

# Door Efficiency Calculator (DEC)

## For energy-efficient buildings



### Special features

- The Door Efficiency Calculator compares different automatic doors in operation.
- The basis is the respective area of application, types of buildings and uses
- Among other things, the thermal energy losses due to the use of the door, the resulting heating costs and the CO<sub>2</sub> emissions released are considered.
- The most economical and ecological door solution is determined
- The calculation takes into account the use of the installation (opening and closing) depending on the expected user frequency



### Requirements for modern buildings

Buildings account for a significant share of energy consumption and the associated release of CO<sub>2</sub> emissions. According to the International Energy Agency, buildings are responsible for about 30% of global energy consumption and 28% of CO<sub>2</sub> emissions. Energy-efficient construction can therefore reduce the energy demand of buildings, thus reducing the ecological footprint and conserving limited natural resources.

An energy-efficient building offers many advantages for building operators. On the one hand, in terms of saving energy costs through lower energy demand. In addition, an energy-efficient building can increase the value of the building and have a positive effect on the image of the operator.

### Contribution of automatic doors to energy-efficient buildings

Automatic doors can contribute to the energy efficiency of buildings by reducing the heat loss caused by opening and closing doors.

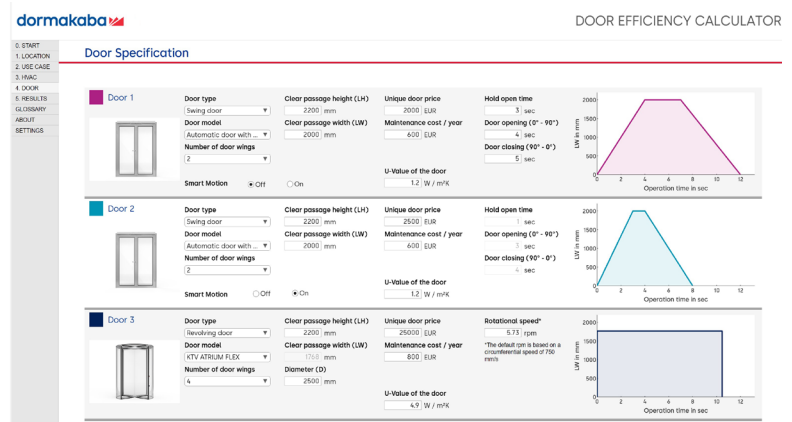
By using automatic doors, the temperature inside a building can be kept more constant as they close quickly and automatically, thus minimising the heat exchange between indoor and outdoor areas. In addition, they can also reduce energy consumption for air conditioning, as they minimise air exchange and thus reduce the energy required for heating or cooling.

The choice of the right automatic door for the respective application area of the building is particularly important.

# Door Efficiency Calculator

## Utility of the energy calculator

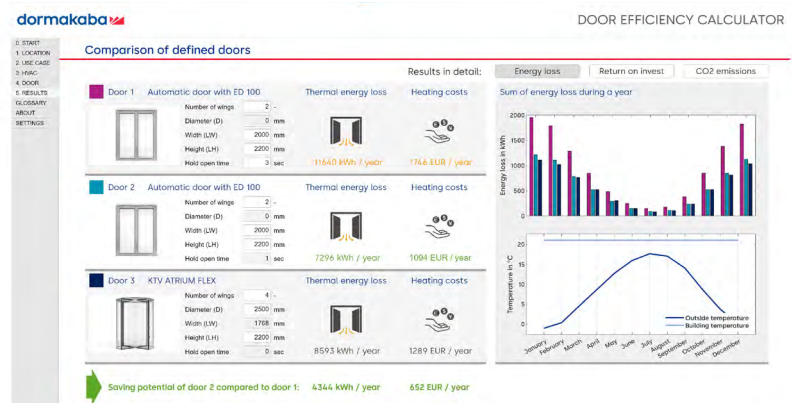
- Selection of the location, stored weather data are taken into account
- Selection of the appropriate application/use-case (e.g. hospital, shopping centre, etc.)
- Specification of various parameters: Room temperature, estimated frequency of use of the door
- Information on heating and air conditioning
- Selection of the requested automatic doors (up to 3 door types possible), specifying the dimensions and estimated purchase and maintenance costs.



## Evaluation and comparison

The Door Efficiency Calculator calculates the expected energy loss (due to open doors) and the heating costs per year for all defined door types based on the specified parameters.

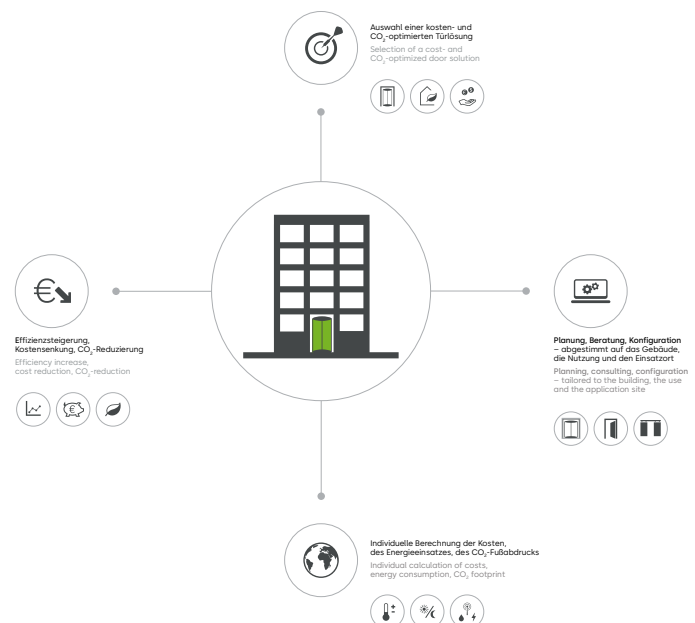
In addition, the return on investment is given in relation to the total costs, as are the potential CO<sub>2</sub> emissions.



## Report

All the data determined as well as the parameters used as a basis for calculation are available as a comprehensive report in the form of a document and can be sent to the interested party together with an offer for the most efficient automatic door.

This does not only mean an elementary extension of our consulting competence, for our customers it facilitates the purchase decision, as it can be made more easily on the basis of these economic factors (cost savings, ROI) and economic factors (energy savings, reduction of the CO<sub>2</sub> footprint).



Any questions? We are happy to help.

dormakaba | Global Products & Solutions | Access Automation Solutions | Thomas Irrgang, Tim Wulbrandt