The complete ROTEX heat pump product range

Create the right atmosphere – with renewables

ROTEX air-to-water and ground source heat pumps for new build and modernisation.
The inexhaustible heat source on your doorstep

ROTEX offers individual heat pump solutions for every requirement, supplying your home with heat – with maximum efficiency.

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The renewable heating era starts here

Natural heat sources on your doorstep
Outdoor air and geothermal heat are natural and inexhaustible energy sources. Take advantage of this free heat supply and use it in your own home.

A heat pump “pumps” heat into the heating system from the ambient air or the ground, with the help of a highly efficient compressor. This principle is equivalent to using a refrigerator or air conditioning system in reverse.

Air-to-water heat pumps utilise the ambient air as their heat source. They can therefore be installed quickly and inexpensively. Ground source heat pumps utilise ground temperatures which are constant all year round. Apart from the heat pump itself, geothermal collectors or geothermal probes are required for operating these heat pumps. The most suitable heat source in individual cases depends on the heat demand and the local conditions.

ROTEX new build solutions
The amount of heating energy required by modern buildings is continually going down, resulting in lower flow temperatures. The low temperature heat pumps from ROTEX are designed specifically to meet such requirements. An underfloor heating system is essential for exploiting the full potential of this energy efficient heat generator. As underfloor heating systems have such a large surface area, they can make do with low surface temperatures. The combination of heat pump and underfloor heating system is therefore a guarantee for greater comfort and lower energy costs. Many ROTEX heat pump systems can also apply the principle in reverse. Consequently, it is possible to use heat pumps in summer for cooling your building gently and economically.

ROTEX solutions for modernisation with radiators
Older heating systems with radiators depend on higher flow temperatures (at least 55 °C and up to 80 °C). So that you can also benefit from this technology in modernisation projects, ROTEX provides heat pumps with a second cooling circuit. In this second compressor stage, the temperature is raised to up to 80 °C – warm enough to continue using your existing radiators efficiently, without additional electric heating. Alternatively, ROTEX also offers a hybrid appliance consisting of an air-to-water heat pump and a gas condensing boiler.

ROTEX solutions for modernisation providing twice the gain in convenience
Even with a modernisation project, there’s no need to forego the convenience of an underfloor heating system. ROTEX offers such a wide range, you are bound to find the most suitable solution for your project.

“We wanted a convenient and environmentally friendly heating system for our house. So our heating contractor recommended a heat pump from ROTEX. They have great solutions, no matter what your situation. Now, nothing beats the comforts of home – and we get to save on heating costs too!”

Beatrix and Michael Janick, homeowners

How it works
Heat pumps utilise freely available environmental heat for heating systems, such as that in the ambient air or naturally occurring geothermal heat, a principle that has already proven its worth in millions of installations.

Heat source
Outdoor air or geothermal heat (brine)

Compressor

Heat exchanger (evaporator)

Expansion valve

Heat exchanger (condenser)

Consumer

DHW

Underfloor heating system

ROTEX heat pumps
Whatever your needs – the ideal solution is here

ROTEX HPSU compact
Air-to-water heat pump
The complete solution: State of the art heat pump technology with integral thermal store, hygienic and open to additional heat sources.

ROTEX HPSU Bi-Bloc
Air-to-water heat pump
The flexible solution: Innovative technology and flexible integration into the building.

ROTEX HPU ground
Ground source heat pump
The highly efficient solution: Ground source heat pumps supply the highest efficiency levels regardless of the outside temperature.

ROTEX HPU hybrid
Gas hybrid heat pump
The combined solution: Smart modernisation with heat pump and gas.

ROTEX HPSUhitemp
Air-to-water heat pump
The high temperature solution: The 2-stage heat pump for modernisation projects achieves flow temperatures of up to 80 °C.

ROTEX HPU ground
Ground source heat pump
The highly efficient solution: Ground source heat pumps supply the highest efficiency levels regardless of the outside temperature.

