



SOLARBEAM™ CONCENTRATOR

MODEL # SB-4.5-4400

Description

The SolarBeam™ Concentrator is the most efficient solar thermal system available. The SolarBeam™ uses concentrated solar power (CSP) technology that utilizes a highly reflective anodized aluminum to reflect and concentrate the sunlight onto a focal point.

The SolarBeam™ generates an average of 10.5 kW of heat per hour (35,851 BTUs/hour) and can reduce the surface area of 10 -15 flat panels.

The system is monitored remotely via a web-based interface and provides diagnostic and energy saving information. The SolarBeam™ is the first parabolic solar dish to be certified by SRCC, KeyMark (Europe), and Global Mark (Australia).

Sun Tracking

SolarBeam™ Concentrator's patent-pending dual-axis sun-tracking system utilizes break-through technology to accurately track the sun. The SolarBeam™ does not require any sensors to locate the sun. Rather it uses a unique celestial algorithm and GPS to track the sun regardless of the season.

Solar Applications

The control system can be programmed to provide a range of temperature settings up to 93° Celsius (200° Fahrenheit) without experiencing heat stagnation.

SolarBeam™ Concentrator can be used in the following applications:

- Process Heat Generation
- Space Cooling with Absorption Chillers
- Space Heating
- Water Heating

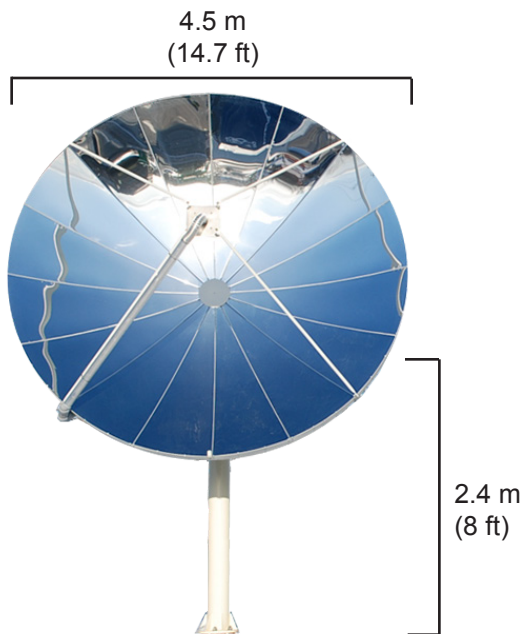


FEATURES

- Average 35,851 BTUs per hour
- Dual-axis sun tracking maintains high efficiency throughout the day
- Fast and easy installation with PEX tubing
- Sensors tilt the dish out of the sun to prevent heat stagnation

APPLICATIONS

- Industrial
- Commercial
- Government
- Residential



HOT WATER PRODUCTION @ 1000 watts/m ²	
Peak kW	11.5 kW
Peak BTUs	36,534 BTUs
MATERIAL	
Reflector	Anodized Aluminum
Mounting Post	Steel
Weight	463 Kg (1,020 lbs)
POWER CONSUMPTION	
Vertical Axis Motor	24W, 2A
Horizontal Axis Motor	12W, 0.5A
Power Back up	UPS Battery

Certifications



U.S.A



Global-Mark.com.au®
ID Number: 101543

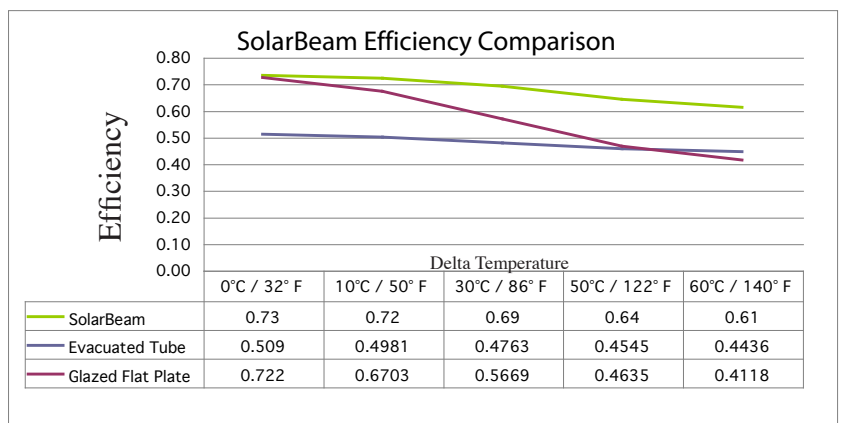
Australia



Europe

PARAMETERS	
Collector Area	15.9 m ² (171 ft ²)
Optical Efficiency	86%
Tracking	Dual Axis
Temperature Protection	Automatic stow mode
Maximum Absorber Temperature	145° C (293° F)
Maximum fluid temperature of Primary loop	93° C (200° F)
Maximum fluid Temperature of Secondary loop	93° C (200° F)
Maximum Fluid Pressure	25 PSI (1.7 Bar)
AC Power Interruption Protection	Automatic Solar Concentrator shut-down to Survival Position (90 deg Vertical Axis).
Heat Transfer Fluid	Propylene Glycol/Water solution (50/50 to - 30 C)
Flow Rate	15 - 19 Litres per minute (4 - 5 Gallons per minute)
Power Supply	120V - 240V (24VDC to dish)

DIMENSION & AREA	
Reflector diameter	4.5m (14.7 ft)
Focal point distance	2.2m (86.63 inches)
Heat Sink Collector	25.4 cm X 25.4 cm (10" x 10")
Mounting Post	2.4 m (8' ft)



Efficiency based on direct beam solar radiation of 1000 watts/m² based on SRCC data