

OG-100 ICC-SRCC™ CERTIFIED SOLAR COLLECTOR # 2010052A



Supplier:
Haining Xianke New Material Technology Co., Ltd.
 No.58, Yuanhua Industrial Area
 Haining, ZHEJIANG 314416 China
 www.xiankesolar.com
 Reference Standard:
SRCC Standard 100-2010-08

Brand: Xianke
 Model: XKPH58-15
 Collector Type: Tubular
 Certification #: 2010052A
 Original Certification: September 30, 2011
 Renewal Expiration Date: September 30, 2018
 Certifications must be renewed annually.

This solar collector has been evaluated and certified by the Solar Rating & Certification Corporation™ (ICC-SRCC™), an ISO/IEC 17065 accredited and EPA recognized Certification Body, in accordance with the SRCC OG-100 Certification Program, as defined in SRCC OG-100, Operating Guidelines and Minimum Standards for Certifying Solar Collectors. This award of certification is subject to all terms and conditions of the current OG-100 Program Agreement and the documents incorporated therein by reference. This document must be reproduced in its entirety.

COLLECTOR THERMAL PERFORMANCE RATINGS							
Kilowatt-hours (thermal) Per Panel Per Day				Thousands of Btu Per Panel Per Day			
Climate -> Category (Ti-Ta)	High Radiation (6.3 kWh/m ² .day)	Medium Radiation (4.7 kWh/m ² .day)	Low Radiation (3.1 kWh/m ² .day)	Climate -> Category (Ti-Ta)	High Radiation (2000 Btu/ft ² .day)	Medium Radiation (1500 Btu/ft ² .day)	Low Radiation (1000 Btu/ft ² .day)
A (-5 °C)	6.8	5.1	3.5	A (-9 °F)	23.3	17.5	11.8
B (5 °C)	6.6	5.0	3.3	B (9 °F)	22.7	17.0	11.2
C (20 °C)	6.4	4.7	3.0	C (36 °F)	21.7	16.0	10.3
D (50 °C)	5.7	4.0	2.4	D (90 °F)	19.4	13.7	8.1
E (80 °C)	5.0	3.4	1.7	E (144 °F)	17.0	11.5	5.9

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

TECHNICAL RESULTS				Tested in accordance with: ISO 9806:1994				
ISO Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Ta]								
SI UNITS:	$\eta = 0.420 - 0.65440(P/G) - 0.00310(P^2/G)$			Y Intercept:	0.420	Slope:	-0.786 W/m ² .°C	
IP UNITS:	$\eta = 0.420 - 0.11533(P/G) - 0.00030(P^2/G)$			Y Intercept:	0.420	Slope:	-0.139 Btu/hr.ft ² .°F	
Incident Angle:	θ	10 ⁰	20 ⁰	30 ⁰	40 ⁰	50 ⁰	60 ⁰	70 ⁰
Transverse IAM:	K _{tr}	1.02	1.06	1.14	1.25	1.40	1.55	1.35
Longitudinal IAM:	K _l	1.00	0.99	0.97	0.95	0.90	0.82	0.65

COLLECTOR SPECIFICATIONS					
Gross Area:	2.342 m ²	25.21 ft ²	Dry Weight:	48.1 kg	106.0 lb
Net Aperture Area:	1.417 m ²	15.25 ft ²	Fluid Capacity:	0.9 liter	0.2 gal
REMARKS:					

Shawn Martin

Technical Director

Print Date: March 13, 2018 Page 1 of 5

Please verify certification is active on the SRCC website www.solar-rating.org.
 © Solar Rating & Certification Corporation™ (ICC-SRCC) 3060 Saturn Street, Suite 100, Brea, CA 92821



OG-100 ICC-SRCC™ CERTIFIED SOLAR COLLECTOR # 2010052A



SOLAR RATING
& CERTIFICATION
CORPORATION

Supplier:
Haining Xianke New Material Technology Co., Ltd.
No.58, Yuanhua Industrial Area
Haining, ZHEJIANG 314416 China
www.xiankesolar.com
Reference Standard:
SRCC Standard 100-2010-08

Brand: Xianke
Model: XKPH58-15
Collector Type: Tubular
Certification #: 2010052A
Original Certification: September 30, 2011
Renewal Expiration: September 30, 2018
Date:

Certifications must be renewed annually.

This solar collector has been evaluated and certified by the Solar Rating & Certification Corporation™ (ICC-SRCC™), an ISO/IEC 17065 accredited and EPA recognized Certification Body, in accordance with the SRCC OG-100 Certification Program, as defined in SRCC OG-100, Operating Guidelines and Minimum Standards for Certifying Solar Collectors. This award of certification is subject to all terms and conditions of the current OG-100 Program Agreement and the documents incorporated therein by reference. This document must be reproduced in its entirety.

ADDITIONAL INFORMATION ([click here to return to the rating page](#))

COLLECTOR TESTING INFORMATION

Test Lab:	IZES gGmbH (Institut für ZukunftsEnergieSysteme)		Test Date:	July 13, 2011	
Test Report Number:	KT_SRCC10_18		Test Location:	outdoors	
Test Fluid:	Water				
Test Mass Flow Rate:	0.0118 kg/(s m²)	8.67 lb/(hr ft²)	Test Pressure:	900 kPa	131 psi

SOLAR COLLECTOR CONSTRUCTION DETAILS

Header Enclosure:

Gross Length:	1.976 m	Gross Width:	1.185 m	Gross Depth:	0.117 m
Tube Bank:					
Gross Length:	0.185 m	Gross Width:	1.185 m		