ROTEX HPU hybrid
Gas hybrid heat pump
The combined solution: Smart modernisation with heat pump and gas.

ROTEX HPSUhitemp
Air-to-water heat pump
The high temperature solution: The 2-stage heat pump for modernisation projects achieves flow temperatures of up to 80 °C.
The complete solution with compact dimensions and pioneering technology – heating and cooling with the highest levels of efficiency.

**ROTEX HPSU compact – high class efficiency**
The ROTEX HPSU compact combines highly efficient heat pump technology with an innovative thermal store in the smallest of spaces. The entire heating centre only takes up 0.36 m² (HPSU compact 304/308) or 0.62 m² (HPSU compact 508/516). Electronic management of both heat pump and thermal store (ISM = Intelligent Store Management) maximises energy efficiency at the same time as heating and domestic hot water (DHW) convenience. The HPSU compact is “Smart Grid Ready”, which means that it has already reduced its energy costs to meet anticipated future requirements. DHW heating employs the instantaneous water heating principle and is characterised by the highest standards of hygiene.

**Perfect climate: Heating in winter – cooling in summer**
The HPSU compact is not only designed for heating, but also for cooling when combined with an underfloor heating system. Your customised climate 365 days a year.

**Low expenditure – high yield**
Solar energy and heat pump complement each other ideally here. At peak levels, 80% of the solar energy that has been captured can be converted into usable heat. In conjunction with a ROTEX solar thermal system, the ROTEX HPSU compact becomes an unbeatable “solar heater”.

Your benefits with the ROTEX HPSU compact air-to-water heat pump

- **Outstanding efficiency**
  - Use of free, renewable, environmental energy from the sun and air

- **Innovative technology**
  - Intelligent Store Management (ISM) for maximum energy efficiency and highest levels of heating and DHW convenience
  - Intuitively operated electronic control unit
  - Smart Grid Ready

- **DHW hygiene**
  - Highest levels of hygiene thanks to separation of tank water and DHW
  - No deposits, no legionella

- **Meets your needs**
  - Heating, cooling and domestic hot water
  - Economical and quiet to run
  - Compact dimensions, straightforward installation – in the smallest of spaces
  - Flexible application, direct combination with solar thermal system or existing heating systems possible

**The RoCon hybrid control unit**
Apart from heat pump control functions, the hybrid control unit also takes on complete management of the thermal store – the heart of the hybrid heating system. This comprehensive hybrid management system ensures the highest levels of system efficiency and convenience for central heating, domestic hot water and cooling. Straightforward and consistent regulation of the ROTEX HPSU compact, with intuitive menu navigation and control via smartphone with the ROTEX app.

**The hybrid heating centre – open to all energy types**
The HPSU compact internal unit can furthermore be used as an efficient thermal store for additional heat sources. Apart from a solar thermal system, it can also be backed up for example by oil, gas and pellet boilers or wood burning stoves with back boilers. If you do not intend to install a solar thermal system immediately, one can be retrofitted quickly and easily at any time.
ROTEX HPSU Bi-Bloc
Heat intelligently and save money

The heat pump split system, comprising external unit, internal unit and thermal store.

**ROTEX HPSU Bi-Bloc – free solar energy for your heating system**

The sun provides us with a source of natural energy. The ROTEX HPSU Bi-Bloc utilises environmental heat with maximum efficiency. It consists of an external unit, an internal unit and a thermal store. You do not need a separate installation room for the HPSU Bi-Bloc.

**Economical and quiet**

The heat demand of a building varies widely depending on weather conditions and utilisation patterns. All ROTEX heat pumps employ inverter technology, which operates the compressor variably between 50 and 100% power. In other words, the output of the heat pump is continuously adjusted to meet the demand. This increases the energy efficiency of ROTEX heat pumps significantly and leads to outstandingly quiet operation.

**Perfect climate: Heating in winter – cooling in summer**

The HPSU Bi-Bloc is not only designed for heating, but also for cooling when combined with an underfloor heating system. Your customised climate 365 days a year.

