



**CERTIFIED SOLAR COLLECTOR**

**SUPPLIER:**  
**Solarhot**  
 2800 Perimeter Park Dr. Suite A, PO Box 1154  
 Morrisville, NC 27560 USA  
 www.solarhotusa.com  
 In Accordance with:  
**SRCC Standard 100-2005-09**

**BRAND:** SOLARHOT Solstice  
**MODEL:** S-SC-126S40  
**COLLECTOR TYPE:** Glazed Flat Plate  
**CERTIFICATION #:** 2006048C  
**Original Certification:** December 27, 2007  
**Expiration Date:** September 14, 2019

The solar collector listed below has been evaluated by the Solar Rating & Certification Corporation™ (SRCC™), an ANSI accredited and EPA recognized Certification Body, in accordance with SRCC OG-100, Operating Guidelines and Minimum Standards for Certifying Solar Collectors, and has been certified by the SRCC. This award of certification is subject to all terms and conditions of the Program Agreement and the documents incorporated therein by reference. This document must be reproduced in its entirety.

| COLLECTOR THERMAL PERFORMANCE RATING       |   |   |  |                                    |   |   |  |
|--|---|---|--|------------------------------------|---|---|--|
| Kilowatt-hours (thermal) Per Panel Per Day |   |   |  | Thousands of Btu Per Panel Per Day |   |   |  |
| Climate ->                                 | High Radiation<br>(6.3 kWh/m <sup>2</sup> .day) | Medium Radiation<br>(4.7 kWh/m <sup>2</sup> .day) | Low Radiation<br>(3.1 kWh/m <sup>2</sup> .day) | Climate ->                         | High Radiation<br>(2000 Btu/ft <sup>2</sup> .day) | Medium Radiation<br>(1500 Btu/ft <sup>2</sup> .day) | Low Radiation<br>(1000 Btu/ft <sup>2</sup> .day) |
| Category<br>(Ti-Ta)                        |   |   |  | Category<br>(Ti-Ta)                |   |   |  |
| A (-5 °C)                                  | 15.2  | 11.5  | 7.8  | A (-9 °F)                          | 51.9  | 39.3  | 26.8   |
| B (5 °C)                                   | 13.5  | 9.8   | 6.1  | B (9 °F)                           | 45.9  | 33.3  | 20.8   |
| C (20 °C)                                  | 10.9  | 7.3   | 3.7  | C (36 °F)                          | 37.1  | 24.7  | 12.5   |
| D (50 °C)                                  | 6.1   | 2.8   | 0.4  | D (90 °F)                          | 20.9  | 9.7   | 1.2  |
| E (80 °C)                                  | 2.1   | 0.1   | 0.0  | E (144 °F)                         | 7.2   | 0.2   | 0.0  |

**A-** Pool Heating (Warm Climate) **B-** Pool Heating (Cool Climate) **C-** Water Heating (Warm Climate)  
**D-** Space & Water Heating (Cool Climate) **E-** Commercial Hot Water & Cooling

| COLLECTOR SPECIFICATIONS  |                      |                       |                        |           |         |
|---------------------------|----------------------|-----------------------|------------------------|-----------|---------|
| <b>Gross Area:</b>        | 3.710 m <sup>2</sup> | 39.93 ft <sup>2</sup> | <b>Dry Weight:</b>     | 56 kg     | 122 lb  |
| <b>Net Aperture Area:</b> | 3.482 m <sup>2</sup> | 37.47 ft <sup>2</sup> | <b>Fluid Capacity:</b> | 2.8 liter | 0.7 gal |
| <b>Absorber Area:</b>     | 0.000 m <sup>2</sup> | 0.00 ft <sup>2</sup>  | <b>Test Pressure:</b>  | 1103 kPa  | 160 psi |

