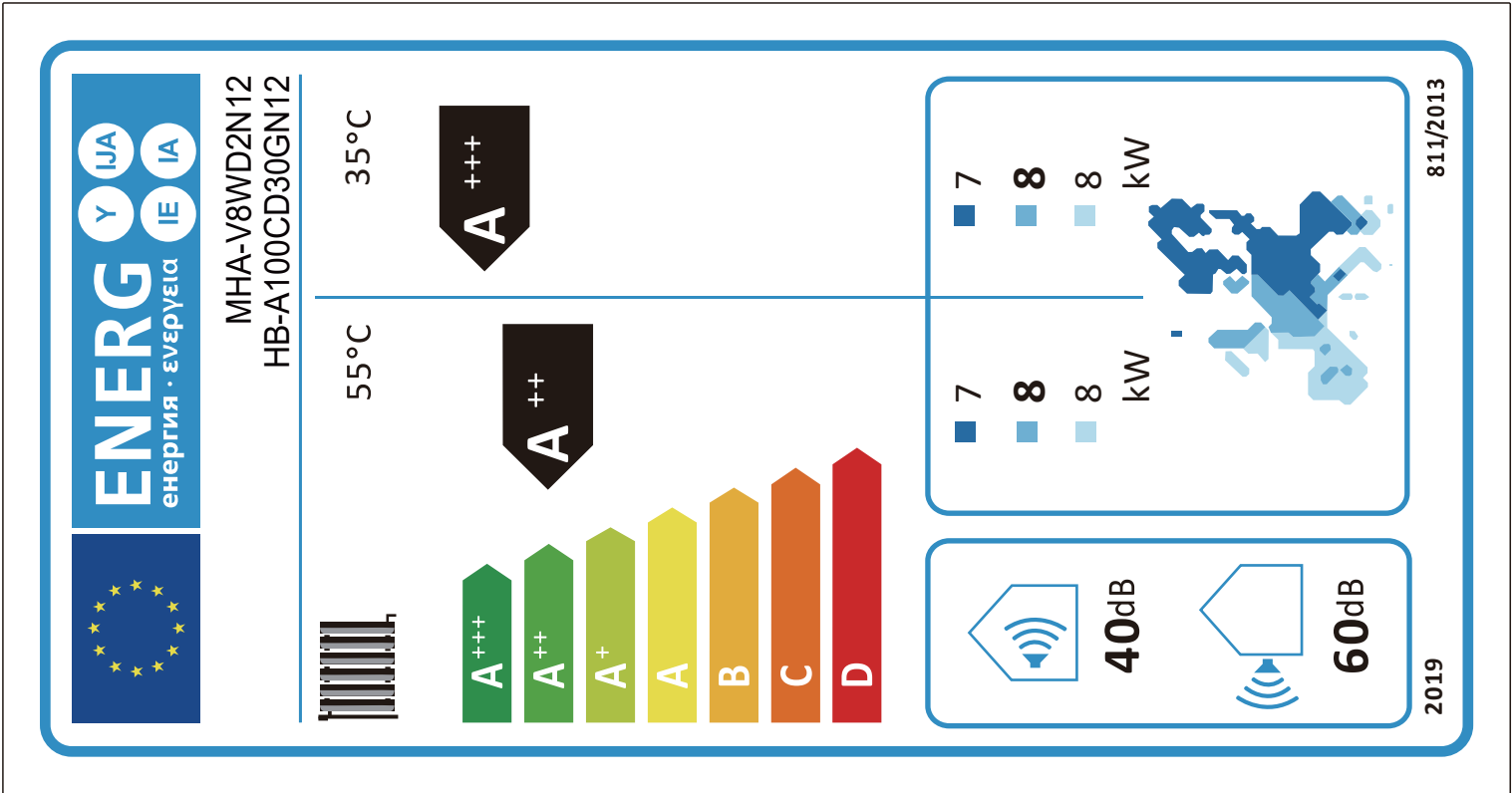


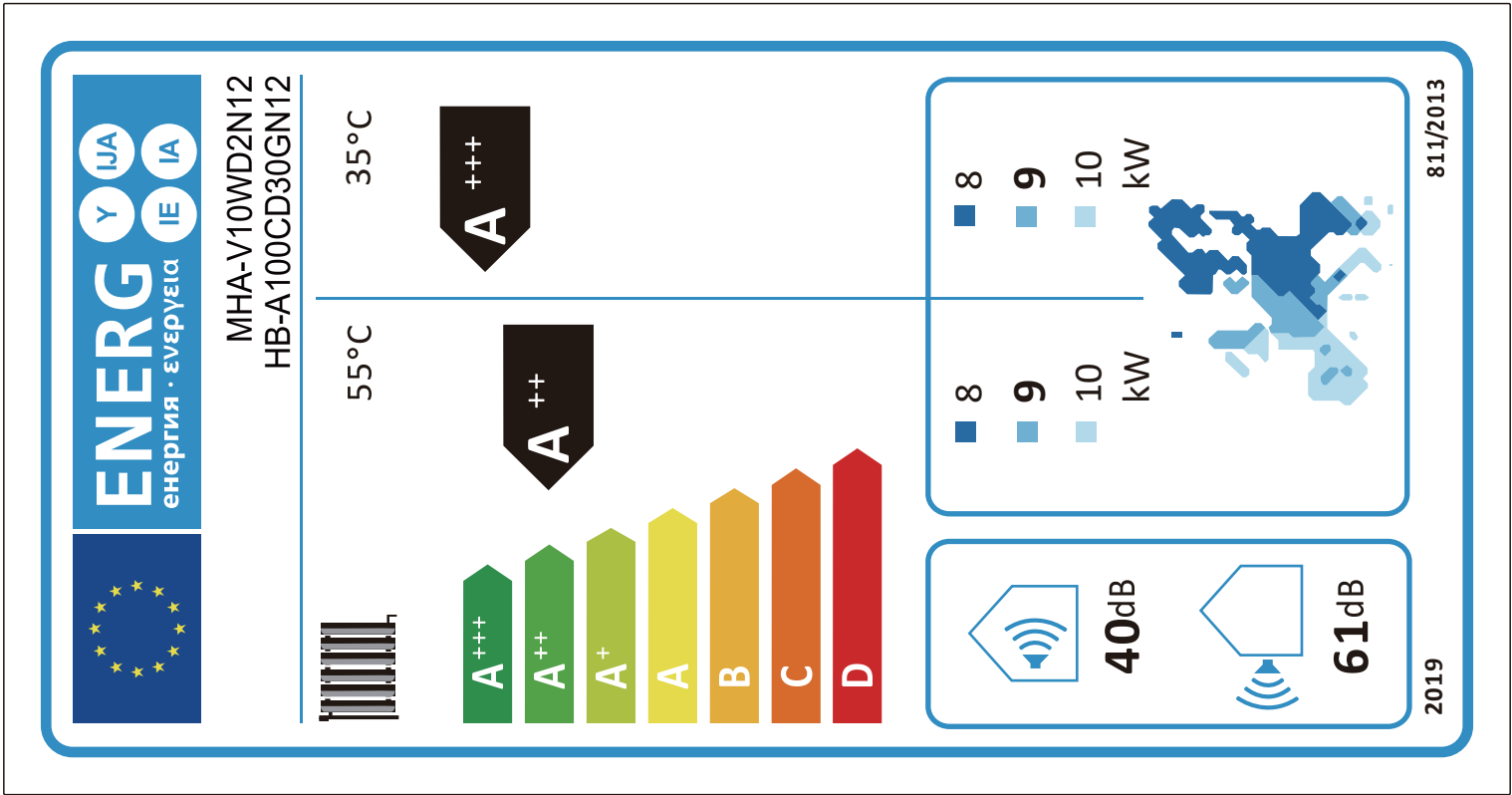
