

# Hans Martin Henning (ed.)

# **Solar Assisted Air-Conditioning in Buildings**

A Handbook for Planners

Air conditioning contributes significantly to the energy consumption of buildings in many countries. A promising possibility for energy reduction is the use of solar thermal energy in solar-assisted air conditioning systems. The main advantage of this technology is that cooling loads and solar gains occur at the same time, at least on a seasonal level. However, until today only a few systems have been installed world-wide and design and operation experiences are fairly poor.

The goal of this handbook is to address this lack and to support the planner in the design of solar assisted air-conditioning systems, which use solar collectors as heat source.

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2004. XIV, 150 pages. 126 figures. Format: 21 x 29,7 cm Hardcover **EUR 40,**– Recommended retail price. Net-price subject to local VAT. ISBN 3-211-00647-8 For table of contents please see overleaf





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#### **SYSTEMS**

## System configurations: examples, control and operation

Solar-assisted and solar thermally autonomous systems • Characterisation of solar-thermally driven cooling systems

## **Design approaches**

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# **Performance figures**

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## **Design examples**

The SARANTIS cosmetics factory at Inofita Viotias, Greece • An office building in Guadeloupe • The IHK desiccant cooling system in Freiburg, Germany

# Summary References

**Appendices:** Example load parameters • Performance example parameters • The IEA Solar Heating & Cooling Programme • Task 25 Solar-Assisted Air-Conditioning of Buildings

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