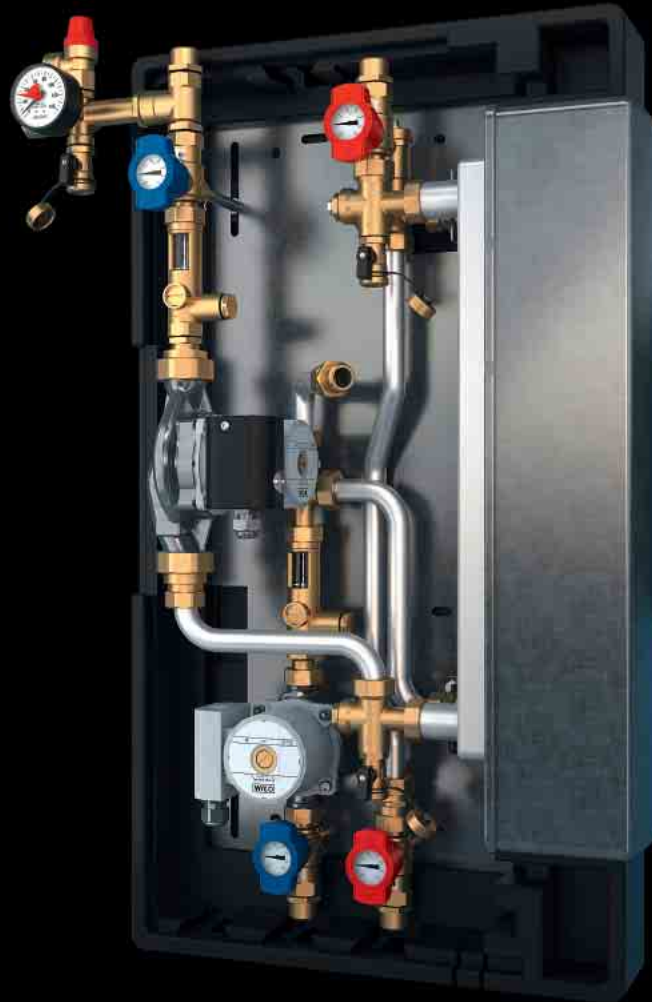


Schüco PS 2.1 LF-50 US and LF-100 US

Large Area Heat Transfer Station



Schüco PS 2.1 LF-50 US and LF-100 US Large Collector Area Heat Transfer Stations

The Schüco PS 2.1 LF-50 and LF-100 Large Collector Area Heat Transfer Station is a compact hydraulic pump group for large solar installations. The compact stations contain an integrated solar heat exchanger and pumps for the solar and buffer circuits.

The two variants of the PS 2.1 large installation transfer station differ depending on the size of the collector field. The variants for low-flow operation (15 l/m²h) are suitable for large solar thermal installations with a collector area of up to 1080 ft² (100 m²).

Key Benefits

- Compact construction for simple and space-saving installation
- Heat exchanger using the reverse flow principle for maximum transfer output
- Thermal insulation sections reduce heat losses
- Frost protection is ensured by means of the control unit – no frost protection valve required
- Different performance classes for collector areas of 540 to 1080 ft² (50 to 100 m²)
- Adapted to Schüco collector configuration

PS 2.1 LF-50 US Large Collector Area Heat Transfer Station

Automatic ventilator, flow secondary

Security unit primary side (pressure gauge, drain valve, pressure relief valve)

Integrated temperature sensing sleeve flow secondary

Flow meter (for volume flow adjustment and function control)

