



**Solex**  
Solar thermal systems



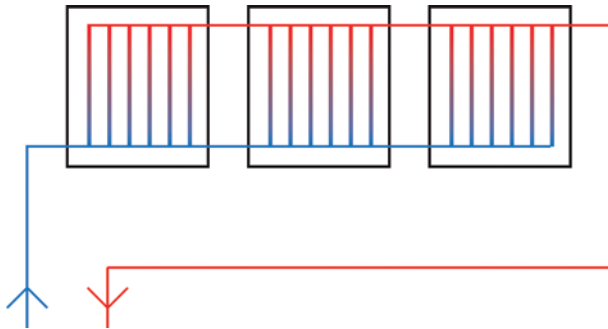
## Product range Solex

Technical data and product information

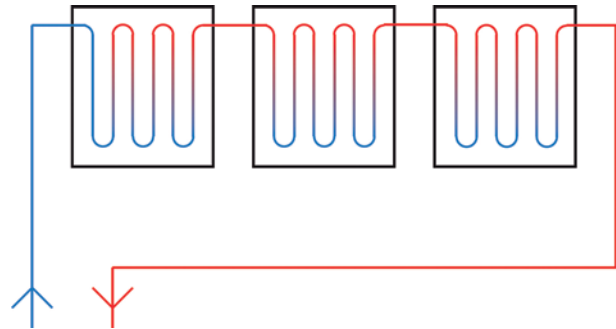




**High-Flow system with harp collectors**



**Low-Flow system with meander collectors**



**Dimensioning of a Solex module**

Different collector types with the same size of collector field need very different flow rates for an effective operation without interruption. The hydraulic connection of the collector field as well as the shape of the collector can also influence the optimal flow of the solar circuit. Corresponding values should be agreed with the manufacturer of the collectors. They can also be found in the technical documents of the collectors.

The solar systems are roughly divided into High-Flow systems and Low-Flow systems. High-Flow systems are operated with a higher flow rate and a smaller temperature difference between collector inlet and collector outlet.

In reality, these systems have less pressure drop than Low-Flow systems. Accordingly, Low-Flow systems work with lower flow rates and a higher temperature difference. The Solex transfer stations can be used for High-Flow solar thermal systems as well as for Low-Flow systems.

The values for the specific flow rate given below refer to the nominal flow rate.

Depending on the control target and the basic conditions, the flow rate in the partial-load range is adapted by the controller and can be much smaller than the calculated nominal flow rate.

**High-Flow systems** have a flow rate of 25 to 40 litres per square metre of collector surface and hour or 0.42 to 0.67 litres per square metre of collector surface and minute.

**Low-Flow systems** have a flow rate of 10 to 20 litres per square metre of collector surface and hour or 0.17 to 0.33 litre per square metre of collector surface and minute.

The **total flow rate** in a solar thermal system depends on:

- System operation mode (High-Flow/Low-Flow)
- Collector surface
- Performance of the heat exchanger (secondary)

The **circulation pump dimensioning** depends on:

- Flow rate
- Pressure drop of heat exchanger, collector, piping system

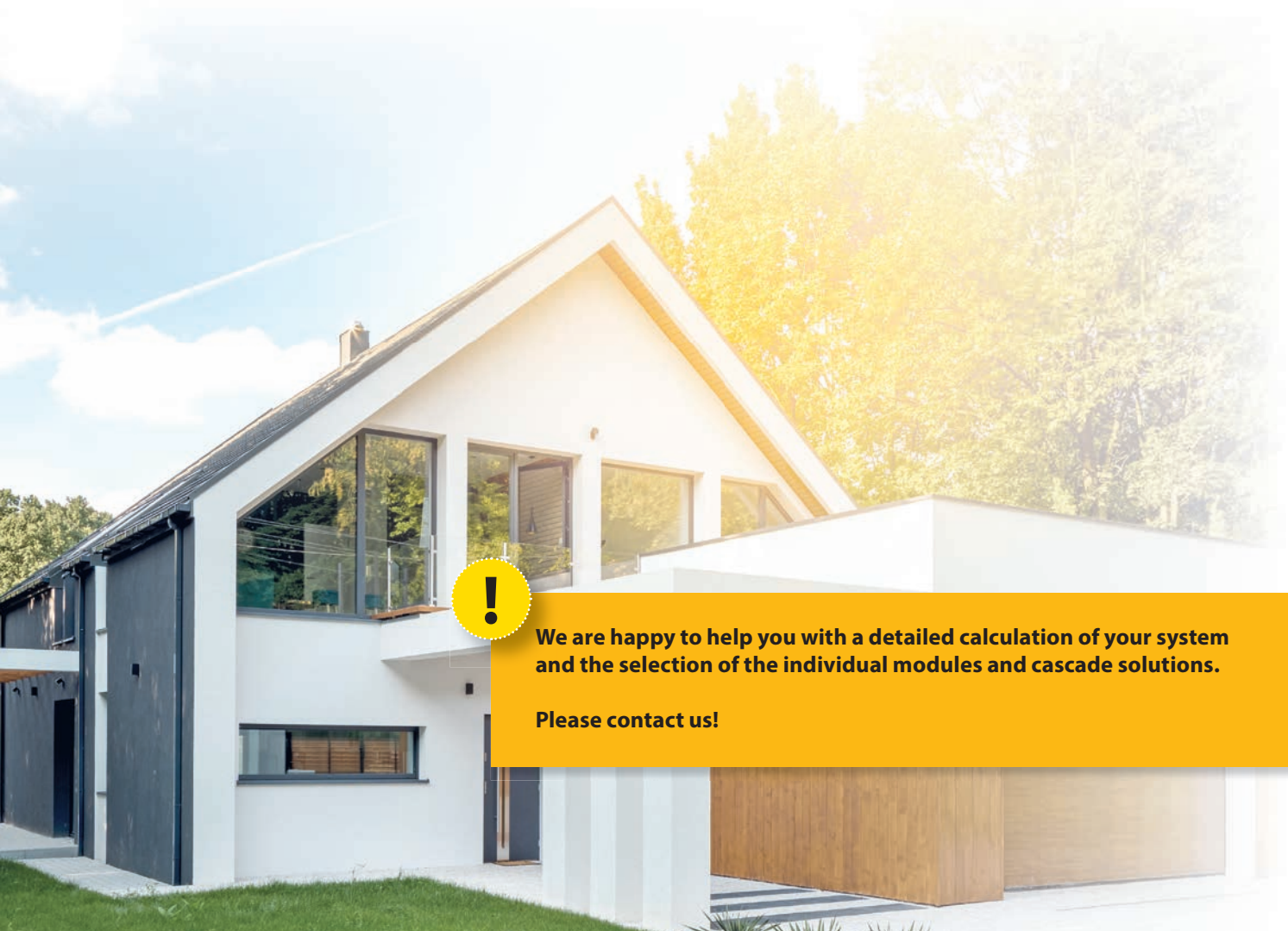
For the selection table of the proper Solex, we assumed a minimum head of ~5 m wc (~50 kPa). If the real collector field (including pipes) has a higher pressure drop, a detailed dimensioning is inevitable.



