

Solar Heating System Factsheet

Fondital SULPACK NATURAL PLUS 300



System model	SULPACK NATURAL PLUS 300
System type	Thermosiphonsystem
Manufacturer	Fondital S.p.A.
Address	Via Cerreto 40. IT-25079 Vobarno (Brescia)
Phone	+39 0365 87831
Fax	--
E-mail	info@fondital.it
Internet	www.fondital.it
Date of test	12.2016

- Performance test EN12976:2006
- Quality test EN12976:2006

- Solar Keymark



System-Data

No. of collector modules	2
Gross collector area	4.22 m ²
Storage tank volume	300 l
Design load^{*)}	280 l/d

Types of collector mounting

- Construction for sloping roof
- Integration into sloping roof
- On flat roof with stand
- Facade

Gross dimension flat roof (DxWxH)	1955 mm x 2110 mm x 2004 mm
Gross dimension sloping roof (LxW)	2704 mm x 2110 mm

Collector

Model	FC20	Total width	1036 mm
Type	Flat plate collector	Gross area	2.110 m ²
Total length	2037 mm	Weight empty	41 kg

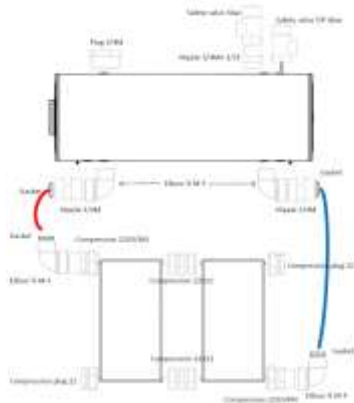
Storage tank

Model	WHPS SNP 300	Outside diameter	580 mm
Type	Horizontal / Mantle HE	Weight empty	110 kg
Insulation material	Polyurethane foam	Electrical heater	optional kW
Corrosion protection	Enameled, Mg sacrificial anode	Max. operating pressure	6 bar
Total length	1762 mm	Max. storage temperature	95 °C

