



ICC-SRCC LISTING

SRCC™ Solar Heating & Cooling Code & Standard Listing Program

Listing Number: SRCC-16002

Effective Date: April 6, 2016

This listing is subject to re-examination in one year.

www.solar-rating.org (888) 422-7233 ICC-SRCC
500 New Jersey Avenue, NW
6th Floor
Washington, DC 20001

The Industry Standard Since 1980 | A Member of the International Code Council (ICC) Family of Companies

CSI: DIVISION: 22 00 00 – PLUMBING
Section: 22 33 30.23 - Residential Solar Domestic Water Heater System

DIVISION: 23 00 00 – HEATING
Section: 23 56 13 – Heating Solar Collectors
Section: 23 56 16 – Packaged Solar Heating Equipment

Product certification program:

The SRCC Solar Heating & Cooling Code and Standard Listing Program are conducted in accordance with the latest version of the ICC-SRCC™ *Solar Heating & Cooling Code & Standard Listing Program Guidelines*. The program includes evaluation of samples and manufacturer's quality assurance systems to assess continued compliance with applicable codes and standard.

Products: Solar Water Heating System and Solar Thermal Collectors

Listee: Heliodyne, Inc. www.heliodyne.com
4910 Seaport Ave. (510) 237-9614
Richmond, CA 94804, U.S.A.

Compliance with the following codes:

- ❖ 2015 International Plumbing Code® (IPC)
- ❖ 2015 International Green Construction Code® (IgCC)
- ❖ 2012 Uniform Solar Energy Code® (USEC)*
- ❖ 2015 Uniform Plumbing Code® (UPC)*

**Uniform Plumbing Code and Uniform Solar Energy Code are copyrighted publications and trademarks of the International Association of Plumbing and Mechanical Officials (IAPMO)*



Compliance with the following standards and criteria:

- ❖ ICC 901/SRCC 100-2015, Solar Thermal Collector Standard
- ❖ ICC 900/SRCC 300-2015, Solar Thermal Systems Standard
- ❖ SRCC EM-1, Methodology for Determining Compliance with State and Federal Lead in Plumbing Laws for Solar Heating and Cooling Equipment, 10/28/2015. Shows compliance with:
 - Reduction of Lead in Drinking Water Act, California Health and Safety Code § 116875
 - Vermont Lead Reduction Law (Vermont Act 193)
 - Louisiana Reduction of Lead Act (Louisiana Act 362)
 - Maryland Lead-Free Materials Act (HB 372)
 - Reduction of Lead in Drinking Water Act (Section 1417 of the Federal Safe Drinking Water Act (SDWA))
 - NSF 372-2010, Drinking Water System Components – Lead Content**

*** NSF 372 is a copyrighted publication of NSF International.*

Models:

The solar heating and/or cooling products listed below have been evaluated by the Solar Rating & Certification Corporation™ (SRCC™), an ISO/IEC 17065 accredited and EPA recognized Certification Body, in accordance with the SRCC Solar Heating & Cooling Code and Standard Listing Program Operating Guidelines, and has been listed by the SRCC to the codes and standards above. This award of listing is subject to all terms and conditions of the SRCC Solar Heating & Cooling Code & Standard Listing Program Agreement and the documents incorporated therein by reference. Where solar collectors are listed, all sizes of the collector model are listed.

Solar Thermal Collectors

| Collector Type | Brand Name | Model Number | SRCC OG-100 Certification Number* |
|-------------------|------------|--------------|-----------------------------------|
| Glazed Flat Plate | GOBI HT | 410 003 | 2012027B |
| Glazed Flat Plate | GOBI HT | 406 003 | 2012027A |
| Glazed Flat Plate | GOBI | 408 002 | 2010116C |
| Glazed Flat Plate | GOBI | 406 002 | 2010116B |
| Glazed Flat Plate | GOBI | 410 002 | 2010116A |
| Glazed Flat Plate | GOBI | 408 001 | 2010115D |
| Glazed Flat Plate | GOBI | 406 001 | 2010115C |
| Glazed Flat Plate | GOBI | 404 001 | 2010115B |
| Glazed Flat Plate | GOBI | 410 001 | 2010115A |
| Glazed Flat Plate | GOBI | 336 001 | 2007027A |
| Glazed Flat Plate | GOBI | 410 001 Plus | 10001912 |



