

SOLAR SYSTEMS

EN - flyer 03/s/2021



KSG type
solar collectors



AIT
AUSTRIAN INSTITUTE
OF TECHNOLOGY



BAFA
Bundesamt
für Wirtschaft
und Ausfuhrkontrolle

FLAT SOLAR COLLECTORS: COPPER (CU) AND ALUMINIUM (AL) TYPE KSG

- ▶ Flat solar collector ready to be installed directly on the roof (flat or pitched) or on any base by using a frame construction.
- ▶ High optical efficiency at 82,9% (80,7% for collectors with 2,7 m² gross surface area) confirmed by the "Solar Keymark" certificate.
- ▶ Ability to obtain grants in Germany - included on the BAFA list.
- ▶ High sunlight absorption at 95%.
- ▶ Up to 60% in annual savings in energy costs for heating DHW.
- ▶ Extremely high sunlight permeability thanks to the prismatic tempered glass with anti-reflective coating (copper collectors only).
- ▶ Insulation of the highest quality - with pressed solar wool at the bottom part of the solar collector.
- ▶ Patented double-wall profile ensures side insulation, as well as increases the rigidity of the collector's structure.
- ▶ Thanks to the materials of the highest durability, the KSG collectors have a very long service life, which is further confirmed by the 10 year warranty.
- ▶ Easy installation and intuitive controls.

specification	unit	KSG21 Premium GT	KSG27 Premium GT	KSG21 GT	KSG27 GT
catalogue number	–	08-102102	08-102702	08-102112	08-102712
type of collector	–	flat		flat	
collector gross surface area	m ²	2,1	2,7	2,1	2,7
aperture area (active area)	m ²	1,94	2,57	1,94	2,57
glass	–	anti-reflective prismatic		prismatic	
optical efficiency	%	82,9	79,5	82,9	80,7
heat loss coefficient	a1/a2	3,800/0,012	4,883/0,009	3,808/0,015	3,695/0,016
absorption efficiency	%	95	95	95	95
absorbing layer	–	highly selective		highly selective	
absorber material	–	copper		aluminium	
absorber piping material	–	copper pipe		aluminium pipe	
absorber piping system	–	double harp		double harp	
welding technology	–	ultrasound		ultrasound	
number of risers	pcs.	12	16	12	16
header cross-section / lateral pipe cross-section	mm	22/8	22/8	22/8	22/8
maximum working pressure	MPa	0,6	0,6	0,6	0,6
liquid capacity	l	1,6	2,1	1,6	2,1
stagnation temperature	°C	201	201	182	182
insulation	–	mineral wool		mineral wool	
housing	–	aluminium profile		aluminium profile	
length	mm	2033	2033	2033	2033
width	mm	1033	1354	1033	1354
height	mm	83	83	83	83
net weight	kg	37,5	46,5	31,8	41,5

* Details in the warranty card.

COMPLETE SOLAR SYSTEMS WITH **COPPER** SOLAR COLLECTORS AND AN INDIRECT WATER HEATER FOR DHW



The **PRIME** solar system includes:

3 flat solar collectors KSG21 Premium GT with connection kit

- ▶ completely copper absorber
- ▶ anti-reflective prismatic glass resistant to hail
- ▶ high optical efficiency - 82,9%
- ▶ Solar Keymark certificate issued by the Austrian Institute of Technology

SGW(S)B Tower Biwal 300 I indirect water heater

- ▶ highest possible energy efficiency class - A
- ▶ polyurethane insulation
- ▶ maintenance-free, active titanium anode
- ▶ Dielectric Protection® that prevents corrosion of the hydraulic connections

Electronic, two-way pump group with air separator

- ▶ high performance
- ▶ low power consumption

Control module

- ▶ optimal protection thanks to electronic measurement of corrosion current (supports titanium anode)
- ▶ integrated operating hours counter
- ▶ intelligent control of the solar layouts
- ▶ PWM signal control of the solar pump
- ▶ intuitive interface

Double, corrugated solar tube made of stainless steel

- ▶ high thermal resistance - up to +220°C
- ▶ low heat losses thanks to the polyester fiber insulation
- ▶ TUV certificate from Stuttgart
- ▶ cables included