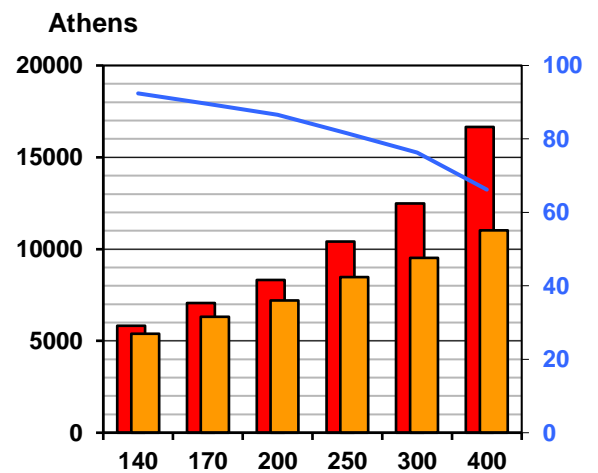
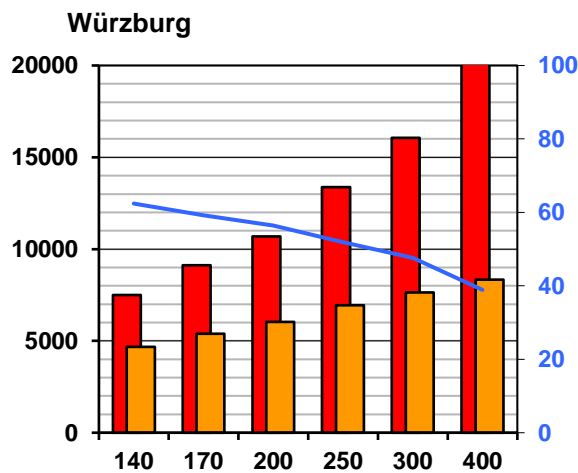
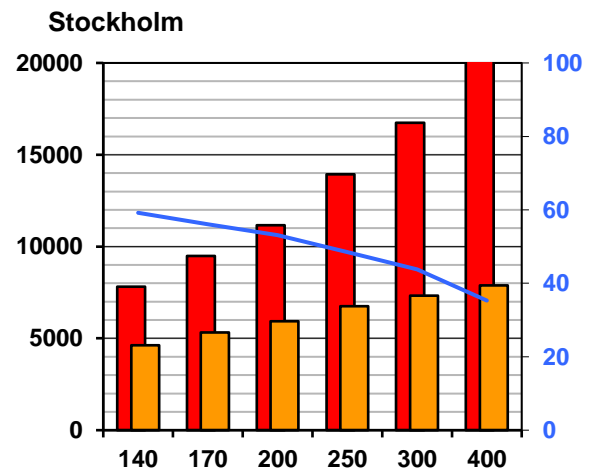
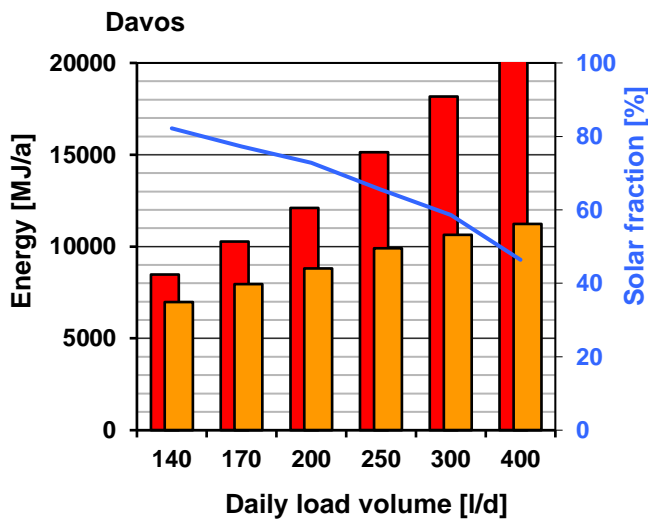
Heat transfer medium solar loop

Manufacturer	Various	Model name	--
Type	Water-Propyleneglycol	Concentration/Freezing point	Various

Schematic of system



Annual performance prediction and solar fraction for the EN locations^{*)}



Reference conditions according to EN 12976

Collector alignment South, tilt angle 45°
 Hot water temperature 45°C
 Draw-off 6 h after solar noon; 100 %

Performance indicators

~ f_{sol} : Solar fraction in % ($f_{sol} = Q_L/Q_d$)
 □ Q_L : Heat delivered by the solar system (load)
 □ Q_d : Heat demand

^{*)} The reference conditions for performance prediction in accordance with EN 12976:2006 is described in the accompanying document to the system factsheets.

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SULPACK NATURAL PLUS 150 – sub system

This system configuration was tested as part of a system family according to the CEN Keymark Scheme Rules for Solar Thermal Products¹. The annual performance prediction for the system configuration has been determined using the results of the medium system of the system family. For more information about the medium system please check the factsheet of system **S214**.



General

System model	SULPACK NATURAL PLUS 150	Phone	+39 0365 87831
System type	Thermosiphon system	Fax	--
Manufacturer	Fondital S.p.A.	E-Mail	info@fondital.it
		Internet	www.fondital.it
Address	Via Cerreto 40. IT-25079 Vobarno (Brescia)	Testdatum	12.2016