Solar Thermal Systems

| Brand Name | Model Number | SRCC OG-300 Certification Number* |
|------------|--------------------------------------|-----------------------------------|
| Heliodyne | HPAK 016 1 406 G 65 ACS F | 30004047 |
| Heliodyne | HPAK 016 1 406 G 65 ACD Z | 30004042 |
| Heliodyne | HPAK 016 2 406 G 80 ACD | 30004037 |
| Heliodyne | HPAK 016 1 406 G 75PD AC S Z | 30004032 |
| Heliodyne | HPAK 016 3 406 G 120 ACS | 30004030 |
| Heliodyne | HPAK 016 1 406 G 65 ACS | 30004027 |
| HELIOPAK | HPAK 016 1 410 G 80 ACD Z | 2011141B |
| HELIOPAK | HPAK 016 3 406 G 120 ACD Z | 2011141A |
| HELIOPAS | HPAS 2 408 G 75 AC S Z | 2010137J |
| HELIOPAK | HPAK 016 2 410 G 120 ACS F | 2010136K |
| HELIOPAK | HPAK 016 2 408 G 120 ACS F | 2010136J |
| HELIOPAK | HPAK 016 3 406 G 120 ACS F | 2010136I |
| HELIOPAK | HPAK 016 1 410 G 80 ACS F | 2010136G |
| HELIOPAK | HPAK 016 2 406 G 80 ACS F | 2010136E |
| HELIOPAK | HPAK 016 2 408 G 75PD AC S Z | 2010135I |
| HELIOPAK | HPAK 016 2 406 G 75PD AC S Z | 2010135H |
| HELIOPAK | HPAK 016 1 410 G 75PD AC S Z | 2010135G |
| VELUX | CLI U12 SK0(W/L/F/P)21(10/12) NG B/U | 2010112B |
| VELUX | CLI U12 SK0(W/L/F/P)219 HX B/U | 2010111B |
| VELUX | CLI U12 SK0(W/L/F/P)218 EL B/U | 2010110B |
| HELIO-FLO | HF 1 410 G 80 ACS F | 2010035G |
| HELIOPAK | HPAK 016 1 408 G 80 ACD Z | 2009036I |
| HELIOPAK | HPAK 016 2 406 G 80 ACD Z | 2009036H |
| HELIOPAK | HPAK 016 2 410 G 120 ACD Z | 2009036D |
| HELIOPAK | HPAK 016 2 408 G 120 ACD Z | 2009036C |
| HELIOPAK | HPAK 016 1 410 G 80 ACD | 2009035J |
| HELIOPAK | HPAK 016 2 410 G 120 ACD | 2009035D |
| HELIOPAK | HPAK 016 2 410 G 120 ACS | 2009034O |
| HELIOPAK | HPAK 016 1 408 G 80 ACS | 2009034N |
| HELIOPAK | HPAK 016 2 406 G 80 ACS | 2009034L |
| HELIOPAK | HPAK 016 2 408 G 120 ACS | 2009034C |
| HELIOPAK | HPAK 016 1 410 G 80 ACS | 2009034B |



SOLAR RATING
& CERTIFICATION
CORPORATION

| | | |
|-----------|----------------------|----------|
| HELIO-FLO | HF 1410 G 80 AC D Z | 2001025C |
| HELIO-FLO | HF 3408 G 120 AC D E | 2001024F |
| HELIO-FLO | HF 2406 P 80 AC S E | 2001023S |
| HELIO-FLO | HF 2406 G 80 AC S E | 2001023R |
| HELIO-FLO | HF 2410 P 120 AC S E | 2001023P |
| HELIO-FLO | HF 3408 P 120 AC S E | 2001023N |
| HELIO-FLO | HF 2408 P 80 AC S E | 2001023M |
| HELIO-FLO | HF 1408 P 60 AC S E | 2001023L |
| HELIO-FLO | HF 2410 G 120 AC S E | 2001023G |
| HELIO-FLO | HF 2408 G 120 AC S E | 2001023F |
| HELIO-FLO | HF 1410 G 80 AC S E | 2001023B |

* Collector and system certifications to the SRCC OG-100 and OG-300 programs may be obtained on the SRCC website at www.solar-rating.org

Installation:

Solar water heating systems and solar collectors must be installed in accordance with the manufacturer's published installation instruction, the applicable code(s) and this listing. Where differences exist, the instructions in this listing must govern.

All individual components of the system which may require periodic examination, adjustment, service and or maintenance must be easily and safely accessible by the owner in accordance with the codes in force at the installation site.

