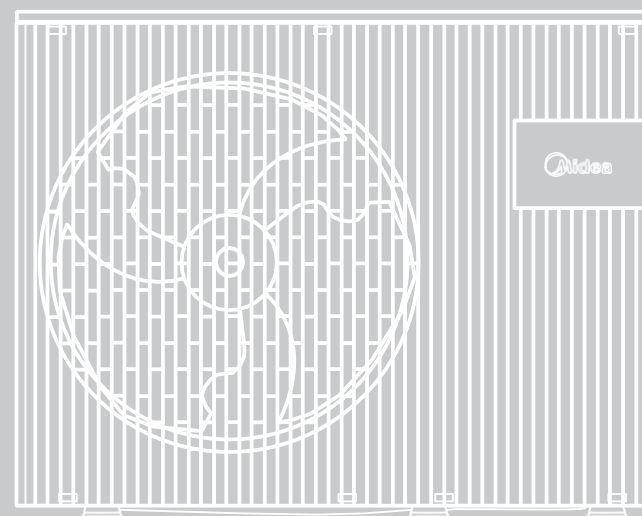


# TECHNICAL DATA MANUAL AND ENERGY EFFICIENCY

Aquantia Evo Split Outdoor Unit



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.



# Product

Energy labelling regulation: (EU)811/2013

Ecodesign regulation: (EU)813/2013

Heat pump combination heater		Outdoor	KHP-BI 12 DVR4	KHP-BI 14 DVR4	KHP-BI 16 DVR4	KHP-BI 12 DTR4	KHP-BI 14 DTR4	KHP-BI 16 DTR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
Indoor unit sound power(*)		dB	44	44	44	44	44	44
Outdoor unit sound power(*)		dB	59	60	60	59	60	60
Water heating	Declared load profile	-	XL	XL	XL	XL	XL	XL
	Energy efficiency class	-	A+	A+	A+	A+	A+	A+
Space heating	Energy efficiency class at 55°C (High temp. app.)	-	A+++	A+++	A+++	A+++	A+++	A+++
Average climate								
Water heating	Water heating energy efficiency ( $\eta_{wh}$ )	[%]	136	136	136	136	136	136
	Annual electricity consumption (AEC)	[kWh]	1 232	1 232	1 232	1 232	1 232	1 232
Space heating	$P_{rated}$ (declared heating capacity)@-10°C	[kW]	12	13.8	15	12	13.8	15
	Seasonal space heating efficiency( $\eta_s$ )	[%]	153.7	152.2	151.0	153.7	152.2	151.0
	Annual energy consumption	[kWh]	6 330	7 350	8 049	6 330	7 350	8 049
Off-peak operation function integrated in heat pump		Y/N	Y	Y	Y	Y	Y	Y
Colder climate								
Water heating	Water heating energy efficiency ( $\eta_{wh}$ )	[%]	114	114	114	114	114	114
	Annual energy consumption	[kWh]	1 478	1 478	1 478	1 478	1 478	1 478
Space heating	$P_{rated}$ (declared heating capacity)@-22°C	[kW]	11.00	12.00	13.00	11.00	12.00	13.00
	Seasonal space heating efficiency( $\eta_s$ )	[%]	126.3	128.0	130.9	126.3	128.0	130.9
	Annual energy consumption	[kWh]	8 387	9 034	9 573	8 387	9 034	9 573
Warmer climate								
Water heating	Water heating energy efficiency ( $\eta_{wh}$ )	[%]	153	153	153	153	153	153
	Annual energy consumption	[kWh]	1 043	1 043	1 043	1 043	1 043	1 043
Space heating	$P_{rated}$ (declared heating capacity)@2°C	[kW]	13.10	14.10	14.10	13.10	14.10	14.10
	Seasonal space heating efficiency( $\eta_s$ )	[%]	171.1	171.4	171.4	171.1	171.4	171.4
	Annual energy consumption	[kWh]	4 022	4 321	4 321	4 022	4 321	4 321
Ecodesign technical data								
Product description	Air-to-water heat pump	Y/N	Y	Y	Y	Y	Y	Y
	Water-to-water heat pump	Y/N	N	N	N	N	N	N
	Brine-to-water heat pump	Y/N	N	N	N	N	N	N
	Low-temperature heat pump	Y/N	N	N	N	N	N	N
	Equipped with a supplementary heater	Y/N	Y	Y	Y	Y	Y	Y
	Heat pump combination heater	Y/N	Y	Y	Y	Y	Y	Y
Air-to-water unit	Rated airflow (outdoor)	[m <sup>3</sup> /h]	4 780	4 780	4 780	4 780	4 780	4 780
Brine/water-to-water heat pump	Rated brine/water flow (outdoor H/E)	[m <sup>3</sup> /h]	-	-	-	-	-	--

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
KHP-BI 12 DVR4	KHPI-BI-16VR4XL	A+++	43	59	12.0	153.7	6 330	11.0	126.3	8 387	13.1	171.1	4 022
KHP-BI 14 DVR4	KHPI-BI-16VR4XL	A+++	43	60	13.8	152.2	7 350	12.0	128.0	9 034	14.1	171.4	4 321
KHP-BI 16 DVR4	KHPI-BI-16VR4XL	A+++	43	60	15.0	151.0	8 049	13.0	130.9	9 573	14.1	171.4	4 321
KHP-BI 12 DTR4	KHPI-BI-16VR4XL	A+++	43	59	12.0	153.7	6 330	11.0	126.3	8 387	13.1	171.1	4 022
KHP-BI 14 DTR4	KHPI-BI-16VR4XL	A+++	43	60	13.8	152.2	7 350	12.0	128.0	9 034	14.1	171.4	4 321
KHP-BI 16 DTR4	KHPI-BI-16VR4XL	A+++	43	60	15.0	151.0	8 049	13.0	130.9	9 573	14.1	171.4	4 321

Model		For low - temperature application											
Outdoor unit	Indoor unit	Energy efficiency class	Indoor unit sound power	Outdoor unit sound power	Average climate			Colder climate			Warmer climate		
					Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption	Rated heat output	Seasonal space heating energy efficiency	For space heating, annual energy consumption
					-	dB	dB	kW	%	kWh	kW	%	kWh
KHP-BI 12 DVR4	KHPI-BI-16VR4XL	A+++	43	59	12.0	204.6	4 777	12.0	179.7	6 475	12.4	253.4	2 584
KHP-BI 14 DVR4	KHPI-BI-16VR4XL	A+++	43	60	13.8	199.4	5 633	14.0	179.4	7 570	13.2	257.4	2 709
KHP-BI 16 DVR4	KHPI-BI-16VR4XL	A+++	43	60	15.5	194.0	6 503	15.5	179.1	8 393	14.1	257.3	2 895
KHP-BI 12 DTR4	KHPI-BI-16VR4XL	A+++	43	59	12.0	204.6	4 777	12.0	179.7	6 475	12.4	253.4	2 584
KHP-BI 14 DTR4	KHPI-BI-16VR4XL	A+++	43	60	13.8	199.4	5 633	14.0	179.4	7 570	13.2	257.4	2 709
KHP-BI 16 DTR4	KHPI-BI-16VR4XL	A+++	43	60	15.5	194.0	6 503	15.5	179.1	8 393	14.1	257.3	2 895