| TECHNICAL INFORMATION   |  |                     | Tested in accordance with: ISO 9806 |               |                                   |
|---|--|---------------------|-------------------------------------|---------------|-----------------------------------|
| ISO Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Ta] |  |                     |                                     |               |                                   |
| <b>SI UNITS:</b>  | $\eta = 0.705 - 4.31580(P/G) - 0.01386(P^2/G)$ | <b>Y Intercept:</b> | 0.711                               | <b>Slope:</b> | -5.136 W/m <sup>2</sup> .°C       |
| <b>IP UNITS:</b>  | $\eta = 0.705 - 0.76063(P/G) - 0.00136(P^2/G)$ | <b>Y Intercept:</b> | 0.711                               | <b>Slope:</b> | -0.905 Btu/hr.ft <sup>2</sup> .°F |

| Incident Angle Modifier      |      |      |      |      |      |      |      | Test Fluid:                 |  |
|------------------------------|------|------|------|------|------|------|------|-----------------------------|--|
| $\theta$                     | 10   | 20   | 30   | 40   | 50   | 60   | 70   | Water                       |  |
| <b>K<sub>ra</sub></b>        | 0.99 | 0.98 | 0.95 | 0.90 | 0.81 | 0.66 | 0.35 | <b>Test Mass Flow Rate:</b> | 0.0200 kg/(s m <sup>2</sup> ) 14.74 lb/(hr ft <sup>2</sup> ) |
| <b>Impact Safety Rating:</b> |      |      |      |      |      |      |      |                             |  |

REMARKS:

*Jeri Higgins*

Technical Director





**CERTIFIED SOLAR COLLECTOR**

**SUPPLIER:**  
**Solarhot**  
 2800 Perimeter Park Dr. Suite A, PO Box 1154  
 Morrisville, NC 27560 USA  
 www.solarhotusa.com

**BRAND:** SOLARHOT Solstice  
**MODEL:** S-SC-126S40  
**COLLECTOR TYPE:** Glazed Flat Plate  
**CERTIFICATION #:** 2006048C  
**Original Certification:** December 27, 2007  
**Expiration Date:** September 14, 2019

In Accordance with:  
**SRCC Standard 100-2005-09**

The solar collector listed below has been evaluated by the Solar Rating & Certification Corporation™ (SRCC™), an ANSI accredited and EPA recognized Certification Body, in accordance with SRCC OG-100, Operating Guidelines and Minimum Standards for Certifying Solar Collectors, and has been certified by the SRCC. This award of certification is subject to all terms and conditions of the Program Agreement and the documents incorporated therein by reference. This document must be reproduced in its entirety.

| <b>ADDITIONAL INFORMATION</b> ( <a href="#">click here to return to the rating page</a> ) |            |                |                    |
|---|------------|----------------|--------------------|
| Test Lab:   | Bodycote   | Test Date:     | September 14, 2007 |
| Test Report Number:   | 07-08-0503 | Test Location: | indoors            |

| <b>SOLAR COLLECTOR CONSTRUCTION DETAILS</b> |         |                     |         |                     |          |
|---|---------|---------------------|---------|---------------------|----------|
| <b>Gross Length:</b>                        | 0.000 m | <b>Gross Width:</b> | 0.000 m | <b>Gross Depth:</b> | 0.000 mm |

| <b>COLLECTOR MATERIALS</b>   |                      |                        |                               |                         |             |
|------------------------------|----------------------|------------------------|-------------------------------|-------------------------|-------------|
| <b>Outer Cover:</b>          | Other                | <b>Enclosure back:</b> | Aluminum                      | <b>Back Insulation:</b> | Fiber, None |
| <b>Inner Cover:</b>          | None                 | <b>Enclosure side:</b> | Aluminum                      | <b>Side Insulation:</b> | Fiber, None |
| <b>Absorber Description:</b> |                      |                        | <b>Flow Pattern:</b>          |                         |             |
| <b>Riser Tube:</b>           | Copper               |                        | <b>Fin:</b>                   |                         |             |
| <b>Absorber Coating:</b>     | Moderately selective |                        | <b>Tube to fin connection</b> |                         |             |

