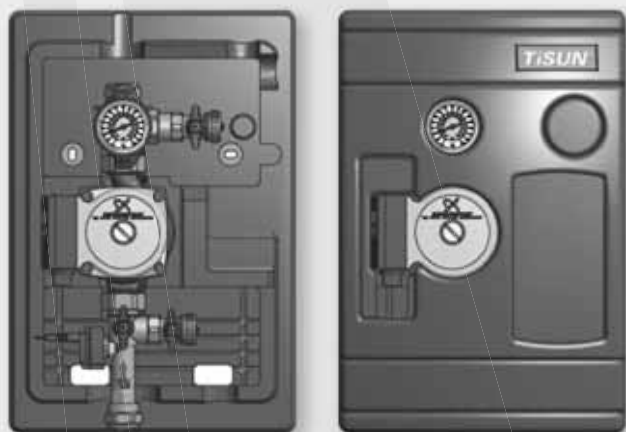


SOLAR STATIONS

SOLAR STATION EXPANSION MODULE SES25/SES50/SESH50



Solar station expansion module SES25 with pump 15-60 and VFS sensor (max. 25 m² collector surface area)

Solar station expansion module SES50 with pump 15-70 and VFS sensor (max. 50 m² collector surface area)

Solar station expansion module SESH50 with high efficiency pump PM 15-85 and VFS sensor (max. 50 m² collector surface area)

Single-line expansion module (return flow system) for East-West systems or additional tanks, consisting of Grundfos Solar circulation pump, measuring section with integrated VFS flow and temperature sensor, multi-functional isolation valve with thermometer and integrated metal gravity brake (adjustable by 45° setting of thermometer control), filling and flushing connections with KFE valve, connection points with solar flat seals, wall mount, solar connections with compression fittings, EPP heat insulation jacket.

Specifications solar station SES25/SES50/SESH50

Illustration Item no.	Item no./type	1510425 / SES25 1510426 / SES50	Single-line solar station with pump, flow and temperature sensor
		1510428 / SESH50	Single-line solar station with high-efficiency solar pump, flow and temperature sensor
1	Solar circulation pump	SES25 SES50 SESH50	Grundfos Solar 15-60/G 1 x 130 mm Grundfos Solar 15-70/G 1 x 130 mm Grundfos Solar PM 15-85/G 1 x 130 mm
2	Pump cable	Pump cable with Molex plug (H03V2V2)	
3	Collector connection	KVSR 22 mm (nut M28 x 1.5/compression ring 22 mm)	
4	Tank connection	KVSR 22 mm (nut M28 x 1.5/compression ring 22 mm)	
5	Support sleeve set	2 pcs.	For Cu pipe 22 x 1 mm
6	Filling and flushing connections	Safety group	G 3/4" with sealing cap and solar KFE valve 1/2"
		Measuring section sensor	G 3/4" with sealing cap and solar KFE valve 1/2"
7	Bracket for wall and tank mounting	Wall mounting	2 slot holes with 150 mm centres, for M6 screws
8	Retaining clip	Spring steel 2 mm (for fixing forward and return flow to mounting)	
9	Fixing material	For wall mounting	2 pcs. plastic anchors 8 x 40 mm
			2 pcs. chipboard screws 6 x 50 (pan-head)