# Product fiche 1

Heat pump space heater		Outdoor	KHP-BI 12 DVR4	KHP-BI 14 DVR4	KHP-BI 16 DVR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
Other	Capacity control	-	inverter	inverter	inverter
	Poff (Power consumption Off mode)	[kW]	0.014	0.014	0.014
	Pto (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.024
	Psb (Power consumption Standby mode)	[kW]	0.014	0.014	0.014
	PCK (Power crankcase heater model)	[kW]	0.000	0.000	0.000
	Qelec (Daily electricity consumption)	[kWh]	/	/	/
	Qfuel (Daily fuel consumption)	[kWh]	/	/	/
Part load conditions space heating average climate low temperature application					
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	10.67	12.22	13.68
	COPd (declared COP)	-	3.21	3.08	2.90
	Cdh(degradation coefficient)	-	0.99	0.99	1.00
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	6.61	7.74	8.60
	COPd (declared COP)	-	5.07	4.80	4.67
	Cdh(degradation coefficient)	-	0.98	0.99	0.99
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	5.23	5.27	5.65
	COPd (declared COP)	-	6.83	7.12	7.00
	Cdh(degradation coefficient)	-	0.97	0.97	0.97
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	5.98	5.98	6.00
	COPd (declared COP)	-	8.68	8.85	8.91
	Cdh(degradation coefficient)	-	0.97	0.96	0.96
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10	-10	-10
	Pdh (declared heating capacity)	[kW]	11.74	13.50	15.50
	COPd (declared COP)	-	2.83	2.62	2.45
	WTOL (Heating water Operation Limit)	[°C]	65	65	65

# Product fiche 1

Heat pump space heater		Outdoor	KHP-BI 12 DTR4	KHP-BI 14 DTR4	KHP-BI 16 DTR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
Other	Capacity control	-	inverter	inverter	inverter
	Poff (Power consumption Off mode)	[kW]	0.014	0.014	0.014
	Pto (Power consumption Thermostat off mode)	[kW]	0.024	0.024	0.024
	Psb (Power consumption Standby mode)	[kW]	0.014	0.014	0.014
	PCK (Power crankcase heater model)	[kW]	0.000	0.000	0.000
	Qelec (Daily electricity consumption)	[kWh]	/	/	/
	Qfuel (Daily fuel consumption)	[kWh]	/	/	/
Part load conditions space heating average climate low temperature application					
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	10.67	12.22	13.68
	COPd (declared COP)	-	3.21	3.07	2.90
	Cdh(degradation coefficient)	-	0.99	0.99	1.00
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	6.61	7.74	8.60
	COPd (declared COP)	-	5.07	4.80	4.67
	Cdh(degradation coefficient)	-	0.98	0.99	0.99
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	5.23	5.27	5.65
	COPd (declared COP)	-	6.83	7.12	7.00
	Cdh(degradation coefficient)	-	0.97	0.97	0.97
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	5.98	5.98	6.00
	COPd (declared COP)	-	8.68	8.85	8.91
	Cdh(degradation coefficient)	-	0.97	0.96	0.96
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10	-10	-10
	Pdh (declared heating capacity)	[kW]	11.74	13.50	15.50
	COPd (declared COP)	-	2.83	2.62	2.45
	WTOL (Heating water Operation Limit)	[°C]	65	65	65

# Product fiche 2

Heat pump space heater		Outdoor	KHP-BI 12 DVR4	KHP-BI 14 DVR4	KHP-BI 16 DVR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
(F) Tbivalent temperature	Tblv	[°C]	-7	-7	-7
	Pdh (declared heating capacity)	[kW]	10.67	12.22	13.68
	COPd (declared COP)	-	3.21	3.08	2.90
Supplementary capacity at P_design	Psup (@Tdesignh: -10°C)	[kW]	0.26	0.30	0.00
Part load conditions space heating average climate medium temperature application					
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	10.86	12.51	13.62
	COPd (declared COP)	-	2.46	2.43	2.35
	Cdh(degradation coefficient)	-	1.00	1.00	1.00
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	6.91	7.69	8.24
	COPd (declared COP)	-	3.87	3.71	3.70
	Cdh(degradation coefficient)	-	0.99	0.99	0.99
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	4.90	4.97	5.23
	COPd (declared COP)	-	4.97	5.22	5.24
	Cdh(degradation coefficient)	-	0.98	0.98	0.98
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	5.81	5.83	5.84
	COPd (declared COP)	-	6.48	6.60	6.65
	Cdh(degradation coefficient)	-	0.97	0.97	0.97
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10	-10	-10
	Pdh (declared heating capacity)	[kW]	12.00	13.22	13.22
	COPd (declared COP)	-	1.93	2.06	2.06
	WTOL (Heating water Operation Limit)	[°C]	65	65	65
(F) Tbivalent temperature	Tblv	[°C]	-7	-7	-7
	Pdh (declared heating capacity)	[kW]	10.86	12.51	13.62
	COPd (declared COP)	-	2.46	2.43	2.35
Supplementary capacity at P_design	Psup (@Tdesignh: -10°C)	[kW]	0.00	0.58	1.78
Colder climate (Design temperature = -22°C)					
Space heating 35°C	Prated (declared heating capacity) @ -22°C	[kW]	12.0	14.0	15.5
	Seasonal space heating efficiency (ηs)	[%]	179.7	179.4	179.1
	Annual energy consumption	[kWh]	6 475	7 570	8 393

# Product fiche 2

Heat pump space heater		Outdoor	KHP-BI 12 DTR4	KHP-BI 14 DTR4	KHP-BI 16 DTR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
(F) Tivalent temperature	Tblv	[°C]	-7	-7	-7
	Pdh (declared heating capacity)	[kW]	10.67	12.22	13.68
	COPd (declared COP)	-	3.21	3.07	2.90
Supplementary capacity at P_design	Psup (@Tdesignh: -10°C)	[kW]	0.26	0.30	0.00
Part load conditions space heating average climate medium temperature application					
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	10.86	12.51	13.62
	COPd (declared COP)	-	2.46	2.43	2.35
	Cdh(degradation coefficient)	-	1.00	1.00	1.00
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	6.91	7.69	8.24
	COPd (declared COP)	-	3.87	3.71	3.70
	Cdh(degradation coefficient)	-	0.99	0.99	0.99
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	4.90	4.97	5.23
	COPd (declared COP)	-	4.97	5.22	5.24
	Cdh(degradation coefficient)	-	0.98	0.98	0.98
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	5.81	5.83	5.84
	COPd (declared COP)	-	6.48	6.60	6.65
	Cdh(degradation coefficient)	-	0.97	0.97	0.97
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-10	-10	-10
	Pdh (declared heating capacity)	[kW]	12.00	13.22	13.22
	COPd (declared COP)	-	1.93	2.06	2.06
	WTOL (Heating water Operation Limit)	[°C]	65	65	65
(F) Tivalent temperature	Tblv	[°C]	-7	-7	-7
	Pdh (declared heating capacity)	[kW]	10.86	12.51	13.62
	COPd (declared COP)	-	2.46	2.43	2.35
Supplementary capacity at P_design	Psup (@Tdesignh: -10°C)	[kW]	0.00	0.58	1.78
Colder climate (Design temperature = -22°C)					
Space heating 35°C	Prated (declared heating capacity) @ -22°C	[kW]	12.0	14.0	15.5
	Seasonal space heating efficiency (ηs)	[%]	179.7	179.4	179.1
	Annual energy consumption	[kWh]	6 475	7 570	8 393

