



SMART MONOBLOC WALL-MOUNTED AIR CONDITIONER PAC-W 2650 SH FOR COOLING AND HEATING

4-in-1 air conditioning system with inverter technology and without external unit: Cooling, heating, ventilation and dehumidification with only one device



Air conditioner with heating system: cools and heats in a particularly energy-saving way

Energy-saving air conditioning systems such as the PAC-W 2650 SH with heat pump technology are fully in line with the times. Whether in your own home, flat or at the workplace: On hot summer days, the powerful wall-mounted air conditioning systems helps you to cool down quickly and noticeably. Thanks to its modern inverter technology, the system can also be used as an energy-efficient heater in the cold autumn and winter to heat the environment to a pleasant room temperature in no time at all. This allows you to shut your expensive gas heating system off more often. This saves on the heating bill and the environment.

Maximum cooling - without unsightly external unit requiring approval

Until now, the installation of an energy-saving split air conditioner has always required a hole to be drilled into the exterior masonry and the installation of an external unit. The wall-mounted air conditioner PAC-W 2650 SH puts a stop to this unsightly building blight.

The highly efficient air conditioner PAC-W 2650 S is designed for indoor installation and can be placed either as a chest unit (above the floor) or as a wall unit (on the wall / under the ceiling). The installation takes place completely without having to mount a disturbing external unit. Only two holes (Ø 18 cm) must be drilled into a wall leading outdoors to install the stylish designer unit on an indoor wall. This way, the house facade remains nearly unchanged. Only two discreet ventilation openings are visible. These air inlet and outlet ducts allow fresh air to enter the room and, in return, the heat to be transported from the inside to the outside.

Since the wall-mounted air conditioner PAC-W 2650 SH cools without an external heat exchanger unit, there is also no need to set up a refrigerant circuit between the air conditioner and the external unit. So, in many cases, no trained air conditioning installers are required to carry out expensive installations.

Advantages of the PAC-W 2650 SH without external unit and without exhaust air hose:

- The air conditioner can be installed on each floor. There is no need to install an external unit.
- The expensive piping of coolant lines to remote external units is also no longer required.
- The unit is delivered ready-for-use. Complex wiring is not necessary.
- No unsightly and noisy external unit on the house facade.
- No half-open window (for the exhaust air hose) through which warm air flows in.
- Lower noise emission compared to air conditioners with exhaust air hose
- No expensive installation by air conditioning installers.
- No maintenance costs.



Propane (R290) as environmentally friendly refrigerant in air conditioning systems

Every year, several million tons of harmful CO₂ emissions (greenhouse gas) are emitted to the atmosphere due to synthetic refrigerants. For this reason, the utilization of alternative refrigerants has become one of our key objectives. By using propane (R290) as refrigerant this air conditioner makes a valuable contribution to protecting our climate.

The natural refrigerant propane (R290) is an organic compound belonging to the group of hydrocarbons. Unlike synthetic refrigerants the environmentally friendly propane (R290) comes with neither ozone depletion potential (ODP = 0) nor a noteworthy greenhouse effect (GWP = 3).

Additional bonus for the environment: Owing to its excellent thermodynamic properties, propane (R290) is a particularly energy-efficient refrigerant thereby additionally reducing your energy costs.

Intelligent air conditioner control on the move – simply via app

Whether in the office or on the move – with the mobile app "Trotect Assistant" you can control over your air conditioner from anywhere. No matter whether you have forgotten to switch off the air conditioner, come home early from work and want to pre-cool the rooms, or want to change the target temperature because the day is warmer or colder than expected. With the **Trotect Assistant mobile app** you turn your smartphone into a convenient remote control to control the numerous functions of your air conditioner at home or in the office from anywhere in the world.

Further information on the Trotect Assistant mobile app is provided here.

Go directly to the Trotect Assistant mobile app in the App Store:



Energy-efficient cooling and heating with electricity

Save yourself the purchase of several individual devices to provide cooling in warm or hot summer temperatures and cosy additional warmth in the cool autumn and winter. The PAC-W 2650 SH air conditioner, which is pleasantly energy-efficient thanks to state-of-the-art inverter technology, combines four climate functions in its merely 20 cm deep SlimLine housing to improve the indoor climate.

