

HOKKAIDO

Experience makes technology

2013

Commercial



COMMERCIAL



**ERP
READY**

2013

COMMERCIAL

SLIM Cassette 84x84	18
Ceiling/floor	20
Duct Medium Static Pressure	22

COMMERCIAL RANGE 2013

5,30 kW

7,10 kW

10,80 kW

14,10 kW

17,60 kW

SLIM CASSETTE
84x84
HTBI X series 8



CEILING/FLOOR
HSFI X series 8



DUCT MEDIUM
STATIC PRESSURE
HUCI X series 8



OUTDOOR UNITS



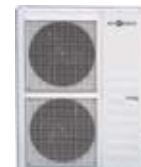
1Ph



1Ph



3Ph



3Ph



3Ph

Performance and consumption are based on the following test conditions: heating E.T. 7° C DB, 6° C WB - I.T. 20° C DB - cooling E.T. 35° C DB, 24° C WB - I.T. 27° C DB, 19° C WB (ISO T1).



COMMERCIAL DC INVERTER



The Commercial range is ideal for large spaces and significantly reduces installation and system management costs.

3 different types, 5 power levels, 14 models in total.

Indoor units

SLIM Cassette 84x84:

Height 205 mm (Models 538 & 718), motorized panel, 360° air distribution, individual control flaps, new touch screen Wired Control (with motorized panel), possibility of TWIN installation.

New Ceiling/Floor:

New design extremely elegant, vertical & horizontal swinging of air outlet flaps, wide angle of air distribution.

Duct Medium Static Pressure:

Compact design, air intake from bottom or rear, infrared remote control, pre-set for outdoor air connection, electrical box condensate drain pump included.

Outdoor units

Ultra-compact design.

Low noise level.

High efficiency and energy saving.

Operation in cooling mode with outside temperature down to -15° C (5.30~17.60 kW).

Operation in heating mode with outside temperature down to -15° C.

Control and adjustment of refrigerant flow with capillary and electronic expansion valve EXV (Expansion Valve), to maintain optimum performance in all working conditions.

All the outdoor units are equipped with: **Sine Wave Inverter Technology: 180°**

- Significant reduction of noise level and vibrations.
- Considerable increase in efficiency at low frequencies.
- Increase in frequency range from 10Hz to 130 Hz.

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SLIM CASSETTE 84x84

The Commercial range has been expanded with the introduction of a new compact size Cassette.

It is only 205 mm in height and can be installed even in the most narrow and difficult ceilings.

The new optional panel (TBP-LF 716 X) allows for optimal 360° air distribution.

The centre part of the panel is equipped with a motor that is able to lower the filter to facilitate weekly cleaning operations.

Each single air distribution flap can be controlled separately. Pre-setting for access and integration with external air (A).



A

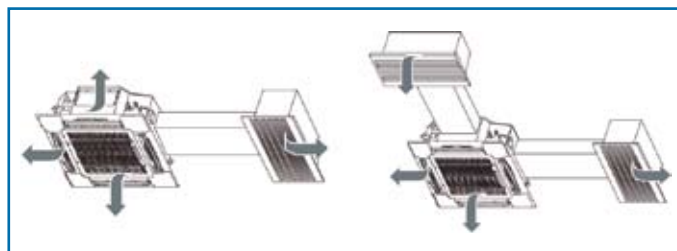


Panel TBP-LF 716 X
(optional)
ROUND FLOW

Pre-set for ducting air delivery on two sides (B).

Drain pipe of the condensate discharge outlet that allows raising the outlet up to 750 mm from the flush panel.

B



With the Lift panel the new wired control, optional, with Touch Screen must be used.

- Ability to control the drop-down of the panel for filter cleaning.
- Individual and separate inspection of each of the 4 air diffusion flaps.
- Built-in temperature sensor for Follow me function.



- | | |
|------------------|--------------------|
| 1 Mode | 6 Follow me |
| 2 Fan | 7 Filter |
| 3 Adjust (Temp.) | 8 Select Swing set |
| 4 Timer / Cancel | 9 LED intemp |
| 5 Sleep | 10 Clock |

TWIN combination

For new Slim Cassettes only, there is the possibility of TWIN system for HCSI 1418 X Model.

Only one Wired Control is needed. As Units are controlled by only one Wired Control, TWIN application is advised for wide commercial spaces.

In fact, TWIN Indoor Units cannot be controlled individually.

