Solar Home
Hot Water System

Copper Sun Solar Collector Model No. CS-340B

Connection method: Bottom (Flashing pan required)
Capacity: 40 gallons
Aperture area: 22 square feet
Gross Weight - Empty: 270.4 lbs (122.65 kg)
Gross Weight - Filled: 606.2 lbs (274.6 kg)
Foot Print Area: 25.2 square ft
Aperture Length: 95.25 inches (2.42 m)
Aperture Width: 33.25 inches (.845 m)
Frame Width: 36.75 inches (.933 m)
Frame and Counter Flashing Length: 100.125 (2.543 m)
Connection:
1) Center to center dimension: 28.87 inches (.734 m)
2) Center to end of frame: 3.687 inches (.0936 m)
3) Center to edge of frame: 3.562 inches (.090 m)
4) Solder joint: 3/4 inch, 2-3/4 inch Nom. Type K copper tube 7.8” O.D.

Collector Height: 6.437 inches (.164 m)
Working fluid: potable/domestic tap water
Absorber tube: a) Material: 4 inch nominal diameter DWV copper tubing, 0.058 inch wall thickness, with selective coating. b) Tubing shall not be a rolled seam welded tube. c) End of absorber tube shall be machine spun to form a perfect bullet nose round end. d) Absorber shall be TIG welded in a progressive serpentine configuration that allows for a maximum efficiency with minimum of water mixing.

Selective coating: Solkote a) Minimum absorptivity: 95 percent b) Maximum emissivity: 56%

Header Tube: 3/4 inch nominal type “K” copper formed copper tube .062 inch wall.

Glazing: 1/8 inch thick, low-iron tempered glass with minimum transmissibility of 91%

Gasket material: EPDM

Frame material: 6063 T-5 aluminum. Frame for bottom connected units shall have integral patented counter flashing.

Frame Finish: Powder coated paint

Insulation: polycyocanurate, minimum one inch thickness conforming to ICBO Research report #3223 with 0.012 inch thick laminated aluminum sheet.