EDSF Energy Label
for automatic doors
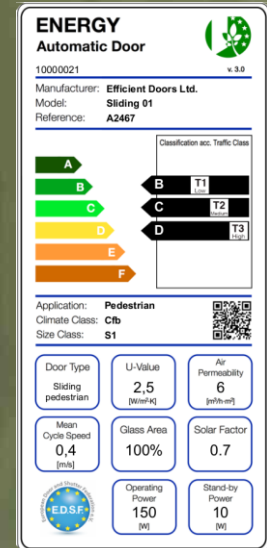
Index

Why an Energy Label

- **A thermally optimised, well insulated door with an intelligent automation system makes a fundamental contribution to the energy efficiency of a building as a whole.**

- **Energy labelling allows you to compare different automatic door options from the energy point of view.**
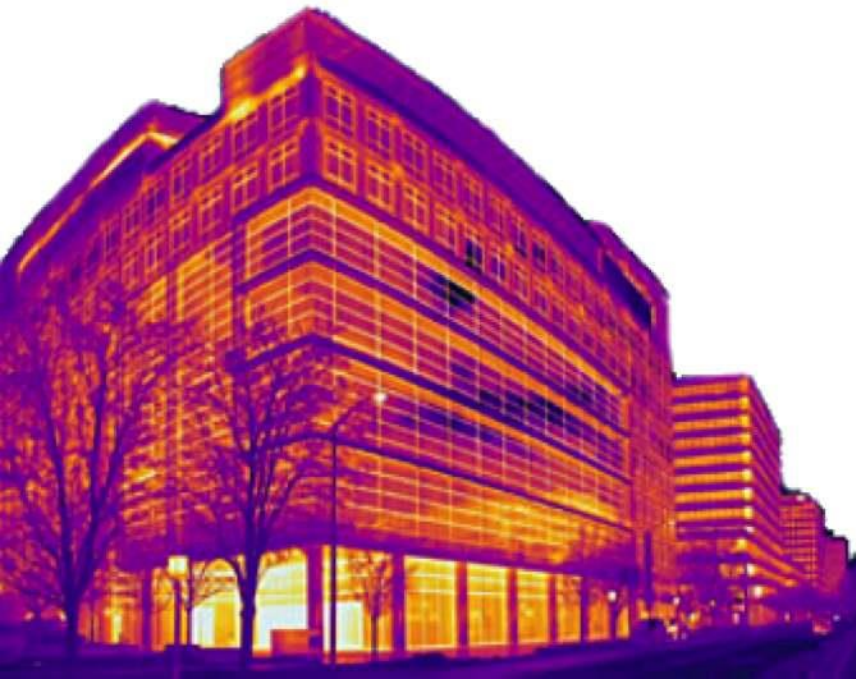
Buildings constitute a fundamental component of global energy demand and CO_2 emissions.
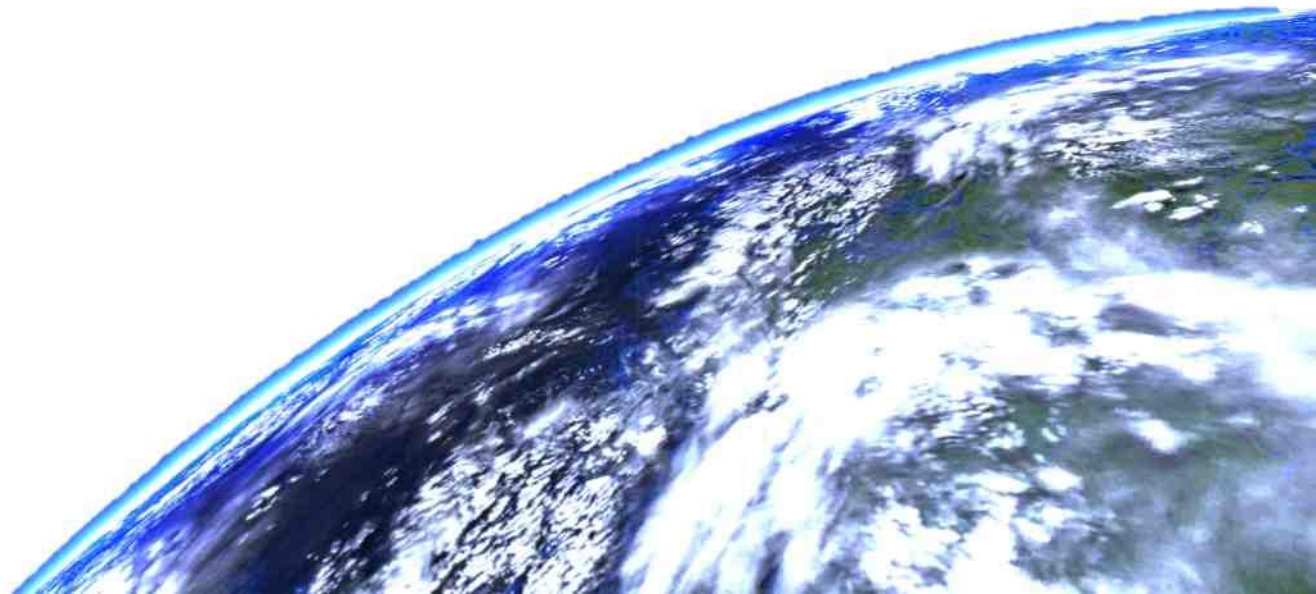
Key Facts