Integrated temperature-sensing sleeve primary

Circulating pump primary

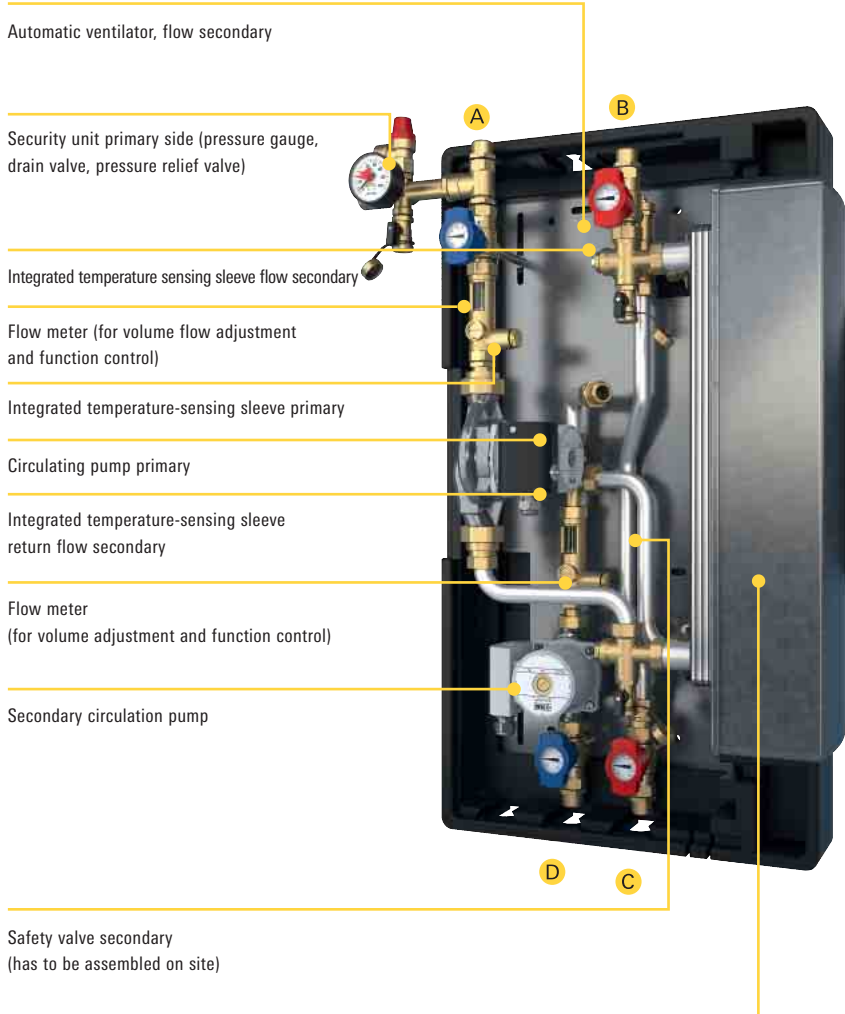
Integrated temperature-sensing sleeve return flow secondary

Flow meter (for volume adjustment and function control)

Secondary circulation pump

Safety valve secondary (has to be assembled on site)

