

# Full plate Selective Solar Thermal Collector

**HELIONAL**  
Solar Systems

FPS 2.0

Ultrasonic welded

**5** years  
warranty



TÜV Rheinland Group



FPS SERIES

# Solar Thermal Collector FPS 2.0

## Technical Data

### Collector

Weight: 42,5 kg  
 Gross Dimensions: 2000X1000X100 mm  
 Gross Area: 1,98 m<sup>2</sup>  
 Aperture Area: 1,78 m<sup>2</sup>  
 Absorber area: 1,81 m<sup>2</sup>  
 Number of covers: 1  
 Cover's Material: Mislite tempered Glass  
 Cover's Emittance: 95%  
 Cover's Thickness: 4 mm  
 Cover's dimensions: 1960X960 mm  
 Number of tubes: 12  
 Header tubes diameter: Ø ext 22 mm  
 Vertical tubes diameter: Ø ext 10 mm  
 Distance between tubes: 93 mm  
 Transferring heat fluid: Water  
 and monoethylene glycol

### Absorber

Material: High frequency Titanium  
 Oxide Copper sheet  
 Surface: Selective  
 Thickness: 0,2 mm  
 Area: 1,81 m<sup>2</sup>  
 Emittance: 5%  
 Absorption: 95%  
 Type of connection between tubes  
 and absorber: Ultrasonic Welding

### Casing

Material: Aluminium  
 Back plate material: Galvalumin 0,5 mm  
 Dimensions: 1992 x 996 x 98 mm  
 Aperture dimensions: 1919 x 925 mm  
 Sealing material: Double line EPDM

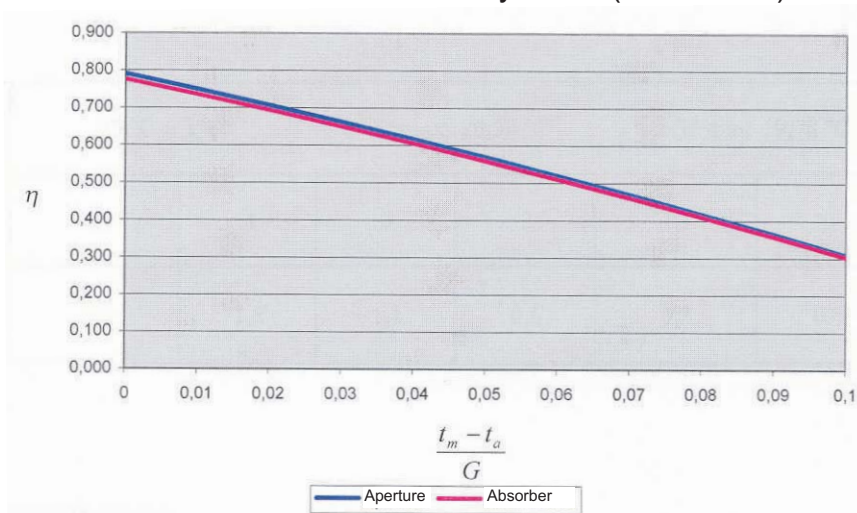
### Insulation

Thermal conductivity: 0,03kcal /m h °C  
 Material: Rockwool  
 Thickness:  
 Side: 30 mm  
 Back: 40 mm

### Limitations

Maximum temperature: 150 °C  
 Maximum operation pressure: 8 atm  
 Maximum and minimum angle of inclination:  
 - Maximum: 90°  
 - Minimum: 0°

Instantaneous efficiency curve ( 800W / m<sup>2</sup> )



Pressure drop.....0,020 kg/s m<sup>2</sup>

Collector's surface.....1,98 m<sup>2</sup>