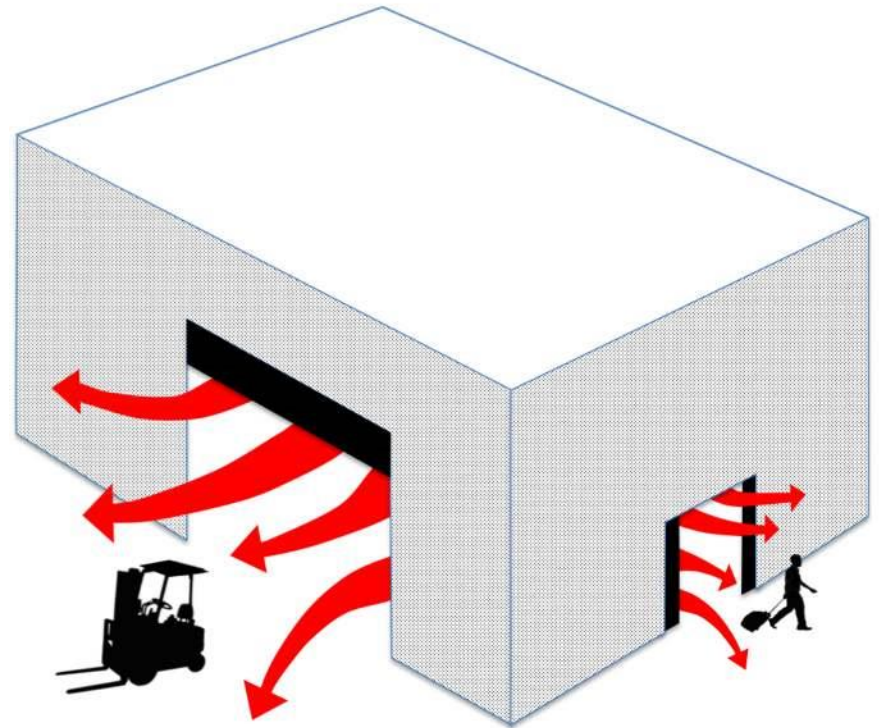# Key Facts

Doors **have a much higher impact** on the energy consumption of a building that is widely recognised.

Key Facts

The majority of the energy loss through doors usually occurs when the door is open, not when it is closed.