Splitting lengths

MAX length

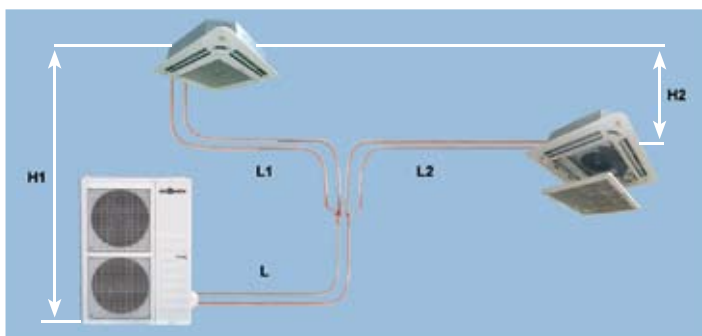
Height difference I.U./O.U.

Height difference I.U./I.U.

$$L1 + L2 + L = 50 \text{ m}$$

$$H1 = 20 \text{ m}$$

$$H2 = 0,5 \text{ m}$$



			2 x HTBI 718 X
HCSI 1418 X	Capacity Cooling	kW	14,60
	Power Input Cooling	kW	4,52
	EER		3,23
	Capacity Heating	kW	15,80
	Power Input Heating	kW	4,21
	COP		3,75
	I.U. Noise level (Lo)	dB(A)	31
	Pipe set		DIS-180-IT
	Control	without Lift Panel	1 x DTW IHXR / DTW 2 IHXR
		with Lift panel	1 x DTW IHXR Touch
Interface		-	

COMMERCIAL DC INVERTER

HTBI X SLIM CASSETTE 84x84



Model	HTBI 538 X			HTBI 718 X			HTBI 1088 X			HTBI 1418 X				
	HCKI 538 X			HCKI 718 X			HCSI 1088 X			HCSI 1418 X				
Type	DC-Inverter			DC-Inverter			DC-Inverter			DC-Inverter				
Capacity (T=+35° C)	Cooling	W	5270(1578~6077)			7030(1899~7830)			10560(3068~11978)			14060(4346~15484)		
Power Input (T=+35° C)	Cooling	W	1460(310~2030)			2130(380~2620)			3290(600~4250)			4380(1200~6010)		
Annual Consumption	Cooling	kWh/a	331			400			680					
Energy efficiency class seasonal	Cooling	626/2011 ¹	A+			A++			A					
Energy efficiency seasonal index	Cooling	SEER ²	5,6			6,2			5,4					
Energy Efficiency Rated	Cooling	31/2002 ³										A		
Coefficient of Energy Efficiency Rated	Cooling	EER ⁴										3,21		
Design load (Pdesignc)	Cooling	kW	5,30			7,10			10,50					
Capacity (T=+7° C)	Heating	W	5870(1607~6574)			7626(1987~8473)			11150(3155~12504)			16400(4908~18260)		
Power Input (T=+7° C)	Heating	W	1460(280~2020)			2050(370~2630)			3260(600~4250)			4420(1170~5910)		
Annual Consumption	Heating	kWh/a	2182			2951			3788					
Energy efficiency class (average season)	Heating	626/2011 ¹	A			A			A					
Energy efficiency seasonal index (average season)	Heating	SCOP ²	3,4			3,7			3,4					
Energy Efficiency Rated	Heating	31/2002 ³										A		
Coefficient of Energy Efficiency Rated	Heating	COP ⁴										3,71		
Design load (Pdesignh)	Heating	kW	5,30			7,80			9,20					
T° operational limit (Tol)	Heating	°C	-15			-15			-15					
Power supply		Ph-V-Hz	1-220-240V-50HZ			1-220-240V-50HZ			3-380-400V-50HZ			3-380-400V-50HZ		
		I.U.-O.U.	I.U. + O.U.			I.U. + O.U.			I.U. + O.U.			I.U. + O.U.		
Current consumption (MAX)		A	15			15			11			13,5		