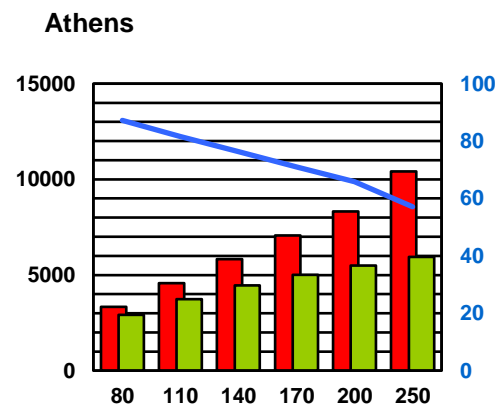
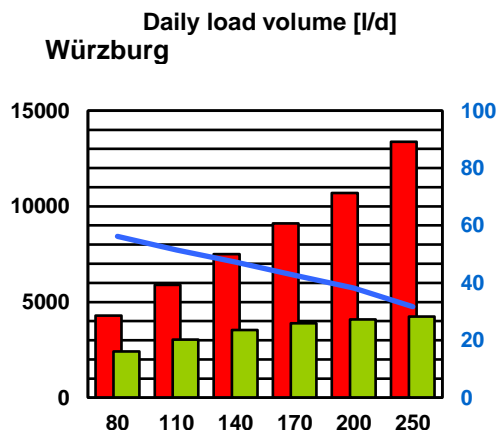
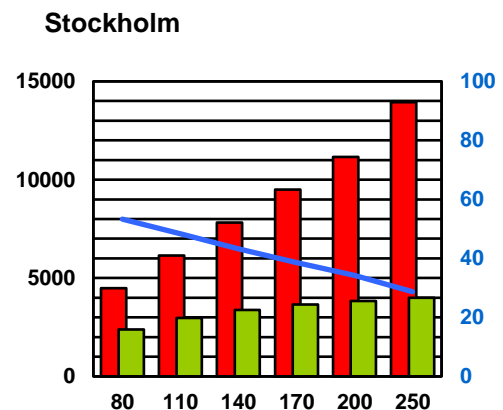
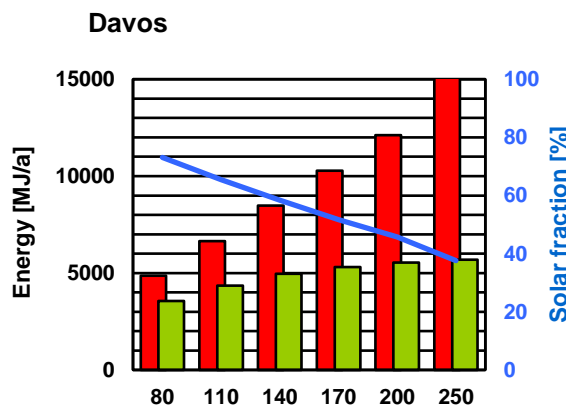
System-Data

No. of collector modules / pipes	1
Gross collector array area	2.110 m ²
Storage tank volume	160 l
Design load	150 l/d

Types of collector mounting

- Construction for sloping roof
- Integration into sloping roof
- On flat roof with stand
- Facade

Annual performance prediction and solar fraction for the EN locations



— f_{sol} : Solar fraction % ($f_{sol} = Q_L/Q_d$) ■ Q_L : Heat delivered by the solar system (load) ■ Q_d : Heat demand

¹ Homepage of Solar Keymark, URL: www.solarkeymark.org

Solar Heating System Factsheet

SULPACK NATURAL PLUS 150L – sub system

This system configuration was tested as part of a system family according to the CEN Keymark Scheme Rules for Solar Thermal Products¹. The annual performance prediction for the system configuration has been determined using the results of the medium system of the system family. For more information about the medium system please check the factsheet of system **S214**.



General

System model	SULPACK NATURAL PLUS 150L	Phone	+39 0365 87831
System type	Thermosiphon system	Fax	--
Manufacturer	Fondital S.p.A.	E-Mail	info@fondital.it
		Internet	www.fondital.it
Address	Via Cerreto 40. IT-25079 Vobarno (Brescia)	Testdatum	12.2016