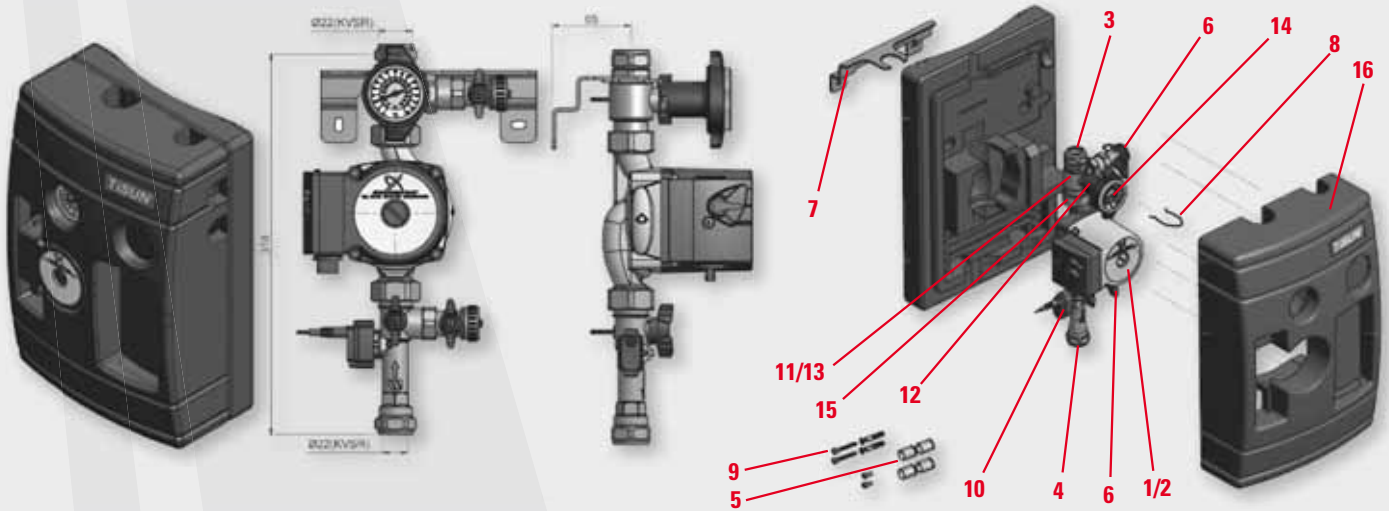
SOLAR STATION EXPANSION MODULE SES25/SES50/SESH50

10	Flow and temperature sensor with measuring section (instead of flow meter)	Type	SES25	VFS 1-12 sensor
			SES50	VFS 2-40 sensor
			SESH50	VFS 2-40 sensor
		Measuring section material	Brass, Grivory, PPS	
		Seal material	EPDM	
		Nominal size	SES25	DN 15
			SES50	DN 20
			SESH50	DN 20
		Flow measuring range	SES25	1–12 litres/min
			SES50	2–40 litres/min
SESH50	2–40 litres/min			
Temperature measuring range	SES25	0 °C–100 °C		
	SES50	0 °C–100 °C		
	SESH50	0 °C–100 °C		
Output voltage	SES25	0.5–3.5 V (proportional to 1–12 litres/min/0 °C–100 °C)		
	SES50 SESH50	0.5–3.5 V (proportional to 2–40 litres/min/0 °C–100 °C)		
Max. pressure	10 bar (15 bar short-term)			
Temp. min/max	-25 °C/120 °C			
Voltage supply	5 VDC			
Upper connection	G1" flat sealing			
Lower connection	KVSR 22 mm/M28 x 1.5			
Installation height	86 mm			
11	Multi-functional return valve group	Multi-functional valve group with ball valve, gravity brake and thermo control, connection at right for safety group		
		Ball valve	22 mm	
12	Thermo control	Connections	Solar: 22 mm KVSR	
			Pump: 1" flat sealing	
13	Gravity brake		3/4" flat sealing, with dummy plug (for safety group, expansion tank, ...)	
		Operating element	Thermo control blue L = 52R, operates ball valve and gravity brake	
		Return	Installed in multi-functional return ball valve	
		Material	Brass	
		Seal	O-ring 70 EPDM 291	
14	Solar dial thermometer	Opening pressure	2 x 200 mm WC (by means of metal spring)	
		Adjustable	by 45° setting of thermo control	
		Max.temp.	180 °C	
15	Pump flat seals	Return	Installed in return thermo control	
		Scale	0–160 °C in 2 °C divisions	
		Diameter	50 mm	
		Length	52 mm	
		Return colour	Silver RAL 9006	
16	Insulation	Size	30 x 22 x 2 - 1"	
		Material	AFM 34 light grey	
		Continuous temperature	Liquid 250 °C, vapour 200 °C	
		Short-term peak temp.	400 °C	
16	Insulation	Material	EPP	
		Thermal conductivity (λ)	0.041 W/(mK)	
		Max.temp	120 °C	
		Short-term temp.	150 °C	
		Height	400	
		Width	320 mm	
		Depth	175 mm	
		Individual parts	1 pc.	Lower shell
	1 pc.	Upper shell	400 x 250 x 130	