## Selection table solar transfer stations - Solex

Specific flow rate in l/(m <sup>2</sup> x h)	Collector surface in m <sup>2</sup>																
	15	20	25	30	40	50	60	70	80	90/100	120	140/160	180/200	240	280	320	360/400
15	Mini	Mini	Mini	Mini	Midi	Midi	Midi	Maxi	Maxi	Maxi	Mega	Mega	Mega	2x Mega	2x Mega	2x Mega	2x Mega
20	Mini	Mini	Mini	Mini	Midi	Midi	Maxi	Maxi	Maxi	Maxi	Mega	Mega	Mega	2x Mega	2x Mega	2x Mega	2x Mega
25	Mini	Mini	Mini	Midi	Midi	Maxi	Maxi	Maxi	Maxi	Mega	Mega	Mega	2x Mega	2x Mega	2x Mega	2x Mega	***
30	Mini	Mini	Mini	Midi	Midi	Maxi	Maxi	Maxi	Mega	Mega	Mega	2x Mega	2x Mega	2x Mega	***	/	/
35	Mini	Mini	Midi	Midi	Maxi	Maxi	Maxi	Mega	Mega	Mega	2x Mega	2x Mega	2x Mega	***	/	/	/
40	Mini	Midi	Midi	Midi	Maxi	Maxi	Mega	Mega	Mega	Mega	2x Mega	2x Mega	2x Mega	***	/	/	/

\*\*\* precise dimensioning required



**We are happy to help you with a detailed calculation of your system and the selection of the individual modules and cascade solutions.**

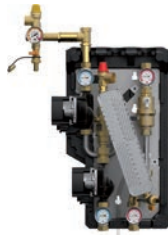
**Please contact us!**





**SolexMaxi-Kaskade HZ  
with collector, boiler  
and diaphragm expansion tank -  
ideally for large systems,  
such as sport facilities or hotels**





### SolexMini - for installations up to 36 m<sup>2</sup> of collector surface

SolexMini HZ/TW	Operating mode	Collector surface	Output	Temp. difference (collector inlet/ collector outlet)
	25 l/(m <sup>2</sup> xh)	36 m <sup>2</sup>	18 kW	20 K
	40 l/(m <sup>2</sup> xh)	30 m <sup>2</sup>	15 kW	12 K

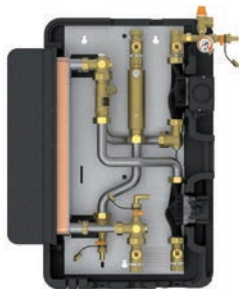
Conditions: Irradiation = 800 W/m<sup>2</sup>; efficiency  $\eta_{0,05}$  = 65%



### SolexMidi - for installations up to 60 m<sup>2</sup> of collector surface

SolexMidi HZ/TW	Operating mode	Collector surface	Output	Temp. difference (collector inlet/ collector outlet)
	15 l/(m <sup>2</sup> xh)	60 m <sup>2</sup>	31 kW	33 K
	40 l/(m <sup>2</sup> xh)	30 m <sup>2</sup>	15 kW	12 K

Conditions: Irradiation = 800 W/m<sup>2</sup>; efficiency  $\eta_{0,05}$  = 65%



### SolexMaxi - for installations up to 100 m<sup>2</sup> of collector surface

SolexMaxi HZ/TW	Operating mode	Collector surface	Output	Temp. difference (collector inlet/ collector outlet)
	15 l/(m <sup>2</sup> xh)	100 m <sup>2</sup>	50 kW	33 K
	25 l/(m <sup>2</sup> xh)	80 m <sup>2</sup>	25 kW	12 K

Conditions: Irradiation = 800 W/m<sup>2</sup>; efficiency  $\eta_{0,05}$  = 65%



### SolexMega - for installations up to 200 m<sup>2</sup> of collector surface

SolexMega HZ/TW	Operating mode	Collector surface	Output	Temp. difference (collector inlet/ collector outlet)
	15 l/(m <sup>2</sup> xh)	200 m <sup>2</sup>	100 kW	33 K
	25 l/(m <sup>2</sup> xh)	160 m <sup>2</sup>	50 kW	12 K

Conditions: Irradiation = 800 W/m<sup>2</sup>; efficiency  $\eta_{0,05}$  = 65%



### SolexMega-Kaskade - for installations up to 400 m<sup>2</sup> of collector surface

SolexMega- Kaskade HZ/TW	Operating mode	Collector surface	Output	Temp. difference (collector inlet/ collector outlet)
	15 l/(m <sup>2</sup> xh)	400 m <sup>2</sup>	200 kW	33 K
	25 l/(m <sup>2</sup> xh)	320 m <sup>2</sup>	100 kW	12 K

Conditions: Irradiation = 800 W/m<sup>2</sup>; efficiency  $\eta_{0,05}$  = 65%



**SolexMini**



**SolexMidi / SolexMaxi**



**SolexMega**

### Advantages of the PAW solar transfer stations:

- CE conform according to DIN EN 60335
- Insulation according to EnEV directive

PAW focuses on the two versions Solex HZ (heating) and Solex TW (DHW) for its solar transfer stations. The Solex HZ modules are suited for applications in heating systems whereas the Solex TW modules can be used in domestic hot water systems.

Solutions in the dimensions DN 15 to DN 50, offer a broad application range up to 400 m<sup>2</sup> of collector surface. Thus, you obtain a maximum flexibility during system planning.

### Application range of solar transfer stations

To protect the solar circuit of a thermal solar system from frost, it is filled with a propylene glycol/water mixture.

The heating installation is normally operated with water.

To transfer the heat energy from the solar circuit to the heating circuit, a heat exchanger is used.

