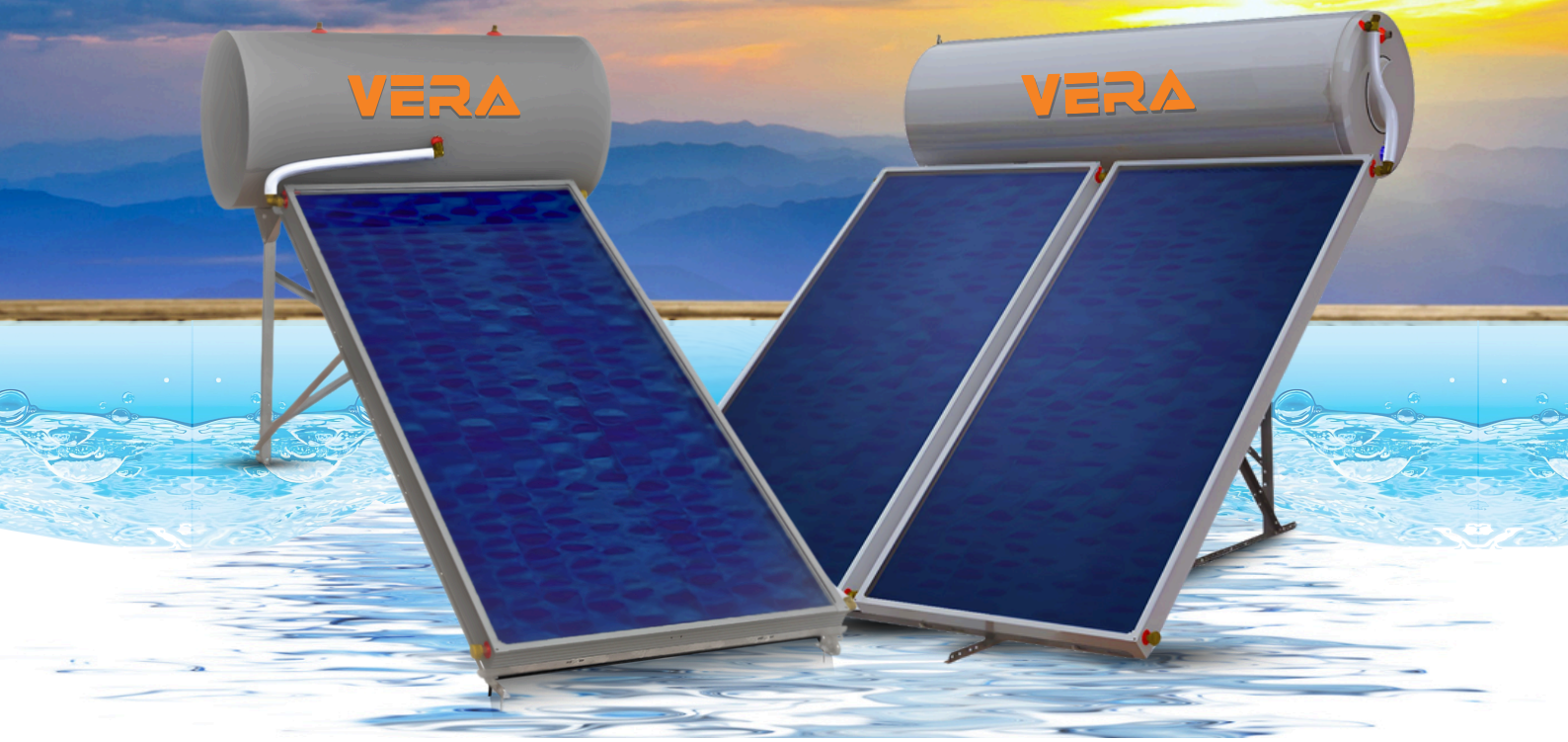
VERA

GRT SERIES LOW TILT SOLAR WATER HEATER



HYGIENIC & HEALTHY

ENVIRONMENT FRIENDLY

CONVENIENT INSTALLATION

SUPERIOR PERFORMANCE

DURABILITY ASSURED

WWW.VERA-ME.COM

VERA

Energy Saving

Environmental Friendly

Free Energy from the Sun

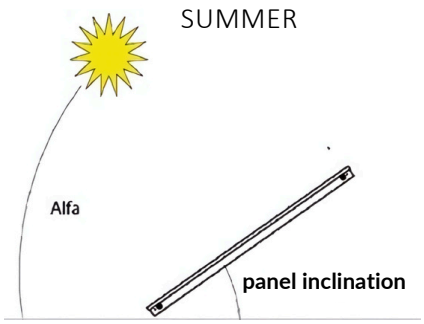
Porcelain Enameled

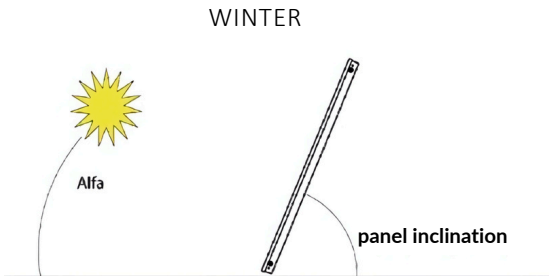
Energy Efficient

Hail Proof

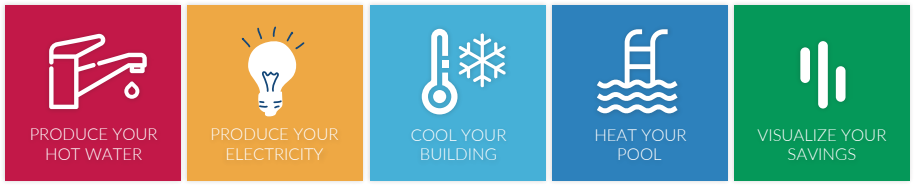
Flat-plate solar collectors

Flat-plate collectors, like those from WATT, economically harness free solar energy. They efficiently heat utility and pool water, as well as support low-temperature central heating systems. WATT collectors are known for their durability, premium quality, and high performance, validated by numerous certificates.