Glycol dedicated to copper installations - 40 l

Diaphragm vessel of a capacity of 24 l with connection set

PRIME	
▶	Perfect for 3-5 people ¹
▶	3 flat solar collectors KSG21 Premium GT
▶	6,3 m ² of gross surface area
▶	5,8 m ² of aperture (active) area.

cat. no.	model
08-942133	solar system with indirect water heater 300 l - artificial leather (gray)
08-220302	installation kit for pitched roofs covered with tiles
08-220312	installation kit for pitched roofs covered with steel sheets, heat-weldable roofing membrane or shingles
08-220301	installation kit for a flat roof

¹ According to average consumption of domestic hot water.

COMPLETE SOLAR SYSTEMS WITH **COPPER** SOLAR COLLECTORS AND AN INDIRECT WATER HEATER FOR DHW



SGW(S)B
Tower Biwal 200 I

2 solar collectors
KSG21 Premium GT

cat. no.	model
08-942012	solar system with indirect water heater 200 l - artificial leather (gray)
08-942017	solar system with indirect water heater 200 l - plastic jacket (white)
08-220202	installation kit for pitched roofs covered with tiles
08-220212	installation kit for pitched roofs covered with steel sheets, heat-weldable roofing membrane or shingles
08-220201	installation kit for a flat roof

PREMIUM STANDARD

- ▶ Perfect for 2-3 people.¹
- ▶ 2 flat solar collectors KSG21 Premium GT.
- ▶ SGW(S)B Tower Biwal, a bivalent indirect water heater with 200 l tank.
- ▶ 4,2 m² of gross surface area.
- ▶ 3,9 m² of aperture (active) area.
- ▶ Primary group Cu included.

cat. no.	model
08-942033	solar system with indirect water heater 300 l - artificial leather (gray)
08-942038	solar system with indirect water heater 300 l - plastic jacket (white)
08-220302	installation kit for pitched roofs covered with tiles
08-220312	installation kit for pitched roofs covered with steel sheets, heat-weldable roofing membrane or shingles
08-220301	installation kit for a flat roof

PREMIUM PLUS

- ▶ Perfect for 3-5 people.¹
- ▶ 3 flat solar collectors KSG21 Premium GT.
- ▶ SGW(S)B Tower Biwal, a bivalent indirect water heater with 300 l tank.
- ▶ 6,3 m² of gross surface area.
- ▶ 5,8 m² of aperture (active) area.
- ▶ Primary group Cu included.



The **Cu** primary group includes:



20 l glycol container



collectors' connection kit



electronic, two-way pump group with air separator



diaphragm vessel



diaphragm vessel installation kit



STDC control module

¹ According to average consumption of domestic hot water.

COMPLETE SOLAR SYSTEMS WITH **ALUMINIUM** SOLAR COLLECTORS AND AN INDIRECT WATER HEATER FOR DHW

SGW(S)B
Tower Biwal 200 I

2 solar collectors
KSG21 GT

cat. no.	model
08-952012	solar system with indirect water heater 200 l - artificial leather (gray)
08-952017	solar system with indirect water heater 200 l - plastic jacket (white)
08-220202	installation kit for pitched roofs covered with tiles
08-220212	installation kit for pitched roofs covered with steel sheets, heat-weldable roofing membrane or shingles
08-220201	installation kit for a flat roof

PREMIUM STANDARD AL

- ▶ Perfect for 2-3 people.¹
- ▶ 2 flat solar collectors KSG21 GT.
- ▶ SGW(S)B Tower Biwal, a bivalent indirect water heater with 200 l tank.
- ▶ 4,2 m² of gross surface area.
- ▶ 3,9 m² of aperture (active) area.
- ▶ Primary group Al included.

cat. no.	model
08-952033	solar system with indirect water heater 300 l - artificial leather (gray)
08-952038	solar system with indirect water heater 300 l - plastic jacket (white)
08-220302	installation kit for pitched roofs covered with tiles
08-220312	installation kit for pitched roofs covered with steel sheets, heat-weldable roofing membrane or shingles
08-220301	installation kit for a flat roof

PREMIUM PLUS AL

- ▶ Perfect for 3-5 people.¹
- ▶ 3 flat solar collectors KSG21 GT.
- ▶ SGW(S)B Tower Biwal, a bivalent indirect water heater with 300 l tank.
- ▶ 6,3 m² of gross surface area.
- ▶ 5,8 m² of aperture (active) area.
- ▶ Primary group Al included.

