

dafa

SOLAR WATER HEATERS

MADE IN GREECE



www.dafa-lb.com



WHY DAFA?

Manufactured in Greece by Venman S.A, the single largest Greek manufacturer of OEM Solar Water Heating solutions, the Dafa Solar Water Heaters follow the strictest quality specifications and have received international technical certifications.

Venman has also been ISO certified for more than 20 years and during the manufacturing process all the Dafa products undergo precise testing, regular inspections and thorough checks, offering high levels of reliability and safety.



Dafa DF-300 Liters



Dafa DF-200 Liters

THE ADVANTAGES OF THE DAFA SOLAR SYSTEMS



Unparalleled Corrosion Resistance, Even Next To The Sea

The choice of the right materials to be used for all the outer parts of the Dafa solar water heaters ensures and guarantees that it can be installed in the most corrosive places without having to worry about the system rusting or dropping in performance with time.



The Dafa Never Freezes

The Dafa solar water heaters use the advanced VHF Heating Fluid that can withstand temperatures as low as -32°C before freezing. The same fluid also has anticorrosion and antimicrobials properties keeping your system cleaner and giving it a longer lifetime.



Extremely Long Lifespan

The metallic storage tank of Dafa is made of 3mm thick Low Carbon Steel. That means the tank does not dilate when the water is heated, that the tank is twice as resistant to high-pressure water supply networks than most ordinary solar water heaters and that it is guaranteed with a working pressure of 10 bars.



Dafa Performs Better In Winter

The strong and high-density polyurethane insulation guarantees more hot water for use in the winter. Additionally, the 45 degrees angle on our Dafa Delta Frames allow for a better exposure to the sun during the frigid months when the sun dips low in the sky.



Triple Energy

All Dafa systems have an auxiliary heating element with an adjustable thermostat to ensure your hot water supply in cloudy days. Aside from this heating element, all Dafa systems come with a Spiral Tube Heat Exchanger for the connection to a boiler.



The Dafa Collector Utilizes Direct & Indirect Sunlight

The copper surface of the Dafa in combination with the special selective coating on top makes it able to utilize indirect sunlight to heat up the water in cloudy days.



Easy And Available Spare Parts for Maintenance

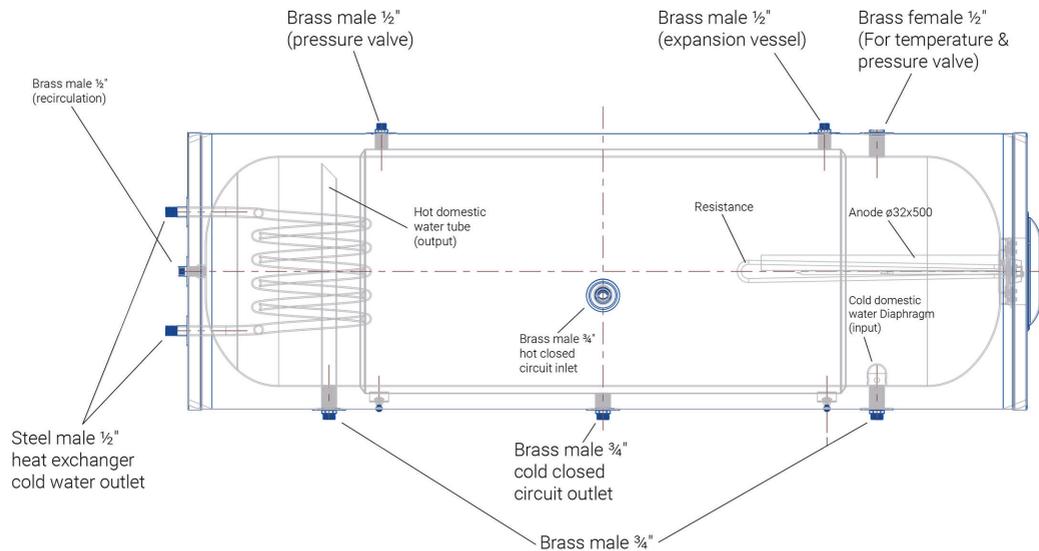
All Dafa solar water heaters come equipped with a Threaded $1\frac{1}{4}$ Inch electrical resistant which is widely available in the local market for ease of maintenance.



Higher Absorption, Almost Unbreakable

The tempered glass of the Dafa Solar Collectors are highly efficient and absorb 95% of the sun rays. Additionally, the glass has been designed to withstand shocks such as hailstorms or stray rocks flung on them during storms.

TANKS TECHNICAL SPECIFICATIONS



Main Tank's Material: DC Sheet (EN 10130/2006)

Internal Anti-corrosion Protection 1: LIQUID enamel (DIN 4753-3), totally safe for public health (DIN 51032 & EN 1388-2)

Internal Anti-corrosion Protection 2: Magnesium anode (EN 12438)

Welding: MIG

Insulation: Hard polyurethane foam 48kg/m³ (DIN 53420), self-extinguishing (DIN 4102)

Maximum Working Pressure for the Main Tank: 10 bar

Test pressure for the Main Tank: 15 bar (EN 12976-1, 4.1.6)

Maximum Working Pressure for the Jacket (exchanger): 3,2 bar

Test Pressure for the Jacket (exchanger): 5 bar (EN 12976-1/2006, 4.1.6)

Maximum Working Temperature of the Main Tank: 95°C

Heating Element: 2000 Watts

External Cover: Pre-painted galvanized steel sheet 0,5mm (EN 10204 / 2.2)

COLLECTORS TECHNICAL SPECIFICATIONS



Type: HARP Type Copper Collector

Absorber: Full Face Selective Surface (MS) 0.4mm

Insulation Cover: Specially designed undivided insulation cover for the protection against humidity and all-weather conditions

Glass Panel/Thickness: High Permeability Clearlight Low Iron 3.2mm

Welding: Laser Welding

Layout of the Water Circulation Tubes: Vertical

Insulation Thickness: 30mm of Mineral Wool with 50Kg/m³ Density

Laboratory Test Pressure: 15 Bar

Absorption Coefficient: 95%

Heat Transmission Coefficient: 5%

THE ACCESSORIES

The VHF-Antifreeze



VFL is an advanced mono polypropylene glycerol based, designed and formulated in order to ensure effective heat transfer properties at high or low temperatures on your solar thermal system while increasing its performance.

Unlike most competitive products in the market it is non-toxic and certified by InS with HT1 certificate, suitable for food contact; so there is no health risk in case of contact with the water you use. Additionally, it protects your system against low temperatures during the winter time and provides protection up to -32°C . Finally, is also specially designed to provide complete protection from corrosion caused by water and oxygen, expanding your system's lifespan.



The VXT-2 Expansion Vessel

The VTX-2 is a closed cylindrical expansion tank suitable for the closed circuit of the solar water heater. It is designed to protect both from the high pressure in the supply network and the pressure caused by the expansion of liquids in high temperatures.

It also prevents the sudden pressure fluctuations that damage the system. Manufactured from stainless steel, it is suitable for drinking water. It contains no elastic or plastic parts and has no welds giving it an incredibly long life time.



The Electrical Heating Element (Resistance)

All the Data Solar Water Heaters come equipped with a 2KW Heating Element (Resistance) coupled with a Thermostat. The resistance is made from 316 Grade Stainless Steel and is a screw-in type (of a 1.25 inches diameter) for the ease of replacement and maintenance. Additionally, the system is supplied by a Magnesium Anode for cathodic protection.



The Dafa Delta Frame

The advantage of the Dafa Delta Frame is the 45 degrees inclination angle giving a higher exposure to the sun in the winter months. It is manufactured taking into consideration resistance, stability and ergonomics.

The Dafa Delta Frame is installed with screws and bolts without any weld. It is manufactured of galvanized hot rolled metal sheet of 2mm thickness in contemporary sheet metal manufacturing machinery that provide accuracy and flexibility to the final structure. The Dafa Delta Frame is designed to resist against time and under adverse weather conditions.

THE DAFA VERTICAL TANKS



The Dafa Domestic Vertical Tanks are manufactured in accordance with the European standards and are available in capacities from 150L to 1000L.

They are equipped with two spiral heat exchangers which heat up the water in the main tank. Depending on the configuration of the system, the heat exchanger can be connected to the solar collectors, a burner (oil, pellet, wood, gas, etc.), heat pump, buffer tanks and, in general, devices for closed water heating circuit.

The tanks also have multiple sockets for temperature sensors, thermometers and electrical resistance.

They also feature an antimicrobial design for potable water heating.

TECHNICAL SPECIFICATIONS

Material: Steel Sheet

Welding: Automatic Metal Welding

Protection Coating: High Quality Glass - Enamel and protection Anode

Maximum Working Pressure: 10 bar

Water Test Pressure: 15 bar

Maximum Operating Temperature: 95°C

Insulation: Polyurethane foam of 55 mm thickness. Density 52 kg/m³

Coil: Steel tube

Maximum Coil Test Pressure: 25 bar

Electric Resistance: Screw In, 1.25-inch, 2 KW

External Cover: Soft pvc

dafa

**The warmth of the sun,
in the palm of your hand.**





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