TAKE THE MAXIMUM ADVANTAGE OF THE SUN

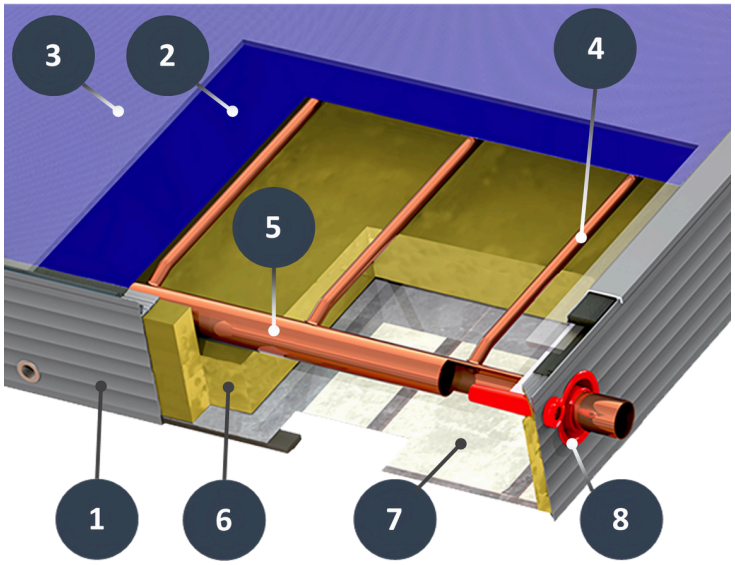


- Harp type
- Ø8mm risers – closed loop
- Annual collector output: Series:□487 kWh/m² (Würzburg, 50°C)

PRODUCT CONFORMITY
CL16020380 Rev 02

SOLAR KEYMARK

VERA



Model VERA is a flat plate collector, encasing harp type absorber with high efficiency level. It is an affordable choice, best suited for closed loop / forced circulation systems, small scale, great choice for mild or hot climates, where its great value will outshine the competition. The efficiency factor of VERA is $\eta 0=0.78$ (based on aperture area), making VERA a remarkable solar collector. This collector has been tested in NSCR DEMOKRITOS laboratory and it is certified with SOLAR KEYMARK / DCL.

Description:

1. **Frame of the collector:** Aluminum profile powder coated for maximum protection in seaside areas.

2. **Absorbing surface:** Aluminum surface with blue titanium high selective treatment with high absorption and low emission (α=95%, ε=4%), laser welded on the copper water frame.

3. **Transparent cover:** Security-Tempered prismatic solar glass for maximum protection against extreme weather conditions and temperature changes.

4. **Header of water frame:** Copper tubes Ø22, which are welded to the vertical tubes with hard silver solder. Each water frame is tested at the pressure of 15 bars. Headers are punched with upper expansion for perfect fitting with vertical tubes and minimum pressure drop in the collector.

5. **Vertical tubes:** Copper tubes in diameter Ø8mm.

6. **Thermal insulation:** 40mm thick layer of prepressed mineral wool special for solar panels for minimum thermal loss. Thermal conductivity: 0=0.035 W/m°K (EN 13162) and heat capacity 0.84 kJ/kgK.

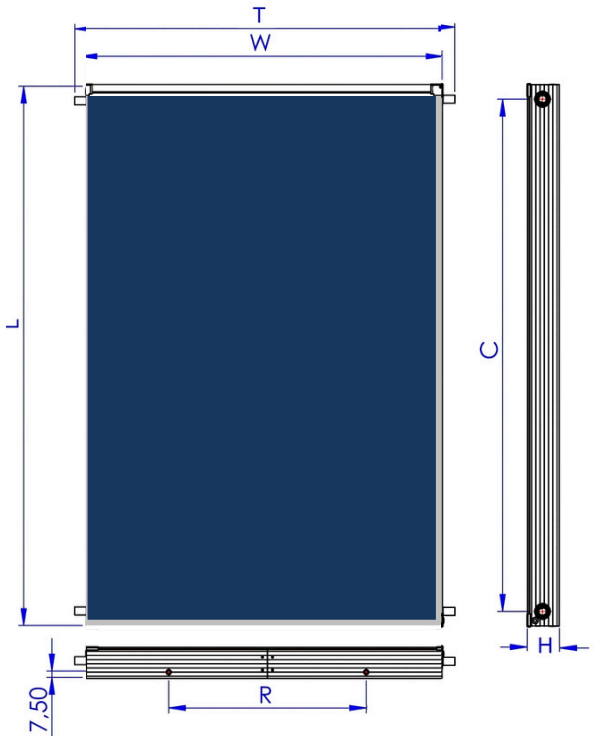
7. **Back cover:** Aluzinc 0,4mm thick. Aluzinc stands for aluminum and zinc, fused in almost equal proportions, as a coating for the steel sheet that is coated with a silvery spangle composed of Aluminum (55%), Zinc (43,4%) and a touch of Silicon (1,6%). Great mechanical strength and 7 times more resistant to corrosion than common galvanized steel.