Stainless steel plate heat exchanger



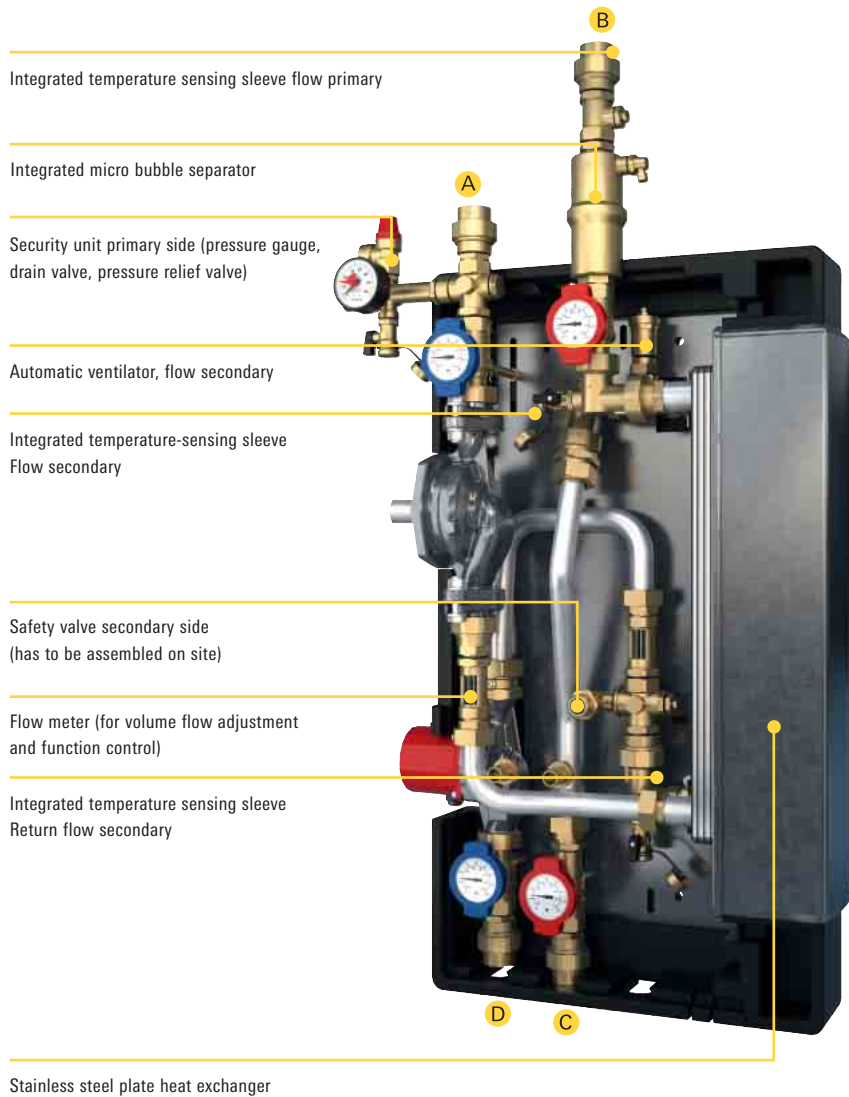
A Primary supply flow to the collectors

B Primary return flow from the collectors

C Secondary supply flow to storage

D Secondary return flow from storage

PS 2.1 LF-100 US Large Collector Area Heat Transfer Station

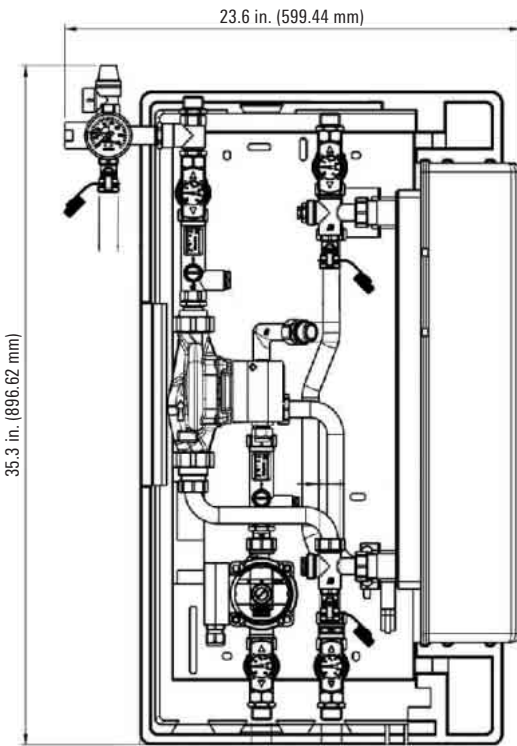


- A Primary supply flow to the collectors**
- B Primary return flow from the collectors**
- C Secondary supply flow to storage**
- D Secondary return flow from storage**

Technical Data for the PS 2.1 LF-50 US and LF-100 US Large Collector Area Heat Transfer Stations

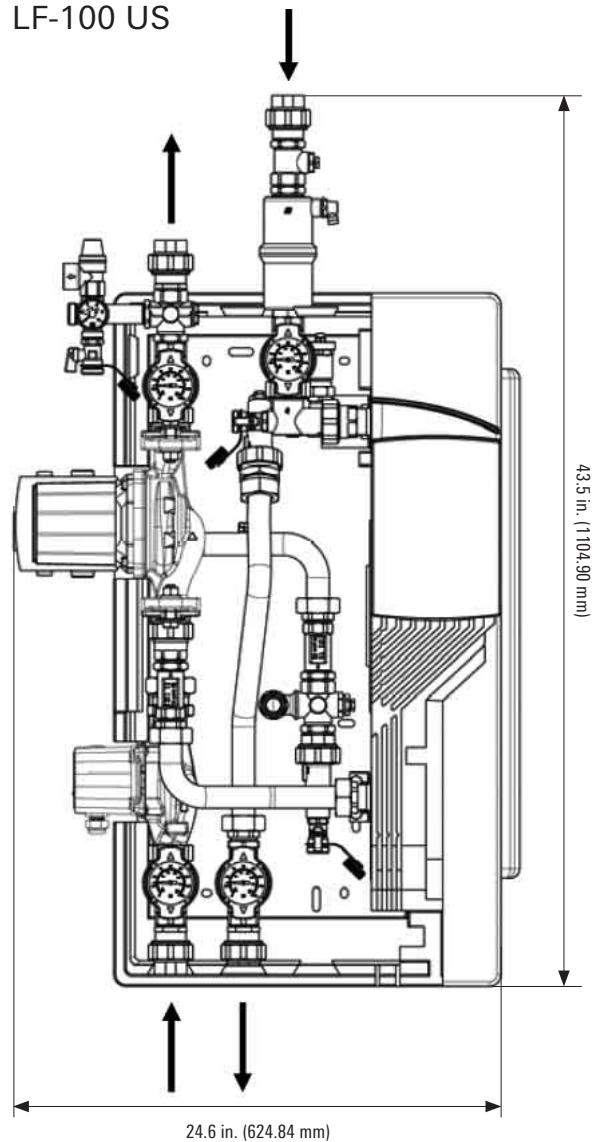
Type	Residual head pressure at maximum flow rate primary/secondary (ft)	Maximum flow rate (US gal / min)	Secondary side minimum cross section with a pipeline length of 38 ft (10 m)	Maximum collector area Aperture area (in ft ²)
PS 2.1 LF-50 US	18.7 / 14.8	3.3	3/4"	540
PS 2.1 LF-100 US	25.9 / 21	8.8	1"	1080