In small systems, a smooth pipe heat exchanger integrated in the storage tank transfers the heat energy. With larger collector fields, the heat transfer capacity of those heat exchangers is no longer sufficient.

In large systems, solar transfer stations transfer the collected heat energy from the collectors to the heating water circuit.

The centrepiece of these modules is a plate heat exchanger, whose cross-flow operating mode allows excellent heat transfer. The operating conditions in the heat exchanger vary, due to variations in radiation, buffer temperatures and different system requirements. For optimum operation of the overall system, the flow rates in the heat exchanger must be adapted to the relevant control target and current situation.

For this purpose, the Solex modules use high-efficiency pumps, which offer an extremely broad adjustment range.

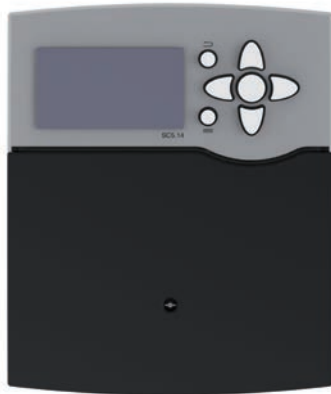
This allows the controller to adapt the pumps optimally to the momentarily required flow rate within a very broad application range.

Additionally, the pumps used save more than 50% of electrical driven energy compared to conventional asynchronous pumps. Furthermore, these pumps meet the energy efficiency guidelines (EuP / ErP READY).

The controller is delivered preset, assembled and wired, thus ensuring easy adjustment to the real system.

The use of flow rate sensors in the Solex modules allows a power adjusted control, an efficient system monitoring and an integrated heat quantity measurement.

For a safe and quick commissioning, the Solex modules are equipped with pressure relief valves, ball valves as well as with fill and drain valves.



### Controller SC5.14 for solar transfer stations:

- SolexMini HZ/TW for installations up to 36 m<sup>2</sup> of collector surface
- SolexMidi HZ/TW for installations up to 60 m<sup>2</sup> of collector surface
- SolexMaxi HZ/TW for installations up to 100 m<sup>2</sup> of collector surface
- SolexMega HZ/TW for installations up to 200 m<sup>2</sup> of collector surface
- SolexMega-Kaskade HZ/TW for installations up to 400 m<sup>2</sup> of collector surface

The controller SC5.14 is completely mounted and preset, so that only the collector field sensor and the storage tank sensor must be installed and connected. A text-based menu navigation in five selectable languages permits a simple controller operation.

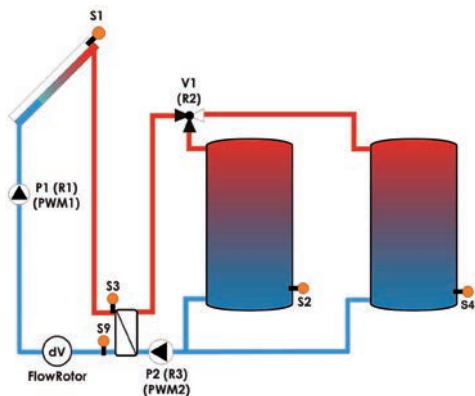
The controller comprises preset systems and can be used in solar installations with up to two domestic hot water tanks.

The preset systems are optimised for PAW hydraulics.

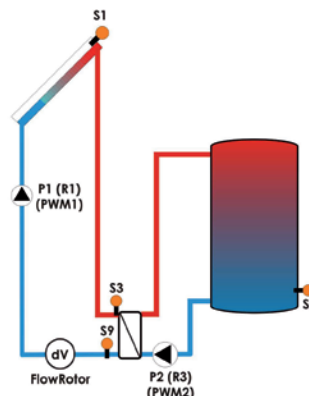
Not only temperature measurement, but also heat quantity balancing is possible by means of the sensors.

SC5.14 - Technical data			
<b>Display</b>	Multiline LC text display, illuminated, with menu navigation (multilingual)	<b>ΔT-control</b>	yes
<b>Operation</b>	7 push buttons	<b>Speed control</b>	yes
<b>Relay outputs</b>	4 x semiconductor relays, 230 V 1 x potential-free relay 4 x PWM signal (0-10 V) for speed control	<b>Heat quantity measurement</b>	yes
<b>Inputs</b>	10 x Pt1000 1 x solar radiation input CS10 1 x impulse input V40 1 x RPS / VFS 1 x FlowRotor Grundfos Direct Sensor (analogue)	<b>Tube collector function</b>	yes
		<b>Antifreeze function</b>	yes
		<b>Thermal disinfection</b>	yes
		<b>External heat exchanger</b>	yes
		<b>Return distribution</b>	yes
<b>Interfaces</b>	SD card (loading/saving of configuration files, firmware updates)	<b>Bypass activation</b>	yes
<b>Heat quantity balancing</b>	yes	<b>Stratified storage tank charging</b>	yes
<b>Circulation (depending on time / temperature)</b>	yes	<b>Quick tank charging</b>	yes
<b>Flow rate sensors</b>	yes	<b>Thermostat function</b>	yes

Connection scheme Solex HZ

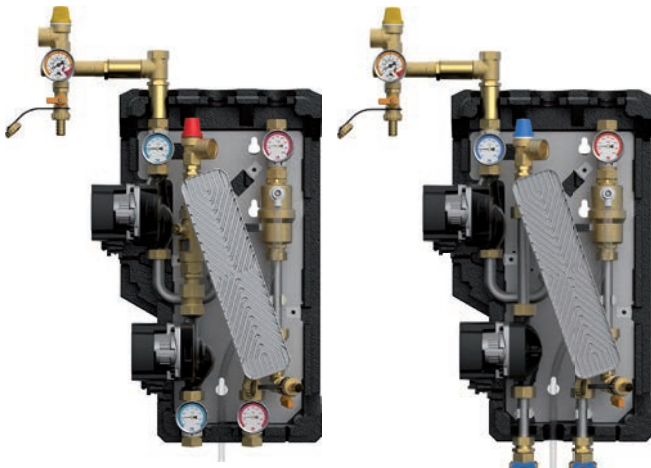


Connection scheme Solex TW



Equipment for SC5.14	Item no.
<b>Temperature sensor Pt1000</b>	<b>Q00146</b>
<ul style="list-style-type: none"> <li>- Measuring range: - 50 °C to + 180 °C</li> <li>- Connection: 1.5 m of silicone cable</li> <li>- Dimensions: d = 6 mm</li> </ul>	