**Your benefits with the ROTEX HPSU Bi-Bloc air-to-water heat pump**

**Outstanding efficiency**
- Use of free, renewable, environmental energy from the sun and air

**Innovative technology**
- Maximum energy efficiency and highest levels of heating and DHW convenience
- Intuitively operated electronic control unit

**DHW hygiene**
- Highest levels of hygiene thanks to separation of tank water and DHW
- No deposits, no legionella

**Meets your needs**
- Economical and quiet to run
- Compact dimensions, straightforward installation – in the smallest of spaces
- Flexible application, direct combination with solar thermal system possible

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**The external unit**

The external unit extracts heat from the ambient air, which is absorbed by the heat transfer medium (refrigerant) and transferred to the internal unit. The compact external unit can be sited inconspicuously outside the new build or existing residential building.

**The first thing we need for foodstuffs is clean water**

The hygienic ROTEX thermal store principle:

The ROTEX HybridCube thermal store is a combination of domestic hot water tank and instantaneous water heater. The domestic water to be heated is conveyed and heated through a separate high-performance heat exchanger made of stainless steel. Water that is charged first is also the first to be removed (first-in first-out principle).
ROTEX HPU ground
Heating with geothermal energy

Thanks to inverter heat pump technology, the ground source heat pump utilises free geothermal heat in a particularly environmentally responsible and uniquely efficient way.

Innovative technology and maximum efficiency
Even in the coldest places there is plenty of energy in the ground in the form of free geothermal heat. At a depth of 15 metres and below, the temperature is a fairly constant 10°C. This trapped energy represents an inexhaustible heat source which the ground source heat pump can tap into to heat your home. The ROTEX HPU ground utilises this environmental heat supply to heat your home with maximum efficiency.

Inverter technology for greater efficiency
The ROTEX ground source heat pump delivers exceptional performance thanks to its highly efficient inverter technology. When the building does not require heating at full capacity, the heat pump reduces its output, making it much more efficient.

One output – many applications
Thanks to inverter technology the HPU ground offers an output that ranges from 3 kW -10 kW. With the boost function this can be increased to 13 kW, extending still further the number of applications that can benefit from this heat pump. In low energy houses, the heat source can have smaller dimensions. This saves money when probe drilling or selecting a geothermal collector.

Attractive design with a very small footprint
Thanks to its compact design, the system needs a very small installation area of only 0.44 m² – roughly the same as a washing machine. At a height of just 1.73 m, the combined heat pump module and domestic hot water tank fits in any standard room.

How it works
Using geothermal probes or geothermal collectors, heat is extracted from below the surface of the ground. A mixture of water and antifreeze, also known as brine, is pumped around the circuit for this purpose. Thereafter, the brine flows through the heat pump, where the heat from the ground is transferred to a refrigerant with a low evaporating point. The refrigerant is subsequently compressed and heated in the compressor. It then transfers its heat to the heating system where it is used for heating and domestic hot water production.

Your benefits with the ROTEX ground source heat pump HPU ground
Outstanding efficiency
• Use of free, renewable geothermal heat
• Inverter technology ensures efficient operation at any outside temperature
• User friendly control with integrated energy management

Innovative technology
• Maximum energy efficiency and highest levels of heating and DHW convenience
• Intuitively operated electronic control unit

Meets your needs
• For central heating and domestic hot water
• Economical and quiet to run
• Compact dimensions, straightforward installation – in the smallest of spaces
Heat intelligently and reliably all year round
The ROTEX HPU hybrid heat pump optimises parallel operation with the heat pump. This results in the gas boiler starting to cover the heat demand of the building on its own much later than would otherwise be the case. This system is up to 35% more efficient than a gas condensing boiler on its own. This means that, over the course of a year, 60 to 70% of the energy for central heating is supplied by the heat pump.

