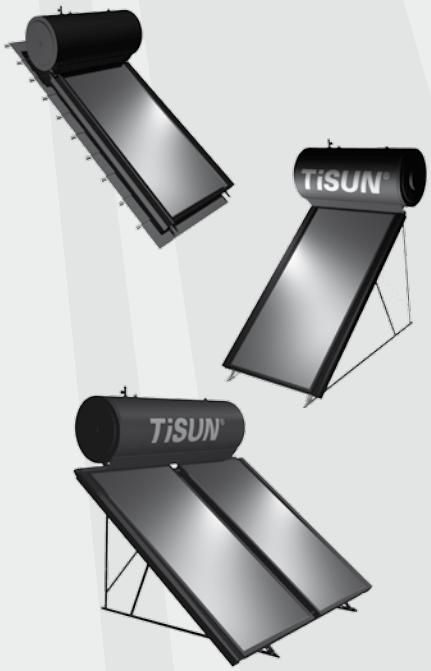
THERMOSIPHON SYSTEM

PRODUCT OVERVIEW



Thermosiphon system

Thermosiphon systems are systems for producing heat from solar energy operating on the thermosiphon principle. The thermosiphon is a passive design, which allows heat transfer using natural convection ideally in a vertical, closed fluid loop. The advantage is that it avoids using a conventional pump, which keeps the complexity and costs of a thermosiphon system low.
The thermosiphon system is available in three designs. They are characterised by high-selectivity coated harp absorbers and tank sizes perfectly coordinated with the system, together with unique charging properties. All necessary pipes, fittings and frost protection are included with delivery.

Area of use

- Parallel roof and free-standing installation

Product benefits

- Solar Keymark System Test EN 12976
- High efficiency thanks to high-selectivity coated absorber
- Laser-welded, harp system
- Long service life due to powder-coating, robust, temperature- and weather-resistant design
- Low heat loss thanks to excellent tank insulation
- Quick and simple installation
- No additional costs for pumps, solar station, etc.
- No solar control unit required
- Compact and space-saving design
- All necessary pipes, fittings, pressure relief valves and frost protection are included with delivery.

Specifications

Designation		THSY160 1H	THSY200 1H	THSY300 2H
Collector	Quantity	1		2
	Dimensions	1030 x 2030 mm		
	Gross area	2.09 m²		2 x 2.09 m²
	Aperture area	1.92 m²		2 x 1.92 m²
	Coating	High-selectivity		
	Absorber type	Harp		
	Header	Cu 22 mm		
	Rear wall insulation	40 mm mineral wool with fleece cover		40 mm mineral wool with fleece
	Side insulation	20 mm mineral wool with fleece cover		20 mm mineral wool with fleece
Tank	Content	145 l	192 l	282 l
	Diameter	500 mm	580 mm	
	Length	1250 mm		1750 mm
	Max. operating pressure	10 bar		
	Recommended operating pressure	6 bar		
	Max. press. solar	3 bar		
	Max. temperature	94°C		
	Insulating material	Hard polyurethane foam		
	Insulation thickness	40 mm		
	Connections	1/2"		
	Inner coating	Enamelled		
	Corrosion protection	2 x magnesium anode		
	Heat exchanger	Jacketed shell		
	Heat exchanger surface	0.98 m²	1.16 m²	1.57 m²
	Empty weight	67 kg	85 kg	107 kg
	Full weight	212 kg	277 kg	367 kg
Frame	Material	Steel		
	Thickness	3 mm		
	Production	Lasered		
	Corrosion protection	Powder-coated		
	Use	Upright and parallel roof installation		