8. **Sealing materials:** For perfect waterproof finish and proper ventilation of collectors casing, all materials used (EPDM, polyurethane sealant, silicon air vents and silicon header flanges) resist to extreme weather conditions and temperature changes. The collector can be installed on a flat roof or tiled roof.

Solar Condensing

Solar panels

VERA SERIES COLLECTORS TECHNICAL DATA / SPECIFICATIONS										
MODEL	**1.50V**	**1.50H**	**1.82V**	**1.82 H**	**2.00 V**	**2.00 H**	**2.37 V**	**2.37 H**	**2.72 V**	**2.72H**
Gross area [m²]	**1.50**	**1.50**	**1.82**	**1.82**	**2.00**	**2.00**	**2.37**	**2.37**	**2.72**	**2.72**
Total Dimensions (mm) (L x W x H)	L: 1480 W: 1010 H: 86	L: 1010 W: 1480 H: 86	L: 1480 W: 1230 H: 86	L: 1230 W: 1480 H: 86	L: 1980 W: 1010 H: 86	L: 1010 W: 1980 H: 86	L: 1930 W: 1230 H: 86	L: 1230 W: 1930 H: 86	L: 2160 W: 1260 H: 86	L: 1260 W: 2160 H: 86
Weight empty [kg]	26.64	26.8	31.9	32.2	34.6	35.4	40.6	41.2	46.1	46.7
Max. operating Pressure [bar]	10									
Thermal Liquid Capacity [lt]	1.22	1.56	1.48	1.68	1.41	2.04	1.69	2.17	1.81	2.30
Collector front Cover-Thickness	LOW IRON TEMPERED GLASS 3.2mm									
Insulation	40mm-50kg/m³ MINERAL WOOL, λ=0.035 [W/(mK)]									
Casing Material	ALUMINUM POWDER COATED									
Sealing Materials	POLYURETHANE - SILICON - EPDM									
Absorber Area [m²]	1.38	1.38	1.72	1.72	1.86	1.86	2.23	2.23	2.57	2.57
Water-frame type /material diameter	Harp type, copper, ø22 headers-ø8 risers									
Nr. Of risers	9	14	11	14	9	18	11	18	11	18
Absorber Material Treatment	ALUMINUM / PVD COATING / HIGH SELECTIVE – A=0.95±0.02 / e=0.05±0.02									
Absorber construction Type	LASER									
Heat transfer Medium	POLYPROPYLENE OR TRIETHYLENE GLYCOL + WATER MIXTURE									
Tests and Certifications	SOLAR KEYMARK									
	EFFICIENCY VALUES BASED ON EN ISO 9806:2013 STANDARD (SKM10086)									
Efficiency η0,b	For the VERA family: 0.771					For the VERA 2.72: 0.784				
Thermal loss a1 (w/(m2K)	For the VERA family: 3.59					For the VERA 2.72: 3.15				
IAM (Kθ at 50°)	0.96					0.96				
Thermal loss a2 (w/(m2K2)	For the VERA family: 0.014					For the VERA 2.72: 0.012				
Stagnation temp. [°C]	190.5					190.5				
ηcol	For the VERA family: 60%					For the VERA 2.72: 63%				

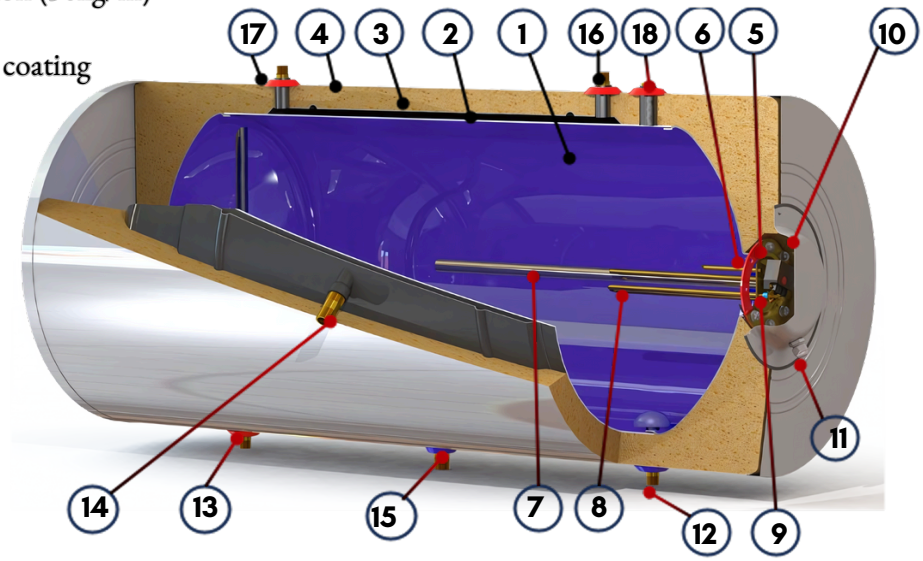


CRITICAL DIMENSIONS						
MODEL	L	W	H	C	T	R
1.50V	1480	1010	86	1400	1080	550
1.50H	1010	1480	86	930	1560	1000
1.82V	1480	1230	86	1400	1300	550
1.82H	1230	1480	86	1150	1560	1000
2.00V	1980	1010	86	1900	1080	550
2.00H	1010	1980	86	930	2050	1000
2.37V	1930	1230	86	1850	1300	550
2.37H	1230	1930	86	1150	2010	1000
2.72V	2160	1260	86	2080	1340	550
2.72H	1260	2160	86	1180	2240	1000

