



CERTIFIED SOLAR SYSTEM

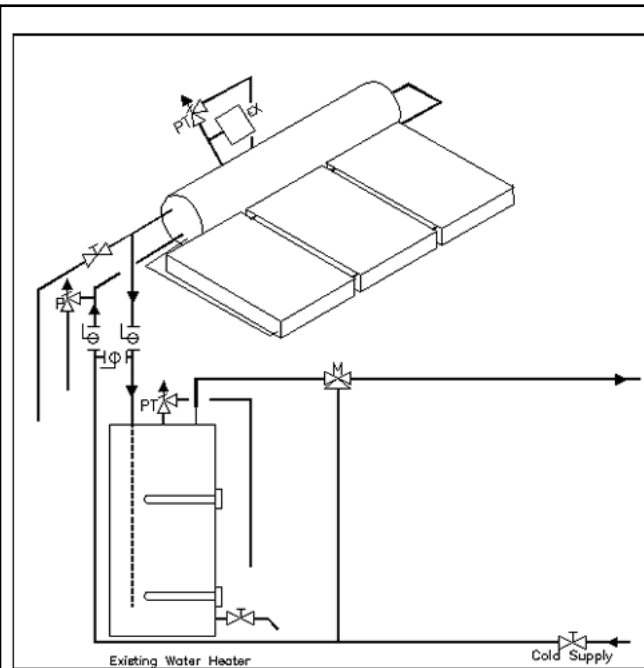
SUPPLIER:
Papaemmanouel S.A.
 1st Km. Inofyta-St. Thomas
 Industrial Zone of Inofyta
 Inofyta-Viotia, VIOTIA 32011 Greece
 www.papaemmanouel.gr

BRAND: Solar Flame
MODEL: 300ABL450
SYSTEM TYPE: Thermosiphon, Indirect
CERTIFICATION #: 30003673
Original Certification: November 21, 2013
Expiration Date: November 21, 2018

The solar system 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-300, Operating Guidelines for Certifying Solar Water Heating Systems, 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.

Description: Glazed Flat Plate, -7 °C 19 °F, Non-GRAS, None, Fluid, Other

| Single-day Rating | | SINGLE DAY RATING CONDITIONS | SI Units | Inch-Pound Units |
|---|-----------------------------------|-------------------------------------|------------------------------|--------------------------------|
| Solar Energy Factor (SEF _D) | Solar Fraction (SF _D) | System Set Temperature | 57.2 °C | 135 °F |
| 1.4 | 0.33 | Environmental Temperature | 19.7 °C | 67.5 °F |
| Single-day Rating Conditions: SEF _D = Solar Energy Factor (info link) SF _D = Solar Fraction (info link) | | Ambient Temperature Profile Average | 14.4 °C | 58 °F |
| | | Water Mains Temperature | 14.4 °C | 58 °F |
| | | Delivered Load | 43.3 MJ/day | 41,045 Btu/day |
| | | Solar Irradiance | 4,733 Wh/m ² -day | 1,500 Btu/ft ² -day |



| Storage Tank(s) | | | |
|--|----------------------|------------------|--------------------|
| Solar Tank Vol (l) | Solar Tank Vol (gal) | Aux Tank Vol (l) | Aux Tank Vol (gal) |
| 300 | 79 | 229 | 60 |
| Note: The auxiliary tank can have a volume between 132 and 246 liters (35 and 65 gallons). | | | |
| Approximate Collector Area: 4.5 m ² , 48.4 ft ² | | | |

The solar water system listed here has been certified by the SRCC as meeting the minimum standards for testing, installation, operation, maintenance, performance, reliability and safety as specified in SRCC Document OG-300. Thermal performance ratings are based on the successful durability and performance testing of a sample collector, where said tests have been conducted by an independent laboratory approved and listed by the SRCC. The system has been modeled using the computer simulation program TRNSYS to calculate the ratings.

Before the Supplier can make any change in design, materials, specifications, parts, or construction, the change(s) must be reported to the SRCC for evaluation of continued certification.

REMARKS:

Jim Higgins
 Technical Director





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Only the following options for the collector array are approved:

| Option | Collector Panel Manufacturer | Collector Panel Request Number | Collector Panel Model Number | Collector Panel Name | Quantity | Total Panel area(m ²) | Total Panel area(ft ²) |
|--------|------------------------------|--------------------------------|-------------------------------------|----------------------|----------|-----------------------------------|------------------------------------|
| 1 | Papaemmanouel S.A. | 2011090A | ASL0580.S86R S-1.5m ² | Solar Flame | 3 | 4.50 | 48.41 |