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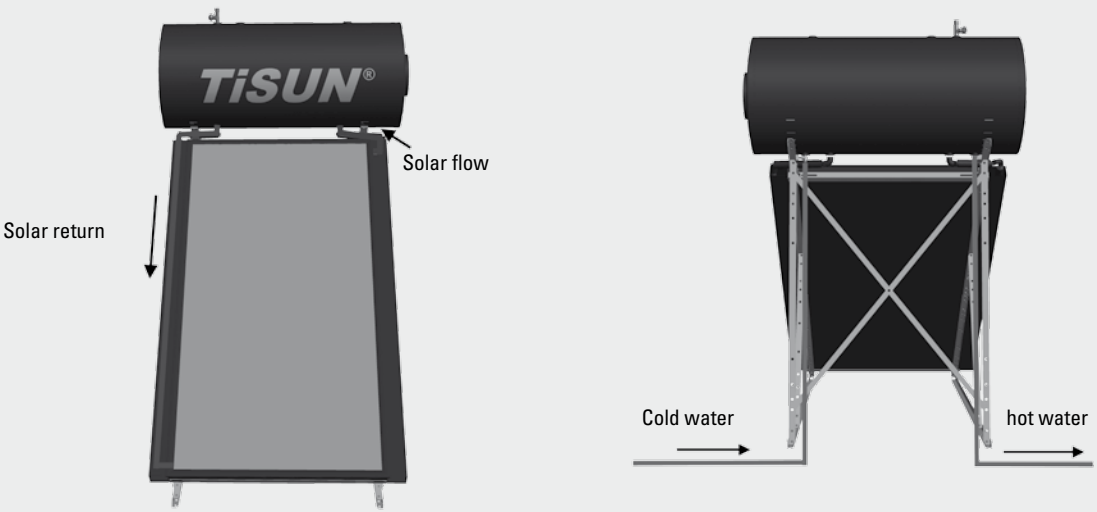
Designation		THSY160 1H	THSY200 1H	THSY300 2H
Connections	Collector	Clamping ring threaded connection, Ø 22 mm		
	tank	½", with double nipple and elbow to ¾" for solar connection		
Copper pipe	Length	2000 mm		
	Diameter	Ø 22 mm		
	Insulating material	Elastomer rubber with protective PE film		
	Insulation thickness	20 mm		
Corrugated stainless steel pipe	Nominal size	DN 20		
	Forward flow length	320 mm		800 mm
	Return length	210 mm		650 mm
	Connections	3/4" union nut		
	Flat seal	4 x AFM 34		
	Insulation	Rubber with protective film		
	Insulation thickness	20 mm		
Solar pressure relief valve	Installation location	Central sleeve on top of tank		
	Connection	1/2"		
	Max. pressure	3 bar		
Solar pressure relief valve Domestic water side	Installation location	Cold water connection		
	Connection	1/2"		
	Max. pressure	6 bar		
	Features	Integrated check valve		
Temperature pressure relief valve	Installation location	Left-hand sleeve on top of tank		
	Connection	1/2"		
	Max. temperature	94°C		
	Max. pressure	6 bar		
	Features	Temperature restriction to 94 °C in accordance with DIN 4708 (95 °C)		
Glycol	Min. level	20%		
	Constituents	Propylene glycol + inhibitors		
	Appearance	Colourless liquid		
	Delivered quantity	3 l in 1 l packages	4 l in 1 l packages	5 l in 1 l packages

Thermosiphon connection diagram



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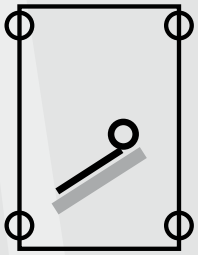
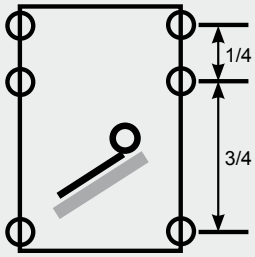
ROOF ATTACHMENTS

Spacing of roof mounting material:


Parallel 4 pcs.



Parallel 6 pcs.

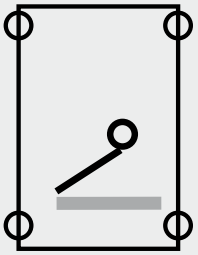
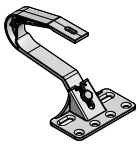
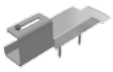
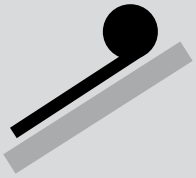
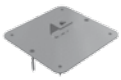
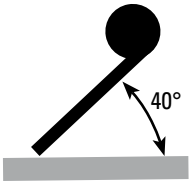

Erected 4 pcs.

Image	Mounting type	Item no.	THSY 160 1H	THSY 200 1H	THSY 300 2H	
			No. of roof attachments			
	Duo hanger bolt Universal mounting	1430043	4	4	6	
	Rafter anchor for roof tiles, height-adjustable, height 40–60 mm	1430773	4	4	6	
	Joint clamp for tin joint roof	1430041	6	6	-	
	Solar bracket for side locks plates	1430032	4	4	6	
	Bitumen flange plate for bitumen roof, Height 50 mm	1420644	4	4	6	
	Profiled sheet metal bracket for profiled sheet metal or corrugated sheet metal	1430039	6	6	-	
	Corrugated cement asbestos calotte for 5 corrugations (5 corrugations/m)	1420074	6	6	-	
	Corrugated cement asbestos calotte for 8 corrugations (8 corrugations/m)	1420075	6	6	-	
	Anchor bolt for concrete, galvanised, without height compensation	1410001	4	4	4	
	Anchor bolt for concrete, stainless steel, without height compensation (European Technical Approval ETA-05/0018)	1410535	4	4	4	