VIP-Energy

Structural Design Software in Europe AB (StruSoft)

is an innovative Swedish software company with more than 25 years of experience in specialized software applications for the building industry.

FEM-Design
An advanced modelling software for FE-analysis and design of load-bearing concrete, steel and timber structures.

WIN-Statik
A suite of powerful and easy to use applications for common design tasks such as beams, columns or frames.

IMPACT
An open database-driven system for modelling and production of concrete precast elements. Includes a reinforcement module that can be used stand-alone.

VIP-Energy
A suite of software for simulation of the entire building energy balance.

Leader in engineering software systems
including analysis, design, modelling and energy

StruSoft can provide you with the right tools to solve simple
design tasks as well as complex three-dimensional structures

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www.strusoft.com

Villa Suprême, the head office in Malmö, Sweden

StruSoft
Structural Design Software

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VIP-Energy

VIP-Energy is an application used for calculating the energy performance for buildings. The software quickly and easily simulatates the energy balance of the building hour by hour for a complete year.

Quick

A complete yearly hour by hour calculation only takes a couple of seconds irrespective of its complexity.

This makes testing of different scenarios very easy.

Easy

Included in VIP-Energy is a library of materials, walls, ceilings and roofs, floors, windows, valves, heat pumps and more which makes it easy to get started.

Personal, or for the client custom-made, databases or calculation templates can be stored in order to render the work more effective.

Accurate

The dynamic calculations in VIP-Energy have been developed through many years of research. The high quality of the calculation model ensures valid results even for challenging architecture such as passive houses.

Validated

VIP-Energy has been validated with:
IEA-BESTEST
ASHRAE-BESTEST
CEN-15265
and more than 20 years of research and commercial use.
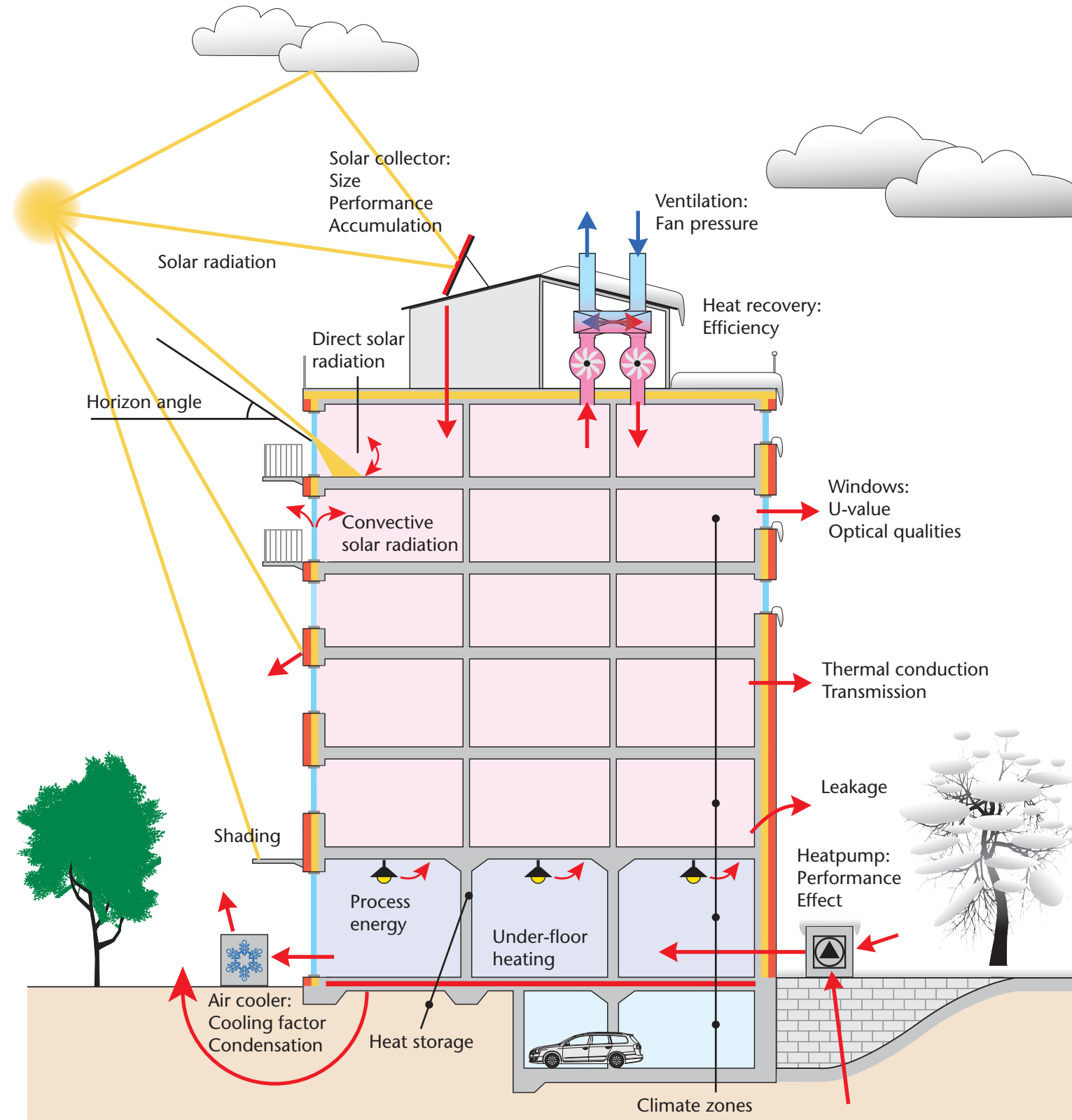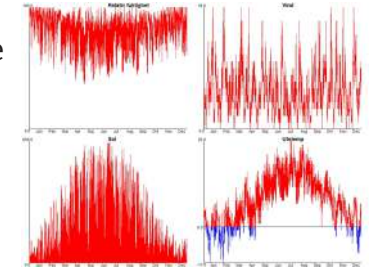
General