Technical Basis

Energy Losses Through an Automatic Door

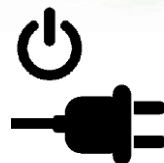| **Heat Transmission**	**Air Leakage**	**Solar Radiation**	**Air Infiltration**	**Long Wave Radiation**
"U-Value"	"Air Permeability"	"Solar Factor"	"Opening Speed"	"Emissivity"

Electrical Consumption   "Operation & Stand-by Power"
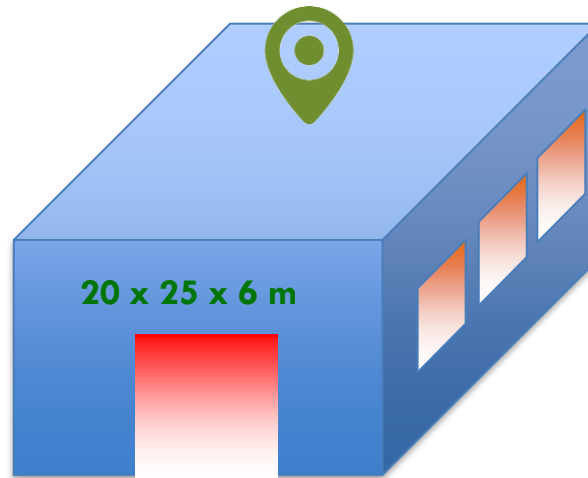
Technical Basis

Example: **Doors vs Windows**

Sectional Door

- **Area = 9 m²**
- **U-Value = 2,5 W/m²·K**
- **Air Permeability = 6 m³/h·m²**
- **Glass area = 20%**
- **Solar factor = 0,75**
- **Emissivity = 0,9**
- **Opening Cycles per Year = 50000**
- **Opening Time per Cycle = 20 s**
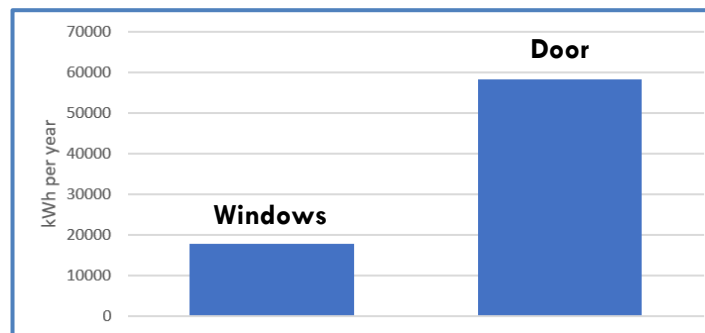- **Operation Power = 300 W**
- **Stand-by Power = 15 W**

Windows

- **Area = 40 m²**
- **U-Value = 2,5 W/m²·K**
- **Air Permeability = 6 m³/h·m²**
- **Glass area = 90%**
- **Solar factor = 0,75**
- **Emissivity = 0,9**
- **Opening Cycles per Year = 365**
- **Opening Time per Cycle = 300 s**