*R: M8 blind rivets position and spacing for mounting on a support structure. Located on both top and bottom side of the collector (2+2 rivets)

CLOSE LOOP DOUBLE ENAMELED BOILER TECHNICAL DATA

- Double Layer of Enamel
- Tank with 3mm thickness
- High density insulation (50kg/m)
- Closed loop
- High quality enamel coating



1. Water storage tank: Consists of cold rolled steel, 2.5mm thick with enamel coated, processed at 860° C, according to DIN 4753 Standard.

2. Double jacket heat exchanger: Consisting of cold rolled steel, 1.5mm thick, for the function of the closed loop circuit. The jacket is properly formed for resistance to contractions and expansions, during the operation of the solar system.

3. Thermal insulation: Ecological, incombustible, and high-density (>47kg/m^3) expanded polyurethane surrounds the water storage tank and jacket for minimum heat loss, maintaining the hot water temperature, and thickness of 50mm.

4. External casing: Hot dip galvanized steel, powder-coated RAL9006.

5. Side flange: Wide opening for easy cleaning of minerals, inspection of the tank, and maintenance.

6. Flange sealing: The flange is sealed with a silicon sealant with high heat resistance.

7. Cathode protection: A Magnesium anode rod for protection against corrosion and mineral deposits caused by electrolytic reactions.

8. Heating element: Rated according to the destination country's local regulations (optional, for the use of electricity as an auxiliary power source).

9. Safety thermostat (optional, standard only in case that electric heating element is present): With bipolar protection and auxiliary fuse. All electrical components carry a CE marking according to EN 60335-1 and EN 660335-2-21 standards.

10. Protective cover: Protection of the electrical part.

11. Cable gland and cable tube: Water-resistant passage for the electric element's electric connections.

12. Cold Water inlet: Brass BSP male threaded pipe end (3/4" for 250 & 300lt tank and 1/2" for rest). At this connection, a 9-bar safety nonreturn valve must be placed for pressure relief.

13. Hot Water (DHW) outlet: Brass BSP male threaded pipe end (3/4" for 250 & 300lt tank and 1/2" for rest).

14. Jacket inlet: Brass 3/4" BSP male threaded pipe end. A tee fitting is attached which also provides the filling point for the closed circuit, which must be plugged after filling is done.

15. Jacket outlet: Brass 3/4" BSP male threaded pipe end.

16. 2.5 bar safety valve connection point: Brass 1/2" BSP male threaded pipe end.

17. Jacket vent: Brass, with 1/2" BSP male threaded ends for venting of closed loop. A plug is attached here.

18. TP inlet: (optional) Brass 3/4" female threaded pipe end for the connection of a temperature and pressure safety valve.

BOILERS TECHNICAL DATA/ SPECIFICATIONS					
MODEL		**GRT-160H**	**GRT-200H**	**GRT-250**	**GRT-300H**
Capacity	(Lt)	160	200	250	300
Dimensions DxL	(mm)	580x1151	580x1250	580x1769	580x1870
Protection - treatment – of main tank		Enameled + MG Anode Rod			
Insulation material - density	(Kg/m^3)	Environmentally Friendly Expanded Polyurethane ($50kg/m^3$)			
Maximum operating Temperature	(C^0)	99			
Maximum working Pressure	(bar)	10	9	9	9
Maximum closed loop Pressure	(bar)	2.5	2.5	2.5	2.5
Heat exchanger capacity (jacket)	(Lt)	8.8	7.6	12.1	12.1
Heat exchanger surface (jacket)	(m^2)	0.9	0.94	1.50	1.50
Weight empty	Kg	68	68	84	101