SolexMini HZ

SolexMini TW

### Application range

- Version HZ: for charging buffer storage tanks
- Version TW: for charging of domestic hot water storage tanks
- incl. heat quantity measurement according to the BAFA promotion directive for solar thermal systems
- **The CE-conformity of the module has been certified according to DIN EN 60335.**

### Application range

- up to 36 m<sup>2</sup> of collector surface

**Design data and differential pressure diagrams** are on pages 5 and 18/19.

### Operating data

Max. pressure	HZ: prim.: 6 bars / sec.: 3 bars TW: prim.: 6 bars / sec.: 10 bars
Maximum operating temperature	primary: 120 °C secondary: 95 °C
Operating mode 1	25 l/(m <sup>2</sup> xh)
Operating mode 2	40 l/(m <sup>2</sup> xh)

### Technical data

#### Equipment

Check valves	HZ: prim.: 2 x 200 mm wc, sec.: 1 x 200 mm wc TW: prim.: 2 x 200 mm wc
Heat exchanger	24 plates
Controller	SC5.14
Sensors	HZ: 2 x Pt1000 (integrated), 3 x Pt1000 (enclosed) TW: 2 x Pt1000 (integrated), 2 x Pt1000 (enclosed)
FlowRotor (primary)	HZ/TW: 0.5–15 l/min
Flowmeter (secondary)	HZ: 0.5–15 l/min
Pressure gauge	0 - 6 bars, resistant to high temperatures
Safety valve	HZ: prim.: 6 bars, sec.: 3 bars TW: prim.: 6 bars, sec.: 10 bars

#### Dimensions

Nominal diameter	DN 15 (1/2")
Connections	prim./sec.: 3/4" int. thread
Width	427 mm
Centre distance	82 mm
Height	680 mm
Installation length	HZ: 562 mm TW: 589 mm
Depth	HZ: 249 mm TW: 263 mm

#### Materials

Valves and fittings	Brass
Gaskets	Klingsil / EPDM
Insulation	EPP
Check valves	Brass
Heat exchanger	Solder: 99.99 % copper Plates + connecting pieces: 1.4401 (AISI 316)



SolexMini HZ with diaphragm expansion tank

SolexMini TW with diaphragm expansion tank and domestic water safety group







<b>SolexMini HZ – DN 15 (½")</b>	<b>Item no.</b>
----------------------------------	-----------------



prim.: Grundfos UPM3 Solar 15-145, sec.: Grundfos UPM3 Solar 15-75	6091410
--	---------

<b>Accessories SolexMini HZ</b>	<b>Item no.</b>
---------------------------------	-----------------


	<b>2-way zone valve - DN 20 (¾")</b>	<b>563532</b>
	for connecting and disconnecting single storage tanks, DN 20, ¾" int. thread, setting time for 90°: 30 sec.	
	<b>3-way zone valve - DN 20 (¾")</b>	<b>563533</b>
	for switching between single storage tanks, DN 20, ¾" int. thread, setting time for 90°: 18 sec., Kvs value = 7	

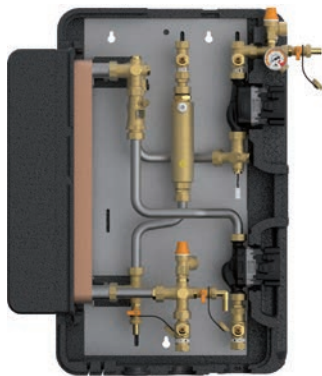
<b>SolexMini TW – DN 15 (½")</b>	<b>Item no.</b>
----------------------------------	-----------------



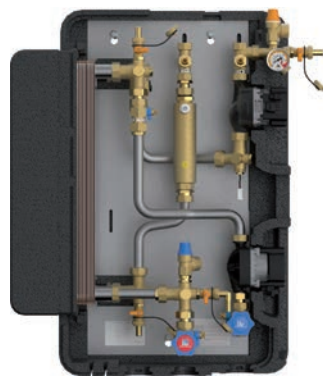
prim.: Grundfos UPM3 Solar 15-145, sec.: Grundfos UPM3 15-70 CIL3	6091415
---	---------

<b>Accessories SolexMini TW</b>	<b>Item no.</b>
---------------------------------	-----------------

	<b>2-way zone valve - DN 20 (¾"), suitable for DHW</b>	<b>563541</b>
	suitable for DHW, for connecting or disconnecting single storage tanks or flow paths, DN 20, ¾" int. thread, setting time for 90°: 12 sec, Kvs value = 45. DVGW, ACS and WRAS certified.	



SolexMidi HZ



SolexMidi TW

### Application range

- Version HZ: for charging buffer storage tanks
- Version TW: for charging of domestic hot water storage tanks
- incl. heat quantity measurement according to the BAFA promotion directive for solar thermal systems
- **The CE-conformity of the module has been certified according to DIN EN 60335.**

### Application range

- up to 60 m<sup>2</sup> of collector surface

### Design data and differential pressure diagrams

are on pages 5 and 18/19.

### Operating data

Max. pressure	HZ: prim. / sec.: 6 bars TW: prim.: 6 bars / sec.: 10 bars
Maximum operating temperature	primary: 120 °C secondary: 95 °C
Operating mode 1	15 l/(m <sup>2</sup> xh)
Operating mode 2	40 l/(m <sup>2</sup> xh)

### Technical data

#### Equipment

Check valves	HZ: prim.: 2 x 200 mm wc, sec.: 2 x 200 mm wc TW: prim.: 2 x 200 mm wc, sec.: 1 x 150 mm wc
Heat exchanger	30 plates
Controller	SCS.14
Sensors	HZ: 2 x Pt1000 (integrated), 3 x Pt1000 (enclosed) TW: 2 x Pt1000 (integrated), 2 x Pt1000 (enclosed)
FlowRotor (primary)	HZ/TW: 2-50 l/min
Flowmeter (secondary)	HZ: 3-22 l/min
Pressure gauge	0 - 6 bars, resistant to high temperatures
Safety valve	HZ: prim. / sec.: 6 bars TW: prim.: 6 bars, sec.: 10 bars

#### Dimensions

Nominal diameter	DN 20 (¾")
Connections	HZ: prim.: ¾" int. thread, sec.: ¾" int. thread TW: prim.: ¾" int. thread, sec.: 1" ext. thread
Width	674 mm
Centre distance	120 mm
Height	795 mm
Installation length	HZ: 670 mm TW: 678 mm
Depth	298 mm