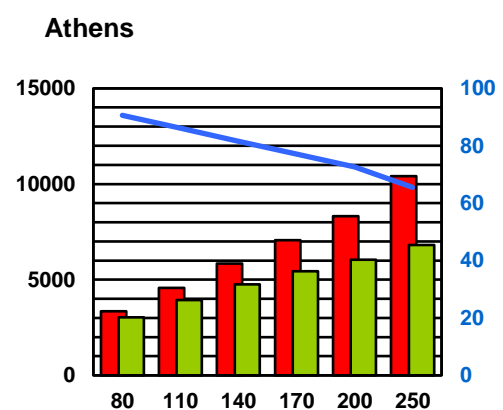
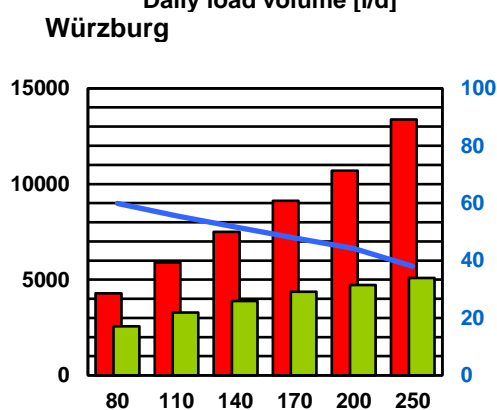
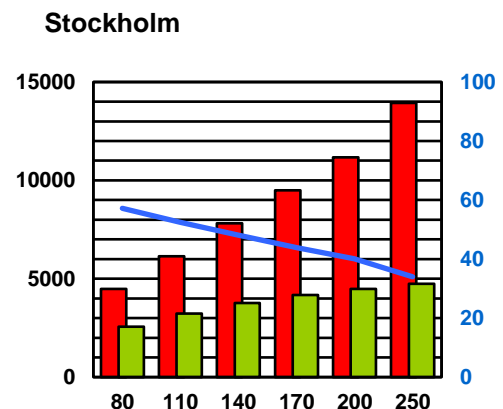
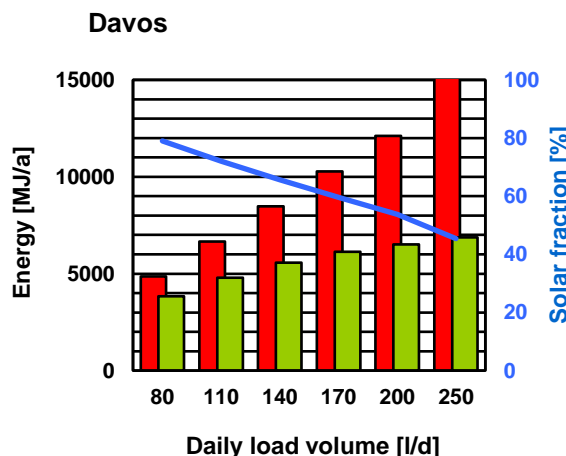
System-Data

No. of collector modules / pipes	1
Gross collector array area	2.520 m ²
Storage tank volume	160 l
Design load	150 l/d

Types of collector mounting

- Construction for sloping roof
- Integration into sloping roof
- On flat roof with stand
- Facade

Annual performance prediction and solar fraction for the EN locations



— f_{sol} : Solar fraction % ($f_{sol} = Q_L/Q_d$) ■ Q_L : Heat delivered by the solar system (load) ■ Q_d : Heat demand

¹ Homepage of Solar Keymark, URL: www.solarkeymark.org

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SULPACK NATURAL PLUS 200 – sub system

This system configuration was tested as part of a system family according to the CEN Keymark Scheme Rules for Solar Thermal Products¹. The annual performance prediction for the system configuration has been determined using the results of the medium system of the system family. For more information about the medium system please check the factsheet of system **S214**.



