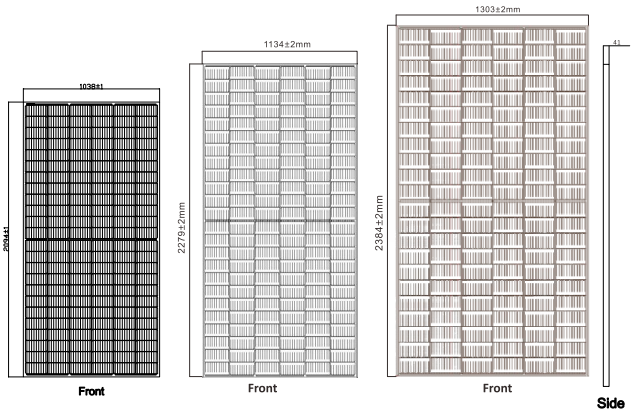
EN-SUN® Hybrid PVT

Engineering Drawings

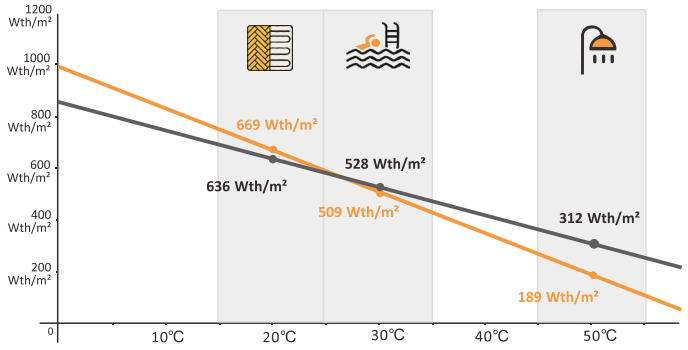


EN-450 EN550 EN670

Photovoltaic characteristics

Model Type	EN450	EN550	EN670
Height	2094±1	2279±1	2384±1
Width	1038±1	1134±1	1303±1
Thickness	41±1		
Insulated			
Empty / full weight	37.5/38.5kg	43/44kg	49/51kg
Number of cells	144	144	132
Cell type	Mono-9BB	Mono-10BB	210mmMBB Mono
Connectors	MC4/MC4 compatible		
Cable length	1000mm		
Maximum load	5400 Pa(snow)/2400 Pa (Wind)		
Frame / Backsheet	Anodised aluminium		

Thermal power output as a function of the temperature of the water in the panel and by application



Performances derived from values a0,a1(wind u=1m/s)in STC conditions (T=25℃ , G=1000W/M2)

Photovoltaic characteristics

Model Type	EN450	EN550	EN670
Nominal power	450W	550W	670W
Output power tolerance	0~+3W	0~+3W	0~+5W
Module efficiency	20.7 %	21.12%	21.57%
Rated voltage(Vmpp)	41.5	41.76	38.2
Rated current(Impp)	10.85	12.93	17.55
Open circuit voltage(Voc)	49.30±3%	49.70±3%	46.10
Short-circuit current(Isc)	11.60±3%	13.72±3%	18.62
Voltage temperature coefficient(μVoc)	-0.270%/°C	-0.285%/°C	-0.340%/°C
Current temperature coefficient (μIsc)	+0.048%/°C	+0.045%/°C	-0.250%/°C
Power temperature coefficient(μPmpp)	-0.350%/°C	-0.350%/°C	0.040%/°C
Maximum system voltage	1500V	1500V	1500V
NMOT	45+/-2°C	45+/-2°C	45+/-2°C
Application class	Class II	Class II	Class II

STC conditions (AM 1.5-1000 W/M² - 25°C)
Measurement tolerance:+/-3%

Thermal characteristics

Model Type	EN450	EN550	EN670
Thermal power	1210W	1397W	1676W
Heat exchanger area	2.17m²	2.54m²	3.08m²
Heat exchanger volume	1.0L	1.1L	1.3L
Max operating pressure	0.8mpa	0.8mpa	0.8mpa
Flow rate	0.4L/s	0.4L/s	0.8L/S
Hydraulic inlet / outlet	DN 15	DN 15	Dn15
Insulated			
Stagnation temperature	75.6°C	75.6°C	75.6°C
Optical efficiency a_0	58.2%	58.2%	58.2%
Coefficient a_1	10.8W/K/m²	10.8W/K/m²	10.8W/K/m²
Coefficient a_2	0 W/(m².K²)	0 W/(m².K²)	0 W/(m².K²)
Operating temperature	-40°C~+85°C	-40°C~+85°C	-40°C~+85°C

Thermal power calculated with wind u=0 m/s,DT=0,G=1000W/m²
The coefficients a_0,a_1,and a_2 result from EN 9806:2017 certification tests for solar collectors without glazing carried out by KIWA for a wind speed u=1m/s:$a_0=n_0-c_6*u'$; $a_1=c_1+c_3 * u'$; $u'=u - 3$

EN-SUN®
ADD:No.28,Anren Road,Jianshan New District,Huangwan Town,Haining,Zhejiang,China
Tel:13586433357
web:www.kesunsolar.com
E-mail:sales@ensunchina.com