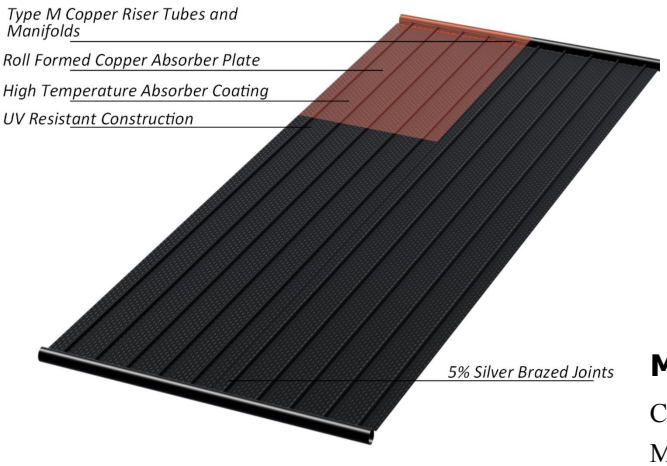
SUNEARTH®

THE OASIS SERIES

SOLAR COLLECTOR **SPECIFICATION SHEET**

Applications

Solar Pool Heating



Thermal Performance Ratings

BTU/ft²*Day			
Category (Ti-Ta) Ti– inlet fluid temp Ta=ambient temp	Clear (2000)	Mildly Cloudy (1500)	Cloudy (1000)
A(-9°F)	1500	1200	800
B(9°F)	900	600	300

A-Pool Heating (Warm Climate) B-Pool Heating. **Thermal performance is obtained by multiplying the collector output for the appropriate application and insolation level by the total gross collector area**. Derived from International Association of Plumbing and Mechanical Officials (IAPMO) S100.4 testing.

Materials

Collector Material:	Roll formed Copper
Max. Instantaneous Efficiency:	67%
Header Size:	$1^1/_2$"Nominal Copper (1.65" OD)
Riser Size	$^1/_2$" Nominal Copper
Collector Coating:	Flat Black Polyurethane

Design Limits

Internal Static Test Pressure:	160psig
Max Flow Rate:	25gpm
Max Wind/Snow:	60 psf
Max Temperature:	100◦F

Available Connections

- $1^1/_2$" Sweat (Standard)
- High Temperature Hose

Dimensions

F = Fluid Capacity (gal.)
G = Gross Area (ft²)

W = Dry Weight (lbs)
DFR = Design Flow Rate (GPM)

ΔP = Pressure Drop @ Design Flow Rate (psig)

MODEL	A(in)	B(in)	C (in)	E(in)	F	G	W	DFR	ΔP
OP-48	144.00	45.63	142.375	1.625	1.63	45.63	48.27	4.8	0.022
OP-40	120.00	45.63	118.375	1.625	1.47	38.02	40.22	4.0	0.020
OP-32	96.00	45.63	94.375	1.625	1.31	30.47	32.21	3.2	0.018

Due to SunEarth's policy of continuous product improvement, specifications are subject to change without notice.

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ENGINEERING SPECIFICATIONS

GENERAL:
The following shall be the specifications for the pool/spa heating collectors. Collectors shall be SunEarth Oasis Model _____, and shall be of the unglazed liquid flat plate type. Collectors shall be tested in conformance with ISO 9806:2013 and listed by the International Association of Plumbing and Mechanical Officials (IAPMO).

ABSORBER PLATE AND PIPING:
The absorber shall consist of a roll-formed copper plate of no less than .008 inch thickness. Risers shall be a minimum of 0.5 inch O.D. Type M Copper tubing on no more than 4.7" centers continuously soldered to the plate utilizing a non-corrosive solder paste with a melting point of 460˚F. The risers shall be brazed to 1.625"O.D. Type M copper manifolds utilizing a copper phosphorous brazing allow with no less than 5% silver content, and conforming to the American Welding Society's BCuP-3 classification. The absorber plate shall be designed for 160 psig maximum operating pressure.

ABSORBER COATING AND PERFORMANCE CURVE:
The absorber coating shall be flat black paint. The instantaneous efficiency of the collector shall be a minimum Y-intercept of 0.68 and a slope of no less than –19.29 BTU/ft^2.hr.˚F.

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