Brussels

20 x 25 x 6 m

Energy Losses in kWh per year

Classification Method

Concept
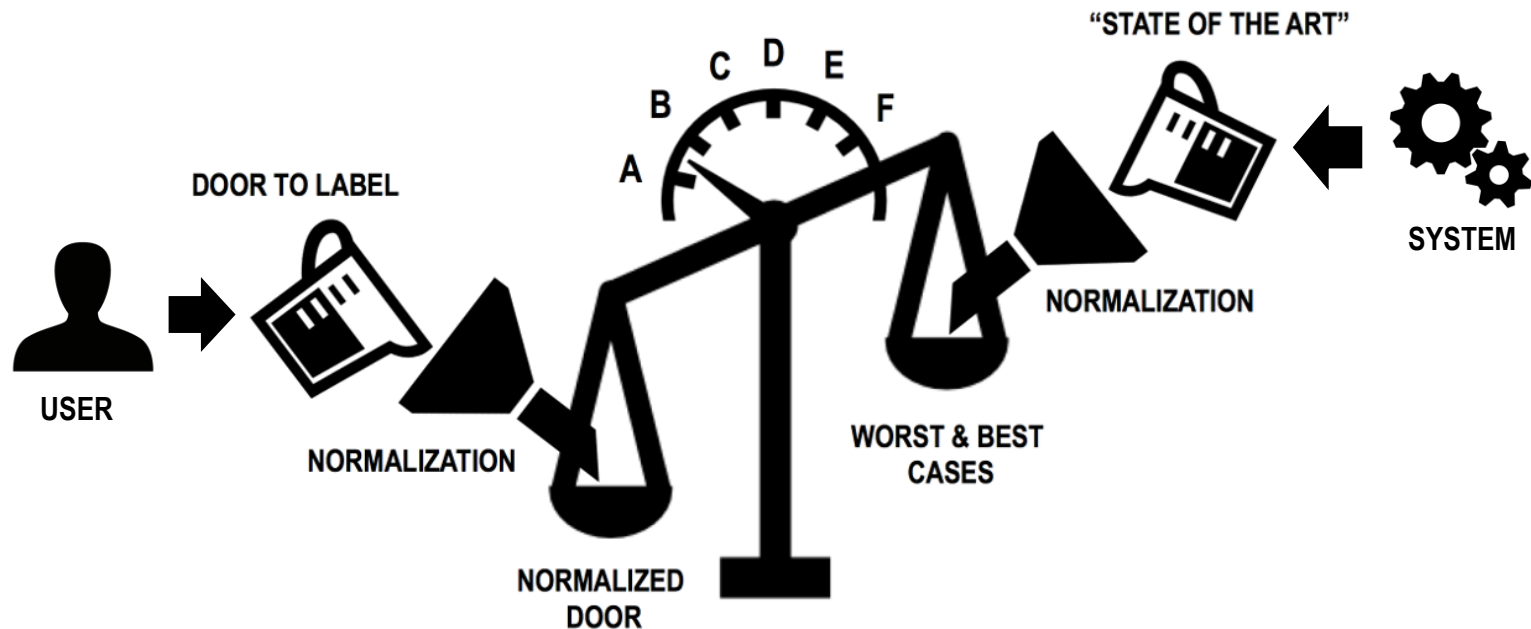
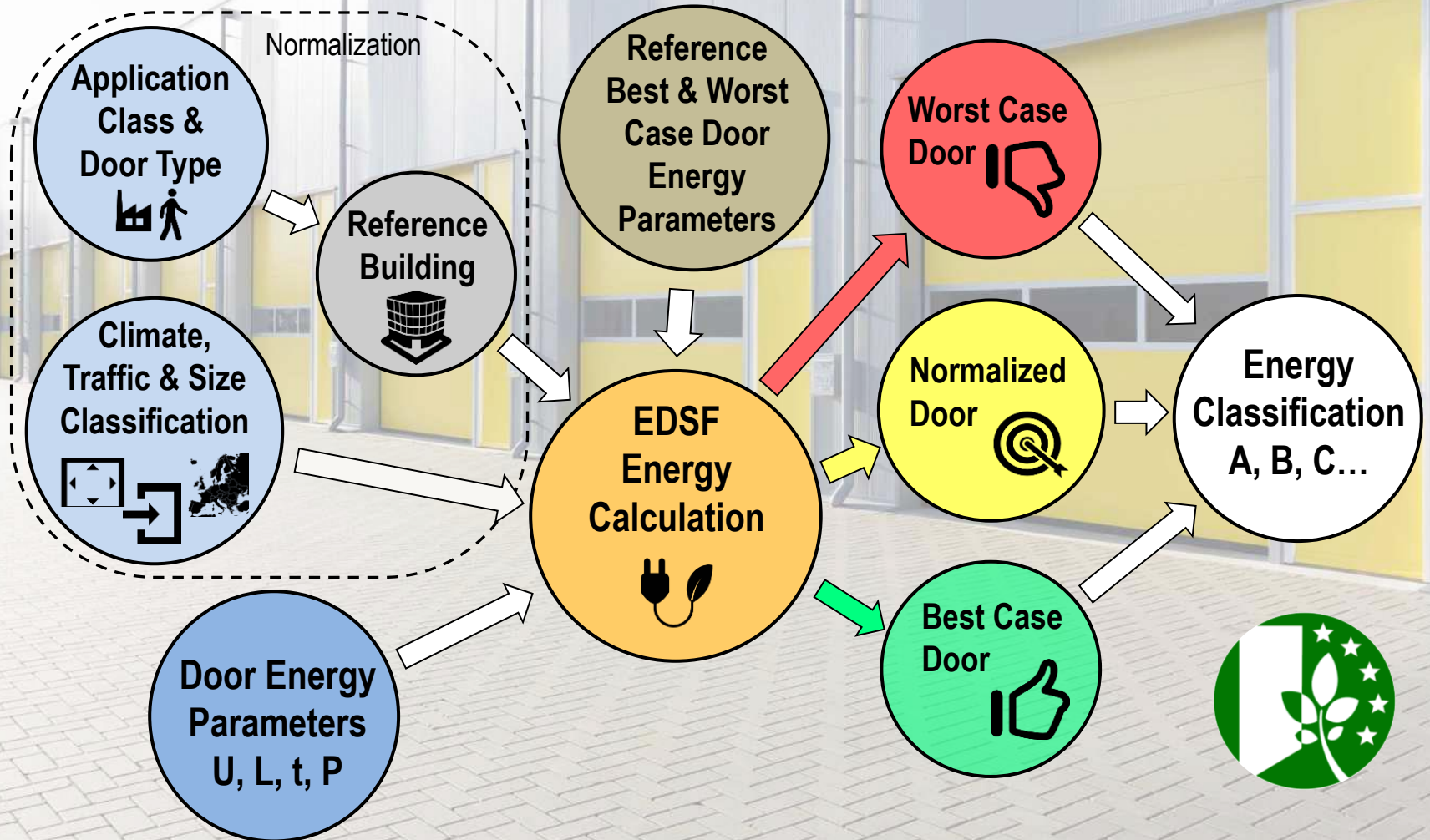| A	B	C	D	E	F
Best Case	Very High Performance	High Performance	Intermediate Performance	Low Performance	Very Low Performance
Relative Losses 0%< E <15%	Relative Losses 15%< E ≤30%	Relative Losses 30%< E ≤45%	Relative Losses 45%< E ≤60%	Relative Losses 60%< E ≤75%	Relative Losses 75%< E ≤100%

