



Solar Bear®

Solar Swimming Pool Heating Collector Specifications

DESCRIPTION:

The Solar Bear® (PN: 10030) Collectors are manufactured in Chico, California. The collectors are a specially developed, highly stabilized polyolefin and are of parallel, circular channel design. It is unglazed, un-insulated, and designed for low temperature applications such as swimming pool heating, heat pumps, aquaculture, hydroponics, and pre-heating.

DIMENSIONS:

COLLECTOR MODEL

Solar Bear®						
47-15/16" (±1/8")	45" (±1/8")	240" (±1/8")	75ft ²	31.7lbs	8.4gal	102lbs
1.22m (±3.2mm)	1.14m (±6.4mm)	6.1m (±3.2mm)	7m ²	14.4kg	31.8L	46.3kg
Header Width	Panel Body Width	Overall Length	Effective Area	Weight (w/o fluid)	Fluid Capacity	Weight (w/water)

RACK SPACE:

Solar Bear®

Width = [Number of panels X 47-15/16" (1.22m)] + 2" (0.05m)

Length = 240" (6.1m) + 6" (0.15m)

FLOW:

Maximum recommended flow = 0.20 gpm per ft² panel area (488 L/hr per m²)
 3.47 psi head loss (23.9 kPa)

Minimum recommended flow = 0.05 gpm per ft² panel area (122 L/hr per m²)
 0.23 psi head loss (1.6 kPa)

Recommended flow = 0.10 gpm per ft² panel area (244 L/hr per m²)
 0.87 psi head loss (6.0 kPa)

PRESSURE:

NORMAL OPERATING PRESSURE

MAXIMUM INTERMITTENT PRESSURE

<100°F (<37.8°C)

0 to 30.0 psi
(0 - 207 kPa)

40.0 psi
(276 kPa)

212°F (100°C)

0 to 5.00 psi
(0 - 34.5 kPa)

5.00 psi
(34.5 kPa)

70°F (21°C)

Measured burst pressure of panel body = Over 300 psi (2069 kPa)

TEMPERATURE:

Normal operating temperature = 60°F to 100°F (16°C to 38°C)
 Maximum continuous operating temperature = 212°F (100°C)
 Maximum intermittent temperature (un-pressurized) = 250°F (121°C)
 Melt temperature = 338°F (170°C)

MAX CONNECTED:

Solar Bear®

Two Panels Connected

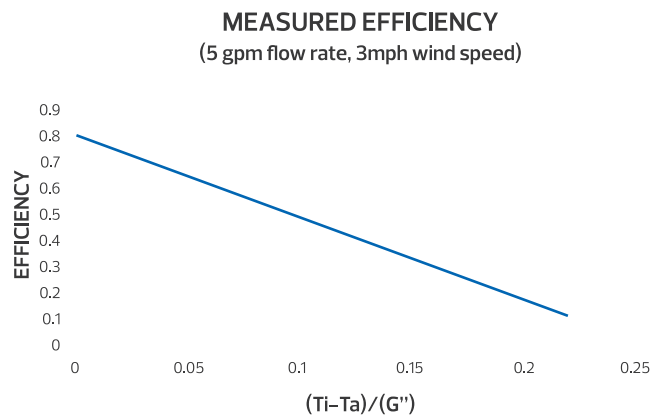
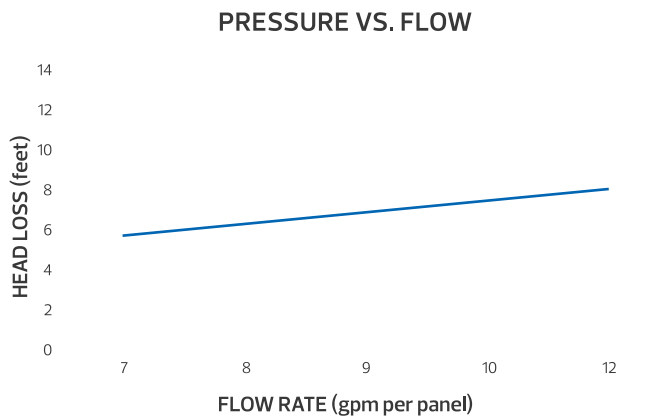
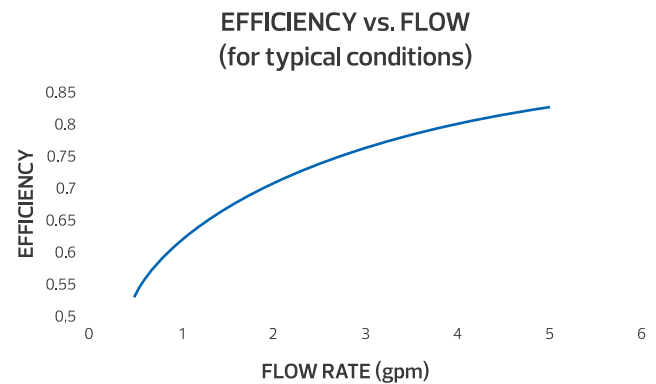
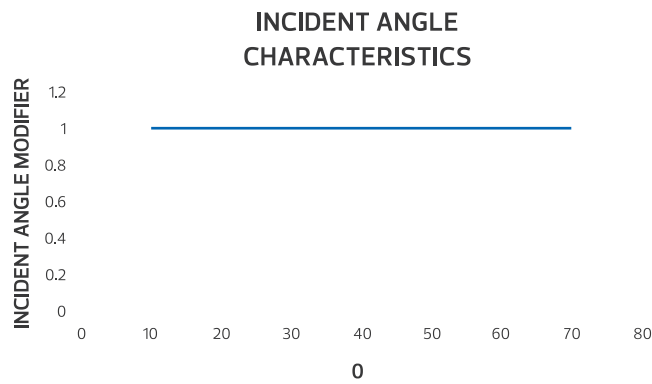


Solar Bear[®]

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- CHEMICAL RESISTANCE:** Compatible with common collector fluids such as chlorinated or saline pool water.
- CORROSION:** Non-corrosive
- FREEZING:** The system should be drained before freezing conditions occur.
- WEATHERABILITY:** Weatherometer, accelerated outdoor exposure, and other extensive laboratory testing demonstrates long-term weatherability of Solar Bear[®] collectors (see warranty). Additionally, FAFCO's experience of 50+ years and over 2,000,000 collectors installed confirms that the proprietary stabilization and high mechanical strength results in negligible issues over the warranty period.
- ABSORPTIVITY:** 0.96
- EMISSIVITY:** 0.90
- TIME CONSTANT:** 138 seconds
- TESTED OUTPUT:** 1,800 Btu/ft²-day (5.7 kWh/m²-day) (Per SRCC OG100 Certification #10001954)

PERFORMANCE GRAPHS:



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