Wiring cables i.u./o.u. (without ground)		n°	STP(2 plus + ordinary one)			STP(2 plus + ordinary one)			STP(2 plus + ordinary one)			STP(2 plus + ordinary one)		
Refrigerant circuit														
Refrigerant Pipe Liquid/Gas side		mm/inch.	ø6,35(1/4") - ø12,7(1/2")			ø9,52(3/8") - ø15,88(5/8")			ø9,52(3/8") - ø15,88(5/8")			ø9,52(3/8") - ø15,88(5/8")		
Max splitting distance indoor/outdoor		m	30			50			65			65		
Max splitting level difference I.U./O.U.		m	20/9			25/9			30/20			30/20		
Refrigerant (GWP) ⁵			R410A(1975)			R410A(1975)			R410A(1975)			R410A(1975)		
Refrigerant Precharge		kg	1,80			2,20			2,70			3,80		
MAX Splitting with Refrigerant Precharge		m	5			5			5			5		
Additional Refrigerant Charge		g/m	15			30			30			30		
Temperature range Cooling		°C	-15°C ~ +50°C			-15°C ~ +50°C			-15°C ~ +50°C			-15°C ~ +50°C		
Temperature range Heating		°C	-15°C ~ +24°C			-15°C ~ +24°C			-15°C ~ +24°C			-15°C ~ +24°C		
Indoor Unit specifications														
Indoor Unit	Dimension (WxHxD)	mm	840	205	840	840	205	840	840	245	840	840	300	840
	Net	kg	22			22			25			31		
Noise level - I.U.	Hi-Mi-Lo	dB(A)	47	43	36	49	45	41	54	51	47	53	50	46
Sound power level - I.U.	Hi-Mi-Lo	dB(A)	58			59			65					
Air flow (Hi/Mi/Lo)		m ³ /h	1150	950	800	1250	1050	900	2010	1750	1480	2100	1750	1500
Drain hose diameter		mm	32			32			32			32		
Remote Controller (st. equipment)	Type		IR Wireless			IR Wireless			IR Wireless			IR Wireless		
Outdoor Unit Specifications														
Outdoor Unit	Dimension (WxHxD)	mm	842	695	324	895	862	313	990	966	354	940	1369	392
	Net	kg	44			59			77			102		
Noise level - O.U.	Hi-Mi-Lo	dB(A)	58			62			63			63		
Sound power level - O.U.	Hi-Mi-Lo	dB(A)	65			69			70			69		
Max air flow		m ³ /h	2500			3500			5500			7200		
Accessories														
Panel														
Panel	Dimension (WxHxD)	mm	TBP 716 X			TBP 716 X			TBP 716 X			TBP 716 X		
	Net	kg	950	55	950	950	55	950	950	55	950	950	55	950
Options														
LIFT panel			TBP-LF 716 X			TBP-LF 716 X			TBP-LF 716 X			TBP-LF 716 X		
Wired control			DTW IHXR / DTW 2 IHXR / DTWS IHXR											
Wired control (with Lift Panel)			DTW IHXR Touch											
Centralized control			DTC IHXR / DTCWT IHXR											
Weekly timer			DTWT IHXR											