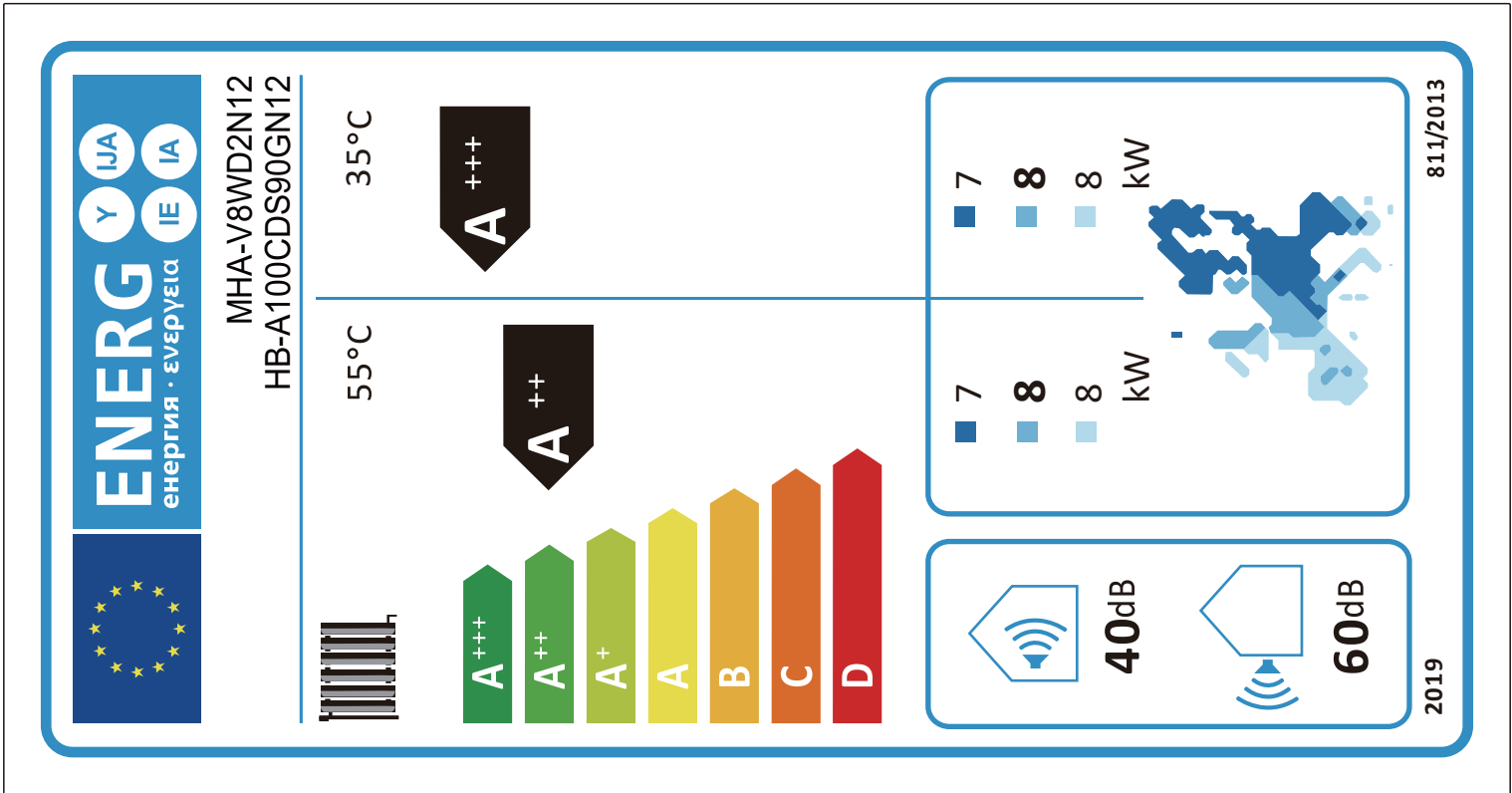