COLLECTOR MATERIALS

Outer Cover:	Polymer film	Enclosure back:	Aluminum	Back Insulation:	Vacuum,
Inner Cover:	Glass Tube	Enclosure side:	Aluminum	Side Insulation:	,
Absorber Description:	Glass Tubes		Flow Pattern:	Mixed	
Riser Tube:	Copper		Fin:	Glass	
Absorber Coating:	Selective		Tube to fin connection	Mechanical	



OG-100 ICC-SRCC™ CERTIFIED SOLAR COLLECTOR # 2010052A



SOLAR RATING
& CERTIFICATION
CORPORATION™

Supplier:
Haining Xianke New Material Technology Co., Ltd.
No.58, Yuanhua Industrial Area
Haining, ZHEJIANG 314416 China
www.xiankesolar.com
Reference Standard:
SRCC Standard 100-2010-08

Brand: Xianke
Model: XKPH58-15
Collector Type: Tubular
Certification #: 2010052A
Original Certification: September 30, 2011
Renewal Expiration: September 30, 2018
Date:

Certifications must be renewed annually.

This solar collector has been evaluated and certified by the Solar Rating & Certification Corporation™ (ICC-SRCC™), an ISO/IEC 17065 accredited and EPA recognized Certification Body, in accordance with the SRCC OG-100 Certification Program, as defined in SRCC OG-100, Operating Guidelines and Minimum Standards for Certifying Solar Collectors. This award of certification is subject to all terms and conditions of the current OG-100 Program Agreement and the documents incorporated therein by reference. This document must be reproduced in its entirety.

GLAZING	Outer Cover	Inner Cover
Material:	Polymer film	Glass Tube
Surface Characteristics:	Smooth	Smooth
Thickness:	1.8 mm	1.6 mm
Transmissivity:	High (equal to or greater than 90%)	Low (below 87%)
Gross Tube Length (uninstalled):	1.800 m	
Diameter:	0.058 m	0.047 m
Tube Glazing to Header Enclosure Seal:	Silicone bead	

Reflector Shape:		Reflector Material:	
------------------	--	---------------------	--

ABSORBER					
Header Material:	Copper	Header OD:	22.0 mm	Header Wall:	2.0 mm
Riser Tube Material:	Copper	Riser Tube OD:	8.0 mm	Riser Tube Wall Thickness:	0.4 mm
Fin Material:	Glass	Fin Thickness:	0.15 mm		
Flow Pattern:	Mixed	Number of Flow Tubes / Heat Pipes:	15	Tube / Heat Pipe Spacing:	75.0 mm
Number of absorber tubes:	1	Flow Tube to Fin Bond:	Mechanical	Length of Flow Path:	
Length of Flow Path:		Riser to Fin/Plate Bond:	Mechanical		

INSULATION:					
Location	Type	Thickness	Location	Type	Thickness
Back – Top Layer:	Vacuum	3.7 mm	Sides – Inner Layer:		
Back – Bottom Layer:			Sides – Outer Layer:		
Enclosure Fastening Methods:	Mechanical Forming		Header Enclosure:	Aluminum	



OG-100 ICC-SRCC™ CERTIFIED SOLAR COLLECTOR # 2010052A



**SOLAR RATING
& CERTIFICATION
CORPORATION™**

Supplier:
**Haining Xianke New Material Technology Co.,
Ltd.**
No.58, Yuanhua Industrial Area
Haining, ZHEJIANG 314416 China
www.xiankesolar.com

Reference Standard:
SRCC Standard 100-2010-08

Brand: Xianke
Model: XKPH58-15
Collector Type: Tubular
Certification #: 2010052A
Original Certification: September 30, 2011
Renewal Expiration: September 30, 2018
Date:

Certifications must be renewed annually.

This solar collector has been evaluated and certified by the Solar Rating & Certification Corporation™ (ICC-SRCC™), an ISO/IEC 17065 accredited and EPA recognized Certification Body, in accordance with the SRCC OG-100 Certification Program, as defined in SRCC OG-100, Operating Guidelines and Minimum Standards for Certifying Solar Collectors. This award of certification is subject to all terms and conditions of the current OG-100 Program Agreement and the documents incorporated therein by reference. This document must be reproduced in its entirety.

Power Output per Collector(W) [Ti-Ta, G = 1000 W/m²]				
0	10	30	50	70
986	966	930	888	840

PRESSURE DROP				
Flow	ΔP		Flow	ΔP
ml/s	Pa		gpm	in H₂O
20	53		0.32	0.2
50	200		0.79	0.8
80	427		1.27	1.7



OG-100 ICC-SRCC™ CERTIFIED SOLAR COLLECTOR # 2010052A



**SOLAR RATING
& CERTIFICATION
CORPORATION**

Supplier:
**Haining Xianke New Material Technology Co.,
Ltd.**
No.58, Yuanhua Industrial Area
Haining, ZHEJIANG 314416 China
www.xiankesolar.com
Reference Standard:
SRCC Standard 100-2010-08

Brand: Xianke
Model: XKPH58-15
Collector Type: Tubular
Certification #: 2010052A
Original Certification: September 30, 2011
Renewal Expiration: September 30, 2018
Date:

Certifications must be renewed annually.

This solar collector has been evaluated and certified by the Solar Rating & Certification Corporation™ (ICC-SRCC™), an ISO/IEC 17065 accredited and EPA recognized Certification Body, in accordance with the SRCC OG-100 Certification Program, as defined in SRCC OG-100, Operating Guidelines and Minimum Standards for Certifying Solar Collectors. This award of certification is subject to all terms and conditions of the current OG-100 Program Agreement and the documents incorporated therein by reference. This document must be reproduced in its entirety.

ICC-SRCC OG-100 Certification Label

The collectors listed in this certification must display the label below.
The certification label must be permanently affixed to each collector in accordance with SRCC OG-100 program requirements.