1 Commission Delegated Regulation (EU) No 626/2011 with regard to energy labelling of air conditioners.
 2 Commission Delegated Regulation (EU) No 206/2012, Value measured according to EN14825.
 3 Commission Delegated Regulation (EU) No 31/202 with regard to energy labelling of air conditioners.
 4 Value measured according to EN14511.
 5 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO₂, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.

ERP
READY

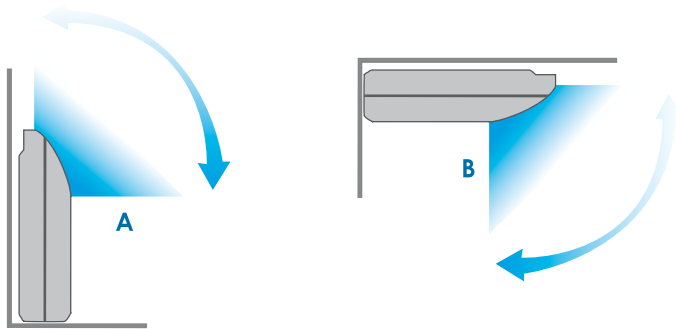
COMMERCIAL DC INVERTER

CEILING/FLOOR

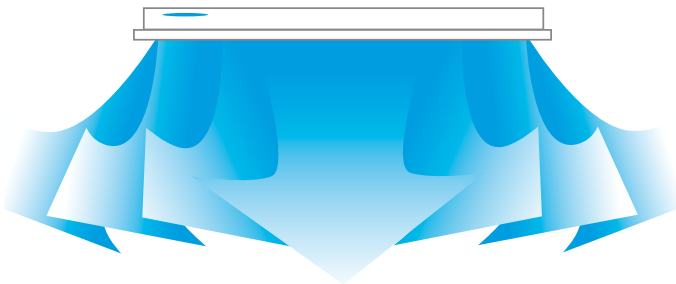
new

New design simple and elegant, for residential, commercial and industrial applications.