Good to know: The PAC-W 2650 SH air conditioner with inverter technology is particularly quiet and operates with a low power consumption. The compressor is soft-starting and always adapts to the current conditions. As a result, the energy consumption of the PAC-W 2650 SH is up to 30 % lower than the consumption of systems without power-saving inverter technology.

Four operating modes for an improved living comfort with feel-good temperatures:

- **Cooling** with state-of-the-art inverter technology (energy efficiency category A)
- **Heating** with energy-saving heat pump technology (energy efficiency category A)
- **Ventilation** with 3 fan stages
- **Dehumidification** with a dehumidification performance of 1.2 l/h

Special highlight: In all four operating modes, the swing function can be switched on as required for optimum air distribution in the room. To filter out fluff, dust and animal hair from the breathing air as well, an easy-to-clean air filter is located on the top of the device.

Enjoy draught-free cooling: The PAC-W 2650 SH air conditioning system cools and heats via two discreet hose lines through which fresh air is supplied into the room from outside, or warm air is discharged to the outside. When the outside temperatures are still cool in the morning or evening, the outside air is directed into the room, which increases the cooling effect and also saves precious energy. Since no draught pressure is created in the room by the fresh air supplied from outside, there is also no unpleasant negative caused by air flowing in from neighbouring rooms.

Inverter technology saving up to 30 % of power

Conventional air conditioners, which have been designed exclusively for cooling the room, work based on the on/off principle. The integrated cooling compressor reduces the room temperature at full load until the target temperature is reached. Then the compressor switches off. If it becomes too hot in the room, the compressor switches on again to reduce the room temperature again with full power. This consumes a lot of energy.

Inverter air conditioners like the PAC-W 2650 SH regulate the room temperature without the cooling compressor switching on and off. This helps to keep the room temperature at a constant level without fluctuations. The compressor consumes electricity continuously, but it never runs at full load. This prevents damage to the system. Additionally, due to the consistently low power consumption, inverter air conditioners also cool very energy-efficiently and save up to 30 % of energy compared to conventional products. This pays off quickly.

Cooling & Heating

34 m² / 85 m³
2,6 kW
9.000 Btu/h

3 Speed Levels
Dehumidifier
Night Mode
Timer
Oscillation

2,6 kW
2,3 kW

ENERGY LABEL: PAC-W 2650 SH. Cooling capacity: 2.6 kW. Heating capacity: 2.3 kW. COP (cooling): 1.1 kWh/kWh. COP (heating): 0.7 kWh/kWh. Seasonal energy efficiency ratio (SEER): 5.9 kWh/kWh. Seasonal energy efficiency ratio (SEER): 5.9 kWh/kWh.

Good to know: What does the COP say about my air conditioner with heat pump technology?

The COP value is an important decision criterion when buying an air conditioner with heat pump technology. But what exactly is behind the term?

COP stands for "Coefficient of Performance". The COP value describes the performance ratio between the heat energy generated and the electrical energy (electricity) required for it. Sounds very technical?

Example: Since a PAC air-conditioning/heating unit generates 2.3 kW of heat with a power consumption of 0.7 kW, the COP value is mathematically almost 3.3. However, since the values for both the power consumption and the heat output are rounded, the value for the specification on the EU energy label is also rounded down to COP 3.1.

PAC air conditioner with heat pump technology:
2.3 kW heating capacity / 0.7 kW power consumption = COP value 3.1 (due to rounding)

The heat output of the air conditioner is thus greater than the power consumption by a factor of 3.1 – and thus considerably more efficient than conventional electric heaters with a COP value of 1.0 (due to identical power consumption and heat output):

Conventional fan heater, radiant heater or convector:
2.0 kW heat output / 2.0 kW power input = COP value 1.0

Basically, the higher the COP value, the more energy-efficient and economical the heating of an air conditioner with heat pump technology, COP values between 3 and 5 are generally considered to be particularly economical.

Speaking of economy - what is the COP ratio to the price of gas?

