

Junkers SUPRAECO T 220-2

Junkers SUPRAECO T Heat Pump T 220-2, 22 kW User Manual

Model: SUPRAECO T 220-2

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Junkers SUPRAECO T 220-2 brine/water ground source heat pump. The SUPRAECO T 220-2 is a 22 kW compact unit designed to efficiently provide both heating and hot water. Its optimized refrigerant circuits ensure high performance and quiet operation, making it suitable for multi-family homes, public buildings, and commercial properties. Utilizing this heat pump contributes to energy savings and reduced costs for heating and hot water, while also promoting the conservation of energy resources.

2. SAFETY INFORMATION

Please read all safety instructions carefully before installation, operation, or maintenance. Failure to follow these instructions may result in property damage, injury, or death.

- **Qualified Personnel:** Installation, maintenance, and repairs must only be performed by qualified and authorized personnel.
- **Electrical Safety:** Ensure the unit is properly grounded. Disconnect power before performing any service or maintenance.
- **Water and Brine Circuits:** Ensure all connections are secure and leak-free. Use appropriate fluids as specified.
- **Refrigerant:** The unit contains R410 A refrigerant. Handling of refrigerants must be done by certified technicians.
- **Ventilation:** Ensure adequate ventilation around the unit as specified in the installation guidelines.
- **Original Parts:** Only use original Junkers spare parts for replacements.

3. PRODUCT OVERVIEW

The Junkers SUPRAECO T 220-2 heat pump is engineered for efficiency and reliability. Key features include:

- Lead temperature capability up to 68 °C.
- High COP values, reaching up to 4.9 (according to EN 14511).
- Equipped with the new REGO 5200 control system.

- Features a newly developed refrigerant circuit with advanced injection technology.
- Designed for quiet and compact operation.
- Achieves very quiet operation through low-noise compressors and multi-layer sound insulation.
- Utilizes highly efficient and environmentally friendly R410 A refrigerant.
- Designed for minimal installation effort.
- Wall-mounted design with pre-installed brine and heat pump control, including flow temperature control and heat flow meter.
- Incorporates 2 x Copeland Scroll compressors.
- Modbus/BACnet interface for seamless connection to building management systems.
- Integrated starting current limiter.
- Includes one integrated high-efficiency circulation pump for both the brine and heating circuits.
- Equipped with dirt filters for both the brine and heating circuits.



This image shows the main unit of the Junkers SUPRAECO T 220-2 heat pump. It is a tall, white, rectangular appliance with a circular

4. SETUP

The installation of the Junkers SUPRAECO T 220-2 heat pump requires professional expertise. Please ensure that all steps are carried out by certified technicians.

1. **Unpacking and Inspection:** Carefully unpack the unit and inspect for any shipping damage. Report any damage immediately.
2. **Placement:** Position the unit on a stable, level surface in a location that allows for adequate ventilation and access for maintenance. Refer to the installation manual for specific clearance requirements.
3. **Brine Circuit Connection:** Connect the brine inlet and outlet pipes to the heat pump. Ensure all connections are sealed properly.
4. **Heating Circuit Connection:** Connect the heating flow and return pipes to the heat pump.
5. **Electrical Connection:** Connect the unit to the main power supply according to local electrical codes and the wiring diagram provided in the full installation manual. Ensure proper grounding.
6. **Filling and Venting:** Fill both the brine and heating circuits with the appropriate fluids and thoroughly vent the systems to remove air.
7. **Initial Startup:** Follow the specific startup procedure outlined in the detailed installation manual, including checking system pressures and temperatures.

5. OPERATING INSTRUCTIONS

Once installed and commissioned by a professional, operating your SUPRAECO T 220-2 heat pump is straightforward.

- **Power On/Off:** Use the main power switch to turn the unit on or off.
- **Control Panel (REGO 5200):** The REGO 5200 control system allows you to monitor and adjust settings. Refer to the dedicated REGO 5200 manual for detailed instructions on navigation and parameter adjustments.
- **Temperature Settings:** Adjust desired room temperature and hot water temperature via the control panel.
- **Operating Modes:** Select between heating, hot water production, or combined modes as needed.
- **Monitoring:** Regularly check the display for any error messages or unusual readings.

6. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your heat pump. Some tasks can be performed by the user, while others require a qualified technician.

User Maintenance (Monthly/Quarterly)

- **Visual Inspection:** Check the unit for any visible leaks, unusual noises, or damage.
- **Pressure Check:** Monitor the pressure gauges for both the brine and heating circuits. Ensure they are within the recommended operating range.
- **Dirt Filters:** Inspect and clean the dirt filters in the brine and heating circuits as necessary.

Professional Maintenance (Annually)

- **System Check:** A qualified technician should perform a comprehensive check of all components, including compressors, pumps, and electrical connections.

- **Refrigerant Level Check:** Verify the refrigerant charge and inspect for any leaks.
- **Performance Optimization:** Adjust system parameters for optimal efficiency.
- **Safety Device Check:** Test all safety devices and sensors.

7. TROUBLESHOOTING

This section provides guidance for common issues. For complex problems, always contact a qualified service technician.

- **No Heat/Hot Water:**
 - Check if the unit is powered on.
 - Verify temperature settings on the REGO 5200 control panel.
 - Check system pressure. Low pressure may indicate a leak or insufficient fluid.
 - Look for error codes on the display and consult the REGO 5200 manual.
- **Reduced Performance:**
 - Ensure dirt filters are clean.
 - Check for proper air circulation around the unit.
 - Verify that all valves in the brine and heating circuits are fully open.
- **Unusual Noises:**
 - Identify the source of the noise.
 - If it's a vibrating noise, check if the unit is level and stable.
 - Persistent or loud unusual noises require professional inspection.
- **Leakage:**
 - Immediately shut off the unit and the water supply if a leak is detected.
 - Contact a qualified technician for repair.

8. SPECIFICATIONS

Attribute	Value
Brand	Junkers
Model	SUPRAECO T 220-2
Power Output	22 kW
Type	Brine/Water Ground Source Heat Pump
Refrigerant	R410 A
Max Lead Temperature	68 °C
COP Value (EN 14511)	Up to 4.9
Control System	REGO 5200
Compressors	2 x Copeland Scroll

Article Number	8738207497
ASIN	B07J54BMQ3

9. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided with your purchase or contact your installer/supplier. Junkers provides technical support through authorized service partners. In case of technical issues or questions not covered in this manual, please contact your local Junkers service representative or the installer who commissioned your unit.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question