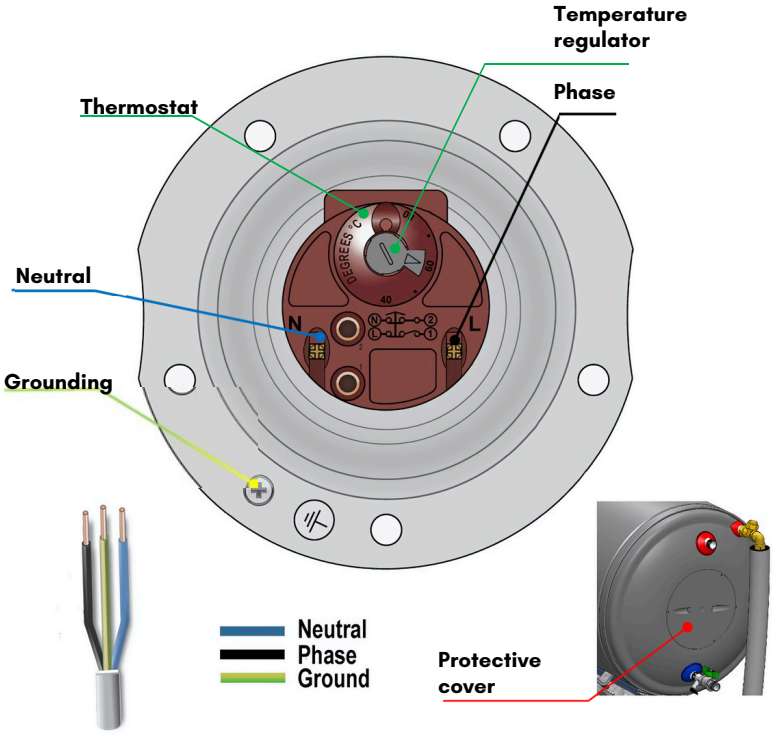
ELECTRICAL CONNECTION

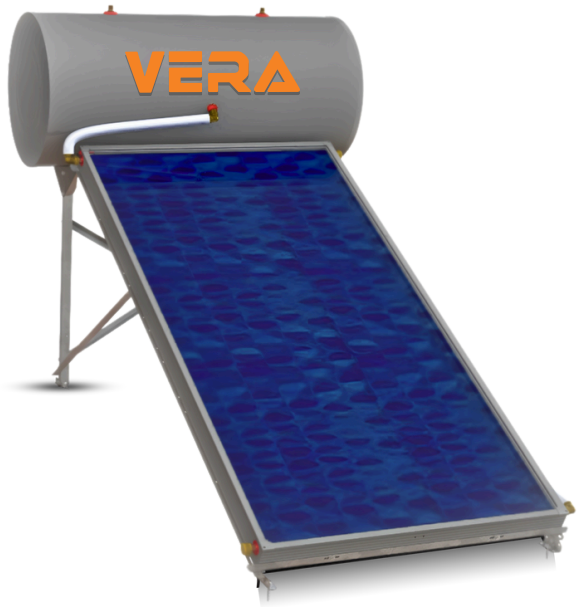
General indications

Electrical connections must be carried out by qualified electricians and in accordance with the national standards and regulations in force for each particular application. The heating element must not be switched on when the tank is empty. In this case the warranty for the heating element does not apply.

A safety relay must be installed to protect against electric shock.

The mains switch must be turned off throughout the electrical connection procedure.





TRCHNICAL DATA SPECIFICATION

GRT MAX-200L - SOLAR WATER HEATER

With a capacity of 200 litres, it provides ample hot water for daily use, reducing reliance on traditional energy sources and lowering utility bills while promoting sustainability.

NATURAL CIRCULATION

GROUND INSTALLATION

SUITABLE FOR 2-3 PEOPLE

GRT-200 V & H -COLLECTORS TECHNICAL DATA / SPECIFICATIONS		
MODEL	**200 V**	**200 H**
Gross area [m²]	**200**	**200**
Total Dimensions (mm) (L x W x H)	L: 1980 W: 1010 H: 86	L: 1010 W: 1980 H: 86
Weight empty [kg]	34.6	35.4
Max. operating Pressure [bar]	10	
Thermal Liquid Capacity [lt]	1.41	2.04
Collector front Cover Thicknesz	LOW IRON TEMPERED GLASS 3.2mm	
Insulation	40mm MINERAL WOOL, λ=0.035 [W/(mK)]	
Casing Material	ALUMINUM POWDER COATED	
Sealing Materials	POLYURETHANE - SILICON - EPDM	
Absorber Area [m²]	1.86	1.86
Water-frame type Material	Harp type, copper, ø22 headers-ø8 risers	
Nr. Of risers	9	18
Absorber Material-Treatment	ALUMINUM / PVD COATING / HIGH SELECTIVE – A=0.95±0.02 / e=0.05±0.02	
Absorber construction Type	LASER	
Heat transfer Medium	POLYPROPYLENE OR TRIETHYLENE GLYCOL + WATER MIXTURE	
Tests and Certifications	SOLAR KEYMARK	
	EFFICIENCY VALUES BASED ON EN ISO 9806:2013 STANDARD (SKM10086)	
Efficiency η0,b	For the VERA family: 0.771	For the VERA 2.72: 0.784
Thermal loss a1 (w/(m2K)	For the VERA family: 3.59	For the VERA 2.72: 3.15
IAM (Kθ at 50°)	0.96	0.96
Thermal loss a2 (w/(m2K2)	For the VERA family: 0.014	For the VERA 2.72: 0.012
Stagnation temp. [°C]	190.5	190.5
ηcol	For the VERA family: 60%	For the VERA 2.72: 63%

TRCHNICAL DATA SPECIFICATION

GRT MAX-250L - SOLAR WATER HEATER

With a generous capacity of 250 litres, this solar water heater is ideal for larger households or commercial applications, providing a sustainable and cost-effective solution for all hot water needs while significantly reducing reliance on traditional energy sources.