LF-50 US



scale = 1:10

LF-100 US



scale = 1:12

Technical Data

Application area	PS 2.1 LF-50 US	PS 2.1 LF-100 US
Schüco article number	232 325	232 326
Large solar thermal installation (low flow)	■	■
Equipment		
Air separator	External (optional)	Integrated
Changeover valve cylinder flow	External (optional)	External (optional)
Volume flow (adjustable, solar circuit)	With flow check up to 5.28 gpm (20 l/min)	With flow check up to 10.56 gpm (40 l/min)
Volume flow (adjustable, buffer circuit)		
Performance		
Max. absorber surface	540 square foot (50 m ²)	1080 square foot (100 m ²)
Max. volume flow (solar circuit)	3.3 gpm	6.6 gpm
Max. volume flow (buffer circuit)	3.1 gpm	6.2 gpm
Combinable collectors		
Collector hydraulics	Meander collection piping	Meander collection piping
Measurements and weight		
Height (with insulation casing)	33.9 inch (861 mm)	43 inch (1092 mm)
Width (with insulation casing)	19.7 inch (501 mm)	22.1 inch (562 mm)
Depth (insulation sections)	10.1 inch (255 mm)	10.1 inch (255 mm)
Between centers, primary flow/return	7 inch (501 mm)	5.7 inch (145 mm)
Between centers, secondary flow/return	3.5 inch (90 mm)	3.5 inch (88 mm)
Weight	80.46 lbs	108.4 lbs
Pipework		
A - Solar return flow	3/4"	1"
B - Solar flow		
C - Cylinder flow precedence		
D - Cylinder flow subordinate		
E - Cylinder return flow		
F - Expansion vessel	G 3/4	G 3/4
Unit spacing A-B	7.1 inch (180 mm)	5.7 inch (145 mm)
Unit spacing C-D-E	3.54 inch (90 mm)	3.46 inch (88 mm)
Temperature and pressure		
Thermometer	32 – 248 °F (0 – 120 °C)	32 – 248 °F (0 – 120 °C)
Manometer	0 – 145 psi (0 – 10 bar)	0 – 145 psi (0 – 10 bar)
Safety valve SOL	87 psi (6 bar)	87 psi (6 bar)
Heat exchanger type	External flat plate	
Material	Copper brazed/ stainless steel	

■ Series / – not available

Schüco - Your Partner for Windows and Solar Products

As a leading innovator in system-based construction, Schüco supplies components for the entire building envelope, including software solutions for planning, design, calculation, and fabrication.



- Aluminum systems
- Steel systems
- PVC-U systems
- Solar systems
- Schüco Design

Transfer Stations for All Large Solar Installations

The Schüco large installation transfer station is a compact hydraulic pump group for large solar installations. The type 2.1 solar transfer stations are built to a compact design with integrated

heat exchangers and pumps for the solar and buffer circuits. Type 2.1 stations are of modular construction for greater flexibility using a layout with two pump units and one heat exchanger.

Schüco USA L.P.
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