The **Al** primary group includes:

20 l glycol container

chrome collectors' connection kit

electronic, one-way pump group

diaphragm vessel

diaphragm vessel installation kit

STDC control module

¹ According to average consumption of domestic hot water.

HANOVER SOLAR PHOTOVOLTAIC MODULES

The task of the photovoltaic module (PV) is the conversion of solar energy into electrical energy in the form of direct current. In Galmet's offer you will find a modern, polycrystalline module from Hanover Solar - HS260P-30 with a power of 260 Wp.

Advantages of Hanover Solar photovoltaic modules:

- ▶ High resistance to static load (5400 Pa, IEC 61730).
- ▶ Module's glass is resistant to dirt and sediment.
- ▶ Structural integrity even in an event of extreme hail (100 hits of 4 cm ice balls at a speed of 98 km/h).
- ▶ Tight frame guarantees water resistance (IP67 class).
- ▶ Temperature resistance up to 220°C (IEC 61730-2).
- ▶ 10-year warranty.

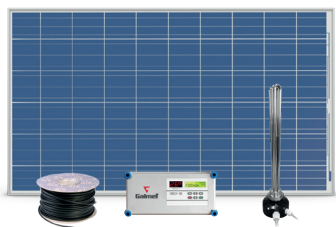


Technical specification of the PV module

specification	unit	HS260P-30 module
number of cells	pcs.	60
dimensions	mm	1650 x 992 x 40
glass	–	hardened, hail resistant
junction box	–	IP67
weight	kg	19,5
electrical data (STC: AM=1,5; E=1000/m ² ; TC=25 °C)		
peak power	W	260
efficiency	%	15,7
the voltage at the MPP point	V	31,0
current at the MPP point	A	8,40
open circuit voltage	V	37,8
short-circuit current	A	8,85
fuses	A	20
maximum DC system voltage	V	1000
temperature coefficients (STC: AM=1,5; E=1000/m ² ; TC=25 °C)		
power (P)	% / °C	-0,43
voltage (Voc)	%	-0,32
current (Isc)	%	0,05



You will find **ON-GRID** (connected to the power grid) and **OFF-GRID** (not connected to the power grid) photovoltaic sets in our offer. To select a perfect PV set for your home, please consult our specialists at export@galmet.com.pl or visit your nearby Galmet distributor.



It is possible to configure the PV modules into an **autonomic sets** designed for domestic hot water heating.

The benefits of such solution include:

- ▶ No need to connect the system to the power grid.
- ▶ Simple installation - a special water heater is powered directly from the PV module.
- ▶ Wide operating range of the radiation intensity.
- ▶ 10-year warranty.

* Details in the warranty card.

GALMET'S COMPLETE HYBRID SYSTEMS

By purchasing all of the devices for your house's heating system from a single manufacturer, you can be sure that your investment will be optimally configured and tailored directly for your individual needs. Moreover, by doing so you get:

