

DHP-AQ air source heat pump

The best seasonal performance* with savings worth celebrating

The DHP-AQ provides heating and domestic hot water, supporting a wide range of applications including: combinations with most hot water tanks, mixed heat distribution, solar systems and existing gas and oil boilers.

Featuring the best seasonal performance on the market thanks to the unique control system that constantly coordinates and optimises three key parameters in the product: airflow (efficient variable speed EC fan), the refrigerant circuit (electronic expansion valve), heat distribution (OPTI technology).

The efficiency of the DHP-AQ enables it to perform perfectly at very low outdoor temperatures, even at -20°C it will keep a house comfortably heated. State-of-the-art defrosting technology ensures the energy efficiency and full functionality of the heat pump in all seasons.

The DHP-AQ is available with three different indoor kits: Mini, Midi and Maxi.

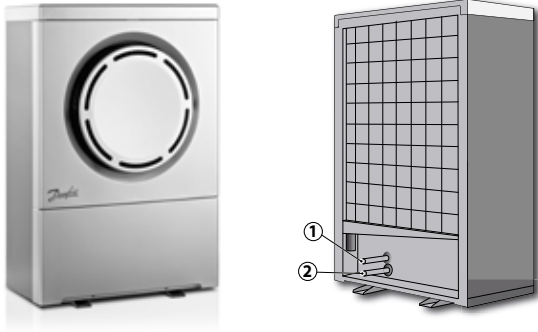
Best

Seasonal performance.
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performance* on the
market.

Technical specification **Danfoss DHP-AQ**

Connection heat pump

- 1 Supply line heating system (all sizes) - 28 mm Cu
- 2 Return line heating system (all sizes) - 28 mm Cu



Indoor kit

Mini: controller

Midi: controller, circulation pump (class A), auxiliary heater (400V: 3/6/9/12/15 kW; 230V: 3/6/9 kW), three way valve

Maxi: controller, hot water tank (180 l), circulation pump (class A), auxiliary heater (400V: 3/6/9/12/15 kW; 230V: 3/6/9 kW), three way valve

Maxi (+60): controller, hot water tank (180 l), circulation pump (class A), auxiliary heater (400V: 3/6/9/12/15 kW; 230V: 3/6/9 kW), three way valve and built-in 60-litre volume tank



DHP-AQ			6	9	11	13	16	18
Refrigerant	Type		R407C	R407C	R407C	R407C	R407C	R407C
	Amount	kg	4.0	4.3	5.0	5.1	5.7	6.0
	Design pressure	MPa	3.1	3.1	3.1	3.1	3.1	3.1
Compressor	Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Oil		POE	POE	POE	POE	POE	POE
	Main supply	Volt	400	400	400	400	400	400
Electrical data 3-N, ~50Hz	Rated power, compressor	kW	2.2	2.9	3.3	4.2	5.0	6.1
	Rated power, fan	kW	0.2	0.2	0.2	0.3	0.3	0.7
	Start current	A	12	10	18	17	18	18
	Fuse	A	10	10	16	16	16	16
	Main supply	Volt	230	230	230	230	230	-
Electrical data 1-N, ~50Hz	Rated power, compressor	kW	2.4	2.8	3.6	4.3	5.5	-
	Rated power, fan	kW	0.2	0.2	0.2	0.3	0.3	-
	Start current	A	11	21	26	28	38	-
	Fuse	A	20	20	25	32	32	-
	COP ¹		4.7	4.7	5.0	4.7	4.6	4.3
Performance ⁸	COP ²		4.3	4.4	4.7	4.4	4.1	4.0
	Heating capacity ²	kW	6.5	8.6	11.1	12.3	15.2	17.6
	Power input - heating ²	kW	1.5	2.0	2.4	2.8	3.7	4.4
	EER ³		2.2	2.4	2.5	2.4	2.3	2.3
	Cooling capacity ³		4.2	5.9	7.5	8.9	10.4	13.1
	Power input - cooling ³		1.9	2.5	3.0	3.7	4.5	5.7
	Nominal flow ⁴	Heating circuit	l/s	0.150	0.216	0.263	0.299	0.372
Operating range (outdoor)		°C	-20~+45°C	-20~+45°C	-20~+45°C	-20~+45°C	-20~+45°C	-20~+45°C
	Max temperature ⁵	Heating circuit	°C	60	60	60	60	60
Pressure levels	Low pressure	MPa	0.05	0.05	0.05	0.05	0.05	0.05
	Operating	MPa	2.85	2.85	2.85	2.85	2.85	2.85
	High pressure	MPa	3.1	3.1	3.1	3.1	3.1	3.1
Sound power level	Regular mode ⁶	dB(A)	61	61	61	62	66	76
	Low noise mode ⁶	dB(A)	60	59	60	61	64	71
Sound pressure level (1 meter)	Regular mode ⁷	dB(A)	46	46	46	47	51	61
	Low noise mode ⁷	dB(A)	45	44	44	46	48	55
Weight	Outdoor unit	kg	125	131	150	155	185	191
	Mini	kg	18	18	18	18	18	18
	Midi	kg	21	21	21	21	21	21
	Maxi	kg	106	106	106	106	-	-
	Maxi (+60) ⁹	kg	142	142	142	142	-	-
Outdoor unit	Width x Depth x Height	mm	856x510x1272	856x510x1272	1016x564x1477	1016x564x1477	1166x570x1557	1166x570x1557
Mini (Indoor kit)	Width x Depth x Height	mm	380x204x600					
Midi (Indoor kit)	Width x Depth x Height	mm	420x255x625 (+50mm pipes)					
Maxi / Maxi (+60) (Indoor kit)	Width x Depth x Height	mm	596x690x1845 ±10					

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 Δ10K warm side. (EN 255)
 2) At A7/W35 according to EN 14511.
 3) At A35/W7 according to EN14511.
 4) Nominal flow: heating circuit Δ10K.
 5) At outdoor temperature 0°C

6) According to SS-EN 12102, EN ISO 3741.
 7) According to ISO 11203, cuboid-shaped measuring surface
 8) The values apply to a new heat pump with clean heat exchangers.
 9) Built-in tank 60-litre volume version, used when the building's heating system requires extra volume.

*) The Swedish Energy Agency has conducted an extensive test of air/water heat pumps. The new Danfoss DHP-AQ has the best annual efficiency, and consequently delivers the biggest savings. Test performed by the Swedish Energy Agency has been announced September 2011. More information you can find on <http://www.energimyndigheten.se/sv/Hushall/Testresultat/Testresultat/Luftvattenvarmepumpar1/?tab=2>

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