#### Materials

Valves and fittings	Brass
Gaskets	Klingsersil / EPDM
Insulation	EPP
Check valves	Brass
Heat exchanger	Solder: 99.99 % copper Plates + connecting pieces: 1.4401 (AISI 316)

## SolexMidi HZ/TW Mounting example







<b>SolexMidi HZ – DN 20 (¾")</b>	<b>Item no.</b>
----------------------------------	-----------------



prim.: Grundfos UPM3 Solar 15-145, sec.: Grundfos UPM3 Solar 15-75	6095430
--	---------

<b>Accessories SolexMidi HZ</b>	<b>Item no.</b>
---------------------------------	-----------------


	<b>2-way zone valve - DN 20 (¾")</b>	<b>563532</b>
	for connecting and disconnecting single storage tanks, DN 20, ¾" int. thread, setting time for 90°: 30 sec.	
	<b>3-way zone valve - DN 20 (¾")</b>	<b>563533</b>
	for switching between single storage tanks, DN 20, ¾" int. thread, setting time for 90°: 18 sec., Kvs value = 7	

<b>SolexMidi TW – DN 20 (¾")</b>	<b>Item no.</b>
----------------------------------	-----------------

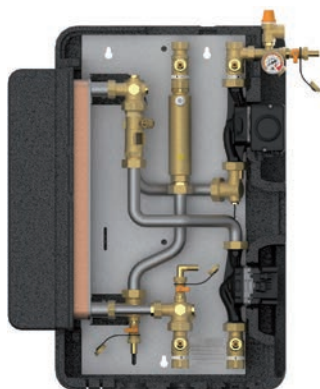


prim.: Grundfos UPM3 Solar 15-145, sec.: Grundfos UPM3 15-70 CIL3	6095436
---	---------

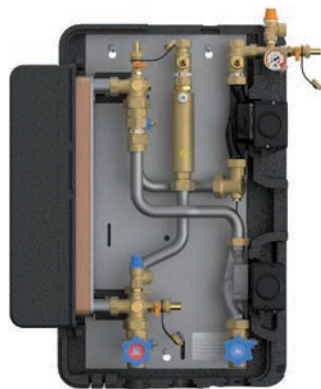
<b>Zubehör SolexMidi TW</b>	<b>Item no.</b>
-----------------------------	-----------------

	<b>2-way zone valve - DN 20 (¾"), suitable for DHW</b>	<b>563541</b>
	suitable for DHW, for connecting or disconnecting single storage tanks or flow paths, DN 20, ¾" int. thread, setting time for 90°: 12 sec, Kvs value = 45. DVGW, ACS and WRAS certified.	





**SolexMaxi HZ**



**SolexMaxi TW**

### Application range

- Version HZ: for charging buffer storage tanks
- Version TW: for charging of domestic hot water storage tanks
- incl. heat quantity measurement according to the BAFA promotion directive for solar thermal systems
- **The CE-conformity of the module has been certified according to DIN EN 60335.**

### Application range

- up to 100 m<sup>2</sup> of collector surface

**Design data and differential pressure diagrams** are on pages 5 and 18/19.

### Operating data

Max. pressure	HZ: prim. / sec.: 6 bars TW: prim.: 6 bars / sec.: 10 bars
Maximum operating temperature	primary: 120 °C secondary: 95 °C
Operating mode 1	15 l/(m <sup>2</sup> xh)
Operating mode 2	25 l/(m <sup>2</sup> xh)

## Technical data

### Equipment

Check valves	HZ: prim.: 2 x 200 mm wc, sec.: 1 x 200 mm wc TW: prim.: 2 x 200 mm wc, sec.: 1 x 150 mm wc
Heat exchanger	60 plates
Controller	SCS.14
Sensors	HZ: 2 x Pt1000 (integrated), 3 x Pt1000 (enclosed) TW: 2 x Pt1000 (integrated), 2 x Pt1000 (enclosed)
FlowRotor (primary)	HZ/TW: 2-50 l/min
Flowmeter (secondary)	HZ: 5-40 l/min
Pressure gauge	0 - 6 bars, resistant to high temperatures
Safety valve	HZ: prim. / sec.: 6 bars TW: prim.: 6 bars, sec.: 10 bars

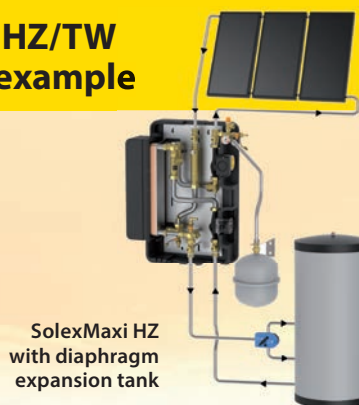
### Dimensions

Nominal diameter	DN 25 (1")
Connections	HZ: prim.: 1" int. thread, sec.: 1" int. thread TW: prim.: 1" int. thread, sec.: 1½" ext. thread
Width	674 mm
Centre distance	120 mm
Height	828 mm
Installation length	HZ: 709 mm TW: 716 mm
Depth	298 mm

### Materials

Valves and fittings	Brass
Gaskets	Klingsersil / EPDM
Insulation	EPP
Check valves	Brass
Heat exchanger	Solder: 99.99 % copper Plates + connecting pieces: 1.4401 (AISI 316)

## SolexMaxi HZ/TW Mounting example







<b>SolexMaxi HZ – DN 25 (1")</b>	<b>Item no.</b>
----------------------------------	-----------------



prim.: Grundfos Solar PML 25-145, sec.: Grundfos UPM3 Solar 25-75	6096460
---	---------

<b>Accessories SolexMaxi HZ</b>	<b>Item no.</b>
---------------------------------	-----------------


	<b>2-way zone valve - DN 25 (1")</b>	<b>563542</b>
	for connecting and disconnecting single storage tanks, DN 25, 1" int. thread, setting time for 90°: 30 sec.	
	<b>3-way zone valve - DN 25 (1")</b>	<b>563543</b>
	for switching between single storage tanks, DN 25, 1" int. thread, setting time for 90°: 18 sec., Kvs value = 11	

<b>SolexMaxi TW – DN 25 (1")</b>	<b>Item no.</b>
----------------------------------	-----------------



prim.: Grundfos Solar PML 25-145, sec.: Grundfos UPML 25-105 N	6096465
--	---------

<b>Accessories SolexMaxi TW</b>	<b>Item no.</b>
---------------------------------	-----------------

	<b>2-way zone valve - DN 25 (1"), suitable for DHW</b>	<b>563551</b>
	suitable for DHW, for connecting or disconnecting single storage tanks or flow paths, DN 25, 1" int. thread, setting time for 90°: 12 sec, Kvs value = 60. DVGW, ACS and WRAS certified.	