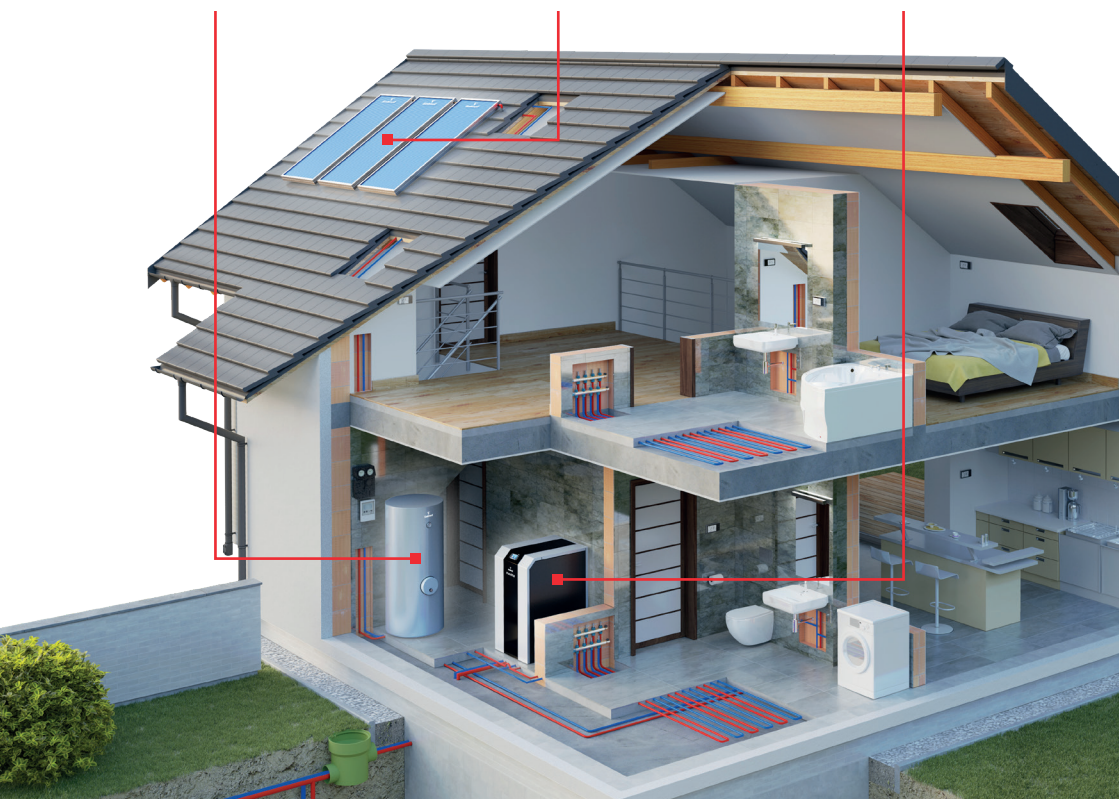
- ▶ Single controller for the whole system.
- ▶ Single manufacturer, installer and service.
- ▶ Discount price compared to buying the devices alone.
- ▶ Our advisors' help in selecting the right devices for your needs.
- ▶ Assistance in finding a local contractor.
- ▶ Hybrid systems that use renewable energy sources are eligible for subsidy.
- ▶ Better quality of the natural environment you live in.



 **Galmef**
water heater

 **Galmef**
solar collectors

 **Galmef**
heat pump



EXEMPLARY SCHEME OF **GALMET'S** HYBRID HEATING SYSTEM

Hybrid system

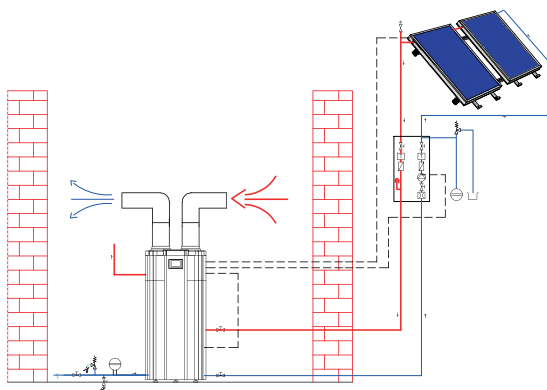
α - alfa

Design assumptions:

- ▶ For domestic hot water heating
- ▶ Number of people: 2-4

The system includes:

- ▶ 2 flat solar collectors KSG 21 Premium GT with equipment
- ▶ Heat pump - Spectra 200



The proposed installation project is only an exemplary solution and is designed to comply with existing standards and norms. Please note that each investment should be consulted beforehand with a designer and adapted to existing conditions and requirements of a specific installation.

Devices included in the hybrid systems are not eligible to standard discounts and may not be separated for further resale.

Our offer includes over 20 **HYBRID HEATING SYSTEMS**.

We are confident that you will find a perfect system for your house. Complete offer in catalogues and on our website.



„Galmet Sp. z o.o.” Sp. K.
PL 48-100 Głubczyce, Raciborska 36
export dept.: +48 77 403 45 80
e-mail: export@galmet.com.pl
fax: +48 77 403 45 99

Distributor