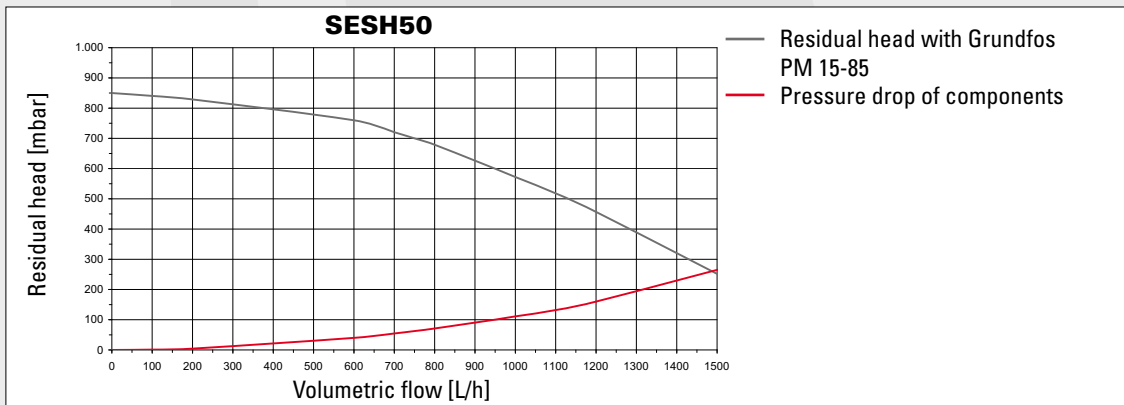
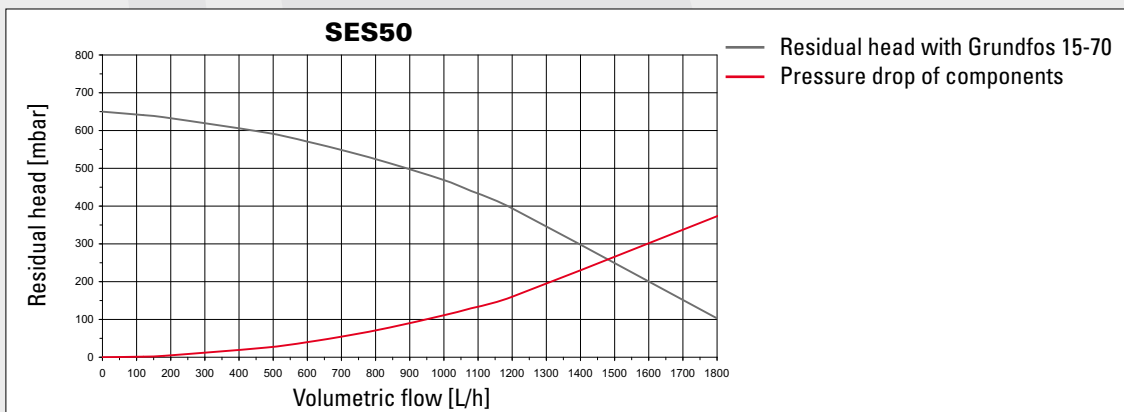
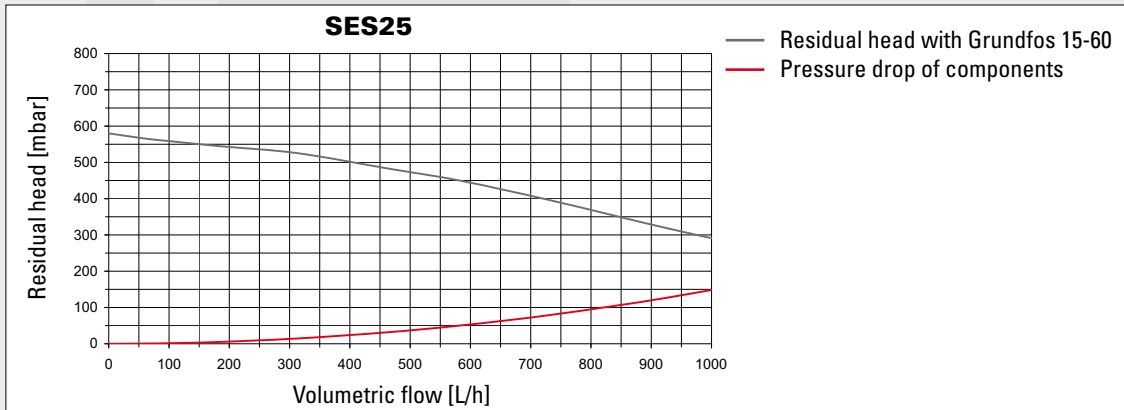
SOLAR STATIONS

