



**CERTIFIED SOLAR COLLECTOR**

SUPPLIER:  
**GLE Solar Energy - Great Lakes Electric LLC**  
 5744 Cleveland Ave  
 Stevensville, MI 49127 USA  
 www.gl-electric.com

BRAND: GLE  
 MODEL: SHP410  
 COLLECTOR TYPE: ICS Glazed  
 CERTIFICATION #: 2009092C  
 Original Certification: March 06, 2012  
 Expiration Date: November 23, 2013

The solar collector listed below has been evaluated by the Solar Rating & Certification Corporation™ (SRCC™) 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.

COLLECTOR THERMAL PERFORMANCE RATING							
Kilowatt-hours (thermal) Per Panel Per Day				Thousands of Btu Per Panel Per Day			
Climate -> Category (Ti-Ta)	High Radiation (6.3 kWh/m².day)	Medium Radiation (4.7 kWh/m².day)	Low Radiation (3.1 kWh/m².day)	Climate -> Category (Ti-Ta)	High Radiation (2000 Btu/ft².day)	Medium Radiation (1500 Btu/ft².day)	Low Radiation (1000 Btu/ft².day)
A (-5 °C)	6.5	5.1	3.7	A (-9 °F)	22.1	17.5	12.7
B (5 °C)	5.9	4.6	3.2	B (9 °F)	20.2	15.6	10.8
C (20 °C)	5.1	3.7	2.3	C (36 °F)	17.3	12.7	7.9
D (50 °C)	3.4	2.0	0.6	D (90 °F)	11.6	7.0	2.1
E (80 °C)	1.7	0.4	0.0	E (144 °F)	5.8	1.2	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			Collector and Storage Vessel Specifications		
<b>Gross Area:</b>	2.266 m²	24.39 ft²	<b>Dry Weight:</b>	90 kg	198 lb
<b>Net Aperture Area:</b>	1.196 m²	12.87 ft²	<b>Fluid Capacity:</b>	87.0 liter	23.0 gal
<b>Absorber Area:</b>	1.049 m²	11.29 ft²	<b>Test Pressure:</b>	1103 kPa	160 psi

TECHNICAL INFORMATION		Tested in accordance with: ISO 9806	
<b>ISO Efficiency Equation</b> [NOTE: Based on gross area and (P)=Ti-Ta]			
<b>SI UNITS:</b>	$\eta = 0.424 - 1.163(P/G)$		
<b>IP UNITS:</b>	$\eta = 0.424 - 0.205(P/G)$		

Incident Angle Modifier $K_{\tau\alpha} = 1 - 0.1 [(1/\cos \theta) - 1]$								Test Fluid:	
$\theta$	10	20	30	40	50	60	70	Water	
$K_{\tau\alpha}$								<b>Simulated Flow Rate:</b>	0.0201 kg/(s m²)    14.82 lb/(hr ft²)
								<b>Impact Safety Rating: 0</b>	

REMARKS:

*Jeri Higgins*

Technical Director

