

GSE FLUSSO SOLAR STATION WITH OVERHEATING PROTECTION



An innovative product that ensures proper solar system operation while protecting the entire installation from overheating damage through an advanced automated controller. It offers flexibility during installation, saving space in engine rooms or on rooftops.

Additionally, this system is suitable for converting existing hydraulic systems to centralized ones, significantly improving energy efficiency.

System operation can be fully automated through an optimized PLC, providing real-time temperature control and visual display via either a touch screen or a PC.

This product is ideally combined with the GSE FLUSSO Horizontal Storage Tank.



AVAILABLE MODELS

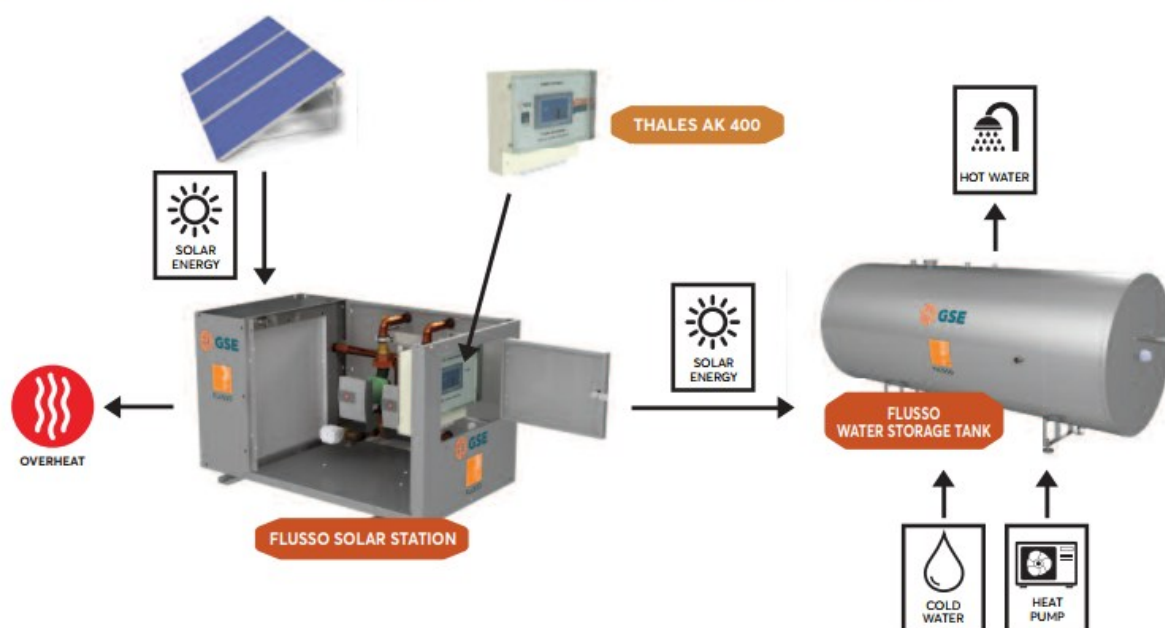
MODELS	GSE FLUSSO SOLAR STATION		
	SC 12.1 INOX	12.2 INOX	12.3 INOX
Energy flow rate (m ³ /h)	1	2	4
Nominal Heat ejection Capacity (kW)*	4	7	12
Fan diameter	Φ300	Φ300	Φ350
Fan Flow Rate (m ³ /h)	1000	1500	2000
Length (mm)	960	960	960
Width (mm)	550	550	550
Height (mm)	570	570	570
Weight (kg)	90	98	103
*(Ambient temperature : 42 °C, Solar panel Temperature: 75-70 °C)			

TECHNICAL SPECIFICATIONS FOR GSE FLUSSO SOLAR STATION	
Casing Material	Stainless Steel 304
Cooling Element Material	Copper with Aluminum Fins
Cooling Element Welding Type	Automated Robotic Welding
Cooling Element Protection	Anti-Scale Protection
Nominal Operating pressure	3 bar
Maximum Operating Pressure	6 bar
Nominal Operating Temperature	90°C
Maximum Operating Temperature	100°C
Solar Field Circulator	Wilo / Grundfos PWM
Recirculation Pump	Optional
Fan Operating Voltage	230V
Three-way Valve for overheating Control	Siemens 24V
Automation Control System	Control panel THALES AK400 with 4.3" Touch Screen

FEATURES

FEATURE	BENEFIT
Innovative control	• <i>High energy efficiency</i> • <i>Complete utilization of solar energy</i> • <i>Reduction in the use of auxiliary energy sources</i>
Integrated system for the disposal of excess solar energy	• <i>Overheating protection for the entire installation</i>
Conversion of existing autonomous solar hot water systems into a centralized system	• <i>Converting small and medium-sized rooftop solar setups into centralized systems with the addition of just one solar station.</i>
Pre-assembled, compact design	• <i>Ideal for rooftop installation</i> • <i>Easy and fast setup</i> • <i>Low visual disturbance</i>
Enclosure for the circulators	• <i>Weather-resistant housing for circulators</i>
Ergonomic design	• Easy to connect and install • Low visual disturbance