SolexMega HZ



SolexMega TW

### Application range

- Version HZ: for charging buffer storage tanks
- Version TW: for charging of domestic hot water storage tanks
- incl. heat quantity measurement according to the BAFA promotion directive for solar thermal systems
- **The CE-conformity of the module has been certified according to DIN EN 60335.**

### Application range

- up to 200 m<sup>2</sup> of collector surface

**Design data and differential pressure diagrams** are on pages 5 and 18/19.

### Operating data

Max. pressure	HZ: prim. / sec.: 6 bars TW: prim.: 6 bars / sec.: 10 bars
Maximum operating temperature	primary: 120 °C secondary: 95 °C
Operating mode 1	15 l/(m <sup>2</sup> xh)
Operating mode 2	25 l/(m <sup>2</sup> xh)

## Technical data

### Equipment

Check valves	HZ: prim.: 2 x 200 mm wc, sec.: 2 x 200 mm wc TW: prim.: 2 x 200 mm wc, sec.: 1 x 150 mm wc
Heat exchanger	2 x 50 plates
Controller	SCS.14
Sensors	HZ: 2 x Pt1000 (integrated), TW: 2 x Pt1000 (integrated), 2 x Pt1000 (enclosed)
FlowRotor (primary)	HZ/TW: 2-130 l/min
Pressure gauge	0 - 6 bars, resistant to high temperatures HZ: analogue output 0.5 - 3 V
Safety valve	HZ: prim. / sec.: 6 bars TW: prim.: 6 bars, sec.: 10 bars

### Dimensions

Nominal diameter	DN 32 (1¼")
Connections	HZ: prim.: 1½" int. thread, sec.: 1½" int. thread TW: prim.: 1½" int. thread, sec.: 1 ½" ext. thread
Width	710 mm
Centre distance	158 mm
Height	1,654 mm
Installation length	HZ: 1,205 mm TW: 1,175 mm
Depth	920 mm

### Materials

Valves and fittings	HZ: Brass TW: Brass / Bronze
Gaskets	HZ: Klingersil / EPDM TW: EPDM or AFM34, asbestos-free
Insulation	EPP
Check valves	Brass
Heat exchanger	HZ/TW: Solder: 99.99 % copper HZ: Plates + connecting pieces: 1.4400 TW: Plates + connecting pieces: 1.4401 (AISI 316)

## SolexMega HZ Mounting example



SolexMega HZ  
with diaphragm expansion tank







**SolexMega HZ – DN 32 (1¼")** **Item no.**



**prim.: Grundfos UPMXL 25-125, sec.: Grundfos UPML 25-105** **6097460**

**Accessories SolexMega HZ** **Item no.**


	<p><b>Return distribution set 1½" int. thread</b> <span style="float: right;"><b>6404242</b></span></p> <p>3-way valve with actuator, setting time for 90°: 35 sec., Kvs value: 25 for FriwaMidi/Maxi-Kaskade, FriwaMega, SolexMega HZ</p>
	<p><b>3-way zone valve - DN 32 (1¼")</b> <span style="float: right;"><b>563553</b></span></p> <p>for switching between single storage tanks, DN 32, 1¼" int. thread, setting time for 90°: 18 sec., Kvs value = 15</p>

**SolexMega TW – DN 32 (1¼")** **Item no.**



**prim.: Grundfos UPMXL 25-125, sec.: Grundfos UPML 25-105 N** **6097465**

**Accessories SolexMega TW** **Item no.**

	<p><b>2-way zone valve - DN 25 (1"), suitable for DHW</b> <span style="float: right;"><b>563551</b></span></p> <p>suitable for DHW, for connecting or disconnecting single storage tanks or flow paths, DN 25, 1" int. thread, setting time for 90°: 12 sec, Kvs value = 60. DVGW, ACS and WRAS certified.</p>
---	--



SolexMega-Kaskade HZ

SolexMega-Kaskade TW

### Application range

- Version HZ: for charging buffer storage tanks
- Version TW: for charging of domestic hot water storage tanks
- incl. heat quantity measurement according to the BAFA promotion directive for solar thermal systems
- **The CE-conformity of the module has been certified according to DIN EN 60335.**

### Application range

- up to 400 m<sup>2</sup> of collector surface

### Design data and differential pressure diagrams

are on pages 5 and 18/19.

### Operating data

Max. pressure	HZ: prim. / sec.: 6 bars TW: prim.: 6 bars / sec.: 10 bars
Maximum operating temperature	primary: 120 °C secondary: 95 °C
Operating mode 1	15 l/(m <sup>2</sup> xh)
Operating mode 2	25 l/(m <sup>2</sup> xh)

## Technical data

### Equipment

Check valves	HZ: prim.: 4 x 200 mm wc, sec.: 4 x 200 mm wc TW: prim.: 4 x 200 mm wc, sec.: 2 x 150 mm wc
Heat exchanger	4 x 50 plates
Controller	SC5.14
Sensors	HZ: 4 x Pt1000 (integrated), TW: 2 x Pt1000 (integrated), 4 x Pt1000 (enclosed)
FlowRotor (primary)	HZ/TW: 2-130 l/min
Pressure gauge	0 - 6 bars, resistant to high temperatures
Safety valve	HZ: prim. / sec.: 6 bars TW: prim.: 6 bars, sec.: 10 bars

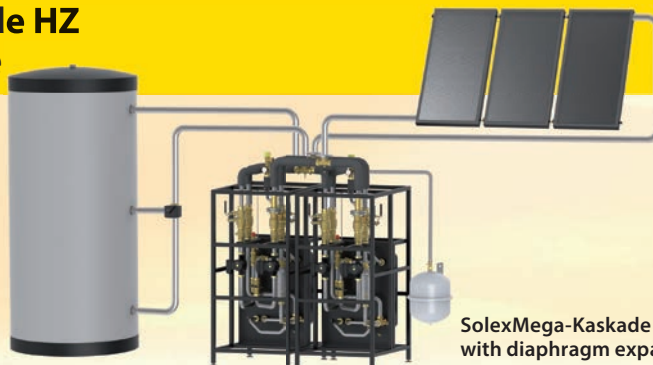
### Dimensions

Nominal diameter	DN 50 (2")
Connections	HZ: prim.: 2" ext. thread / flange DN 50 sec.: 2" ext. thread / flange DN 50 TW: prim.: 2" ext. thread / flange DN 50 sec.: 2" ext. thread / flange DN 50
Width	1,420 mm
Centre distance	158 mm
Height	1,672 mm
Installation length	1,672 mm
Depth	HZ: 920 mm TW: 870 mm