Efficient, convenient and reliable
The new ROTEX HPU hybrid unites a renewable air-to-water heat pump with energy saving gas condensing technology. The internal unit, consisting of the gas condensing boiler and the internal part of the heat pump, typically takes up no more space than a conventional gas boiler. With flow temperatures of 25 °C to 80 °C, the ROTEX HPU hybrid is suitable for any kind of building.

Outstanding efficiency – at all times and all temperatures
The ROTEX gas hybrid heat pump achieves optimum energy efficiency thanks to its dual mode parallel and alternative operation. The heat pump is activated for as long as possible or both appliances run concurrently. The gas boiler is only used when it is really needed, i.e. when high temperatures are required. The ROTEX gas hybrid heat pump therefore ensures maximum efficiency at all times in any operating mode.

Optimum water hygiene – maximum convenience
For domestic hot water heating, you can choose between the hygienic instantaneous water heater principle or combination with a convenient ROTEX thermal store.

Perfect climate: Heating in winter – cooling in summer
The HPU hybrid is not only designed for heating, but also optionally for cooling when combined with an underfloor heating system. Your customised climate 365 days a year.

Your benefits with the ROTEX HPU hybrid gas hybrid heat pump
Outstanding efficiency
• Optimum use of free, renewable, environmentally responsible energy from the sun and air in combination with a gas condensing system
• Up to 30% more efficient DHW heating than with standard gas condensing boilers

Innovative technology
• The most efficient mode for every outside temperature. The ROTEX hybrid logic controller always selects the most favourable operating mode based on current electricity and gas prices
• All components are perfectly matched to each other prior to delivery

Meets your needs
• High output and high temperatures guaranteed heat at any time
• Easy integration into existing heating systems
• Economical and quiet to run
• Compact dimensions, straightforward installation – in the smallest of spaces
• optional cooling

All at the touch of a button
Current electricity and gas prices are easily entered into the controller of the ROTEX gas hybrid heat pump. This device then automatically selects the most favourable heat generator in every operating mode. This allows you to maintain control over your heating bills. Alternatively, you can choose an operating mode with ecological bias. The controller will then always select the energy source with the least environmental impact (highest primary energy efficiency).
**ROTEX HPSU**<sup>hitemp</sup>  
**The heat pump for modernisation projects**

Thanks to a second cooling circuit, high temperature heat pumps are ideal for modernising existing buildings with radiators.

**Out with the old boiler, in with a ROTEX heat pump.** Just like the HPU hybrid, the ROTEX HPSU<sup>hitemp</sup> sets new standards in the modernisation. Even at very cold outside temperatures of -20 °C, it generates a heating water temperature of up to 80 °C without the need for additional electric heating, thereby reducing energy costs. Another benefit: Your existing radiators can be integrated simply into the new heating system.

**Minimum expenditure, maximum yield**  
The HPSU<sup>hitemp</sup> consists of an external unit, an internal unit and a thermal store. You do not need a separate installation room for the HPSU<sup>hitemp</sup>. The compact external unit allows you greater flexibility in your choice of installation location.

**Economical and quiet thanks to output modulating operation**  
Thanks to inverter technology, the output of the heat pump is continuously adjusted to meet the demand. And this modern inverter technology is employed twice in the 2-stage HPSU<sup>hitemp</sup> heat pump. This increases energy efficiency substantially.

**Your benefits with the ROTEX HPSU<sup>hitemp</sup> air-to-water heat pump**

- **Outstanding efficiency**
  - Optimum utilisation of free, renewable, environmental energy from the sun and air

- **Innovative technology**
  - Up to 80 °C flow temperature
  - Integration of existing radiators

- **DHW hygiene**
  - Highest levels of hygiene thanks to separation of tank water and DHW
  - No deposits, no legionella

- **Meets your needs**
  - Ideal for modernisation projects
  - Heating and DHW
  - Economical and quiet to run
  - Compact dimensions, straightforward installation – in the smallest of spaces
  - Flexible application, direct combination with solar thermal system (in combination with ROTEX HybridCube)

**On the sunny side – today and tomorrow**

The HPSU<sup>hitemp</sup> is ideally suited for utilising solar energy in combination with the ROTEX HybridCube thermal store. Regardless of whether you install a solar thermal system immediately or have one retrofitted in years to come, ROTEX storage technology guarantees unbeatable drinking water hygiene with maximum DHW convenience at all times.