Vertical swinging of air outlet flaps, both in floor type installation (A) and ceiling type installation (B).

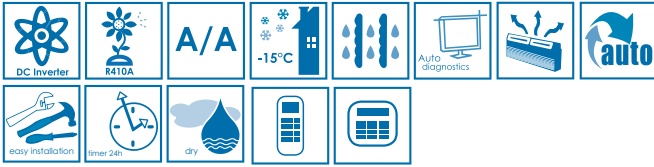


Horizontal swinging with wide angle of air distribution.



COMMERCIAL DC INVERTER

HSFI X CEILING/FLOOR



Model	HSFI 538 X			HSFI 718 X			HSFI 1088 X			HSFI 1418 X			HSFI 1768 X				
	HCKI 538 X			HCKI 718 X			HCSI 1088 X			HCSI 1418 X			HCSI 1768 X				
Type	DC-Inverter			DC-Inverter			DC-Inverter			DC-Inverter			DC-Inverter				
Capacity (T=+35° C)	Cooling	W	5274(1578~6077)	7050(1899~7830)	10565(3068~12037)	14070(4323~15542)	16360(4908~17967)										
Power Input (T=+35° C)	Cooling	W	1445(300~2020)	2100(380~2610)	3270(600~4250)	4380(1200~6000)	5110(1370~6930)										
Annual Consumption	Cooling	kWh/a	331	463	645												
Energy efficiency class seasonal	Cooling	626/2011 ¹	A+	A+	A+												
Energy efficiency seasonal index	Cooling	SEER ²	5,6	5,6	5,8												
Energy Efficiency Rated	Cooling	31/2002 ³															
Coefficient of Energy Efficiency Rated	Cooling	EER ⁴															
Design load (Pdesignc)	Cooling	kW	5,30	7,10	10,70												
Capacity (T=+7° C)	Heating	W	5863(1607~6661)	7635(1987~8502)	11150(3155~12563)	16450(4908~18348)	16950(5750~20890)										
Power Input (T=+7° C)	Heating	W	1430(280~2000)	2030(370~2620)	3140(590~4120)	4420(1170~5910)	5280(1390~6980)										
Annual Consumption	Heating	kWh/a	2061	2955	3912												
Energy efficiency class (average season)	Heating	626/2011 ¹	A	A	A												
Energy efficiency seasonal index (average season)	Heating	SCOP ²	3,6	3,6	3,4												
Energy Efficiency Rated	Heating	31/2002 ³															
Coefficient of Energy Efficiency Rated	Heating	COP ⁴															
Design load (Pdesignh)	Heating	kW	5,30	7,60	9,50												
T° operational limit (Tol)	Heating	°C	-15	-15	-15												
Power supply		Ph-V-Hz	1-220~240V-50HZ	1-220~240V-50HZ	3-380~400V-50HZ	3-380~400V-50HZ	3-380~400V-50HZ										
		I.U. + O.U.	I.U. + O.U.	I.U. + O.U.	I.U. + O.U.	I.U. + O.U.	I.U. + O.U.										
Current consumption (MAX)		A	15	15	11	7,68 - 7,27	8,9 - 9,43										
Wiring cables i.u./o.u. (without ground)		n°	STP (2 plus + ordinary one)	STP (2 plus + ordinary one)	STP (2 plus + ordinary one)	STP (2 plus + ordinary one)	STP (2 plus + ordinary one)										
Refrigerant circuit																	
Refrigerant Pipe Liquid/Gas side		mm/inch.	ø6,35(1/4") - ø12,7(1/2")	ø9,52(3/8") - ø15,88(5/8")	ø9,52(3/8") - ø15,88(5/8")	ø9,52(3/8") - ø15,88(5/8")	ø9,52(3/8") - ø15,88(5/8")	ø9,52(3/8") - ø15,88(5/8")									
Max splitting distance indoor/outdoor		m	30	50	65	65	65										
Max splitting level difference I.U./O.U.		m	20/9	25/9	30/12	30/20	30/20										
Refrigerant (GWP) ⁵			R410A(1975)	R410A(1975)	R410A(1975)	R410A(1975)	R410A(1975)										
Refrigerant Precharge		kg	1,80	2,20	2,70	3,80	4,60										
MAX Splitting with Refrigerant Precharge		m	5	5	5	5	5										
Additional Refrigerant Charge		g/m	15	30	30	30	30										
Temperature range Cooling		°C	-15°C ~ +50°C	-15°C ~ +50°C	-15°C ~ +50°C	-15°C ~ +50°C	-15°C ~ +50°C										
Temperature range Heating		°C	-15°C ~ +24°C	-15°C ~ +24°C	-15°C ~ +24°C	-15°C ~ +24°C	-15°C ~ +24°C										
Indoor Unit specifications																	
Indoor Unit	Dimension (WxHxD)	mm	1068	675	235	1068	675	235	1285	675	235	1650	675	235	1650	675	235
	Net	kg	25	25	30	38	38										
Noise level - I.U.	Hi-Mi-Lo	dB(A)	42	37	34	43	38	35	52	49	46	54	51	47	54	51	47
Sound power level - I.U.	Hi-Mi-Lo	dB(A)	56	62	63												
Air flow (Hi/Mi/Lo)		m ³ /h	900	750	600	1300	1100	950	1850	1650	1450	2300	1900	1700	2300	1900	1700
Drain hose diameter		mm	25	25	25												
Remote Controller (st. equipment)	Type		IR Wireless	IR Wireless	IR Wireless	IR Wireless	IR Wireless										
Outdoor Unit Specifications																	
Outdoor Unit	Dimension (WxHxD)	mm	842	695	324	895	862	313	990	966	354	940	1369	392	940	1369	392
	Net	kg	44	59	77	102	107										
Noise level - O.U.	Hi-Mi-Lo	dB(A)	58	62	63												
Sound power level - O.U.	Hi-Mi-Lo	dB(A)	65	69	70	69	69										
Max air flow		m ³ /h	2500	3500	5500	7200	7200										
Options																	
Wired control	DTW IHXR / DTW 2 IHXR / DTWS IHXR																
Centralized control	DTC IHXR																
Weekly timer	DTWT IHXR																

