

use the sun twice



Datasheet

Solator PV+THERM INROOF 140 Wp

Description:

Solator PV+THERM INROOF 140 Wp

Photovoltaic and solar thermal energy combined in one module

Code:

SO-PV+THERM-INROOF-140Wp



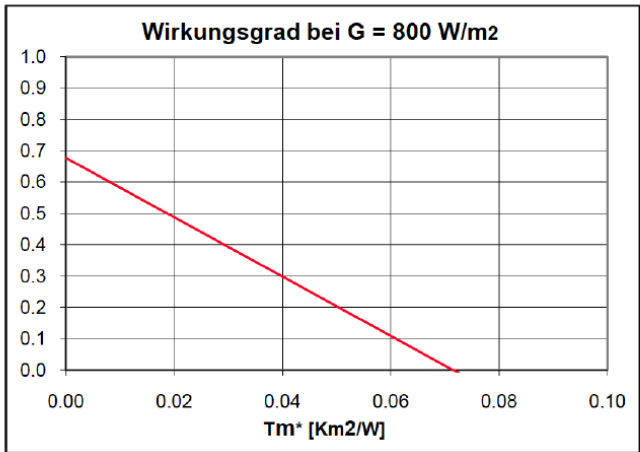
Technical data:	
Dimensions:	766 (15mm overlap) x 1565x 35 mm
weight	28 kg
PV-cells:	36 Stk. 156x156mm , monokristallin
Working temperature:	- 40 °C bis + 85 °C
Special sizes:	On request
Frame color:	schwarz
Glass:	4mm Solarglass

Electrical data:	
Power output:	140 Wp +/- 3%
Nominal voltage:	16,648 V
Open circuit voltage:	22,176 V
Short circuit current :	8,43 A
Max. system voltage:	1000 V

Thermal Data:	
Absorber area:	1,2 m2
Fluid capacity :	0,6 Liter
Operation pressure	3-4 bar, max. 6 bar;
Flow rates:	90 Liter / h
Connection	d= 10mm , length: 25mm;
Recommended operating fluid:	Wasser / Glykol Gemisch
Pressure drop Δp :	22 mbar bei 1,5 l/min 116 mbar bei 3,3 l/min

Thermal performance per m2 absorber area approx. :

Leistungsdaten (Mit Dämmung / Ohne el. Last / Ohne Wind)



$\eta(T_m^*) = \eta_0 - a_1 \cdot T_m^* - a_2 \cdot G \cdot T_m^{*2}$ [$T_m^* = (t_m - t_a)/G$]
 t_m : Fluidtemperatur, t_a : Umgebungtemperatur, G: Einstrahlung

Kennzahlen*	
η_0 (-)	0.677
a_1 (W/m ² K)	9.467
a_2 (W/m ² K ²)	--

Wirkungsgrad bei*	
$\eta(T_m^* = 0.00)$	0.677
$\eta(T_m^* = 0.03)$	0.393
$\eta(T_m^* = 0.06)$	0.109

Leistung pro Kollektor	G=1000 Wm ⁻²
$t_m = t_a$ (Peak Power)	786
$t_m - t_a = 10$ K	676
$t_m - t_a = 30$ K	456
$t_m - t_a = 50$ K	236

