

KTU 6R2 SOLAR COLLECTOR



Evacuated tube collector of 1012 W output (at 1000 W/m² irradiance), designed for on-roof portrait installation, with a large shaped reflector that concentrates solar radiation to the absorption surface of evacuated tubes. A tube consists of 2 coaxial glass tubes with vacuum between them. An aluminium lamella fitting closely to the glass tube collects heat from the whole inner surface of the evacuated tube, giving it away into solar fluid inside the copper pipe. These copper pipes join the collector header, insulated with 30 mm of mineral wool.

Code: 7343

Dimensions and weight

height x width x thickness	1970 mm x 920 mm x 141 mm
installation width	1000 mm
total area	1.81 m ²
aperture area	1.43 m ²
absorber area	0.49 m ²
empty weight	32 kg

Glazing

material	borosilicate glass - 6 evacuated tubes
thickness	1.8 mm

Absorber

material	borosilicate glass
surface finish	AIN/AI-N/AI-N/AI-N/AI-N
design type	evacuated tube with reflector sheet
material and size of connection pipes	copper 4 x Ø 22 mm x 1 mm
material and size of absorber tubes	copper 6 x Ø 8 mm x 0.5 mm
reflector material	aluminum alloy with highly reflective surface
reflector dimensions	1695 mm x 840 mm x 0.5 mm
reflectivity	92 %
max. working pressure	10 bar
max. working temperature	120°C
stagnation temperature	255°C
heat transfer fluid	water solution of monopropylene glycol 1:1, 0.92 l
recommended flow rate	60 - 120 l/h

Thermal insulation

absorber	vacuum
header	mineral wool, 30 mm

Frame

frame material	aluminum alloy and steel AISI 304 SS
frame color	silver
case material	steel AISI 304 SS, 0.8 mm thick

Collector efficiency parameters related to aperture/absorber surface area

η_{ga}	0.708 / 2,085
a_{1a}	1.570 / 4.620 W/m ² K
a_{2a}	0.007 / 0.019 W/m ² K ²

Mount and connection kits (portrait mount)

		Code
Connection kit		7710
Kit for 1 collector	[for 4 roof anchors or 2 supports + 1 strut]	7415
Kit for 2 collectors	[for 6 roof anchors or 3 supports + 1 strut]	7241
Kit for 3 collectors	[for 8 roof anchors or 4 supports + 1 strut]	7242
Kit for 4 collectors	[for 10 roof anchors or 5 supports + 1 strut]	7243
Extension kit for mounting and connecting 1 collector	[for 4 roof anchors or 2 supports + 1 strut]	7244

The Connection kit contains an inlet elbow (Cu22 x 3/4" F), outlet pipe cross (Cu22 x 3/4" F + 3/8" F for an air vent valve and 1/2" F for a temperature sensor sheath), sheath with a temperature sensor and 2 straight couplers (Cu22x3/4" F) with a plug and gaskets.



The mount and connection kits consist of aluminum mounting rails, retaining clamps, bolts and nuts, straight couplers (2 and more collectors) and pipe insulation.