### Materials

Valves and fittings	HZ: Brass HZ: Brass / Bronze
Gaskets	EPDM or AFM34, asbestos-free
Insulation	EPP
Check valves	Brass
Heat exchanger	HZ/TW: Solder: 99.99 % copper HZ: Plates + connecting pieces: 1.4400 TW: Plates + connecting pieces: 1.4401 (AISI 316)

## SolexMega-Kaskade HZ Mounting example



SolexMega-Kaskade HZ  
with diaphragm expansion tank



SolexMega-Kaskade HZ – DN 50 (2")	Item no.
-----------------------------------	----------



prim.: Grundfos UPMXL 25-125, sec.: Grundfos UPML 25-105	6098460
--	---------

Accessories SolexMega-Kaskade HZ	Item no.
----------------------------------	----------



<b>Return distribution set, 2" int. thread</b>	<b>6404244</b>
--	----------------

3-way valve with actuator, setting time for 90°: 35 sec., Kvs value: 40 for FriwaMega-Kaskade, SolexMega-Kaskade HZ

SolexMega-Kaskade TW – DN 50 (2")	Item no.
-----------------------------------	----------



prim.: Grundfos UPMXL 25-125, sec.: Grundfos UPML 25-105 N	6098465
--	---------

Accessories SolexMega-Kaskade TW	Item no.
----------------------------------	----------



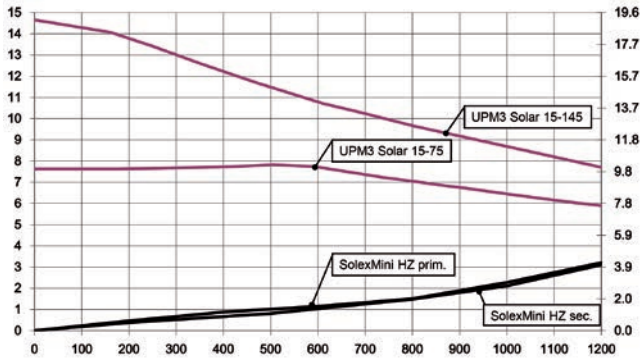
<b>2-way zone valve - DN 25 (1"), suitable for DHW</b>	<b>563551</b>
--	---------------

suitable for DHW, for connecting or disconnecting single storage tanks or flow paths, DN 25, 1" int. thread, setting time for 90°: 12 sec, Kvs value = 60. DVGW, ACS and WRAS certified.

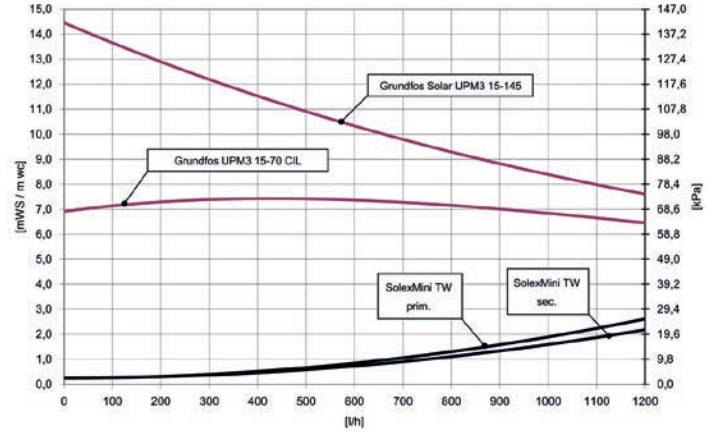




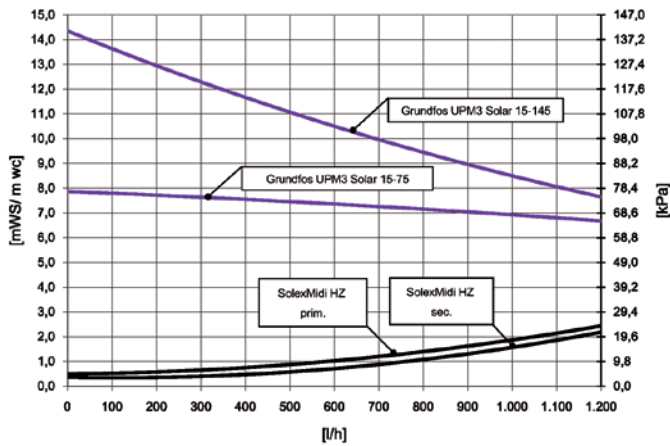
### SolexMini HZ up to 36 m<sup>2</sup> of collector surface



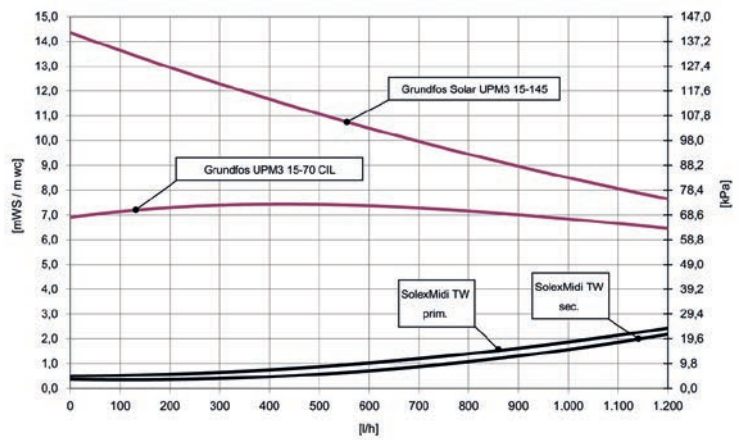
### SolexMini TW up to 36 m<sup>2</sup> of collector surface