Interconnection of the auxiliary system to the solar energy system shall be made in a manner which will not result in excessive temperature or pressure in the auxiliary system or bypassing of safety devices of the auxiliary system.

Collectors and support shall be installed in such a manner that water flowing off the collector will not damage the building or cause premature erosion of the roof. Water tanks located in or above the living space shall be installed on a drip pan with a drain line to safely remove any excess liquid.

Structural supports shall be selected and installed in such a manner that thermal expansion of the collector and piping will not cause damage to the collector, structural frame or building. Hangers shall provide adequate support and correct pitch of piping and shall be designed to avoid compressing or damaging any pipe insulation material.

Control sensors and the means for transmitting sensor outputs to control devices shall be protected from environmental influence such as wind, moisture, temperature or other factors that may alter their intended sensing function.



SOLAR RATING
& CERTIFICATION
CORPORATION

Conditions of Listing:

1. System components shall be installed in accordance with the manufacturer's published installation instructions and the applicable code(s).
2. System components requiring access for maintenance and inspection shall be install to provide required access in accordance with manufacturer's instructions and local codes.
3. Systems and components shall be installed in accordance with the requirements of ICC 900/SRCC 300, Section 503 of the IPC, Chapter 5 of the UPC and Chapter 3 of the USEC and must provide provision for bypass, adjustment or override controls as are required to facilitate installation, startup, operation, shutdown and maintenance.
4. Systems utilizing a non-potable heat transfer fluid must not be connected to the potable water system except through the use of approved devices such as backflow preventers or double-walled heat exchangers.
5. Systems shall be sized in accordance with the demand, manufacturer's requirement, and local codes.
6. Systems shall not be installed below flood elevation level.
7. Systems shall only be used with water or aqueous solutions of ethylene glycol or propylene glycol up to 100% concentration per manufacturer's requirements.
8. Relief valves shall discharge to an approved receptor for disposal in accordance with local codes and requirements.
9. Each installation must be pressure-tested for leaks in the presence of the code official or code official's designated representative.
10. When installation is in fire-resistance-rated assemblies, evidence of compliance with IBC Section 712 (penetrations) must be provided to the code official for approval.
11. System components shall be assembled such that firestopping shall be possible at the time of installation, if required by local codes and ordinances.
12. Devices and components shall not reduce or increase humidity, temperature or thermal radiation beyond acceptable levels or interfere with required headroom or air circulation space.
13. Neither wind loading nor the additional weight of filled collectors shall exceed the live or dead load ratings of the building, roof, roof anchorage, foundation or soil. Collector supports shall not impose undue stresses on the collectors. The design load shall be as specified by the codes in force at the installation site and shall include and additional load due to snow accumulation for applicable locations.
14. Piping should be sloped toward drain ports with a drainage slope of no less than 2 cm of vertical drop for each meter of horizontal length (1/4 inch per foot). Underground piping shall be installed to withstand surface loads. The trenches and backfill shall be free of sharp objects in contact with the pipe.
15. Field-applied pipe and tank insulation shall comply with local code requirements for thermal insulation value, flame spread, smoke development and finishing.
16. System components shall be compatible with contacting fluids. Components and devices contacting potable water shall comply with NSF 61 and Federal Safe Drinking Water Act requirements for lead content.
17. Devices and components are manufactured by Heliodyne, Inc. in Richmond, CA under a quality control program with surveillance inspection every other year conducted in accordance with the requirements of ICC-SRCC.



SOLAR RATING
& CERTIFICATION
CORPORATION

Marking:

Models listed above were evaluated to the codes and standards listed in accordance with the SRCC Solar Heating & Cooling Code Listing Program Guidelines and are eligible to display the following mark as governed by the SRCC Solar Heating & Cooling Code Listing Program Agreement.



Each device or component shall also be permanently marked with manufacturer's name or trademark, model name and/or number, recommended working fluids, maximum working temperature and pressure, and recommended flow rate(s).

All warning lights, switches and controls shall be clearly identified. Where the pump station includes electrical components, the station shall be labeled with the electrical rating in volts, amperes and motor phase.

Any operation, maintenance and installation instruction manuals from the manufacturer shall be supplied with the pump station. Supplier's contact information shall be included with these documents.

Listings are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the listing or a recommendation for its use. There is no warranty by the Solar Rating and Certification Corporation, express or implied as to any finding or other matter in this listing, or as to any product covered by the listing. This document must be reproduced in its entirety.