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“There were times when I wondered what on earth we were doing. The building itself, the heating system, water, electrics – everything seemed to need replacing. Yet when it came to heating, the ROTEX system had a pleasant surprise in store. We could carry on using the old radiators and everything was quickly and cleanly installed in less space. Simply brilliant!”

Jens Hahn talking about his home
Efficiency made transparent

How the energy efficiency classes are determined

The product’s seasonal energy efficiency will determine its energy efficiency class. Put simply, this indicates the relationship between the total energy input and the useful heat output. The greater the proportion of renewable energy used to generate heat, the higher the efficiency class. As a result, heat pumps are usually in the top efficiency classes (A+ and above), followed by gas and oil condensing boilers, with conventional boilers bringing up the rear, as they tend to perform comparatively poorly against the relevant criteria.

Excellent package label ratings with solar

Hooking up a solar thermal system is the most effective way to reach a higher overall system efficiency class. The ROTEX thermal store are already optimised for hooking up with a solar thermal system and in combination with ROTEX Solars, this system will become your own personal ‘solar heater’.

Expert advice

Every building is different. Your choice of a new heating system, especially as part of modernisation, should not be based solely on the efficiency rating. Depending on the characteristics of your building, a heating system with a low efficiency rating can still be an ideal choice, especially as part of modernisation, should not be based solely on the efficiency rating. Consequently it’s important to get expert advice and help with sizing: that’s where your ROTEX partner comes in useful.

Efficiency classes for products and systems

Individual heat generators will each bear a product label. The efficiency of a heating system depends not only on the heat generator, but on several components. That is why the combination or package label was introduced. This covers the heat generator plus other components such as the controller, cylinders, solar thermal systems and/or an additional heat generator. The combination label is calculated from the efficiency values of the individual appliances and devices.

Smart Heat Pumps

Join the Smart Heat Pumps Challenge and win a Smart Heat Pumps appliance. By buying a ROTEX appliance you make a green and cost-saving lifestyle choice.

Safe in the knowledge it’s ROTEX

All ROTEX products are tested and meet the criteria in the Ecodesign Directive. For both individual products and packaged solutions, energy labels are a reliable indicator of efficiency class.

Perfectly matched in terms of their individual components, our complete systems provide both maximum convenience and the highest safety standards.

Specification

<table>
<thead>
<tr>
<th>Product label</th>
<th>HPSU compact 4 – 8 kW</th>
<th>HPSU compact 11 – 16 kW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output</strong></td>
<td><strong>W</strong></td>
<td><strong>W</strong></td>
</tr>
<tr>
<td>kW</td>
<td>4</td>
<td>6</td>
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<td>kW</td>
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<td>11</td>
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<tr>
<td>kW</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>kW</td>
<td>14</td>
<td>16</td>
</tr>
</tbody>
</table>

**Energy efficiency class**

- **Space heating (flow temperature 55 °C)**
  - Max. heating output A2 / W35 kW: 3.47, 4.6, 5.51, 4.6, 5.37, 7.7, 9.6, 10.3
  - Max. heating output A2 / W35 kW: 4.8, 6.4, 7.7, 6.4, 7.7, 9.1, 11.9, 11.4

- **Space heating with integrated control (flow temperature 55 °C)**
  - Max. heating output A7 / W75 kW: 4.07, 5.4, 6.4, 5.4, 7.2, 9.2, 11.2, 11.7

- **Solar heating energy efficiency (tracing profile)**
  - A++ A++ A++ A++ A++ A++ A++ A++

