



## SUMMARY INFORMATION SHEET

FSEC # 00599

Certification Date: 15-FEB-13

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### MANUFACTURER

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<b>Company</b>	KIOTO Clear Energy	<b>Collector Model</b>	Solpal M
<b>Address</b>	Carretera El Verde - El Castillo 2000, Letter A El Salto, Jalisco Mexico		

This integral thermal storage system was tested by the Florida Solar Energy Center (FSEC) in accordance with the prescribed method and was found to meet the minimum standards established by FSEC. The purpose of the tests is to verify initial performance conditions and quality of construction only. The resulting certification is not a guarantee of long term performance or durability.

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### INTEGRAL COLLECTOR STORAGE SOLAR SYSTEM DESCRIPTION

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<b>Gross Length</b>	2.185 meters	7.17 feet
<b>Gross Width</b>	.805 meters	2.64 feet
<b>Gross Depth</b>	.212 meters	.696 feet
<b>Gross Area</b>	1.759 square meters	18.93 square feet
<b>Transparent Frontal Area</b>	1.513 square meters	16.29 square feet
<b>Volumetric Capacity</b>	138 liters	36.4 gallons
<b>Weight (empty)</b>	49 kilograms	107 pounds
<b>Test Pressure</b>	552 kPa	80.1 Psig
<b>Number of Cover Plate</b>	1	

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### MATERIALS

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<b>Enclosure</b>	Aluminum frame
<b>Glazing</b>	Textured Glass
<b>Absorber</b>	Stainless steel tank
<b>Absorber Coating</b>	Black paint
<b>Insulation</b>	Polyurethane

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### THERMAL PERFORMANCE

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A performance test was conducted outdoors in accordance with the FSEC Integral Collector Storage System Test Method. The data was used to develop a TRNSYS model for the system. The model was then used to calculate the performance under a set of standard weather conditions and loads. Total solar energy available for the standard day is 5045 Watt-hour/m<sup>2</sup> (1600 Btu/ft<sup>2</sup>) of solar energy, a 22 °C (71.6 °F) air and water temperature and a 11.75 kilowatt hour (40 120 Btu) load.

Net Energy Delivered (QNET): 4.405 kWh 15030 Btu

Heat Loss Coefficient (L):

8.818 W/°C 16.7 Btu/hr°F

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