

## DHP-iQ air source heat pump

# The air source **heat pump** that **delivers maximum** performance and **comfort**, year round

Danfoss DHP-iQ is an air source heat pump with inverter technology. The inverter-controlled compressor adjusts the heat load constantly according to the current heat demand. You never use more energy than is needed, and this of course reduces your energy bills further. Energy is collected from the outdoor air, and is used to heating of hot water and hydronic heating systems, delivering efficient energy savings at temperatures as low as -25 °C. By a unique acoustic design, it is very quiet in operation. The cooling function assures a pleasant indoor climate also during the hottest period of the year.

With a high seasonal performance danfoss DHP-iQ allows you to reduce your energy consumption by up to 75%. DHP-iQ is available in three output sizes: 5 kW, 9 kW and 16 kW. It consists of two parts: the heat pump itself, which is installed outdoors, and an indoor unit. You can choose from two versions of the indoor unit, each with different features. With Danfoss Online you have the ability to remotely control and monitor your heat pump.



# Best

Seasonal performance.  
The DHP-iQ provides  
one of the best  
seasonal performance  
on the market.

## Technical specification Danfoss DHP-iQ

### Connection heat pump

- ① Supply line heating system: R25, steel, external thread (rear side of the heat pump)
- ② Return line heating system: R25, steel, external thread (rear side of the heat pump)
- ③ Power and communication wiring conduits (DHP-iQ 5 right upper side of the heat pump, DHP-iQ 9 and DHP-iQ 16 bottom right side of the heat pump)



► DHP-iQ 5  
1,06 - 5 kW  
1~230 V



► DHP-iQ 9  
2,14 - 9 kW  
1~230 V  
3~400 V



► DHP-iQ 16  
3,8 - 16 kW  
1~230 V  
3~400 V



### ► MAXI

- Intelligent Controller
- Hot water tank, 180 litre
- Optimum controlled circulation pump Class A
- Immersion heater (3/6/9/12/15 kW 3~400 V; 1,5/3/4,5 kW 1~230 V)
- Three way valve for heating or hot water production
- Additional free space in the lower part of the unit might be used for the extra 60 liters volume tank (available as an accessory) or for the expansion vessel or/and hydraulic connections



### ► MINI

- Intelligent Controller

DHP-iQ		1~230 V, 50 Hz			3~400 V, 50 Hz	
		5	9	16	9	16
Refrigerant	Type	R410A	R410A	R410A	R410A	R410A
	Amount <sup>10</sup>	1.15	1.4	2.6	1.5	2.6
	Test pressure	12.3	12.3	12.3	12.3	12.3
	Design pressure	4.1	4.1	4.1	4.1	4.1
	Compressor	Type	BLDC Twin Rotary	BLDC Twin Rotary	BLDC Twin Rotary	BLDC Twin Rotary
Electrical data	Oil	POE	POE	PVE	PVE	PVE
	Main supply	230	230	230	400	400
	Rated power, cooling	1.21	1.95	3.84	1.92	3.84
	Rated power, heating	1.06	2.14	3.8	2.14	3.8
	Fuse	16	16	25	10	16
Performance	COP <sup>1</sup>	4.72	4.21	4.21	4.21	4.21
	Heating capacity <sup>1</sup>	5.0	9.0	16.0	9.0	16.0
	Power input – heating <sup>1</sup>	1.06	2.14	3.8	2.14	3.8
	EER <sup>2</sup>	4.13	3.85	3.65	3.65	3.65
	Cooling capacity <sup>2</sup>	5.0	7.5	14.0	7.0	14.0
	Power input – cooling <sup>2</sup>	1.21	1.95	3.84	1.92	3.84
	SCOP 14825 (Average climate) Low temp	4.50	4.41	4.41	4.41	4.41
	SCOP 14825 (Cold climate) Low temp	3.74	3.96	3.99	3.91	3.99
	SCOP 14825 (Average climate) High temp	3.13	3.15	2.80	3.13	2.80
	SCOP 14825 (Cold climate) High temp	2.51	2.83	2.68	2.66	2.68
Energy class - system <sup>8</sup>	Floor heating (35°C)/Radiator (55°C)	A+++/A++	A+++/A++	A+++/A+	A+++/A++	A+++/A+
Energy class - product <sup>9</sup>	Floor heating (35°C)/Radiator (55°C)	A++/A++	A++/A++	A++/A+	A++/A++	A++/A+
	Domestic hot water	A	A	A	A	A
	Nominal flow <sup>3</sup>	0.12	0.22	0.39	0.22	0.39
Operating range (outdoor)	Heating circuit	l/s				
	Heating	°C	-25~+35	-25~+35	-25~+35	-25~+35
	Cooling	°C	+10~+46	+10~+46	+10~+46	+10~+46
	Domestic hot water	°C	-25~+43	-25~+43	-25~+43	-25~+43
Max temperature <sup>4</sup>	Heating circuit	°C	55	55	55	55
Sound power level	Regular mode <sup>5</sup>	dB(A)	61	63	66	63
Sound pressure level	1m <sup>6</sup>	dB(A)	46	48	51	48
	4m <sup>7</sup>	dB(A)	44	46	49	46
Weight	Outdoor unit	kg	59	76	108	76
	MINI	kg	18	18	18	18
	MAXI	kg	106	106	106	106
Dimensions (Width x Depth x Height)	Outdoor unit	mm	880 x 310 x 798	940 x 330 x 998	940 x 330 x 1420	940 x 330 x 998

The measurements are performed on a limited number of heat pumps which can cause variations in the results. Tolerances in the measuring methods can also cause variations.

- 1) At A7/W35 according to EN 14511.
- 2) At A35/W7 according to EN 14511.

3) Nominal flow: heating circuit 10K.

4) At minimum outdoor temperature 0°C.

5) According to EN 12102, nominal operation A7W35

6) According to EN 11203, nominal operation A7W35,

heat pump ground mounted against building facade

7) Quarter spherical sound propagation in free field,

nominal operation A7W35, heat pump ground mounted against building facade

8) When the heat pump is part of an integrated system. According to Eco-design Directive 811/2013

9) When the heat pump is the sole heat generator and the built-in controller is not included.

According to Eco-design Directive 811/2013.

10) The refrigerant circuit is hermetically sealed and subject to the F-gas directive. Global Warming Potential (GWP) for R410A according to EC 517/2014 is 2088, giving a CO<sub>2</sub> equivalent corresponding to 5kw SP: 2401 kg, 9 kW SP: 2923 kg, 9 kW: 3132 kg, 16 kW SP: 5429 kg, 16 kW: 5429 kg

**A+++** Energy class when the heat pump is part of an integrated system.

**A++** Energy class when the heat pump is the sole heat generator. Energy class according to Eco-design Directive 811/2013

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