Electric heaters are often wrongly described as "electricity guzzlers". It is true that heating with gas is comparatively cheap for a long time. However, it is wrong to assume that electric heaters are per se more expensive to run than conventional gas heaters. The ratio of the operating costs of electric and gas heaters has changed considerably due to a sharp rise in fuel prices. Of course, heating costs always depend on different factors such as building condition, heating behaviour and room size. Nevertheless, air conditioners with energy-efficient heat pump technology and a good COP value are in many cases an economical and also particularly environmentally friendly alternative to gas heating.

Little electricity for a lot of heating energy:

The most economical heating and cooling solution with heat pump technology

PAC-W 2650 SH

0.7 kW

2.3 kW

Turns **0.7 kW of electricity** into up to **2.3 kW of heat!** (≈ COP 3.1)

Feel-good temperatures all year round – controlled fully automatically

Once mounted on the wall and set, the PAC-W 2650 SH controls the room temperature fully automatically. On hot summer days, the air conditioner cools heated bedrooms, living and office spaces sized up to 34 m² or 85 m³ down to the desired target temperature (16 °C to 30 °C) with a high cooling capacity of 2.6 kW/9,000 Btu/h. In the cool transitional period of autumn and in the cold winter, the all-rounder with its powerful 2.3 kW heating capacity provides heat (16 °C to 30 °C) that spreads quickly in the room. Immediately noticeable refreshment and cooling on the skin is provided by the three-stage ventilation mode with deactivated cooling or heating function. The swing function, which can be switched on in addition, ensures that the temperature-controlled air is distributed over a large area. These comfort features for creating an all-round agreeable room climate are completed by the manually selectable dehumidification function to optimally control the humidity level. Owing to its innovative technology and the lack of a bulky external unit, the air conditioner PAC-W 2650 SH sets new standards in air-conditioning technology. Just as convincing as its design is its high feel-good factor. Convince yourself of the sophisticated equipment and outstanding user comfort.

Feel-good temperature planning at its best – 24h timer

Adapt the operating time of the PAC-W 2650 SH to your rhythm of life. This is not only convenient, it also saves you a great deal of energy costs. The comfortable 24-hour timer allows you to program individual switch-on and switch-off times based on a predefined number of operating hours (1 – 24 hours). If your plans change and you come home earlier or later, you can easily modify the timer on the go with your smartphone. Made possible by the Mobile app!

Restful night's sleep with a pleasant temperature for falling asleep

Whether in the summer or in the winter – unpleasant temperatures in your bedroom can make you lose your sleep. This is why the air conditioner PAC-W 2650 SH comes equipped with an ultra-silent night mode with automatically controlled temperature adaptation. In cooling mode, the preset temperature is gradually increased by 2 °C during the first two hours and then kept constant. In heating mode, on the other hand, the night mode makes the room temperature decrease by 2 °C in the first two hours. This prevents you from freezing at night, or from waking up or sleeping restlessly due to too high temperatures. Pretty smart!



Mobile app for control via smartphone or tablet from anywhere

All settings of the PAC-W 2650 SH can be made either via the convenient IR remote control or the Trotect Mobile app. Coming home early and longing for a cool-down? No problem – simply activate the air conditioner via your smartphone or tablet while on the move. You can call up the current room temperature, set the desired temperature, activate cooling or heating – and much more. The smart air conditioning control automatically regulates the temperature, cools down the room even before you get home and switches off automatically when you leave the house. In addition, you can also adjust the temperature remotely.

Wi-Fi integration with convenient smartphone control

Ordinary remote controls have the unpleasant property of always disappearing between the sofa cushions just when you need them. It's good to know that you don't actually need the remote control of the air conditioner PAC-W 2650 SH any more. The air conditioner can be easily integrated into the existing WLAN (wireless network) via the Mobile app available online and then controlled via smartphone or tablet. Even while on the move or on the other side of the world! Of course, only by you and your device!

Whether in spring, summer, autumn or winter – with the 4-in-1 air conditioner PAC-W 2650 SH you can enjoy pleasant indoor temperatures all year round. While saving energy and without expensive installation work!