General

System model	SULPACK NATURAL PLUS 200	Phone	+39 0365 87831
System type	Thermosiphon system	Fax	--
Manufacturer	Fondital S.p.A.	E-Mail	info@fondital.it
		Internet	www.fondital.it
Address	Via Cerreto 40. IT-25079 Vobarno (Brescia)	Testdatum	12.2016

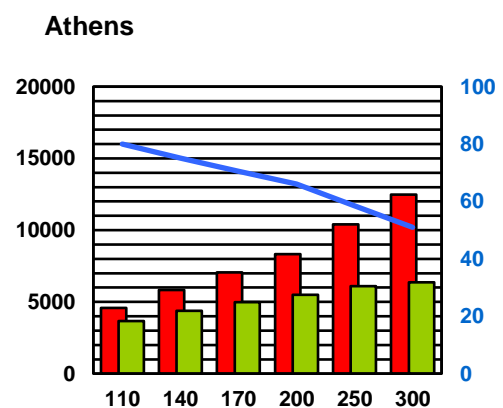
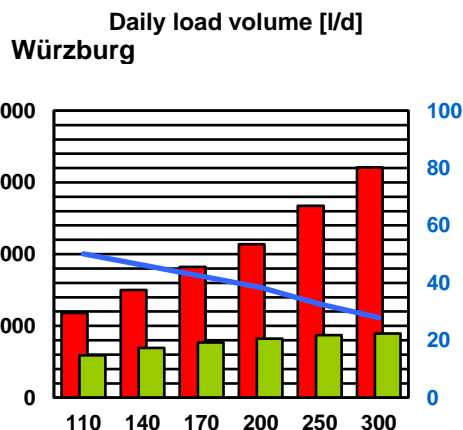
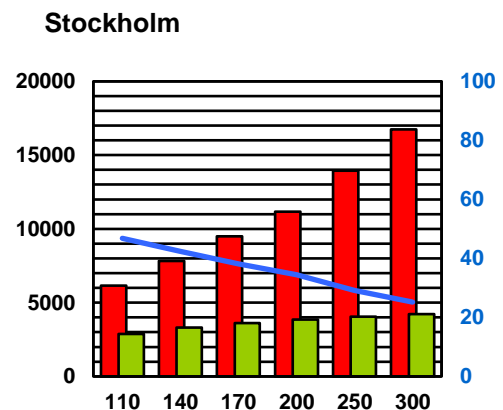
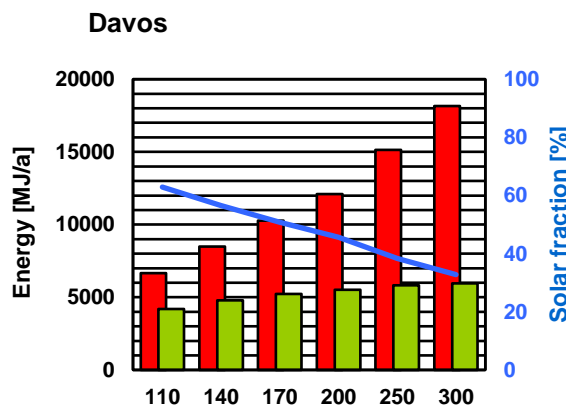
System-Data

No. of collector modules / pipes	1
Gross collector array area	2.110 m ²
Storage tank volume	200 l
Design load	200 l/d

Types of collector mounting

- Construction for sloping roof
- Integration into sloping roof
- On flat roof with stand
- Facade

Annual performance prediction and solar fraction for the EN locations



— f_{sol} : Solar fraction % ($f_{sol} = Q_L/Q_d$) ■ Q_L : Heat delivered by the solar system (load) ■ Q_d : Heat demand

¹ Homepage of Solar Keymark, URL: www.solarkeymark.org

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SULPACK NATURAL PLUS 200L – sub system

This system configuration was tested as part of a system family according to the CEN Keymark Scheme Rules for Solar Thermal Products¹. The annual performance prediction for the system configuration has been determined using the results of the medium system of the system family. For more information about the medium system please check the factsheet of system **S214**.