# Product fiche 3

Heat pump space heater		Outdoor	KHP-BI 12 DVR4	KHP-BI 14 DVR4	KHP-BI 16 DVR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
Space heating 55°C	Prated (declared heating capacity) @ -22°C	[kW]	11.0	12.0	13.0
	Seasonal space heating efficiency (ηs)	[%]	126.3	128.0	130.9
	Annual energy consumption	[kWh]	8 387	9 034	9 573
Part load conditions space heating colder climate low temperature application					
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	7.40	8.53	9.46
	COPd (declared COP)	-	3.88	3.80	3.78
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	4.77	5.32	5.59
	COPd (declared COP)	-	5.57	5.61	5.62
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	5.49	5.47	5.46
	COPd (declared COP)	-	7.02	7.06	7.12
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	5.64	5.62	5.67
	COPd (declared COP)	-	7.20	7.22	7.35
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-22	-22	-22
	Pdh (declared heating capacity)	[kW]	10.76	12.49	13.64
	COPd (declared COP)	-	2.23	2.21	2.12
	WTOL (Heating water Operation Limit)	[°C]	65	65	65
(F) Tbilv (bivalent temperature)	Tbilv	[°C]	-15	-15	-15
	Pdh (declared heating capacity)	[kW]	9.92	11.53	12.61
	COPd (declared COP)	-	2.85	2.79	2.74
Supplementary capacity at P_design	Psup (@Tdesignh: -22°C)	[kW]	1.24	1.51	1.86
Part load conditions space heating colder climate medium temperature application					
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	6.71	7.34	8.04
	COPd (declared COP)	-	2.83	2.91	2.91
	Cdh(degradation coefficient)	-	0.99	0.90	0.90

# Product fiche 3

Heat pump space heater		Outdoor	KHP-BI 12 DTR4	KHP-BI 14 DTR4	KHP-BI 16 DTR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
Space heating 55°C	Prated (declared heating capacity) @ -22°C	[kW]	11.0	12.0	13.0
	Seasonal space heating efficiency (ηs)	[%]	126.3	128.0	130.9
	Annual energy consumption	[kWh]	8 387	9 034	9 573
Part load conditions space heating colder climate low temperature application					
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	7.40	8.53	9.46
	COPd (declared COP)	-	3.88	3.80	3.78
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	4.77	5.32	5.59
	COPd (declared COP)	-	5.57	5.61	5.62
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	5.49	5.47	5.46
	COPd (declared COP)	-	7.02	7.06	7.12
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	5.64	5.62	5.67
	COPd (declared COP)	-	7.20	7.22	7.35
	Cdh(degradation coefficient)	-	0.90	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-22	-22	-22
	Pdh (declared heating capacity)	[kW]	10.76	12.49	13.64
	COPd (declared COP)	-	2.23	2.21	2.12
	WTOL (Heating water Operation Limit)	[°C]	65	65	65
(F) Tbivalent temperature	Tblv	[°C]	-15	-15	-15
	Pdh (declared heating capacity)	[kW]	9.92	11.53	12.61
	COPd (declared COP)	-	2.85	2.79	2.74
Supplementary capacity at P_design	Psup (@Tdesignh: -22°C)	[kW]	1.24	1.51	1.86
Part load conditions space heating colder climate medium temperature application					
(A) condition (-7°C)	Pdh (declared heating capacity)	[kW]	6.71	7.34	8.04
	COPd (declared COP)	-	2.83	2.91	2.91
	Cdh(degradation coefficient)	-	0.99	0.90	0.90

# Product fiche 4

Heat pump space heater		Outdoor	KHP-BI 12 DVR4	KHP-BI 14 DVR4	KHP-BI 16 DVR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	4.21	4.53	4.82
	COPd (declared COP)	-	3.73	3.87	3.99
	Cdh(degradation coefficient)	-	0.98	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	5.03	5.07	5.09
	COPd (declared COP)	-	5.03	5.11	5.18
	Cdh(degradation coefficient)	-	0.98	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	6.05	6.07	6.08
	COPd (declared COP)	-	6.59	6.66	6.68
	Cdh(degradation coefficient)	-	0.97	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-22	-22	-22
	Pdh (declared heating capacity)	[kW]	8.48	10.13	11.12
	COPd (declared COP)	-	1.28	1.37	1.43
	WTOL (Heating water Operation Limit)	[°C]	65	65	65
(F) Tbivalent temperature	Tblv	[°C]	-15	-15	-15
	Pdh (declared heating capacity)	[kW]	9.11	9.95	10.80
	COPd (declared COP)	-	1.98	1.90	1.98
Supplementary capacity at P_design	Psup (@Tdesignh: -22°C)	[kW]	2.52	1.87	1.89
<b>Warmer climate (Design temperature = 2°C)</b>					
Space heating 35°C	Prated (declared heating capacity) @ 2°C	[kW]	12.4	13.2	14.1
	Seasonal space heating efficiency (ηs)	[%]	253.4	257.4	257.3
	Annual energy consumption	[kWh]	2 584	2 709	2 895
Space heating 55°C	Prated (declared heating capacity) @ 2°C	[kW]	13.1	14.1	14.1
	Seasonal space heating efficiency (ηs)	[%]	171.1	171.4	171.4
	Annual energy consumption	[kWh]	4 022	4 321	4 321
<b>Part load conditions space heating warmer climate low temperature application</b>					
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	12.40	13.20	14.10
	COPd (declared COP)	-	3.36	3.34	3.28
	Cdh(degradation coefficient)	-	0.99	0.99	0.99
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	7.82	8.42	8.91
	COPd (declared COP)	-	5.75	5.89	5.81
	Cdh(degradation coefficient)	-	0.98	0.98	0.98

# Product fiche 4

Heat pump space heater		Outdoor	KHP-BI 12 DTR4	KHP-BI 14 DTR4	KHP-BI 16 DTR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	4.21	4.53	4.82
	COPd (declared COP)	-	3.73	3.87	3.99
	Cdh(degradation coefficient)	-	0.98	0.90	0.90
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	5.03	5.07	5.09
	COPd (declared COP)	-	5.03	5.11	5.18
	Cdh(degradation coefficient)	-	0.98	0.90	0.90
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	6.05	6.07	6.08
	COPd (declared COP)	-	6.59	6.66	6.68
	Cdh(degradation coefficient)	-	0.97	0.90	0.90
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	-22	-22	-22
	Pdh (declared heating capacity)	[kW]	8.48	10.13	11.12
	COPd (declared COP)	-	1.28	1.37	1.43
	WTOL (Heating water Operation Limit)	[°C]	65	65	65
(F) Tbivalent temperature	Tblv	[°C]	-15	-15	-15
	Pdh (declared heating capacity)	[kW]	9.11	9.95	10.80
	COPd (declared COP)	-	1.98	1.90	1.98
Supplementary capacity at P_design	Psup (@Tdesignh: -22°C)	[kW]	2.52	1.87	1.89
Warmer climate (Design temperature = 2°C)					
Space heating 35°C	Prated (declared heating capacity) @ 2°C	[kW]	12.4	13.2	14.1
	Seasonal space heating efficiency (ηs)	[%]	253.4	257.4	257.3
	Annual energy consumption	[kWh]	2 584	2 709	2 895
Space heating 55°C	Prated (declared heating capacity) @ 2°C	[kW]	13.1	14.1	14.1
	Seasonal space heating efficiency (ηs)	[%]	171.1	171.4	171.4
	Annual energy consumption	[kWh]	4 022	4 321	4 321
Part load conditions space heating warmer climate low temperature application					
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	12.40	13.20	14.10
	COPd (declared COP)	-	3.36	3.34	3.28
	Cdh(degradation coefficient)	-	0.99	0.99	0.99
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	7.82	8.42	8.91
	COPd (declared COP)	-	5.75	5.89	5.81
	Cdh(degradation coefficient)	-	0.98	0.98	0.98