ENERG
енергия · ενεργεια



MHA-V10WD2N12
HB-A100CDS60GN12



55°C

35°C

A⁺⁺⁺

A⁺⁺

A⁺

A

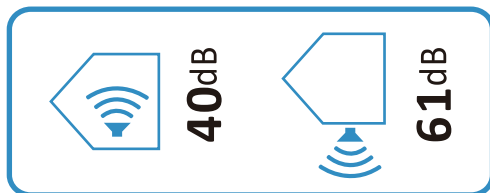
B

C

D

A⁺⁺⁺

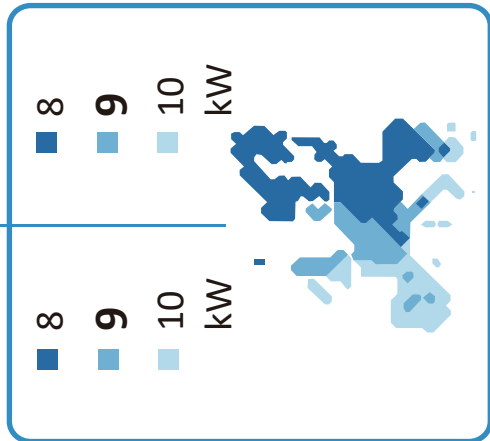
A⁺⁺



40dB



61dB



8 9 10 kW

2019

811/2013



ENERG
енергия · ενεργεια



MHA-V10WD2N12
HB-A100CDS90GN12



55°C

35°C

A⁺⁺⁺

A⁺⁺

A⁺

A

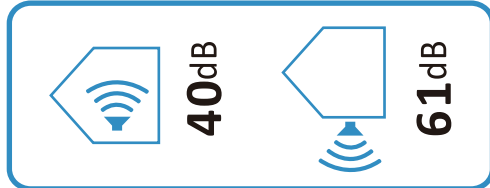
B

C

D

A⁺⁺⁺

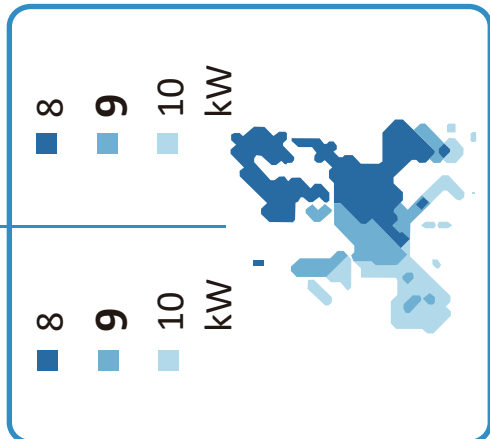
A⁺⁺



40dB



61dB



8 9 10 kW

2019

811/2013

16125300005459 V.B

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(双面打印，沿短边装订)
颜色	彩色
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	田伟	2026.06.04	见更改记录表	见更改记录表

颜色标注, 请参照下图:

