

High grade solar thermal components  
Made in Berlin

# TS4 - M

Closed loop  
Thermosiphon system



Closed loop thermosiphon with  
jacket type heat exchanger

160l tap water tank and  
separate solar circuit

High grade solar collector with  
selective coating and 2 m<sup>2</sup> area

Domestic hot water heater  
with large solar energy gains

# Technical data

<b>Tank</b>	152 l net volume tap water Jacket type solar heat transfer and electrical back-up heater
<b>Number of collectors</b>	1 x 2.02 m <sup>2</sup> collector area
<b>Angle of inclination</b>	20°, 35°, other on demand
<b>Dimensions 35° (L x W x H)</b>	1980 x 1058 x 1870 mm
<b>Max. operation pressure</b>	10 bar
<b>Total weight filled</b>	287 kg
<b>Scope of delivery</b>	Collector, tank, mounting system, solar loop, solar safety valve, hot water safety valve
<b>Available on demand</b>	Electrical back-up heater incl. thermostat, front protection cover, thermostatic mixing valve (scalding protection), antifreeze, safety valve t/p
<b>Guarantee</b>	5 years on tank and collector for functionality and weathering resistance

## Collector

<b>Type</b>	K420-TS2 (SOLAR KEYMARK certified)
<b>Dimensions (L x W x H)</b>	1908 x 1058 x 75 mm
<b>Gross area</b>	2.02 m <sup>2</sup>
<b>Weight dry</b>	30 kg
<b>Liquid content</b>	1.1 l
<b>Efficiency <math>\eta_{0,b}</math></b>	76.2 %, related to the aperture area
<b>Heat loss coefficient a1</b>	3.92 W / (m <sup>2</sup> x K)
<b>Heat loss coefficient a2</b>	0.015 W / (m <sup>2</sup> x K <sup>2</sup> )
<b>Absorber</b>	High selective on Aluminium, full harp with 8 riser tubes, connections $\varnothing$ 18 mm
<b>Collector frame</b>	Aluminium frame, sea water resistant, mill finish
<b>Permissible wind load</b>	3 kN / m <sup>2</sup> suction, > 3 kN / m <sup>2</sup> pressure

## Tank

<b>Solar heat transfer unit</b>	Jacket type
<b>Back-up heater</b>	Electrical element, 1.5, 2, 3, 4 kW incl. thermostat on demand
<b>Weight dry</b>	66.5 kg
<b>Insulation</b>	40 mm PU
<b>Inside protection</b>	Double enamel, 2 magnesium anodes
<b>Cold water entrance</b>	3/4", female
<b>Domestic hot water exit</b>	3/4", female



KBB Kollektorbau GmbH  
Bruno-Bürgel-Weg 142-144  
D-12439 Berlin

Phone: +49 (0) 30 – 678 17 89 - 0  
Fax: +49 (0) 30 – 678 17 89 - 50  
info@kbb-solar.com  
www.kbb-solar.com

Technical modifications and errors excepted. v10.02