**Basic data**

- **Nominal heating output A2 / W35 kW:** 3.47, 4.6, 5.51, 4.6, 5.37, 7.7, 9.6, 10.3
- **Max. cooling output A35 / W18 kW:** 5.9, 7.8, 9.4, 7.8, 9.4, 11.7, 16.1, 16.8
- **Nominal COP A35 / W18:** 4.21, 3.09, 3.64, 2.99, 3.64, 3.18, 2.96, 2.72

**Pumping operating mode (outside temperature)**

- **Space heating operating range:** Min: -25 / Max: 25
- **Max. heating output A2 / W35 kW:** 5.1, 6.4, 8.4, 6.4, 8.4, 11.4, 14.6, 16.3

- **Nominal COP A7 / W75:** 5.23, 4.88, 4.6, 4.6, 4.47, 4.27, 4.1

**Internal unit**

- **Heating flow temperature operating range °C:** Min: 15 / Max: 55
- **Cooling flow temperature operating range °C:** Min: 5 / Max: 22

- **Immersion heater output (option): kW:** 9

- **Dimensions (W x D x H) mm:** 1590 x 1615 x 1965, 2010 x 1900 x 1951, 2010 x 1900 x 1951

- **Weight of HPSU compact H/C Kg:** 92, 119

- **Energy efficiency class:**
  - **Heat pump:** A++

- **Type RRLQ:** D06CAV D06CAV D06CAV D06CAV D06CAV D11CAW D11CAW D14CAW D16CAW

- **Dimensions (W x D x H) mm:** 630 x 660 x 720

- **Weight Kg:** 54

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<th>Refrigerant</th>
<th>R410A</th>
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<tr>
<td>ECOeq</td>
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<td>1.3</td>
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</table>

* The listed energy efficiency classes are valid for the H/C version and also for the H/C Biv version.
1) The “Smart Grid Ready” label for all ROTEX HPSU compact heat pumps certifies their suitability for “power bias operation” – see page 23.
2) The HPSU compact is not only designed for heating, but also for cooling when combined with a solar underfloor heating system. Your customised climate 365 days a year.
3) The "ROTEX compact class" product range has won the Plus X Award in recognition of its degree of innovation, high quality, and excellence in design, functionality and ecology.
4) ROTEX HPSU compact heat pumps meet the strict quality criteria of the EHPA.
5) at 1 m separation
## Specification

<table>
<thead>
<tr>
<th>System efficiency with Solar*</th>
<th>ROTEX HPSU Bi-Bloc (heating/heating and cooling)</th>
<th>HPSU Bi-Bloc 4 – 8 kW</th>
<th>HPSU Bi-Bloc 11 – 16 kW</th>
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<tbody>
<tr>
<td>Output</td>
<td>kW</td>
<td>4</td>
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<tr>
<td>Energy efficiency class*</td>
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<td>Space heating flow temperature °C</td>
<td>dB (A) 48 – 49 – 51 – 52</td>
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<td>Space cooling flow temperature °C</td>
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<td>Weight kg</td>
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<tr>
<td>Dimensions (W x D x H) mm</td>
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<tr>
<td>Heating operating range (outside temperature) °C</td>
<td>Min: 15 – Max: 55</td>
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<tr>
<td>Cooling operating range (outside temperature) °C</td>
<td>Min: 10 / Max: 43</td>
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### Internal unit

<table>
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<tr>
<th>Heating Type: RHBH</th>
<th>04CB3V</th>
<th>08CB9W</th>
<th>08CB9W</th>
<th>11CB9W</th>
<th>16CB9W</th>
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<tbody>
<tr>
<td>Heating flow temperature °C</td>
<td>Min: 15 – Max: 55</td>
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<tr>
<td>Cooling flow temperature °C</td>
<td>Min: 10 / Max: 43</td>
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<td>Dimensions (W x D x H) mm</td>
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<td>480 x 344 x 890</td>
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<tr>
<td>Weight kg</td>
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### External unit

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<th>004CAV1</th>
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<tr>
<td>Sound power level heating dB</td>
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<td>Sound power level cooling dB</td>
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<td>Sound pressure level heating</td>
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### Basic data