VIP-Energy can be used for all types of buildings and usages worldwide.

VIP-Energy is used by all proffessions involved in the building construction industry such as consultants, architects, contractors and building managers.

Input Data

Outdoor Climate

o Wind
o Sun
o Temperature
o Humidity

Climate data: relative humidity, wind velocity, solar radiation and temperature.

Installations

o Heat pump
o Air cooler
o Solar collector
o Under-floor heating
o Ventilation with a heat-exchanger

Building Physics

o Leakage
o Thermal flows
o Thermal storage in materials and ground
o Climate-controlled solar shading
o 10 climate zones

Other
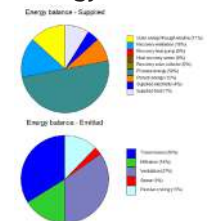
o Input data from ArchiCAD
o Climate files can be genererated from VIP-Energy Climate Data
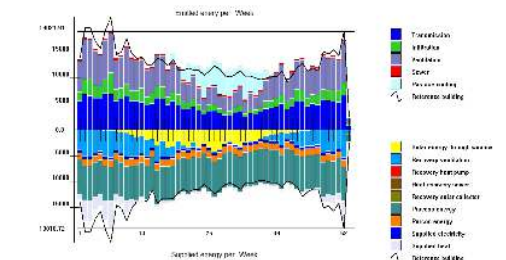http://climate.vipenergy.se

Results

Graphical

o Bar chart: supplied and emitted energy
o Pie chart: supplied energy
o Pie chart: emitted energy

Numerical

o Time results for energy
o Key numbers and energy balance
o Specifications for energy flows
o Comparison with standards
o User-definable printout templates

Result: energy balance over a year.

Diagram labels

Solar collector:
Size
Performance
Accumulation

Ventilation:
Fan pressure

Solar radiation

Heat recovery:
Efficiency

Direct solar radiation

Horizon angle

Convective solar radiation

Windows:
U-value
Optical qualities

Thermal conduction
Transmission

Leakage

Shading

Heatpump:
Performance
Effect

Process energy

Under-floor heating

Air cooler:
Cooling factor
Condensation

Heat storage

Climate zones