Task 45 Large Systems

Categorization and applications of large solar heating and cooling systems

Subject:	Categorization and applications of large solar heating and cooling systems
Date:	Dec 2014
Description:	Categorization of large solar heating and cooling systems including overview of applications and system configurations. Database of large systems.
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Download possible at:	http://task45.iea-shc.org/fact-sheets

Categorization and applications

The large solar thermal systems can be categorized according to applications. One way to do this is given the table below.

Category	Code	Applications
General heating	GH	district heating, local district heating, heating of large buildings
General cooling	GC	district cooling, local district cooling, cooling/airconditioning of large buildings
Process heating	PH	industrial process heat (low, medium and high temperatures), includes desalination, drying
Process cooling	PC	industrial process cold
Water heating	WH	hotwater production only
Swimming pool heating	SH	swimming pool heating only

Systems can be supplying different applications – and then be described by with combination of categories.

Category	GH	GC	PH	PC	WH	SH
GH						
GC	x					
PH	x	x				
PC	x	x	x			
WH	x	x	x	x		
SH	x	x			x	

Detailed descriptions of the systems for the different applications are given in IEA-SHC TECH SHEET 45.C.1, available from http://task45.iea-shc.org/fact-sheets.

System database

An comprehensive database of worldwide large solar heating and cooling systems has been established in Task 45.

The data base list the system according to the categories.

The data base is available from http://task45.iea-shc.org/publications in section “Subtask C Systems”.