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<tr>
<th>Nominal heat pump kW</th>
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<tbody>
<tr>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Nominal heating output A2/W3S kW</td>
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<td>-</td>
<td>-</td>
<td>5.7</td>
<td>7.7</td>
<td>9.7</td>
</tr>
<tr>
<td>Nominal heating output A7/W3S kW</td>
<td>-</td>
<td>-</td>
<td>4.4</td>
<td>7.4</td>
<td>10.4</td>
<td>13.4</td>
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<tr>
<td>Nominal COP A2/W3S</td>
<td>-</td>
<td>-</td>
<td>3.5</td>
<td>5.5</td>
<td>7.5</td>
<td>9.5</td>
</tr>
<tr>
<td>Nominal COP A7/W3S</td>
<td>-</td>
<td>-</td>
<td>3.3</td>
<td>5.3</td>
<td>7.3</td>
<td>9.3</td>
</tr>
<tr>
<td>Nominal CO2eq</td>
<td>-</td>
<td>-</td>
<td>3.0</td>
<td>3.3</td>
<td>7.1</td>
<td>7.4</td>
</tr>
<tr>
<td>GWP</td>
<td>-</td>
<td>-</td>
<td>2087.5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Refrigerant charge kg</td>
<td>-</td>
<td>-</td>
<td>1.45</td>
<td>1.6</td>
<td>1.85</td>
<td>2.0</td>
</tr>
<tr>
<td>Refrigerant charge kW</td>
<td>-</td>
<td>-</td>
<td>54</td>
<td>56</td>
<td>58</td>
<td>60</td>
</tr>
</tbody>
</table>

### System efficiency with Solar*

* The listed energy efficiency classes are valid for the heating version and also for the heating/cooling version.
1) The HPSU Bi-Bloc is not only designed for heating, but also optionally for cooling when combined with an underfloor heating system. Your customized climate 365 days a year.
2) From 26 September 2015, energy efficiency labels and current product datasheets can be obtained using the Energy Label Generator at www.rotex-heating.com.

Information in printed materials subject to correction and technical modification.

From 26 September 2015, energy efficiency labels and current product datasheets can be obtained using the Energy Label Generator at www.rotex-heating.com.

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## Specification

### ROTEX HPSU****

<table>
<thead>
<tr>
<th>HPSU****</th>
<th>11 – 16 kW</th>
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</thead>
<tbody>
<tr>
<td>Output kW</td>
<td>11</td>
</tr>
</tbody>
</table>

**Energy efficiency class**
- Space heating (flow temperature 55 °C)
  - A+  A+  A+  
- Space heating with integrated control (flow temperature 55 °C)
  - A+  A+  A+  
- Max. heating output A2 / W65 kW
  - 9.6 | 11.9 | 13.5 |
- COP A2 / W65
  - 2.48 | 2.38 | 2.33 |
- Heating operating range (outside temperature) °C
  - Min: -20 / Max: 30 |

**Internal unit**
- Type
  - RKHRBD011ADY1  RKHRBD014ADY1  RKHRBD016ADY1  
- Heating flow temperature operating range °C
  - Min: 25 / Max: 80 |
- Dimensions (W x D x H) mm
  - 600 x 695 x 705 |
- Weight kg
  - 147 |
- Refrigerant
  - R410A  R134a |
- Refrigerant charge kg
  - 3.2 |
- GWP
  - 1430 |
- TCO2eq
  - 4.6 |

**External unit**
- Type
  - KTH11AY1  KTH14AY1  KTH16AY1  
- Dimensions (W x D x H) mm
  - 600 x 728 x 1732 |
- Weight kg
  - 218 |
- Sound power level in heating mode dB (A)
  - 68  69  71 |
- Sound pressure level (1 m) dB (A)
  - 52  53  55 |
- Refrigerant
  - R410A |
- Refrigerant charge kg
  - 4.5 |
- GWP
  - 2078.5 |
- TCO2eq
  - 3.8 |