# Product fiche 5

Heat pump space heater		Outdoor	KHP-BI 12 DVR4	KHP-BI 14 DVR4	KHP-BI 16 DVR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	5.62	5.63	5.64
	COPd (declared COP)	-	7.98	8.04	8.14
	Cdh(degradation coefficient)	-	0.97	0.97	0.97
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2	2	2
	Pdh (declared heating capacity)	[kW]	12.40	13.20	14.10
	COPd (declared COP)	-	3.36	3.34	3.28
	WTOL (Heating water Operation Limit)	[°C]	65	65	65
(F) Tbivalent temperature	Tblv	[°C]	2	2	2
	Pdh (declared heating capacity)	[kW]	12.40	13.20	14.10
	COPd (declared COP)	-	3.36	3.34	3.28
Supplementary capacity at P_design	Psup (@Tdesignh: 2°C)	[kW]	0.00	0.00	0.00
<b>Part load conditions space heating warmer climate medium temperature application</b>					
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	13.10	14.07	14.07
	COPd (declared COP)	-	2.35	2.23	2.23
	Cdh(degradation coefficient)	-	1.00	1.00	1.00
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	8.20	8.91	8.91
	COPd (declared COP)	-	3.80	3.79	3.79
	Cdh(degradation coefficient)	-	0.99	0.99	0.99
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	5.12	5.14	5.14
	COPd (declared COP)	-	5.48	5.55	5.55
	Cdh(degradation coefficient)	-	0.97	0.97	0.97
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2	2	2
	Pdh (declared heating capacity)	[kW]	13.10	14.07	14.07
	COPd (declared COP)	-	2.35	2.23	2.23
	WTOL (Heating water Operation Limit)	[°C]	65	65	65
(F) Tbivalent temperature	Tblv	[°C]	2	2	2
	Pdh (declared heating capacity)	[kW]	13.10	14.07	14.07
	COPd (declared COP)	-	2.35	2.23	2.23
Supplementary capacity at P_design	Psup (@Tdesignh: 2°C)	[kW]	0.00	0.03	0.03

# Product fiche 5

Heat pump space heater		Outdoor	KHP-BI 12 DTR4	KHP-BI 14 DTR4	KHP-BI 16 DTR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	5.62	5.63	5.64
	COPd (declared COP)	-	7.98	8.04	8.14
	Cdh(degradation coefficient)	-	0.97	0.97	0.97
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2	2	2
	Pdh (declared heating capacity)	[kW]	12.40	13.20	14.10
	COPd (declared COP)	-	3.36	3.34	3.28
	WTOL (Heating water Operation Limit)	[°C]	65	65	65
(F) Tivalent temperature	Tblv	[°C]	2	2	2
	Pdh (declared heating capacity)	[kW]	12.40	13.20	14.10
	COPd (declared COP)	-	3.36	3.34	3.28
Supplementary capacity at P_design	Psup (@Tdesignh: 2°C)	[kW]	0.00	0.00	0.00
<b>Part load conditions space heating warmer climate medium temperature application</b>					
(B) condition (2°C)	Pdh (declared heating capacity)	[kW]	13.10	14.07	14.07
	COPd (declared COP)	-	2.35	2.23	2.23
	Cdh(degradation coefficient)	-	1.00	1.00	1.00
(C) condition (7°C)	Pdh (declared heating capacity)	[kW]	8.20	8.91	8.91
	COPd (declared COP)	-	3.80	3.79	3.79
	Cdh(degradation coefficient)	-	0.99	0.99	0.99
(D) condition (12°C)	Pdh (declared heating capacity)	[kW]	5.12	5.14	5.14
	COPd (declared COP)	-	5.48	5.55	5.55
	Cdh(degradation coefficient)	-	0.97	0.97	0.97
(E) Tol (temperature operating limit)	Tol (temperature operating limit)	[°C]	2	2	2
	Pdh (declared heating capacity)	[kW]	13.10	14.07	14.07
	COPd (declared COP)	-	2.35	2.23	2.23
	WTOL (Heating water Operation Limit)	[°C]	65	65	65
(F) Tivalent temperature	Tblv	[°C]	2	2	2
	Pdh (declared heating capacity)	[kW]	13.10	14.07	14.07
	COPd (declared COP)	-	2.35	2.23	2.23
Supplementary capacity at P_design	Psup (@Tdesignh: 2°C)	[kW]	0.00	0.03	0.03

# Product fiche 7

Heat pump space cooling		Outdoor	KHP-BI 12 DVR4	KHP-BI 14 DVR4	KHP-BI 16 DVR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
Indoor unit sound power (*)		dB	44	44	44
Outdoor unit sound power (*)	Average climate low temperature application	dB	59	60	60
	Average climate medium temperature application	dB	59	60	60
Space cooling 7°C	Prated (declared cooling capacity) @ 35°C	[kW]	10.0	10.0	10.0
	Seasonal space cooling efficiency ( $\eta_s$ )	[%]	212.9	212.9	212.9
	Annual energy consumption	[kWh]	1 112	1 112	1 112
Space cooling 18°C	Prated (declared cooling capacity) @ 35°C	[kW]	10.0	10.0	10.0
	Seasonal space cooling efficiency ( $\eta_s$ )	[%]	257.2	257.2	257.2
	Annual energy consumption	[kWh]	922	922	922
Part load conditions space cooling : low temperature application@7°C					
(A) condition (35°C)	Pdc (declared cooling capacity)	[kW]	10.15	10.15	10.15
	EERd (declared EER)	-	3.07	3.07	3.07
	Cdc(degradation coefficient)	-	1.00	1.00	1.00
(B) condition (30°C)	Pdc (declared cooling capacity)	[kW]	7.38	7.38	7.38
	EERd (declared EER)	-	4.41	4.41	4.41
	Cdc(degradation coefficient)	-	1.00	1.00	1.00
(C) condition (25°C)	Pdc (declared cooling capacity)	[kW]	4.85	4.85	4.85
	EERd (declared EER)	-	6.10	6.10	6.10
	Cdc(degradation coefficient)	-	0.99	0.99	0.99
(D) condition (20°C)	Pdc (declared cooling capacity)	[kW]	4.91	4.91	4.91
	EERd (declared EER)	-	7.71	7.71	7.71
	Cdc(degradation coefficient)	-	0.99	0.99	0.99

# Product fiche 7

<b>Heat pump space cooling</b>		Outdoor	KHP-BI 12 DTR4	KHP-BI 14 DTR4	KHP-BI 16 DTR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
Indoor unit sound power (*)		dB	44	44	44
Outdoor unit sound power (*)	Average climate low temperature application	dB	59	60	60
	Average climate medium temperature application	dB	59	60	60
Space cooling 7°C	Prated (declared cooling capacity) @ 35°C	[kW]	10.0	10.0	10.0
	Seasonal space cooling efficiency (ηs)	[%]	212.9	212.9	212.9
	Annual energy consumption	[kWh]	1 112	1 112	1 112
Space cooling 18°C	Prated (declared cooling capacity) @ 35°C	[kW]	10.0	10.0	10.0
	Seasonal space cooling efficiency (ηs)	[%]	257.2	257.2	257.2
	Annual energy consumption	[kWh]	922	922	922
<b>Part load conditions space cooling : low temperature application@7°C</b>					
(A) condition (35°C)	Pdc (declared cooling capacity)	[kW]	10.15	10.15	10.15
	EERd (declared EER)	-	3.07	3.07	3.07
	Cdc(degradation coefficient)	-	1.00	1.00	1.00
(B) condition (30°C)	Pdc (declared cooling capacity)	[kW]	7.38	7.38	7.38
	EERd (declared EER)	-	4.41	4.41	4.41
	Cdc(degradation coefficient)	-	1.00	1.00	1.00
(C) condition (25°C)	Pdc (declared cooling capacity)	[kW]	4.85	4.85	4.85
	EERd (declared EER)	-	6.10	6.10	6.10
	Cdc(degradation coefficient)	-	0.99	0.99	0.99
(D) condition (20°C)	Pdc (declared cooling capacity)	[kW]	4.91	4.91	4.91
	EERd (declared EER)	-	7.71	7.71	7.71
	Cdc(degradation coefficient)	-	0.99	0.99	0.99