PAC-W 2650 SH – special equipment features

34 m² / 85 m³
2,6 kW
2,3 kW

585 mm
205 mm
995 mm
180 mm

ENERGY LABEL: PAC-W 2650 SH. Cooling capacity: 2.6 kW. Heating capacity: 2.3 kW. COP (cooling): 1.1 kWh/kWh. COP (heating): 0.7 kWh/kWh. Seasonal energy efficiency ratio (SEER): 5.9 kWh/kWh. Seasonal energy efficiency ratio (SEER): 5.9 kWh/kWh.

Inverter Technology

The cooling capacity of air conditioner PAC-W 2650 SH was rated with energy efficiency category A. Therefore, you can be on the safe side that your electricity costs will keep within friendly bounds. Inside the device, the environmentally friendly refrigerant R290 is used. Thanks to its innovative inverter technology, the PAC-W 2650 SH always ensures cool temperatures at low electricity costs.



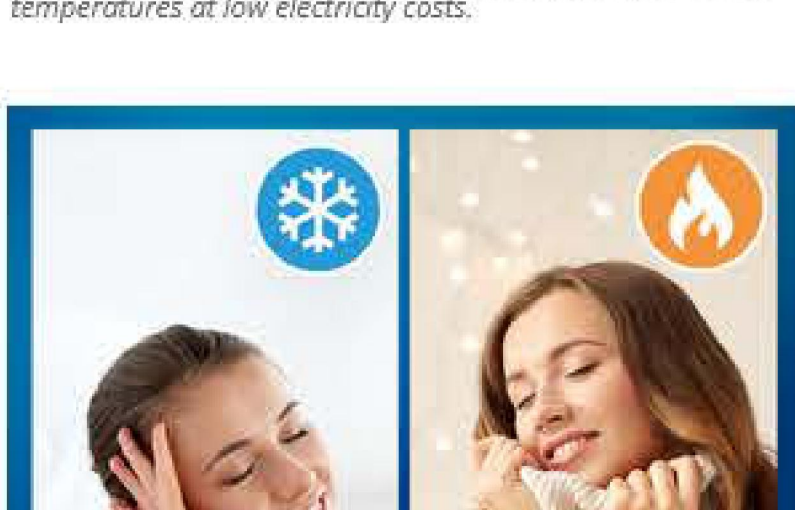
No disturbing external unit on the facade. The PAC-W 2650 SH combines state-of-the-art cooling and heating technology in only one wall-mounted device. This way, the exterior facade remains attractive and there are no expensive maintenance costs either. When moving house, the compact wall-mounted device can simply be disassembled and taken along.



Easy-to-use remote control indicating the current room temperature. With the long-range IR remote control you can take control of your feel-good climate into your own hands. All comfort functions and device settings can be configured via the handy remote control.



Smart control via smartphone or tablet. With the Mobile app you can check and regulate the room temperature from anywhere or, for example, switch on the device before you get home. All other device and comfort functions can also be configured via the app.



Cool or heat? This question does not arise with the PAC-W 2650 SH. The inverter device combines as many as three powerful technologies for cooling, heating and dehumidifying to ensure an optimally adapted indoor climate all year round.



Comfort with nothing to hide. The PAC-W 2650 SH not only looks incredibly good, it also offers a wide range of comfort functions: Being equipped with a 24-hour timer, an ultra-silent night mode and a convenient dehumidification mode, a three-stage ventilation function and the convenient app control, the device offers every necessary luxury for a pleasant indoor climate.



The removable and easy-to-clean air filter absorbs fluff, animal hair and dust from the room air. The air flap at the front is designed in a way that it distributes the cooled or heated air over large areas in the room using the integrated swing function.