SOLAR STATION EXPANSION MODULE SES25/SES50/SESH50

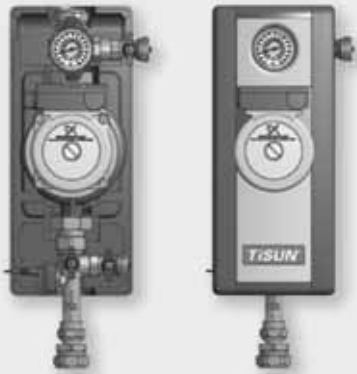
Illustrations solar station SES25/SES50/SESH50



SES25/SES50/Pressure drop and residual head solarstation SESH50



SOLAR STATION SES100



Solar station expansion module SES100 with 25-120 pump and VFS sensor (max. 100 m² collector surface area)

Solar station expansion modules for SSR and SSRH:

Single-line expansion module (return group) for East-West systems or additional tanks, consisting of Grundfos Solar circulation pump, measuring section with integrated VFS flow and temperature sensor, multi-functional isolation valve with thermometer and integrated metal gravity brake (adjustable by 45° setting of thermometer control), filling and flushing connections with KFE valve, connection points with solar flat seals, wall bracket, solar connections with compression fittings, EPP heat insulation jacket.

Note: Order accessories, connection sets for solar expansion tank separately.