# Product fiche 8

Heat pump space cooling		Outdoor	KHP-BI 12 DVR4	KHP-BI 14 DVR4	KHP-BI 16 DVR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
Part load conditions space cooling : medium temperature application@18°C					
(A) condition (35°C)	Pdc (declared cooling capacity)	[kW]	10.22	10.22	10.22
	EERd (declared EER)	-	4.29	4.29	4.29
	Cdc(degradation coefficient)	-	1.00	1.00	1.00
(B) condition (30°C)	Pdc (declared cooling capacity)	[kW]	7.67	7.67	7.67
	EERd (declared EER)	-	4.50	4.50	4.50
	Cdc(degradation coefficient)	-	1.00	1.00	1.00
(C) condition (25°C)	Pdc (declared cooling capacity)	[kW]	5.88	5.88	5.88
	EERd (declared EER)	-	8.29	8.29	8.29
	Cdc(degradation coefficient)	-	0.99	0.99	0.99
(D) condition (20°C)	Pdc (declared cooling capacity)	[kW]	5.93	5.93	5.93
	EERd (declared EER)	-	8.84	8.84	8.84
	Cdc(degradation coefficient)	-	0.99	0.99	0.99
Air to water unit	Rated airflow (outdoor)	[m <sup>3</sup> /h]	3 900	3 900	3 900
Brine/water to water unit	Rated water/brine flow (outdoor H/E)		/	/	/
Other	Capacity control	-	inverter	inverter	inverter
	Poff (Power consumption Off mode)	[kW]	0.014	0.014	0.014
	Pto (Power consumption Thermostat off mode)	[kW]	0.008	0.008	0.008
	Psb (Power consumption Standby mode)	[kW]	0.014	0.014	0.014
	PCK (Power crankcase heater model)	[kW]	0.000	0.000	0.000
	Qelec (Daily electricity consumption)	[kWh]	/	/	/
	Qfuel (Daily fuel consumption)	[kWh]	/	/	/
<p>Note :</p> <p>Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.</p> <p>(*)Sound power measured according to the EN12102 under conditions of the EN14825.</p> <p>Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.</p>					

# Product fiche 8

Heat pump space cooling		Outdoor	KHP-BI 12 DTR4	KHP-BI 14 DTR4	KHP-BI 16 DTR4
		Indoor	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL	KHPI-BI-16VR4XL
Part load conditions space cooling : medium temperature application@18°C					
(A) condition (35°C)	Pdc (declared cooling capacity)	[kW]	10.22	10.22	10.22
	EERd (declared EER)	-	4.29	4.29	4.29
	Cdc(degradation coefficient)	-	1.00	1.00	1.00
(B) condition (30°C)	Pdc (declared cooling capacity)	[kW]	7.67	7.67	7.67
	EERd (declared EER)	-	4.50	4.50	4.50
	Cdc(degradation coefficient)	-	1.00	1.00	1.00
(C) condition (25°C)	Pdc (declared cooling capacity)	[kW]	5.88	5.88	5.88
	EERd (declared EER)	-	8.29	8.29	8.29
	Cdc(degradation coefficient)	-	0.99	0.99	0.99
(D) condition (20°C)	Pdc (declared cooling capacity)	[kW]	5.93	5.93	5.93
	EERd (declared EER)	-	8.84	8.84	8.84
	Cdc(degradation coefficient)	-	0.99	0.99	0.99
Air to water unit	Rated airflow (outdoor)	[m <sup>3</sup> /h]	3 900	3 900	3 900
Brine/water to water unit	Rated water/brine flow (outdoor H/E)		/	/	/
Other	Capacity control	-	inverter	inverter	inverter
	Poff (Power consumption Off mode)	[kW]	0.014	0.014	0.014
	Pto (Power consumption Thermostat off mode)	[kW]	0.008	0.008	0.008
	Psb (Power consumption Standby mode)	[kW]	0.014	0.014	0.014
	PCK (Power crankcase heater model)	[kW]	0.000	0.000	0.000
	Qelec (Daily electricity consumption)	[kWh]	/	/	/
	Qfuel (Daily fuel consumption)	[kWh]	/	/	/
<p>Note :</p> <p>Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.</p> <p>(*)Sound power measured according to the EN12102 under conditions of the EN14825.</p> <p>Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.</p>					

Condition(°C)	Model		Capacity (kW)	Power input (kW)	EER/COP (/)
	Outdoor unit	Indoor unit			
Ambient Temperature : 35/24 Water temperature : 12/7	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	10.0	3.322	3.01
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	10.0	3.322	3.01
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	10.0	3.322	3.01
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	10.0	3.322	3.01
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	10.0	3.322	3.01
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	10.0	3.322	3.01
Ambient Temperature : 35/24 Water temperature : 23/18	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	10.0	2.353	4.25
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	10.0	2.353	4.25
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	10.0	2.353	4.25
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	10.0	2.353	4.25
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	10.0	2.353	4.25
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	10.0	2.353	4.25
Ambient Temperature : 7/6 Water temperature : 30/35	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	12.1	2.401	5.04
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	14.0	2.893	4.84
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	15.5	3.362	4.61
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	12.1	2.401	5.04
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	14.0	2.893	4.84
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	15.5	3.362	4.61
Ambient Temperature : 2/1 Water temperature : 30/35	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	12.1	3.227	3.75
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	14.0	3.989	3.51
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	15.5	4.769	3.25
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	12.1	3.227	3.75
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	14.0	3.989	3.51
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	15.5	4.769	3.25
Ambient Temperature : -7/-8 Water temperature : 30/35	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	12.1	3.967	3.05
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	14.0	4.930	2.84
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	15.5	5.784	2.68
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	12.1	3.967	3.05
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	14.0	4.930	2.84
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	15.5	5.784	2.68
Ambient Temperature : -15/- Water temperature : 30/35	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	12.1	4.821	2.51
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	14.0	5.714	2.45
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	15.5	6.652	2.33
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	12.1	4.821	2.51
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	14.0	5.714	2.45
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	15.5	6.652	2.33