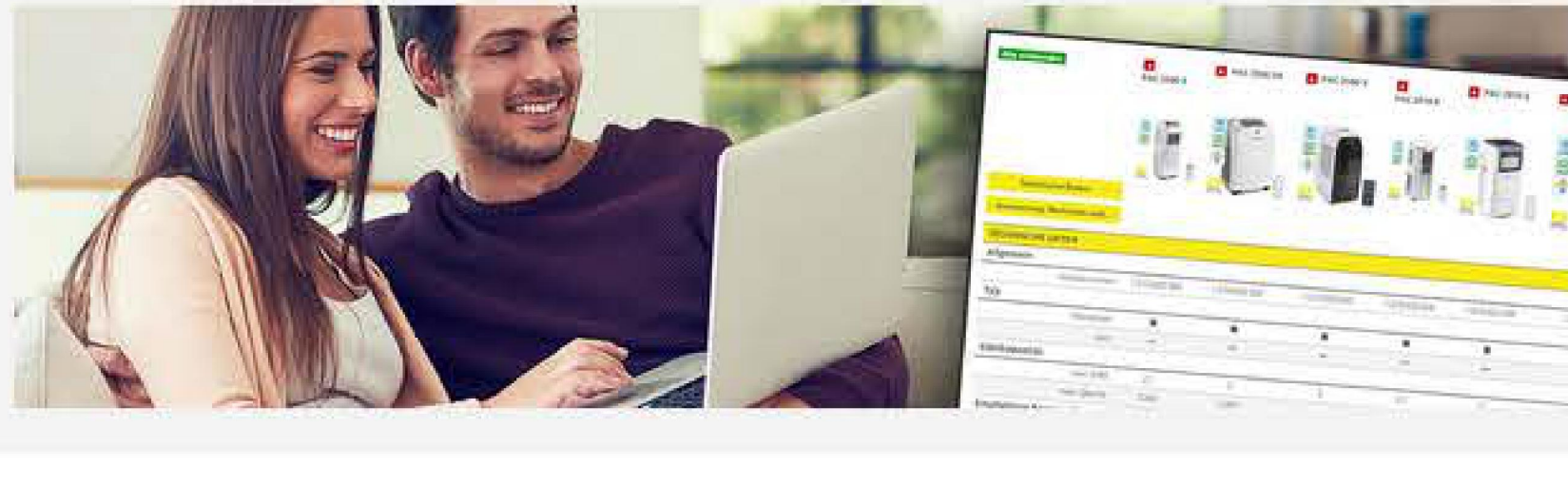
Cooling or heating for any room



As powerful as a split unit – but without a disturbing external unit. The monobloc air conditioner PAC-W 2650 SH combines all advantages of an air conditioner permanently integrated in the house. High cooling capacity, low noise emission, and yet a low energy consumption. Without an unsightly box on the exterior facade and the associated high installation effort and costs! Simply good!



Whether in the living room, office or bedroom – the modern SlimLine wall unit harmoniously blends into any environment – without getting in the way or impairing the overall visual impression of the room with cables or hoses. Stylish, elegant and discreet.



All Comfort air conditioners of the PAC series in direct comparison:

To find the Comfort air conditioners of the PAC series which exactly meets your requirements, please consult the concise overview of all Comfort air conditioners of the PAC series from Trotect, which we're providing to you here so that you can compare them directly to each other.

Models which you do not wish to include in your comparison can be easily dismissed with only one click.

Technical data by comparison

A few practical benefits:

- ✓ **4-in-1 air conditioner:** cooling, heating, ventilation, dehumidification
- ✓ **Ultra-slim wall-mounted device without external unit – no visual impairment of the house facade**
- ✓ **Low installation effort**
- ✓ **Wi-Fi integration and smartphone control via Mobile app**
- ✓ **Suitable for rooms sized up to 34 m² / 85 m³**
- ✓ **Cooling capacity of up to 2.6 kW (energy efficiency category A)**
- ✓ **Heating capacity of up to 2.3 kW (energy efficiency category A+)**
- ✓ **Energy-saving inverter technology for constant room temperatures without fluctuations**
- ✓ **No draught effect in the room thanks to fresh air supply from outside**
- ✓ **3 fan stage**

- ✓ **24h timer function**
- ✓ **IR remote control**
- ✓ **Swing function**
- ✓ **Removable air filter against animal hair, fluff, dust**
- ✓ **Quiet operation ≤ 48 dB(A)**
- ✓ **Environmentally friendly refrigerant R290**