NATURAL CIRCULATION

GROUND INSTALLATION

SUITABLE FOR 3-4 PEOPLE

GRT-250 V & H -COLLECTORS TECHNICAL DATA / SPECIFICATIONS		
MODEL	**2.37 V**	**2.37 H**
Gross area [m²]	**2.37**	**2.37**
Total Dimensions (mm) (L x W x H)	L: 1930 W: 1010 H: 86	L: 1230 W: 1930 H: 86
Weight empty [kg]	34.6	35.4
Max. operating Pressure [bar]	10	
Thermal Liquid Capacity [lt]	1.69	2.17
Collector front Cover Thicknesz	LOW IRON TEMPERED GLASS 3.2mm	
Insulation	40mm MINERAL WOOL, λ=0.035 [W/(mK)]	
Casing Material	ALUMINUM POWDER COATED	
Sealing Materials	POLYURETHANE - SILICON - EPDM	
Absorber Area [m²]	2.23	2.23
Water-frame type Material	Harp type, copper, ø22 headers-ø8 risers	
Nr. Of risers	11	18
Absorber Material-Treatment	ALUMINUM / PVD COATING / HIGH SELECTIVE – A=0.95±0.02 / e=0.05±0.02	
Absorber construction Type	LASER	
Heat transfer Medium	POLYPROPYLENE OR TRIETHYLENE GLYCOL + WATER MIXTURE	
Tests and Certifications	SOLAR KEYMARK	
	EFFICIENCY VALUES BASED ON EN ISO 9806:2013 STANDARD (SKM10086)	
Efficiency η0,b	For the VERA family: 0.771	For the VERA 2.72: 0.784
Thermal loss a1 (w/(m2K)	For the VERA family: 3.59	For the VERA 2.72: 3.15
IAM (Kθ at 50°)	0.96	0.96
Thermal loss a2 (w/(m2K2)	For the VERA family: 0.014	For the VERA 2.72: 0.012
Stagnation temp. [°C]	190.5	190.5
ηcol	For the VERA family: 60%	For the VERA 2.72: 63%

TRCHNICAL DATA SPECIFICATION

300BLTCMAX364 - SOLAR WATER HEATER

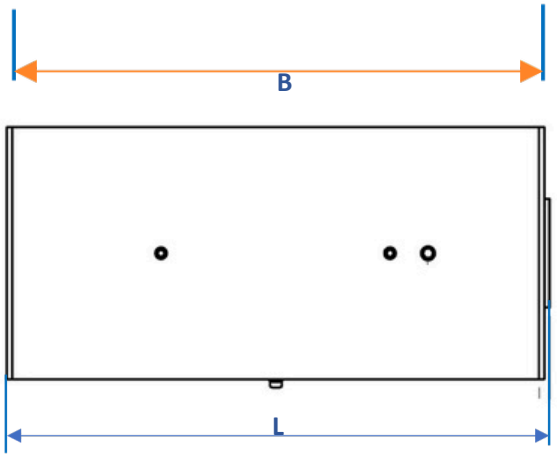
The 300-Litre Natural Circulation Solar Water Heater is a robust, eco-friendly system designed to harness solar energy for efficient water heating. Utilizing a natural convection process, it circulates water without the need for pumps, resulting in low energy consumption and minimal maintenance

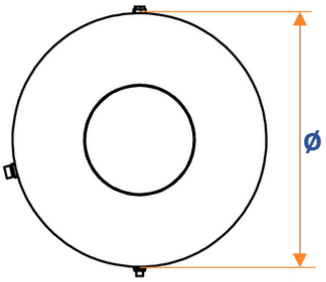
NATURAL CIRCULATION

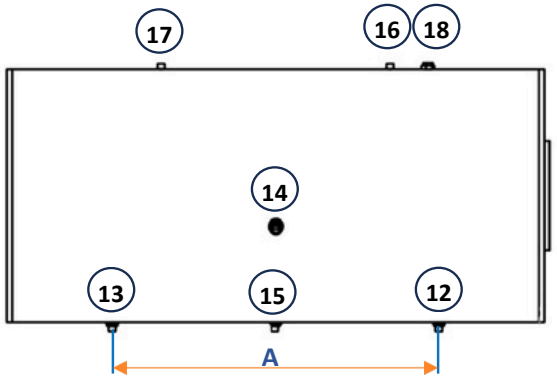
GROUND INSTALLATION

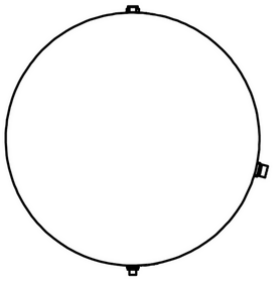
SUITABLE FOR 5-6 PEOPLE

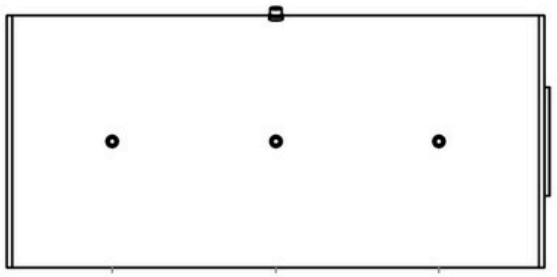
GRT-300H & V -COLLECTORS TECHNICAL DATA / SPECIFICATIONS		
MODEL	**2.72 V**	**2.72 H**
Gross area [m²]	**2.72**	**2.72**
Total Dimensions (mm) (L x W x H)	L: 2160 W: 1260 H: 86	L: 1260 W: 2160 H: 86
Weight empty [kg]	46.1	46.7
Max. operating Pressure [bar]	10	
Thermal Liquid Capacity [lt]	1.81	2.30
Collector front Cover Thicknesz	LOW IRON TEMPERED GLASS 3.2mm	
Insulation	40mm MINERAL WOOL, λ=0.035 [W/(mK)]	
Casing Material	ALUMINUM POWDER COATED	
Sealing Materials	POLYURETHANE - SILICON - EPDM	
Absorber Area [m²]	2.57	2.57
Water-frame type Material	Harp type, copper, ø22 headers-ø8 risers	
Nr. Of risers	11	18
Absorber Material-Treatment	ALUMINUM / PVD COATING / HIGH SELECTIVE – A=0.95±0.02 / e=0.05±0.02	
Absorber construction Type	LASER	
Heat transfer Medium	POLYPROPYLENE OR TRIETHYLENE GLYCOL + WATER MIXTURE	
Tests and Certifications	SOLAR KEYMARK	
	EFFICIENCY VALUES BASED ON EN ISO 9806:2013 STANDARD (SKM10086)	
Efficiency η0,b	For the VERA family: 0.771	For the VERA 2.72: 0.784
Thermal loss a1 (w/(m2K)	For the VERA family: 3.59	For the VERA 2.72: 3.15
IAM (Kθ at 50°)	0.96	0.96
Thermal loss a2 (w/(m2K2)	For the VERA family: 0.014	For the VERA 2.72: 0.012
Stagnation temp. [°C]	190.5	190.5
ηcol	For the VERA family: 60%	For the VERA 2.72: 63%