Condition(°C)	Model		Capacity (kW)	Power input (kW)	EER/COP (/)
	Outdoor unit	Indoor unit			
Ambient Temperature : 7/6 Water temperature : 40/45	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	12.1	3.176	3.81
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	14.0	3.704	3.78
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	15.5	4.201	3.69
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	12.1	3.176	3.81
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	14.0	3.704	3.78
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	15.5	4.201	3.69
Ambient Temperature : 2/1 Water temperature : 40/45	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	10.9	3.471	3.14
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	12.1	3.954	3.06
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	14.0	4.828	2.90
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	10.9	3.471	3.14
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	12.1	3.954	3.06
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	14.0	4.828	2.90
Ambient Temperature : -7/-8 Water temperature : 40/45	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	11.4	4.488	2.54
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	11.9	4.704	2.53
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	13.7	5.615	2.44
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	11.4	4.488	2.54
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	11.9	4.704	2.53
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	13.7	5.615	2.44
Ambient Temperature : 7/6 Water temperature : 47/55	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	12.1	4.020	3.01
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	14.0	4.667	3.00
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	15.5	5.184	2.99
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	12.1	4.020	3.01
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	14.0	4.667	3.00
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	15.5	5.184	2.99
Ambient Temperature : 2/1 Water temperature : 47/55	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	11.6	4.514	2.57
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	12.3	4.824	2.55
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	13.8	5.798	2.38
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	11.6	4.514	2.57
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	12.3	4.824	2.55
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	13.8	5.798	2.38
Ambient Temperature : -7/-8 Water temperature : 47/55	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	11.4	5.377	2.12
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	11.9	5.613	2.12
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	13.7	6.462	2.12
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	11.4	5.377	2.12
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	11.9	5.613	2.12
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	13.7	6.462	2.12

Condition(°C)	Model		Capacity (kW)	Power input (kW)	EER/COP (/)
	Outdoor unit	Indoor unit			
Ambient Temperature : 35/24 Water temperature : 12/7	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	10.0	3.322	3.01
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	10.0	3.322	3.01
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	10.0	3.322	3.01
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	10.0	3.322	3.01
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	10.0	3.322	3.01
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	10.0	3.322	3.01
Ambient Temperature : 35/24 Water temperature : 23/18	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	10.0	2.353	4.25
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	10.0	2.353	4.25
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	10.0	2.353	4.25
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	10.0	2.353	4.25
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	10.0	2.353	4.25
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	10.0	2.353	4.25
Ambient Temperature : 7/6 Water temperature : 30/35	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	12.1	2.401	5.04
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	14.0	2.893	4.84
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	15.5	3.362	4.61
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	12.1	2.401	5.04
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	14.0	2.893	4.84
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	15.5	3.362	4.61
Ambient Temperature : 2/1 Water temperature : 30/35	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	12.1	3.227	3.75
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	14.0	3.989	3.51
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	15.5	4.769	3.25
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	12.1	3.227	3.75
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	14.0	3.989	3.51
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	15.5	4.769	3.25
Ambient Temperature : -7/-8 Water temperature : 30/35	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	12.1	3.967	3.05
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	14.0	4.930	2.84
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	15.5	5.784	2.68
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	12.1	3.967	3.05
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	14.0	4.930	2.84
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	15.5	5.784	2.68
Ambient Temperature : -15/- Water temperature : 30/35	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	12.1	4.821	2.51
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	14.0	5.714	2.45
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	15.5	6.652	2.33
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	12.1	4.821	2.51
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	14.0	5.714	2.45
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	15.5	6.652	2.33

Condition(°C)	Model		Capacity (kW)	Power input (kW)	EER/COP ( / )
	Outdoor unit	Indoor unit			
Ambient Temperature : 7/6 Water temperature : 40/45	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	12.1	3.176	3.81
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	14.0	3.704	3.78
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	15.5	4.201	3.69
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	12.1	3.176	3.81
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	14.0	3.704	3.78
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	15.5	4.201	3.69
Ambient Temperature : 2/1 Water temperature : 40/45	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	10.9	3.471	3.14
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	12.1	3.954	3.06
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	14.0	4.828	2.90
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	10.9	3.471	3.14
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	12.1	3.954	3.06
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	14.0	4.828	2.90
Ambient Temperature : -7/-8 Water temperature : 40/45	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	11.4	4.488	2.54
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	11.9	4.704	2.53
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	13.7	5.615	2.44
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	11.4	4.488	2.54
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	11.9	4.704	2.53
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	13.7	5.615	2.44
Ambient Temperature : 7/6 Water temperature : 47/55	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	12.1	4.020	3.01
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	14.0	4.667	3.00
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	15.5	5.184	2.99
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	12.1	4.020	3.01
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	14.0	4.667	3.00
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	15.5	5.184	2.99
Ambient Temperature : 2/1 Water temperature : 47/55	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	11.6	4.514	2.57
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	12.3	4.824	2.55
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	13.8	5.798	2.38
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	11.6	4.514	2.57
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	12.3	4.824	2.55
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	13.8	5.798	2.38
Ambient Temperature : -7/-8 Water temperature : 47/55	KHP-BI 12 DVR4	KHPI-BI-16VR4XL	11.4	5.377	2.12
	KHP-BI 14 DVR4	KHPI-BI-16VR4XL	11.9	5.613	2.12
	KHP-BI 16 DVR4	KHPI-BI-16VR4XL	13.7	6.462	2.12
	KHP-BI 12 DTR4	KHPI-BI-16VR4XL	11.4	5.377	2.12
	KHP-BI 14 DTR4	KHPI-BI-16VR4XL	11.9	5.613	2.12
	KHP-BI 16 DTR4	KHPI-BI-16VR4XL	13.7	6.462	2.12

Indoor unit type explanation:

1.KHPI-BI-16VR4XL includes the following type:

HBT-A160240CD30GN8-B: 240 L tank with 3 kW back-up heater and 1-Phase Source.

HBT-A160240CDS60GN8-B: 240 L tank with 6 kW back-up heater and 3-Phase Source.

HBT-A160240CDS90GN8-B: 240 L tank with 9 kW back-up heater and 3-Phase Source.

Note:

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

(\*)Sound power in heating mode,measured according to the EN 12102 under conditions of the EN 14825

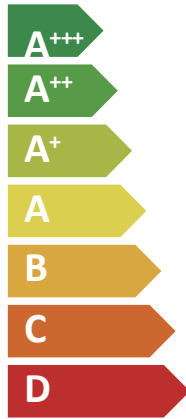
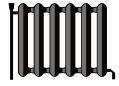
This data is for comparison of Energy efficiencies according to Energy label directive 2010/30/EU, for correct selection of products for your application, contact your dealer.

Depending on your application and the product selected an additional supplementary heater may have to be installed.

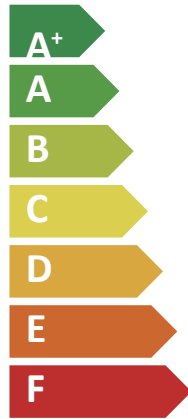


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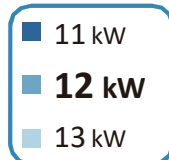
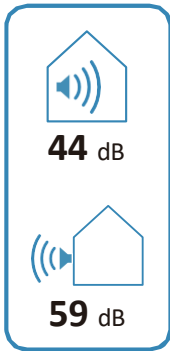
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KHPI-BI-16VR4XL



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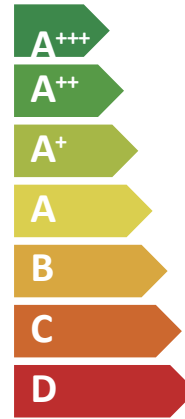
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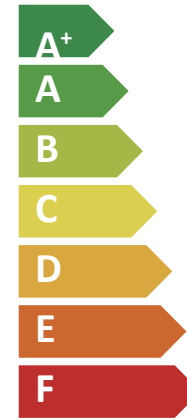