All important features at a glance

2,6 kW Cooling capacity With its 2.6 kW the air conditioner provides a pleasantly chilled feel-good climate.	 Heating function At the push of a button the heating capacity of 2.3 kW ensures easy warmth for cold days.	 Dehumidification function The humidity level in the room can be reduced even without the cooling function.	 3 fan settings The room air is circulated even when the cooling function is switched off.	AUTO MODE Automatic mode Controls the cooling level depending on the ambient and target temperature.	 Swing function Ideal air distribution thanks to on-demand horizontal swing function of the air outlet opening.
 Mobile app control Control your air conditioner conveniently using the Trotect Mobile app.	 Remote air control Control your air conditioner conveniently using the infrared remote control.	LED The backlit LED display provides information on all important parameters.	 Self diagnosis Detects faults and precise indication of the source of error.	 Night mode Helps you to sleep healthily by way of a slow, constant temperature increase.	 Timer function The air conditioner automatically switches on or off after the desired period.
 Room thermostat The current room temperature is determined by the integrated thermostat.	 Air filter Anti-bacterial, washable filter for air quality improvement.	 Two air ducts More efficiency when the outside air is below the room temperature.	 Auto restart function Remembers the previously selected settings for the next switch-on.		

Supplied ready for installation, can be easily installed

The air conditioner PAC-W 2650 SH is supplied including all parts and wall ducts required for installation. Unlike split air conditioners, the monobloc air conditioner does not require any additional installation of coils and lines. Please note that the wall-mounted device is comparatively heavy due to its integrated cooling and heating technology and should be installed by at least two experienced and skilled persons. A drilling template, screws and wall plugs are supplied for the precise drilling of the hole holes and positioning of the suspension rail.

Complete scope of delivery:
Designer wall air conditioner PAC-W 2650 SH, 2 x hose adapter inside, 2 x hose adapter outside, 4 x connecting chain, wall template, 2 x plastic film sheet (can be bent to form a hose line), suspension rail, set of screws/wall plugs/washers, remote control, manual

Calculation of the required cooling capacity

Find out how to easily calculate the cooling capacity required for your living and office spaces.

How much power is required to cool a room? The rule of thumb: Every cubic metre of room volume requires a cooling capacity of 30 watts (1 m³ = 30 W).

Using this blanket value the required cooling capacity can be determined quickly and easily for every room size. Example: Assuming a room with **34 m² of floor space** and a **room height of 2.5 m**. The resulting calculation reads as follows:

Room volume calculation:
34 m² of floor space x 2.5 m ceiling height = a room volume of 85 m³

Calculation of the cooling capacity required for the room volume:
85 m³ cubature x 30 watts of cooling capacity = required cooling capacity of 2,550 watts

Conversion from watt to kilowatt:
2,550 watts = 2.55 kW

Result: In a room with 34 m² of floor space and a height of 2.5 m an air conditioner with a required cooling capacity of 2.6 kW – such as the PAC-W 2650 SH.

This is only a rough calculation formula for living and office spaces with modern insulation (passive house standard), though. The required cooling capacity further depends on the room's "thermal load": For selecting an appropriate air conditioner, the factors of installation, insulation, window dimensions, the number and the heat sources play an equally important role.

You would like to find out more? Our info page "Practical knowledge concerning air conditioning" contains all the important information. By reading it you will quickly become an air conditioning expert.

Monobloc or split? One-hose or two-hose technology?

Don't get hoisted by competitive statements, we provide the big picture. Before purchase make sure to get an overview of device functions, technical principles and possible applications.

Trotect, your climate expert, has compiled the most important facts in a reader-friendly overview! Direct link to the "Practical knowledge concerning air conditioning"...

A boost of freshness: Enjoy maximum refreshment anywhere in the room!

Do you want to additionally support the effect your air conditioner has? In order to turbo-boost the cool air into every last corner of the room we recommend using the powerful fan TFH 2000 E with turbo spin technology. The extremely compressed turbulent air flow gushes out of the TFH 2000 E as tornado-like air column that revolves around itself and advances deep into the room. The air current breaks through warm and cold room air zones mixing it all up. The exiting air current encounters the opposite wall or the ceiling and from there is deflected to all sides.

In a constant circular cycle the air returns to the rear of the fan flowing along the side walls and the ceiling. It is sucked in once more to start a new cycle. This effective turbo spin method ensures maximum circulation and mixing of the room air. The temperature difference between cold air near the ground and warm air just beneath the ceiling is substantially reduced, the air temperature in the entire room is noticeably evened out.