Specifications solar station SES100

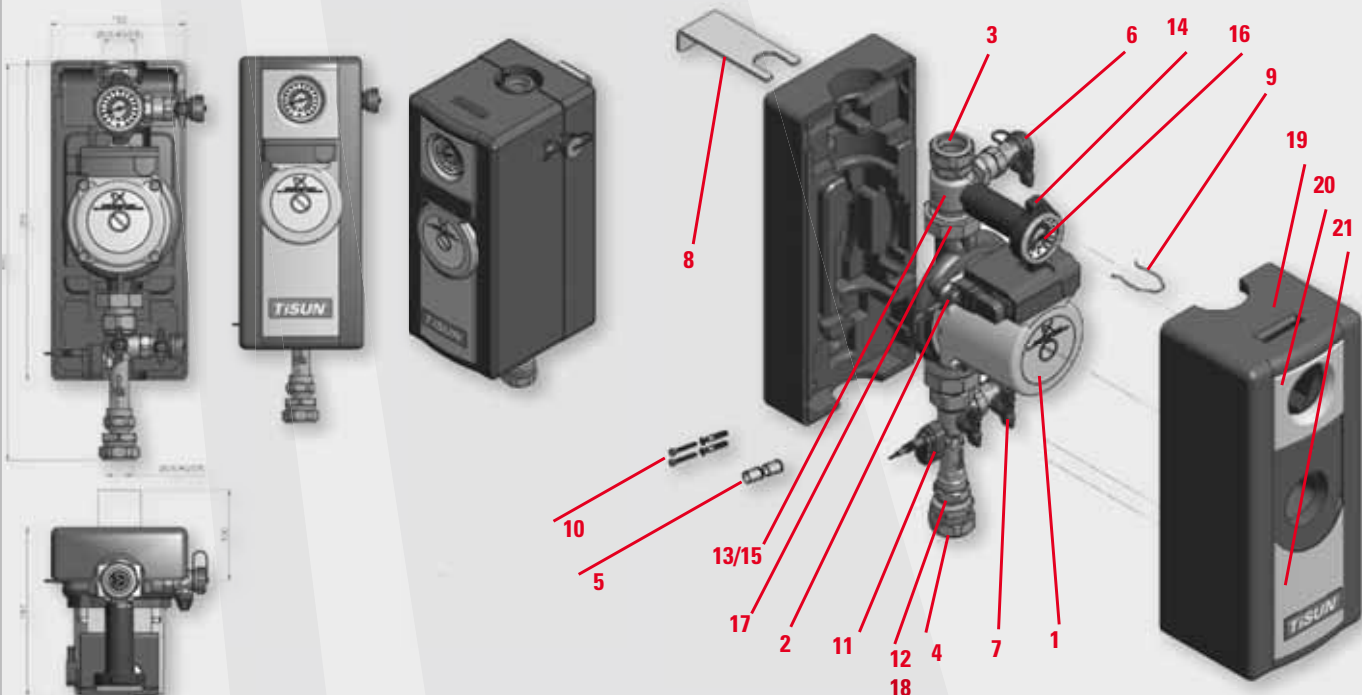
Illustration Item no.	Item no./type	1510427/SES100	Single-line solar station with pump, flow and temperature sensor
1	Solar circulation pump	Grundfos Solar 25-120/G1 1/2" x 180 mm	
	Pump cable	Pump cable with Molex plug (H03V2V2)	
3	Collector connection	KVSR 28 mm (nut M36 x 1.5/compression ring 28 mm)	
4	Tank connection	KVSR 28 mm (nut M36 x 1.5/compression ring 28 mm)	
5	Support sleeve set	2 pcs.	For Cu pipe 28 x 1.5 mm
6/7	Filling and flushing connections	Safety group	G3/4" with sealing cap and solar KFE valve 1/2"
		Measuring section sensor	G3/4" with sealing cap and solar KFE valve 1/2"
8	Bracket for wall mounting	2 slot holes with 125 mm centres, for M6 screws	
9	Retaining clip	Spring wire 2 mm	
10	Fixing material	For wall mounting:	2 pcs. Plastic anchors 8 x 40 mm
			2 pcs. Chipboard screws 6 x 60 mm (pan-head)
11	Flow and temperature sensor with measuring section (instead of flow meter)	Type	VFS 2-40 sensor
		Measuring section material	Brass, Grivory, PPS
		Seal material	EPDM
		Nominal size	DN 25
		Flow measuring range	2–40 litres/min
		Temperature measuring range	0 °C–100 °C
		Output voltage	0.5–3.5 V (proportional to 2-40 litres/min/0 °C -100 °C)
		Max. pressure	10 bar (15 bar short term)
		Voltage supply	5 VDC
		Temp. min/max	-25 °C/120 °C
		Upper connection	G1" flat sealing
Lower connection	KVSR 28 mm/M36 x 1.5		
Installation height	86 mm		
12	Reducer	Reducer sleeve	1 1/2" female x 1" male
		Reducer	Reducer M36 x 1.5 male x d22 (KVSR)
		Nut for reducer	1 1/2" x 16 mm
13	Multi-functional return valve group	Multi-functional valve group with ball valve, gravity brake and thermo control, connection at right for safety group	
		Ball valve	28 mm Solar: KVSR 28 mm/M36 x 1.5 Pump: 1 1/2" flat sealing
		Connections	3/4" flat sealing, with dummy plug (for safety group, expansion tank, ...)
14	Thermo control	Operating element	Thermo control blue L = 92R, operates ball valve and gravity brake

SOLAR STATIONS

SOLAR STATION SES100

15	Gravity brake	Return Material Seal Opening pressure Adjustable Max.temp.	Installed in multi-functional return ball valve Brass O-ring 70 EPDM 291 2 x 200 mm WC (by means of metal spring) by 45° setting of thermo control 180 °C
16	Solar dial thermometer	Return Scale Diameter Length Forward flow colour Return colour	Installed in return thermo control 0–160 °C in 2 °C divisions 51 mm 90 mm Silver RAL 9006 Silver RAL 9006
17	Pump flat seals	Size Material Continuous temperature Short-term peak temp.	44.5 x 33 x 2 - 1 1/2" AFM 34 light grey Liquid 250 °C, vapour 200 °C 400 °C
18	Measuring section reducer flat seal	Size Material Continuous temperature Short-term peak temp.	30 x 22 x 2 - 1" AFM 34 light grey Liquid 250 °C, vapour 200 °C 400 °C
19	Insulation	Material Thermal conductivity (λ) Max.temp Short-term temp. Height Width Depth Individual parts	EPP 0.041 W/(mK) 120 °C 150 °C 355 mm 150 mm 187 mm 1 pc. Lower shell 150 x 355 x 59 1 pc. Upper shell 150 x 355 x 128
20	Cover	Top cover	Silver
21		Bottom cover	Silver with TiSUN logo

Illustrations solar station SES100



SOLAR STATION SES100

Pressure drop and residual head solarstation