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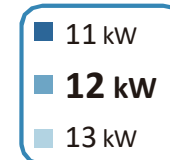
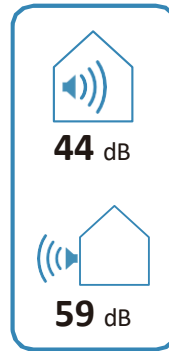
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HBT-A160240CDS60GN8-E



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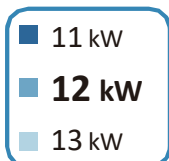
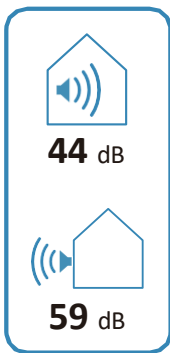
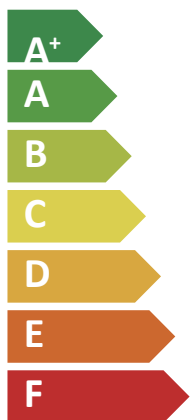
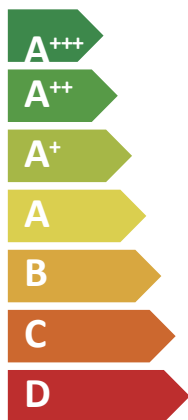
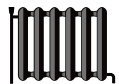
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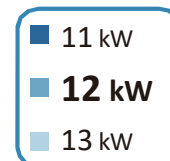
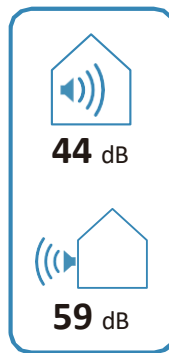
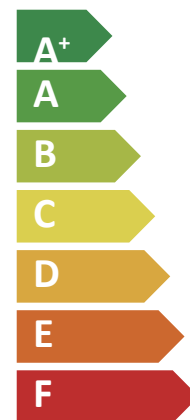
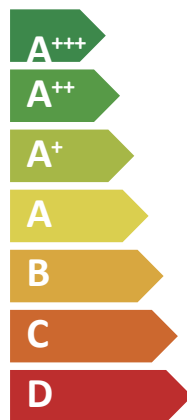
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KHPI-BI-16VR4XL



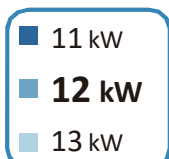
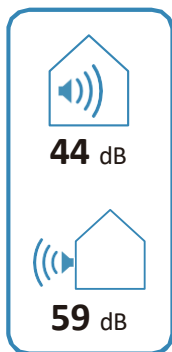
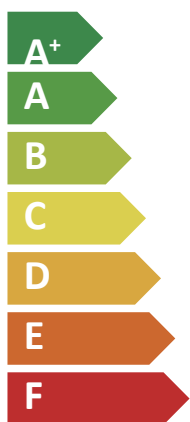
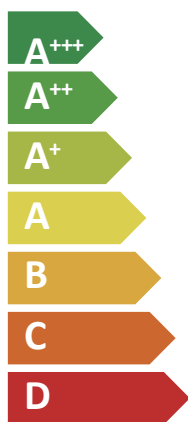
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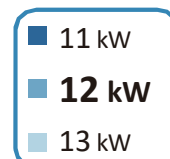
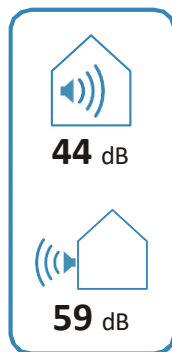
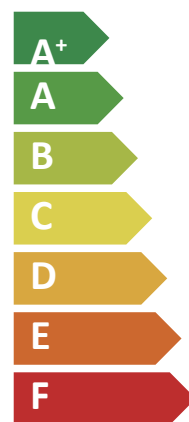
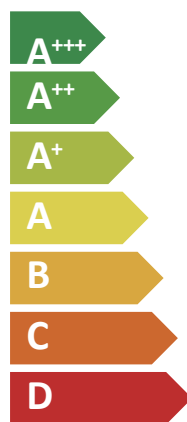
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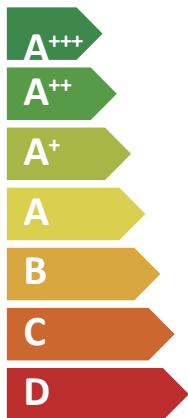
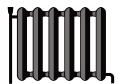
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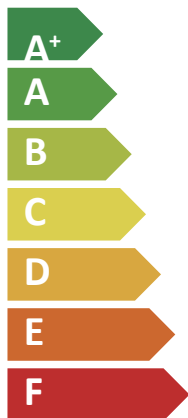


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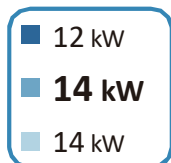
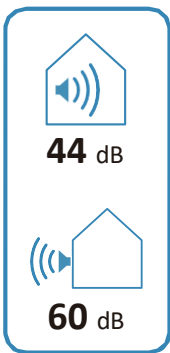
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KHPI-BI-16VR4XL



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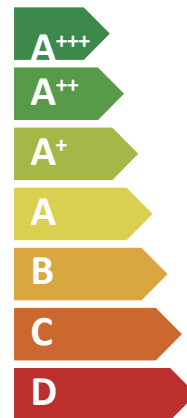
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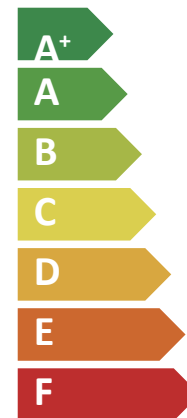


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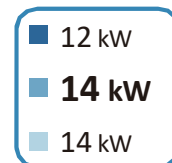
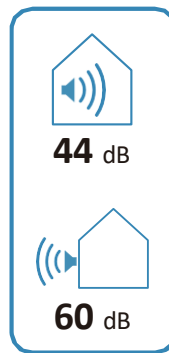
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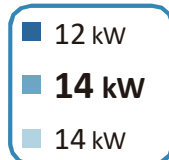
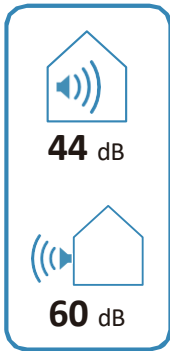
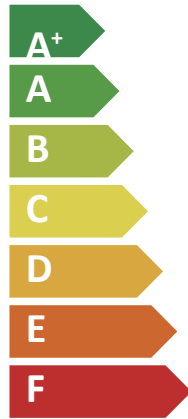
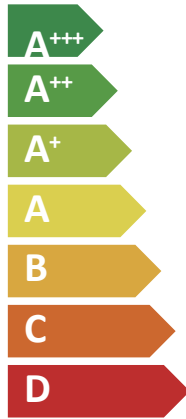
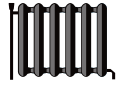
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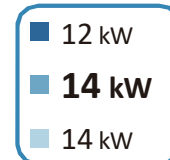
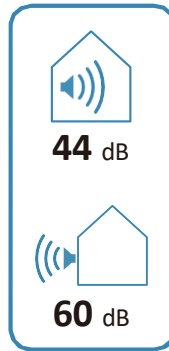
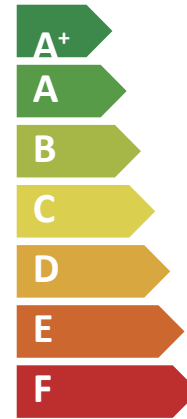
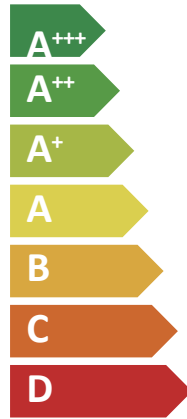
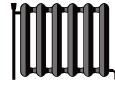
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KHPI-BI-16VR4XL