1 Commission Delegated Regulation (EU) No 626/2011 with regard to energy labelling of air conditioners.

2 Commission Delegated Regulation (EU) No 206/2012, Value measured according to EN14825.

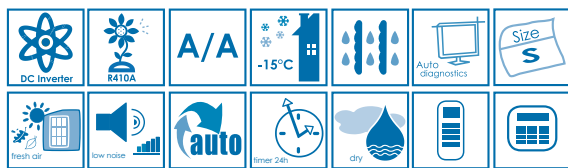
3 Commission Delegated Regulation (EU) No 31/2012 with regard to energy labelling of air conditioners.

4 Value measured according to EN14511.

5 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO₂, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.

COMMERCIAL DC INVERTER

HUCI X DUCT MEDIUM
STATIC PRESSURE



Model	HUCI 538 X			HUCI 718 X			HUCI 1088 X			HUCI 1418 X			HUCI 1768 X				
	HCKI 538 X			HCKI 718 X			HCSI 1088 X			HCSI 1418 X			HCSI 1768 X				
Type	DC-Inverter			DC-Inverter			DC-Inverter			DC-Inverter			DC-Inverter				
Capacity (T=+35° C)	Cooling	W	5285(1578~6048)			7038(1899~7888)			10565(3068~12037)			14060(4324~15630)			16695(4967~18260)		
Power Input (T=+35° C)	Cooling	W	1460(300~2020)			2070(370~2610)			3260(600~4240)			4380(1200~6000)			5200(1380~7050)		
Annual Consumption	Cooling	kWh/a	320			443			720								
Energy efficiency class seasonal	Cooling	626/2011 ¹	A+			A+			A								
Energy efficiency seasonal index	Cooling	SEER ²	5,8			5,6			5,1								
Energy Efficiency Rated	Cooling	31/2002 ³										A			A		
Coefficient of Energy Efficiency Rated	Cooling	EER ⁴										3,21			3,21		
Design load (Pdesignc)	Cooling	kW	5,30			7,10			10,50								
Capacity (T=+7° C)	Heating	W	5860(1607~6661)			7600(1987~8531)			11135(3155~12563)			17010(4967~18552)			19060(5785~18260)		
Power Input (T=+7° C)	Heating	W	1465(290~2010)			2000(370~2610)			3050(580~4090)			4560(1180~5920)			5220(1390~6990)		
Annual Consumption	Heating	kWh/a	2182			3170			3912								
Energy efficiency class (average season)	Heating	626/2011 ¹	A			A			A								
Energy efficiency seasonal index (average season)	Heating	SCOP ²	3,4			3,4			3,4								
Energy Efficiency Rated	Heating	31/2002 ³										A			A		
Coefficient of Energy Efficiency Rated	Heating	COP ⁴										3,73			3,65		
Design load (Pdesignh)	Heating	kW	5,30			7,70			9,50								
T° operational limit (Tol)	Heating	°C	-15			-15			-15								
Power supply	Ph-V-Hz		1-220~240V-50HZ			1-220~240V-50HZ			3-380~400V-50HZ			3-380~400V-50HZ			3-380~400V-50HZ		
	I.U. + O.U.		I.U. + O.U.			I.U. + O.U.			I.U. + O.U.			I.U. + O.U.			I.U. + O.U.		
Current consumption (MAX)		A	15			15			11			13,5			13,5		
Wiring cables I.U./O.U. (without ground)		n°	STP (2 plus + ordinary one)			STP (2 plus + ordinary one)			STP (2 plus + ordinary one)			STP (2 plus + ordinary one)			STP (2 plus + ordinary one)		
Refrigerant circuit																	
Refrigerant Pipe Liquid/Gas side	mm/inch.		ø6,35(1/4") - ø12,7(1/2")			ø9,52(3/8") - ø15,88(5/8")			ø9,52(3/8") - ø15,88(5/8")			ø9,52(3/8") - ø15,88(5/8")			ø9,52(3/8") - ø15,88(5/8")		
Max splitting distance indoor/outdoor	m		30			50			65			65			65		
Max splitting level difference I.U./O.U.	m		20/9			25/9			30/12			30/20			30/20		
Refrigerant (GWP) ⁵			R410A(1975)			R410A(1975)			R410A(1975)			R410A(1975)			R410A(1975)		
Refrigerant Precharge	kg		1,80			2,20			2,70			3,80			4,60		
MAX Splitting with Refrigerant Precharge	m		5			5			5			5			5		
Additional Refrigerant Charge	g/m		15			30			30			30			30		
Temperature range Cooling	°C		-15°C ~ +50°C			-15°C ~ +50°C			-15°C ~ +50°C			-15°C ~ +50°C			-15°C ~ +50°C		
Temperature range Heating	°C		-15°C ~ +24°C			-15°C ~ +24°C			-15°C ~ +24°C			-15°C ~ +24°C			-15°C ~ +24°C		
Indoor Unit specifications																	
Indoor Unit	Dimension (WxHxD)	mm	920	210	635	920	270	635	1140	270	775	1200	300	865	1200	300	865
	Net	Kg	22			26,5			35			45			45		
Noise level - I.U.	Hi-Mi-Lo	dB(A)	42	38	36	42	39	36	47	44	38	46	41	37	46	41	37
Sound power level - I.U.	Hi-Mi-Lo	dB(A)	59			58			65			100			100		
Air flow (Hi/Mi/Lo)	m ³ /h		850	700	550	1150	1000	850	1850	1550	1200	3010	2410	1940	3010	2410	1940
Available static pressure	Pa		70			70			80			100			100		
Air discharge flange	Dimension (WxH)	mm	713x119			713x179			933x179			968x204			968x204		
Drain hose diameter	mm		25			25			25			25			25		
Remote Controller (st. equipment)	Type		IR Wireless			IR Wireless			IR Wireless			IR Wireless			IR Wireless		
Outdoor Unit Specifications																	
Outdoor Unit	Dimension (WxHxD)	mm	842	695	324	895	862	313	990	966	354	940	1369	392	940	1369	392
	Net	kg	44			59			77			102			107		
Noise level - O.U.	Hi-Mi-Lo	dB(A)	58			62			63			63			63		
Sound power level - O.U.	Hi-Mi-Lo	dB(A)	65			69			70			69			69		
Max air flow	m ³ /h		2500			3500			5500			7200			7200		
Options																	
Wired control	DTW IHXR / DTW 2 IHXR / DTWS IHXR																
Centralized control	DTC IHXR / DTCW IHXR																
Weekly timer	DTWT IHXR																

1 Commission Delegated Regulation (EU) No 626/2011 with regard to energy labelling of air conditioners.

2 Commission Delegated Regulation (EU) No 206/2012. Value measured according to EN14825.

3 Commission Delegated Regulation (EU) No 31/202 with regard to energy labelling of air conditioners.

4 Value measured according to EN14511.

5 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO₂ over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.