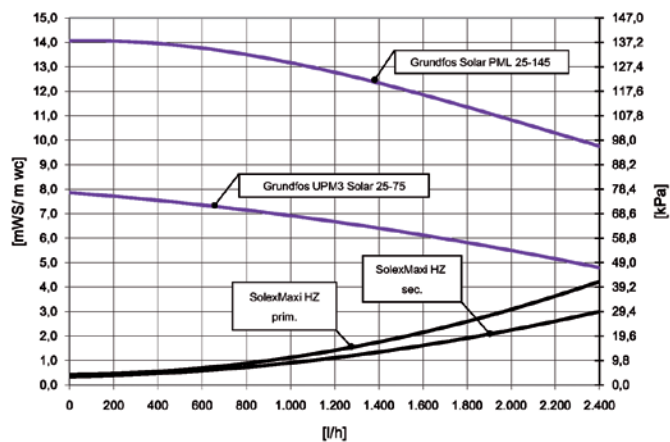
### SolexMidi HZ up to 60 m<sup>2</sup> of collector surface



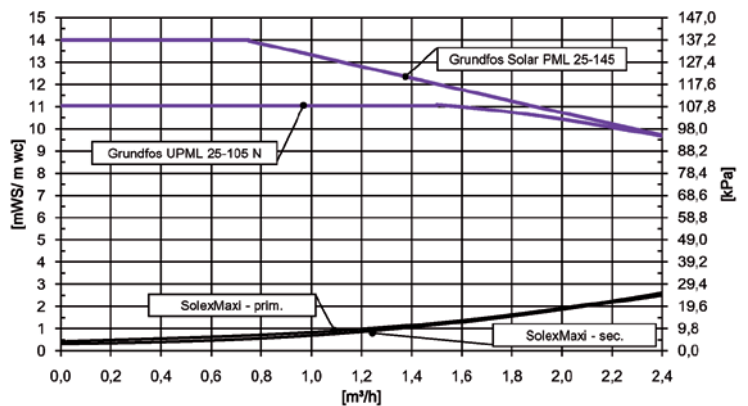
### SolexMidi TW up to 60 m<sup>2</sup> of collector surface



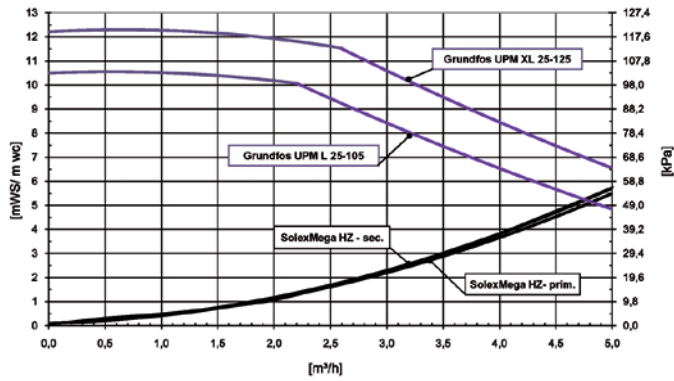
### SolexMaxi HZ up to 100 m<sup>2</sup> of collector surface



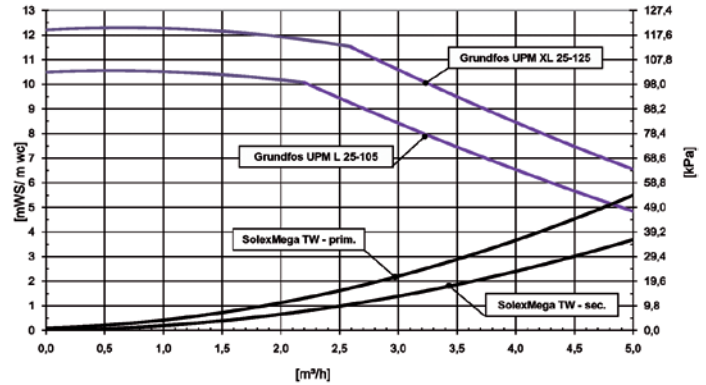
### SolexMaxi TW up to 100 m<sup>2</sup> of collector surface



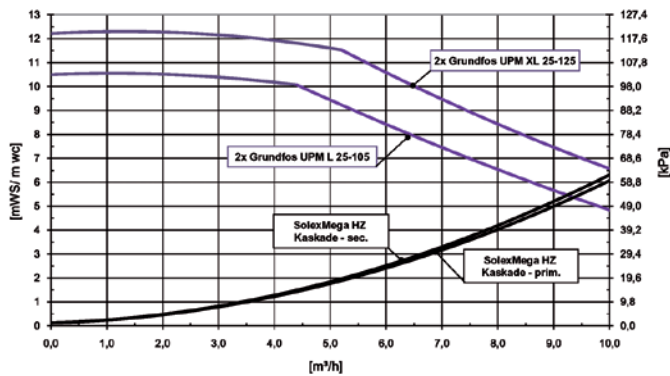
**SolexMega HZ**  
up to 200 m<sup>2</sup> of collector surface



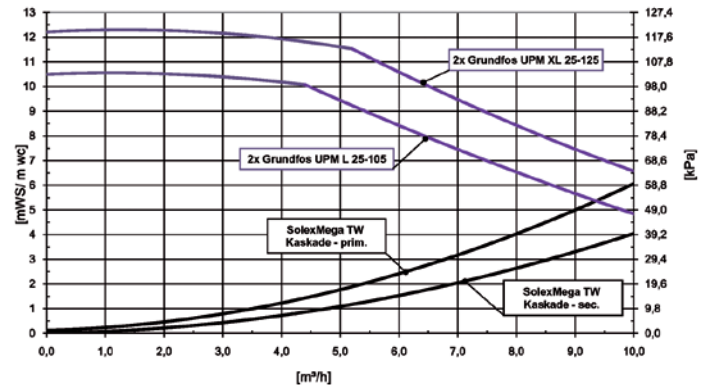
**SolexMega TW**  
up to 200 m<sup>2</sup> of collector surface



**SolexMega-Kaskade HZ**  
up to 400 m<sup>2</sup> of collector surface



**SolexMega-Kaskade TW**  
up to 400 m<sup>2</sup> of collector surface





**PAW GmbH & Co. KG**

Böcklerstraße 11

31789 HAMELN

GERMANY

☎ +49-5151-9856-0

☎ +49-5151-9856-98

@ info@paw.eu

🌐 www.paw.eu



99609xx-fly-en • version: V02 • issued: 2021/09  
Printed in Germany • We reserve the right to make  
technical changes without notice!