| <b>GLAZING</b>                                | <b>Outer Cover</b> | <b>Inner Cover</b> |
|---|--------------------|--------------------|
| <b>Material:</b>                              | Other              | None               |
| <b>Surface Characteristics:</b>               |                    |                    |
| <b>Thickness:</b>                             | 0.0 mm             | N/A                |
| <b>Transmissivity:</b>                        |                    |                    |
| <b>Length:</b>                                | 0.000 m            |                    |
| <b>Width:</b>                                 | 0.000 m            |                    |
| <b>Tube Glazing to Header Enclosure Seal:</b> |                    |                    |

|                             |        |                       |                          |                                   |  |
|-----------------------------|--------|-----------------------|--------------------------|-----------------------------------|--|
| <b>ABSORBER:</b>            |        |                       | <b>Absorber Coating:</b> | Moderately selective              |  |
| <b>Header Material:</b>     |        | <b>Header OD:</b>     |                          | <b>Header Wall:</b>               |  |
| <b>Riser Tube Material:</b> | Copper | <b>Riser Tube OD:</b> |                          | <b>Riser Tube Wall Thickness:</b> |  |
| <b>Fin Material:</b>        |        | <b>Fin Thickness:</b> | 0.00 mm                  |                                   |  |





**CERTIFIED SOLAR COLLECTOR**

**SUPPLIER:**  
**Solarhot**  
 2800 Perimeter Park Dr. Suite A, PO Box 1154  
 Morrisville, NC 27560 USA  
 www.solarhotusa.com

**BRAND:** SOLARHOT Solstice  
**MODEL:** S-SC-126S40  
**COLLECTOR TYPE:** Glazed Flat Plate  
**CERTIFICATION #:** 2006048C  
**Original Certification:** December 27, 2007  
**Expiration Date:** September 14, 2019

In Accordance with:  
**SRCC Standard 100-2005-09**

The solar collector listed below has been evaluated by the Solar Rating & Certification Corporation™ (SRCC™), an ANSI accredited and EPA recognized Certification Body, in accordance with SRCC OG-100, Operating Guidelines and Minimum Standards for Certifying Solar Collectors, and has been certified by the SRCC. This award of certification is subject to all terms and conditions of the Program Agreement and the documents incorporated therein by reference. This document must be reproduced in its entirety.

|                               |        |                                 |  |   |   |
|-------------------------------|--------|---------------------------------|--|---|---|
| <b>Flow Pattern:</b>          |        |                                 |  |   |   |
| <b>Number of Riser Tubes:</b> | 0      | <b>Tube Spacing:</b>            |  | <b>Number of times each riser crosses the absorber:</b> | 0 |
| <b>Length of Flow Path:</b>   | 0.00 m | <b>Riser to Fin/Plate Bond:</b> |  |   |   |

|                                     |             |                  |                             |             |                  |
|-------------------------------------|-------------|------------------|-----------------------------|-------------|------------------|
| <b>INSULATION:</b>                  |             |                  |                             |             |                  |
| <b>Location</b>                     | <b>Type</b> | <b>Thickness</b> | <b>Location</b>             | <b>Type</b> | <b>Thickness</b> |
| <b>Back – Top Layer:</b>            | Fiber       |                  | <b>Sides – Inner Layer:</b> | Fiber       |                  |
| <b>Back – Bottom Layer:</b>         | None        |                  | <b>Sides – Outer Layer:</b> | None        |                  |
| <b>Enclosure Fastening Methods:</b> |             |                  |                             |             |                  |

|  |    |    |    |    |
|--|----|----|----|----|
| <b>Power Output per Collector(W)</b><br>[ Ti-Ta, G = 1000 W/m² ] |    |    |    |    |
| 0  | 10 | 30 | 50 | 70 |

|                      |           |  |             |                          |
|----------------------|-----------|--|-------------|--------------------------|
| <b>PRESSURE DROP</b> |           |  |             |                          |
| <b>Flow</b>          | <b>ΔP</b> |  | <b>Flow</b> | <b>ΔP</b>                |
| <b>ml/s</b>          | <b>Pa</b> |  | <b>gpm</b>  | <b>in H<sub>2</sub>O</b> |
| 20                   |           |  | 0.32        |                          |
| 50                   |           |  | 0.79        |                          |
| 80                   |           |  | 1.27        |                          |