Classification Method

Calculation Procedure

Normalization

Application Class & Door Type

Climate, Traffic & Size Classification

Reference Building

Door Energy Parameters U, L, t, P

Reference Best & Worst Case Door Energy Parameters

EDSF Energy Calculation

Worst Case Door

Normalized Door

Best Case Door

Energy Classification A, B, C…

Label Description

Structure & Content

Only products with the same three class values are comparable in energy terms

Header
EDSF Label Number
Label Version

Manufacturer, Model & Product Part Number

Energy Scale & Classifications

Door Classification
QR Code to Website

Energy Parameters
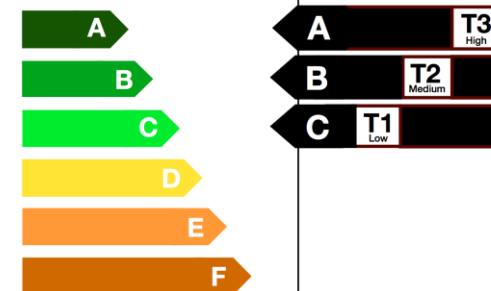

ENERGY
Automatic Door

10000095   v. 3.0

Manufacturer: **Efficient Doors Ltd.**
Model: **ESD-01**
Reference: **D00001**

Classification acc. Traffic Class

A
B
C
D
E
F

A   **T3** High
B   **T2** Medium
C   **T1** Low

Application: **Industrial**
Climate Class: **Cfb**
Size Class: **S2**

Door Type	U-Value	Air Permeability
Overhead Sectional	**3,5** [W/m²·K]	**12** [m³/h·m²]

Mean Cycle Speed	Glass Area	Solar Factor
0,4 [m/s]	**20%**	**0,55**

Operating Power	Stand-by Power
150 [W]	**10** [W]

European Door and Shutter Federation e.V.
E.D.S.F.