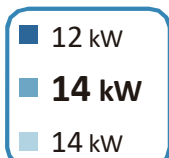
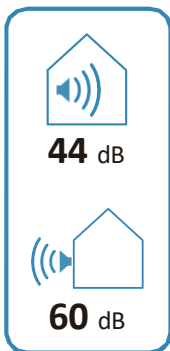
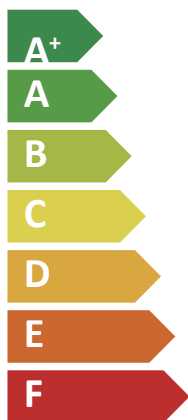
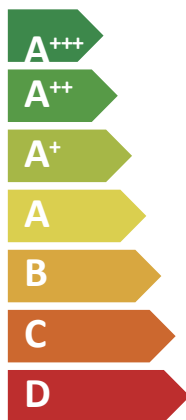
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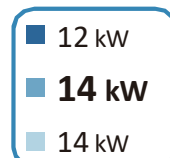
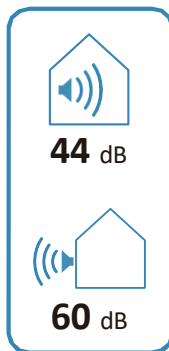
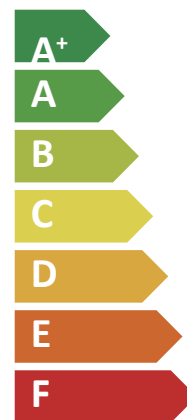
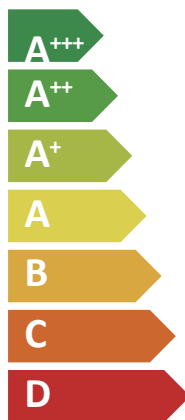
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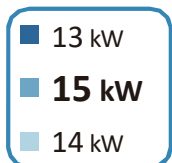
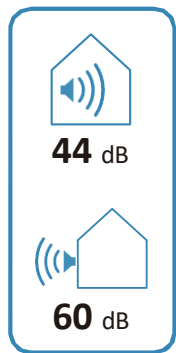
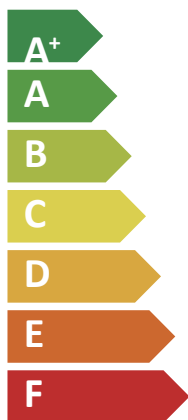
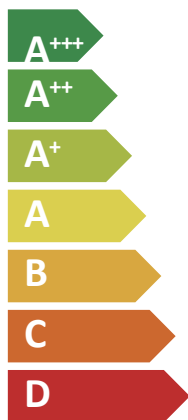
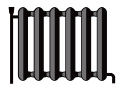
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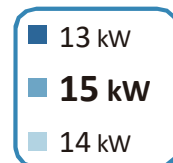
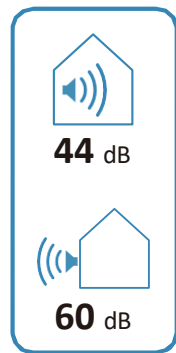
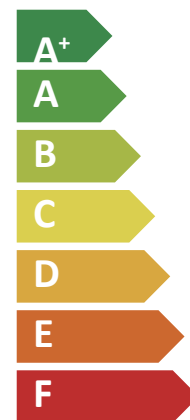
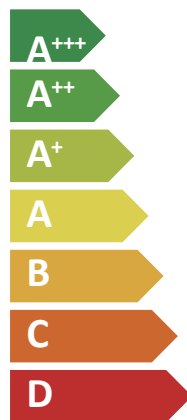
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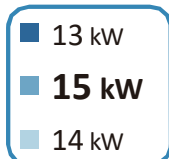
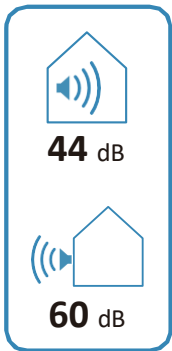
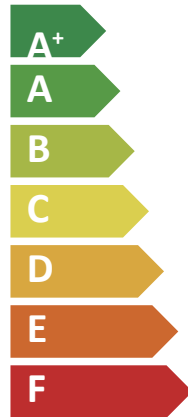
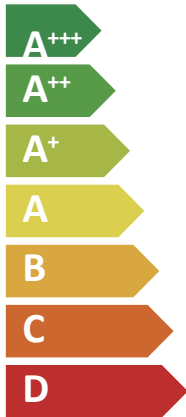
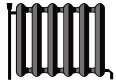
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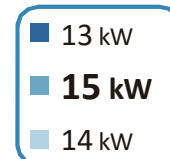
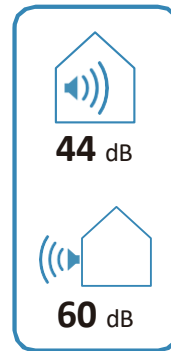
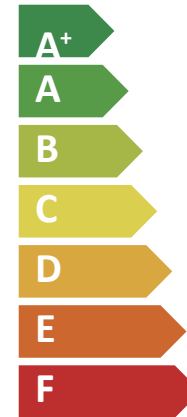
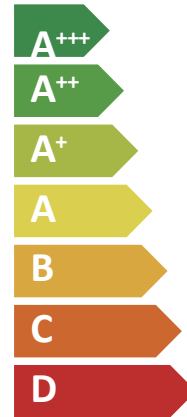
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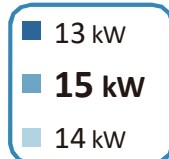
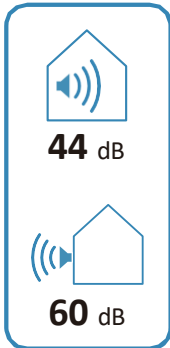
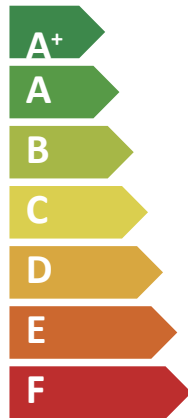
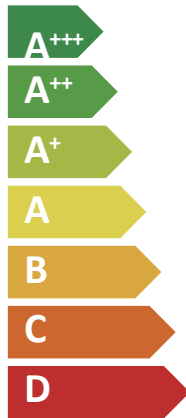
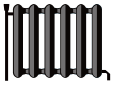
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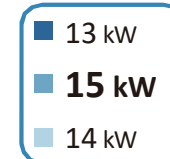
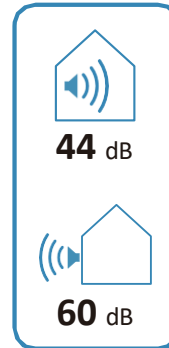
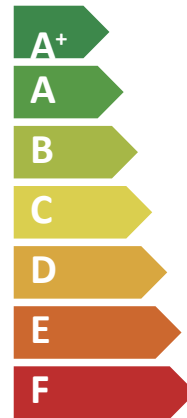
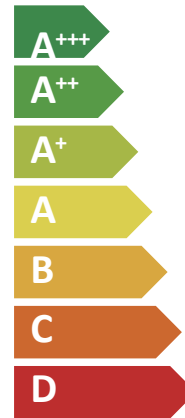
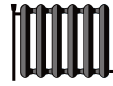
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