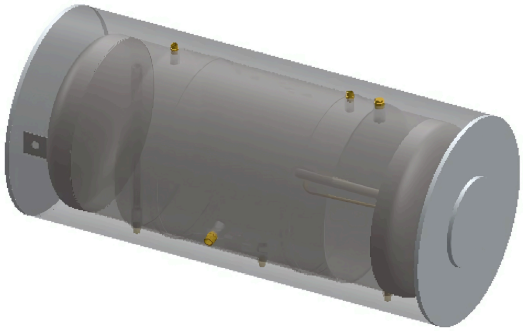






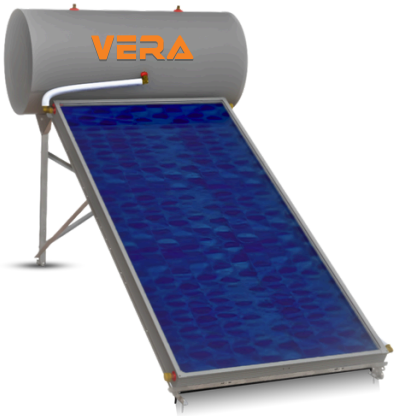




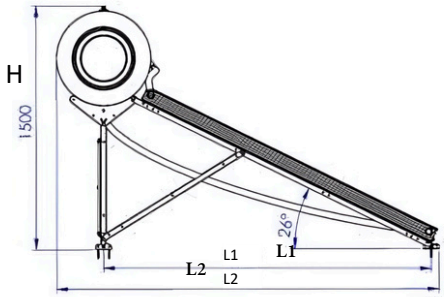


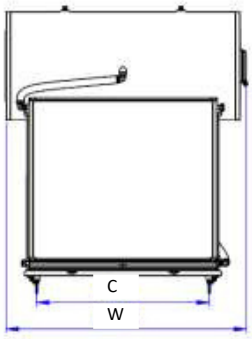
DIMENSIONS / CONNECTIONS											
MODEL	ø	L	B	A	12	13	14	15	16	17	18
200Lt	580	1259	1230	900	½"M	½"M	¾"M	¾"M	½"M	½"M	¾"F
250Lt	580	1530	1510	900	½"M	½"M	¾"M	¾"M	½"M	½"M	¾"F
300Lt	580	1870	1850	1390	¾"M	¾"M	¾"M	¾"M	½"M	½"M	¾"F

