

# HEAT PUMP SYSTEMS

## QUESTIONNAIRE REGARDING SYSTEM ENGINEERING AND SYSTEM DESIGN



Please complete the following fields fully on your PC. Print out and **sign** the questionnaire and then send it to the relevant sales partner.

### 1. Project data

Sender	
Sales partner	_____
Cust. no. / Completed by	_____
Company	_____
Contact	_____
Telephone / Mobile	_____
Fax / Email	_____
Street, no.	_____
Postal code, town	_____
Country	_____

Intended build	
Building owner / Project	_____
Contact	_____
Telephone / Mobile	_____
Fax / Email	_____
Street, no. (place of construction)	_____
Postal code (place of construction)	_____
Country	_____
Comments on intended build	
_____	

### 2. Building details

Building plans and intended purpose	
Current building plans with dimensions enclosed	_____
Private use	_____
Commercial or public use	_____
Detached house	_____
Apartment building, residential units:	_____
Non-residential buildings	_____
Type:	_____
Number of rooms	_____
Older building, year of build:	_____
New build	_____
Standard design temperature	_____
Standard building heat load	
Heat load (in kW)	_____
Heating energy demand	
Annual heating demand relative to the area $Q_n$ (in kWh/m <sup>2</sup> p.a.)	_____
Available space in the building $A_n$ (in m <sup>2</sup> )	_____

### 3. System design specification

#### 3.1 Heat pump system application

Heat pump system	
For central heating	_____
For DHW heating	_____
For swimming pool water heating	_____

#### 3.2 Heating system

Heat exchanger	Flow °C	Return °C	Buffer cylinder
Area heating system	_____	_____	Without buffer cylinder
Heating system with radiators	_____	_____	Wall mounted buffer cylinder
Fan convectors	_____	_____	Floorstanding buffer cylinder
			Low loss header
			Combi cylinder

Solar thermal system	
For DHW heating	_____
For central heating backup	_____
For swimming pool water heating	_____
Questionnaire for calculating a solar thermal system enclosed	_____

#### 3.3 DHW heating

DHW heating	
Incl. central heating heat pump	_____
With DHW heat pump	_____
With DHW circulation line	_____
Excl. DHW circulation line	_____

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DHW demand per day and person	
Number of occupants	Required value: (l/person at 45 °C)
Approx. 30 l at 45 °C, $\Delta$ low consumption	Own calculation of value
Approx. 40 l at 45 °C, $\Delta$ average consumption	Reheating with oil, gas, solid fuel
Approx. 50 l at 45 °C, $\Delta$ high consumption	Direct electric reheating
	Reheating output (in kW)

### 3.4 Swimming pool

Swimming pool	
Indoor pool	Length, in metres
Open air pool	Width, in metres
Usage period from: to:	Depth, in metres
With swimming pool cover	Volume (in m <sup>3</sup> )
Tile colour	

### 3.5 Cooling of buildings

Cooling system	
Active cooling	With area cooling
Passive cooling	With fan convectors

### 3.6 Power supply utility

Power-OFF periods	
Number of power-OFF periods (per day)	Duration of a power-OFF period (in hours)

### 3.7 Heat source system

Geothermal probes	
Number of geothermal probes	Extraction rate per probe (in W/m)
Depth of the probe bore holes	
Geothermal collector	
Average extraction rate (in W/m <sup>2</sup> ) (sand 20 W/m <sup>2</sup> , clay 25 W/m <sup>2</sup> , wet clay 30 W/m <sup>2</sup> )	Average heat source entry temperature (in °C)
	Unsealed heat source area that can be used (in m <sup>2</sup> )
Groundwater	
Average heat source entry temperature (in °C)	Groundwater depth (in metres)
Water analysis enclosed	
Air	
Indoor installation of the heat pump	Direct distance from the heat pump to the next building (in metres)
Outdoor installation of the heat pump	

### 3.8 Heat pump operating mode

Operating mode
Mono mode
Mono energetic
Dual mode - parallel
Dual mode - alternative

### 3.9 Additional heat sources

Heat source
Oil booster heater with 3-way/4-way mixer
Wall mounted gas boiler
Gas boiler
Solid fuel boiler (wood/pellet)
Direct electric



### 3.10 Printing and sending the design questionnaire

#### Printing the design questionnaire

Printing

Print out and sign your questionnaire and then send it to the relevant sales partner.

### Further construction documents

The more detailed and accurate the description of your system or building, the more precisely we can plan your project. If you have any further technical drawings, photographs and specifications for the building, please send us a complete set.

### Legal note

You confirm that the details are complete and correct. We use them as a basis for the design and calculation of your system. We accept no liability for calculations or designs based on incorrect, inaccurate or incomplete details. We accept no liability nor offer any warranty if our design is used for the creation of a system using third party components.

Date

Signature

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