General

System model	SULPACK NATURAL PLUS 200L	Phone	+39 0365 87831
System type	Thermosiphon system	Fax	--
Manufacturer	Fondital S.p.A.	E-Mail	info@fondital.it
		Internet	www.fondital.it
Address	Via Cerreto 40. IT-25079 Vobarno (Brescia)	Testdatum	12.2016

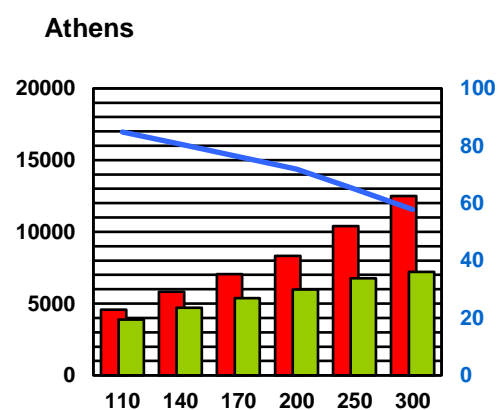
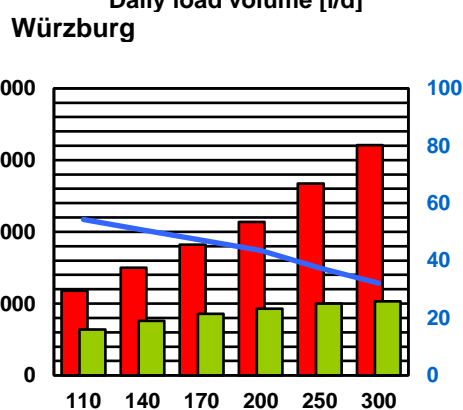
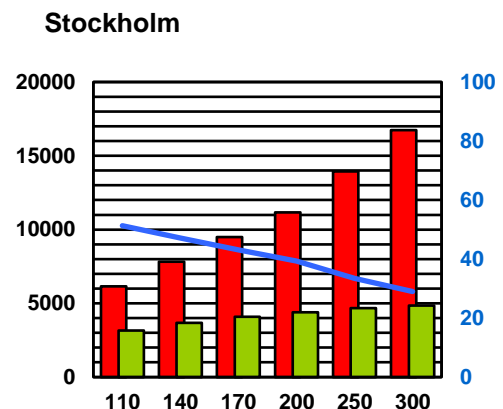
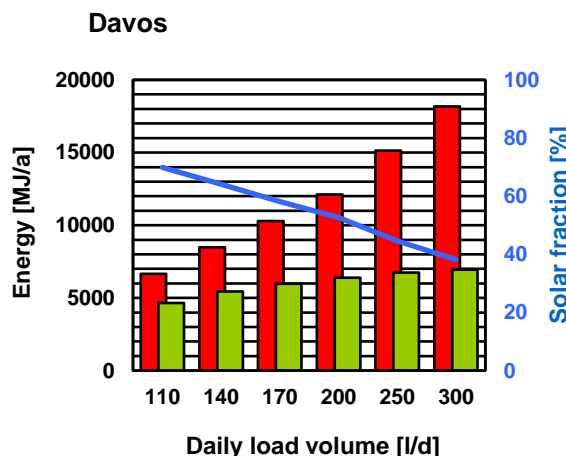
System-Data

No. of collector modules / pipes	1
Gross collector array area	2.520 m ²
Storage tank volume	200 l
Design load	200 l/d

Types of collector mounting

- Construction for sloping roof
- Integration into sloping roof
- On flat roof with stand
- Facade

Annual performance prediction and solar fraction for the EN locations



— f_{sol} : Solar fraction % ($f_{sol} = Q_L/Q_d$) ■ Q_L : Heat delivered by the solar system (load) ■ Q_d : Heat demand

¹ Homepage of Solar Keymark, URL: www.solarkeymark.org

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SULPACK NATURAL PLUS 200XL – sub system

This system configuration was tested as part of a system family according to the CEN Keymark Scheme Rules for Solar Thermal Products¹. The annual performance prediction for the system configuration has been determined using the results of the medium system of the system family. For more information about the medium system please check the factsheet of system **S214**.