BLTCMAX LOW TILT SELECTED SYSTEMS



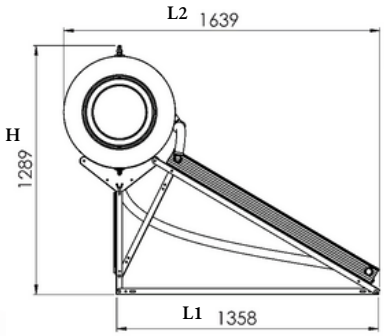
200BLTCMAX200

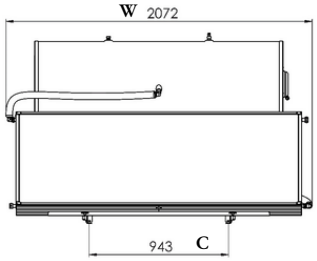




BLTCMAX series, type STK, tilt 26°

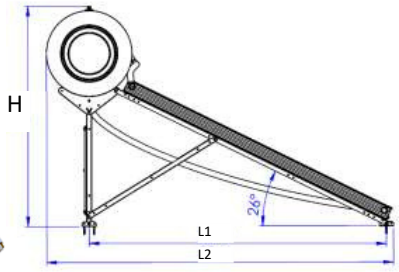
250GRT237H

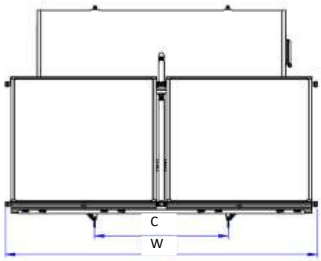




Support type STK, tilt 30°

300BLTCMAX364





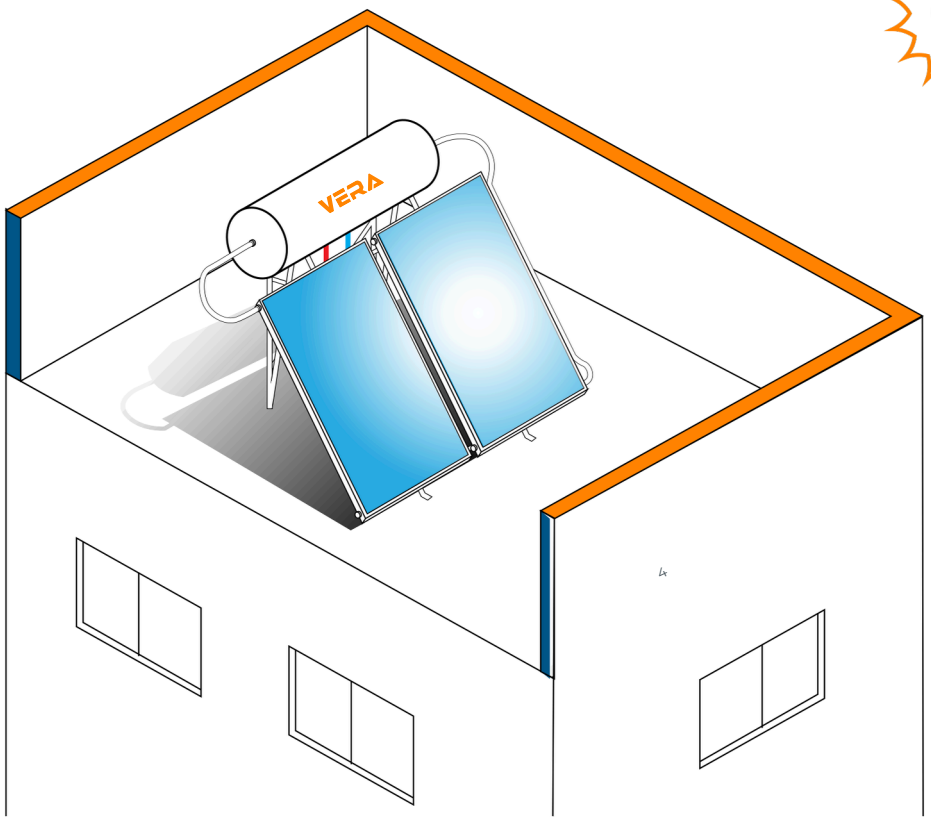
BLTCMAX series, type STK, tilt 26°

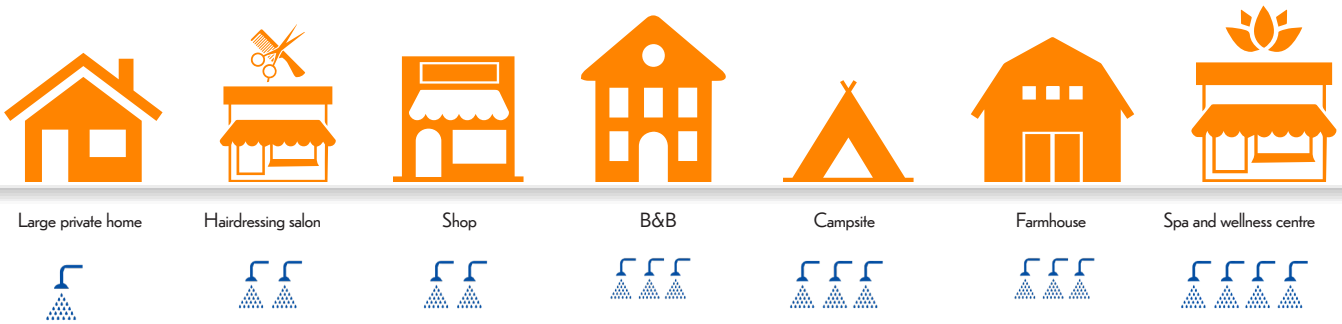
MODEL	C [mm]	W [mm]	H [mm]	L1 [mm]	L2 [mm]
200GRT200H	931	1450	1490	2010	2345
250GRT237H	941	2072	1289	1358	1639
300GRT364H	931	2560	1215	1585	1922

THE COST-EFFECTIVE WAY TO PROVIDE HOT WATER IN LARGE QUANTITY

Discover the cost-effective way to meet large-scale hot water needs with Vera's new line of solar water heaters. Harnessing energy directly from the sun, these efficient products reduce electricity costs and contribute to a cleaner environment. Easy to install and requiring minimal maintenance, Vera's solar water heaters are the ideal choice for year-round energy-saving and efficient water heating. Available in direct types, with options ranging from single collector 150 liters to single collector 200 and 300 liters catering to various large water heating demands.

Available in DIRECT TYPE
Ranges from single collector 150 liters and Single collector 200 liters , and 300 liters suitable for multiple large water heating demand





Solar Condensing

NATURAL CIRCULATION

GROUND INSTALLATION

HIGH ABSORPTION

MINERAL WOOL INSULATION

SUITABLE FOR (NO. OF) PEOPLE

FORCED CIRCULATION

ENVIRONMENTALLY FRIENDLY

ANTI-CORROSION

VERA

Please note:

While we aim to ensure the details in this Catalogue are correct at time of printing, VERA reserves the right to modify specifications shown or delete products from their range without prior notification. Printed images are a representation only and the color or finish may vary from the actual product.

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SCAN FOR WEBSITE