### Thermal stores with solar option

<table>
<thead>
<tr>
<th>ROTEX thermal store</th>
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</thead>
<tbody>
<tr>
<td>HYC 343/19/0-P</td>
</tr>
<tr>
<td>HYC 343/19/0-P</td>
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<tr>
<td>HYC 343/19/0-P</td>
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<tr>
<td>HYC 343/19/0-P</td>
</tr>
</tbody>
</table>

**Energieeffizienzklasse**
- 6er
  - 180  190  190  180  190  190  130  145 |
- Weight when empty kg
  - 36 | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
- Total weight when full kg
  - 364 | 364 | 364 | 364 | 364 | 364 | 364 | 364 |
- Dimensions (W x D x H) mm
  - 595 x 1646 | 595 x 1646 | 595 x 1646 | 595 x 1646 | 595 x 1646 | 595 x 1646 | 595 x 1646 | 595 x 1646 |
- DHW capacity L
  - 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 |

**Hygienic DHW heating utilising instantaneous water heater principle**
- 6er
  - 218  218  218  218  218  218  218  218 |

### Stainless steel domestic hot water tank

<table>
<thead>
<tr>
<th>ROTEX thermal store</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYC 343/19/0-P</td>
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<tr>
<td>HYC 343/19/0-P</td>
</tr>
<tr>
<td>HYC 343/19/0-P</td>
</tr>
<tr>
<td>HYC 343/19/0-P</td>
</tr>
</tbody>
</table>

**Energieeffizienzklasse**
- 6er
  - 180  190  190  180  190  190  130  145 |
- Total tank capacity Liter
  - 300  300  300  300  300  300  201  258 |
- Weight when empty kg
  - 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
- Total weight when full kg
  - 364 | 364 | 364 | 364 | 364 | 364 | 364 | 364 |
- Dimensions (W x D x H) mm
  - 595 x 1646 | 595 x 1646 | 595 x 1646 | 595 x 1646 | 595 x 1646 | 595 x 1646 | 595 x 1646 | 595 x 1646 |
- DHW capacity L
  - 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 |

**Hygienic DHW heating utilising instantaneous water heater principle**
- 6er
  - 218  218  218  218  218  218  218  218 |

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The "Smart Grid Ready" label for all ROTEX HPSU compact heat pumps certifies their suitability for "power bias operation". In order not to overload power grids, wind turbines are frequently shut down when more electricity than required is being generated. Storage is required to absorb these peaks in production. Heating systems with heat pumps can provide such storage. As and when required, they can convert excess electricity into thermal energy, which is then "stored" in a buffer or domestic hot water tank. Grid operators can already shut down heat pump systems temporarily in the event of power shortages. In order to utilise their potential to the full, heat pumps require correspondingly smart control technology. Consumers can tell that a heat pump is suitably equipped by the "Smart Grid Ready" label.

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What makes ROTEX different?
We offer individual solutions for optimum living and working that are straightforward, intelligent, and futureproof.

ROTEX is a manufacturer and supplier of complete innovative and environmentally responsible heating systems – building on decades of experience. Since 1973, ROTEX has stood for innovation and know-how in the field of heat generation, storage and distribution. In the development of products for our high grade and perfectly matched components we focus on user benefits.

The ROTEX product range extends from heat pumps, condensing boilers for oil and gas, solar thermal systems and thermal stores, not forgetting underfloor heating, heating oil tanks and rainwater tanks, right up to a comprehensive installation system for all sanitary and heating equipment. Innovative systems that facilitate the optimum use of conventional and alternative fuel types in both modernisation and new build projects. ROTEX products stand for unique cost efficiency with maximum environmental compatibility and the highest levels of flexibility.

ROTEX Heating Systems GmbH is a wholly owned subsidiary of Daikin Europe NV, making it a member of the DAIKIN Group, the world’s leading manufacturer and supplier of products for heating, ventilation and climate control. Our combined competence generates optimum product solutions to meet the highest user aspirations.