CONNECTION DIAGRAM



AUTOMATION FUNCTIONS* - THALES AK400

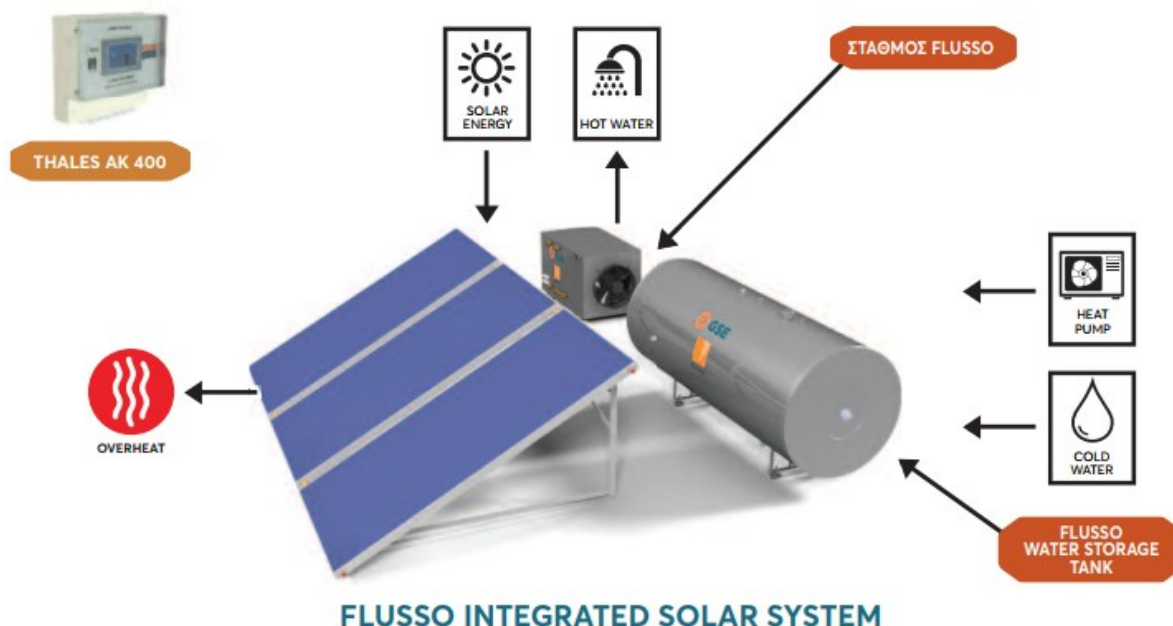


FUNCTION	Preset	Option
Control and operation via an integrated 4.3" touch screen	✓	
Real-time system functionality display	✓	
Solar field control with variable speed water pump (PWM/0-10V)	✓	
Solar field overheating control (set point 1) with dry cooler and three-way motorized valve	✓	
Heat pump or boiler control (Remote on/off with scheduling, set point 2 for tank temperature control)	✓	
Electric resistance control, up to 3kW (integrated contactor with scheduling, set point 3 for tank temperature control)	✓	
Recirculation control (on/off)	✓	
Variable speed water pump control (PWM/0-10V) for energy transfer		✓
Future firmware upgrades		✓

* Details about the automatic control systems are provided in the corresponding THALES brochure.

OUTSTANDING APPLICATIONS

CONNECTION DIAGRAM



The above diagram presents an application example of the GSE FLUSSO SOLAR STATION with solar collectors and the stainless-steel storage tank GSE FLUSSO BL HOR.

Indicative combinations:

INDICATIVE SYSTEMS	GSE FLUSSO INTEGRATED SOLAR SYSTEM				
	400 INOX/SS	600 INOX/SS	800 INOX/SS	1200 INOX/SS	1800 INOX/SS
BUFFER TANK(S)	GSE FLUSSO BL HOR 400	GSE FLUSSO BL HOR 600	2x GSE FLUSSO BF HOR 400	2 X GSE FLUSSO BF HOR 600	3X GSE FLUSSO BF HOR 600
Solar Panels Area (m²)	7.5	10.0	15.0	20.0	30
Number of Solar Collectors	3	4	6	8	12
Flow rate (solar panels) (m³/h)	1	1	2	2	4
Useful Volume (lt)	392	550	859	1100	1650
GSE FLUSSO Solar Station in Use	GSE FLUSSO SOLAR STATION SC 12.1		GSE FLUSSO SOLAR STATION SC 12.2		GSE FLUSSO SOLAR STATION SC 12.3

Flexible combinations of these systems allow for the coverage of DHW installations of any size, customized to meet specific requirements.