

# iON

## iNTELLiGENT. OPTIMIZED. NETWORK.

### iON MINIMIZES TOTAL OPERATING COSTS!

The iDM heat pump pioneers have already perfected efficient heat supply with the existing features of the **iNTELLiGENT heat pump**. With iON technology, an AI-based comprehensive energy optimization, we take it a step further: based on weather forecasts, variable electricity prices, and historical load profiles, we control your heat pump to achieve the best possible efficiency, optimally utilize photovoltaic yields, and comprehensively minimize your energy costs.



### iNTELLiGENT CONNECTIVITY OF ALL COMPONENTS

Through iON and the intelligent, proactive integration with **photovoltaic systems, battery storage, and the building mass**, it is possible to optimize the areas of heat and electricity even more comprehensively. This leads to sector coupling that elevates efficiency and sustainability to a new level.



Your intelligent heat pump is compatible with many common inverters and energy management systems. You can find more information on [www.idm-energie.at/en/photovoltaic-interfaces/](http://www.idm-energie.at/en/photovoltaic-interfaces/)

### INTEGRATION OF EXTERNAL DATA

When there is a high supply of renewable energy—such as wind and solar—the electricity prices on the day-ahead market decrease. These favorable conditions are passed on to end consumers through **hourly variable electricity rates**. However, iON goes a step further and proactively considers the **efficiency\*** of your heat pump as well as the expected yield from your **photovoltaic system**. By creating an energy cost-optimized heat pump schedule, iON maximizes your energy efficiency and minimizes costs.



### USER BEHAVIOUR ANALYSIS AND USING THE BUILDING AS ENERGY STORAGE

By intelligently linking the heat and power supply, iON also takes into account the historical **usage behavior** of the residents (such as hot water consumption) and the **thermal behavior of the building** (e.g. heating and cooling behaviour). As a result, iON always determines the optimum time for heating, cooling and hot water preparation.



**ELECTRICITY TARIFF + EFFICIENCY\* + PV YIELD**



**iON DETERMINES THE OPTIMUM TIMING**

\*) The efficiency of air source heat pumps is heavily dependent on the outside temperature. Switching based purely on electricity prices may increase costs.

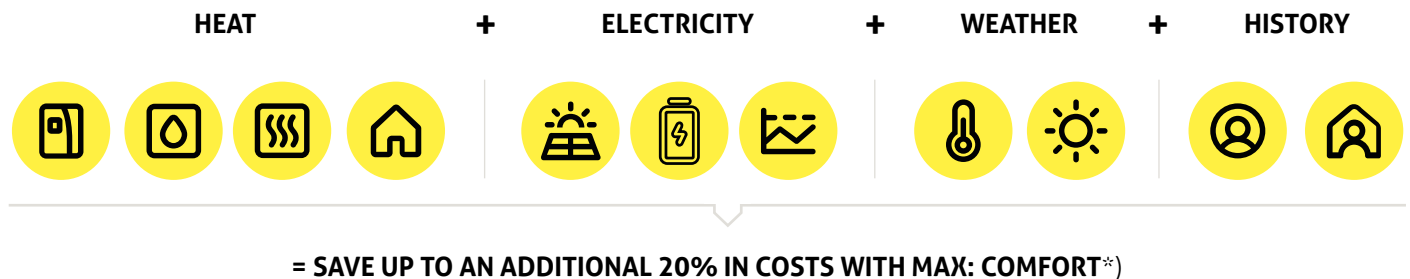
## iNTELLiGENT HEAT PUMPS FROM AUSTRIA

[idm-energie.com](http://idm-energie.com)

# iON

## AI-BASED COMPREHENSIVE ENERGY OPTIMIZATION.

### AI-BASED COMPREHENSIVE ENERGY OPTIMIZATION FOR ALL ENERGY RELEVANT FACTORS.



\*) Compared to similar systems without iON

### STANDARD INTEGRATED HARDWARE

Many energy management systems require the purchase and installation of additional hardware. With iON, on the other hand, this is not needed. All the necessary components are already built into the intelligent heat pump from iDM. Simply install the iON software to get started!\*

\*) iON is currently not available for all iDM heat pumps.



#### REDUCES THE CARBON FOOTPRINT

If a high volume of renewable energy from wind, sun and water is available, you not only benefit from favorable electricity prices, but also from significantly lower CO<sub>2</sub> emissions. This means you save twice: both on electricity costs and on CO<sub>2</sub> emissions!



#### CONTRIBUTE TO THE STABILITY OF THE ELECTRIC GRID

By avoiding price peaks, iON also helps to reduce load peaks. This means that your heat pump is being operated in a gridfriendly manner and contributes to the stability of the electricity grid.



#### EVERYTHING AT A GLANCE

iON minimizes your heating costs automatically. Nevertheless, you can use the iON app to ensure that your intelligent heat pump is working properly at any time - even when you are on holiday.

\*) iON is a paid add-on. However, you can start a free trial for a limited time and register directly on our homepage: [www.idm-energie.at/ion](http://www.idm-energie.at/ion)  
You can find all relevant information on our website.