General

System model	SULPACK NATURAL PLUS 200XL	Phone	+39 0365 87831
System type	Thermosiphon system	Fax	--
Manufacturer	Fondital S.p.A.	E-Mail	info@fondital.it
		Internet	www.fondital.it
Address	Via Cerreto 40. IT-25079 Vobarno (Brescia)	Testdatum	12.2016

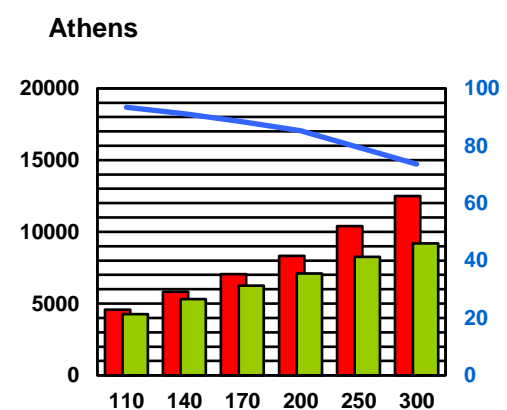
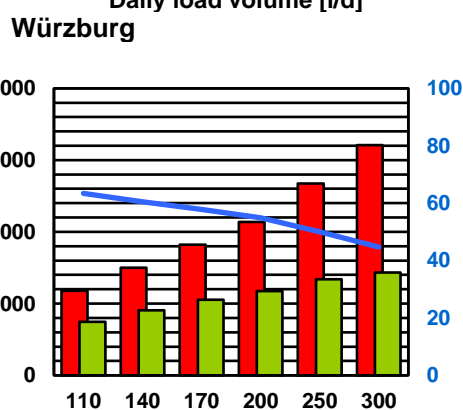
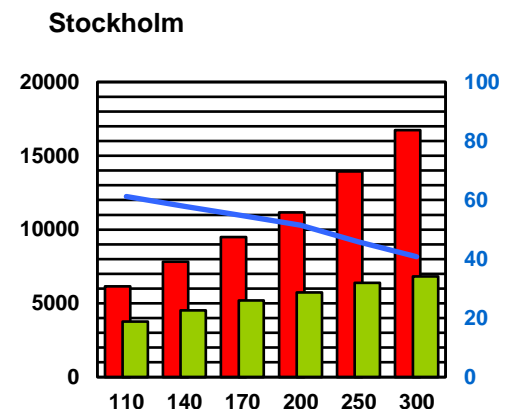
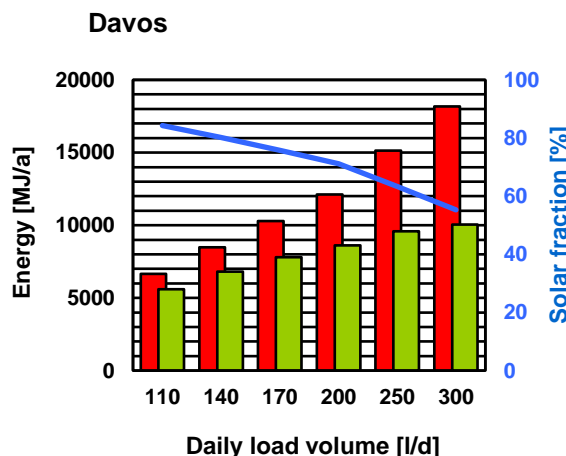
System-Data

No. of collector modules / pipes	2
Gross collector array area	4.220 m ²
Storage tank volume	200 l
Design load	200 l/d

Types of collector mounting

- Construction for sloping roof
- Integration into sloping roof
- On flat roof with stand
- Facade

Annual performance prediction and solar fraction for the EN locations



— f_{sol} : Solar fraction % ($f_{sol} = Q_L/Q_d$) ■ Q_L : Heat delivered by the solar system (load) ■ Q_d : Heat demand

¹ Homepage of Solar Keymark, URL: www.solarkeymark.org