System Use

Two Possibilities

Cloud Platform

On-line Calculation with different Data Storage Options

In-Company integration

API access for Integration in Internal Company Systems

Cloud Platform

- **Information Website**

- **Online Label Platform**
  - **Calculation form**
  - **Cloud Label Database & Purchasing**

- **Local database (in-house option) under request**

In-Company Integration

- **Webserver calculation w/API provided by EDSF under License Agreement**

- **Integration in internal IT systems allowed (ERP, BIM…)**

- **Specific Commercial Scheme**
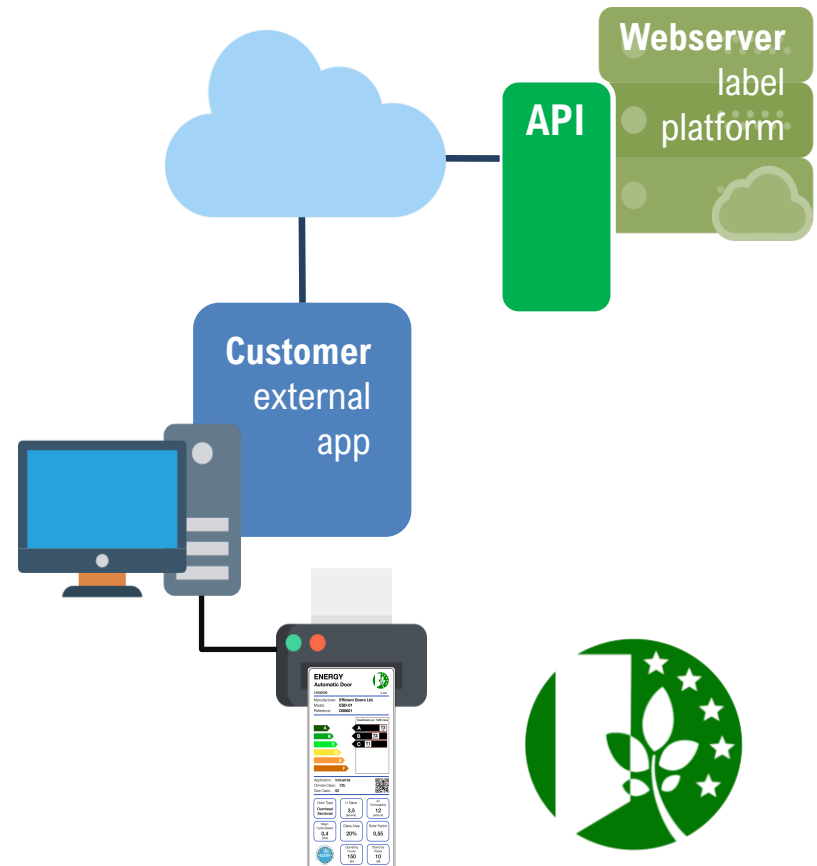
Platform User Profiles

Two Account Types

BASIC Access

Unlimited **free sample** labels for Sales & Marketing purposes
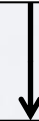
FULL Access

Official **registered** labels for Production purposes, available under EDSF pricing scheme

- **Small fees for platform maintenance & support**
- **Label acquisition in Pack format**

Commercial Scheme

```
┌─────────────────┐
│      Free       │
│   Membership    │
└────────┬────────┘
         │
         ▼
┌─────────────────┐
│  Fee per Label  │
└────────┬────────┘
         │
         ▼
┌─────────────────┐
│ Buy per Pack:   │
│ 10/50/100/500/  │
│  1000 Labels    │
└─────────────────┘
```
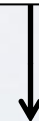
Benefits

For Manufacturers

- **Communicate clearly to customers about the energy characteristics of the product using a tool which is recognised at European level.**

- **Comparison between different types of door for the same application, highlighting the products which are more efficient and profitable for the customer.**

Benefits

- **Choice** between different **manufacturers and types** of door depending on the application and desired behaviour.

- **Check the correlation between the various parameters related to the** thermal **efficiency** of the door.

- **Show the contribution to the energy certification of the** whole building.

Benefits

For Owners & Facility Managers

- **Prioritise the use of cost effective and efficient products in your business.**

- **Understand the importance of the doors for the thermal efficiency of your building or premises.**

European Door and Shutter Federation, e.V. (E.D.S.F.), a non-profit association, is the umbrella Federation at European level for the national associations of the doors and shutters industries.

EDSF Energy Label for automatic doors

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Powered by: [MEQUONIC]
Engineering to Reality