



Sun and Air Renew Your Life

Solar Thermal Products

Linuo Ritter International Co.,Ltd.

 No. 30766 East Jingshi Road, Jinan, Shandong, China
✉ info@linuo-ritter.com
📞 +86 531 88729466/9113
🌐 www.linuo-ritter.com



www.linuo-ritter.com

60TH
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INCLUSIVE SOLAR & AIR SOLUTIONS
FROM OWN EXCLUSIVE PRODUCTIONS



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Company Profile



Linuo Ritter has been a leading manufacturer and solution provider of comprehensive solar thermal systems since its establishment in 1995. After 30 years evolution, its business scope has been extended to R&D, manufacturing and integrated applications of solar water heater air source heat pump, photovoltaic modules and other energy sources. Linuo Ritter is committed to providing customers with the high quality products and services, Every product produced by Linuo Ritter practices the goal of "Sun and Air, Renew your Life".



01 **Linuo Ritter**

02

Linuo Ritter

Automated Production line



Production base for air source heat pumps



2 Major Production Bases

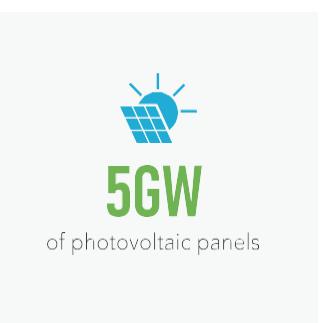
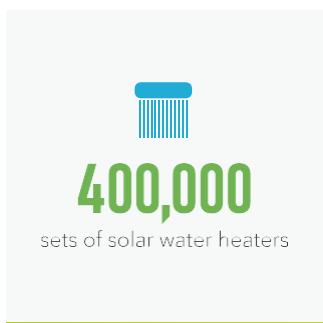


8 Production lines for different products

Intelligent solar collector production line with ABB 6 axis robots and 8 Cartesian coordinate robots.

Intelligent heat pump production line with Kawasaki robots & Auto Guided Vehicles.

Annual production capacity



Production line for solar thermal products



Testing and evaluation center

Linuo Ritter

Global Market Development

Asia
 Japan
 Korea
 Vietnam
 Thailand
 Malaysia
 Singapore
 Indonesia
 India
 Pakistan
 Türkiye
 Iraq
 Cyprus
 Lebanon
 UAE
 Yemen
 Georgia
 Turkmenistan

Europe
 Russia
 Finland
 Netherlands
 Poland
 Czech Republic
 Belgium
 Germany
 Italy
 Romania
 Serbia
 Spain
 Portugal

America
 Costa Rica
 Cuba
 Dominican Republic
 Mexico
 Costa Rica
 Colombia
 Brazil
 Chile
 Argentina

Africa
 Morocco
 Egypt
 Nigeria
 Congo
 Ethiopia
 Kenya
 South Africa

70 +
 Export countries

1500 +
 District and process heating projects



Products all over the world

30th

International market sales experience

Non-pressurized

Solar water heater with vacuum tubes

Non-pressurized solar water heater is a cost-effective system for residential hot water supply. This system is designed according to thermosiphon principle natural circulation, no need of pump. The water heated by vacuum tubes is stored in the tank with excellent insulation.

Installation types

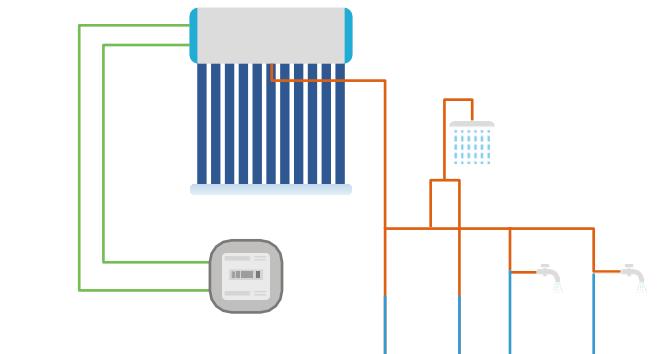
Pitched roof



Flat roof

**Features**

- ⊕ Cost-effective water heating solution
- ⊕ Long service life with low maintenance costs
- ⊕ Short payback period
- ⊕ Customized solar water heating solutions
- ⊕ High energy yield and low heat loss due to the highly evacuated vacuum tubes and PU insulation
- ⊕ Stainless steel inner tank guarantees good water quality

**Product details****Standard series**

	Item	LP-100L	LP-200L	LP-300L
General information	Rated operating pressure	Mpa	0.06	0.06
	Gross surface area	m ²	1.44	2.64
	Aperture area	m ²	0.92	1.62
Water tank	Installation dimensions (L*W*H)	mm	1053*1976*1342	1883*1976*1342
	Tank dimensions	mm	φ472*1503	φ472*1883
	Tank weight	kg	19	30
Tube	Tank of Insulation	material/mm	Polyurethane/45	Polyurethane/45
	Material (inner tank)			Stainless steel SUS304-2B
	Diameter/thickness inner tank	mm		φ380/0.5
Bracket	Material (outer tank)			White painted steel
	Diameter /thickness outer tank	mm		φ472/0.4
	Type of vacuum tubes			φ 58x1800 mm vacuum tube
Others	Evacuated tubes	pcs	10	20
	Bracket			Aluminum alloy /Silver white
	Bracket inclination	degree		30
Others	Weight	kg	6	9.5
	Electric heating			electric heating and anode protection (optional)
	DIN CERTCO registration number			011-7S2714A

NOTES: Other tank capacity, evacuated tube quantity and bracket material are available on request.

ECO series

	Item	LP(E)-100L	LP(E)-200L	LP(E)-300L
General information	Rated operating pressure	Mpa	0.06	0.06
	Gross surface area	m ²	1.33	2.69
	Aperture area	m ²	0.92	1.62
Water tank	Installation dimensions (L*W*H)	mm	990*1976*1342	1750*1976*1342
	Tank dimensions	mm	φ450*990	φ450*1750
	Tank weight	kg	16	24
Tube	Tank of Insulation	material/mm	Polyurethane/50	Polyurethane/50
	Material (inner tank)			Stainless steel SUS304-2B
	Diameter/thickness inner tank	mm		φ350/0.4
Bracket	Material (outer tank)			White painted steel
	Diameter /thickness outer tank	mm		φ450/0.4
	Type of vacuum tubes			φ58x1800 mm vacuum tube
Others	Evacuated tubes	pcs	10	20
	Bracket	material / colour		Aluminum alloy /Silver white
	Bracket inclination	degree		30
Others	Weight	kg	5.5	8
	Electric heating			electric heating and anode protection (optional)
	DIN CERTCO registration number			011-7S2714A

NOTES: Other tank capacity, evacuated tube quantity and bracket material are available on request.

Pressurized

Solar water heater with heat pipes

Pressurized solar water heater is a cost-effective system for residential hot water supply. Heat is transferred by the medium in the heat pipe to the water tank and heat the water efficiently. In addition, heat pipe vacuum tubes is highly anti-freezing, which ensures good performance in cold areas.

**Installation types**

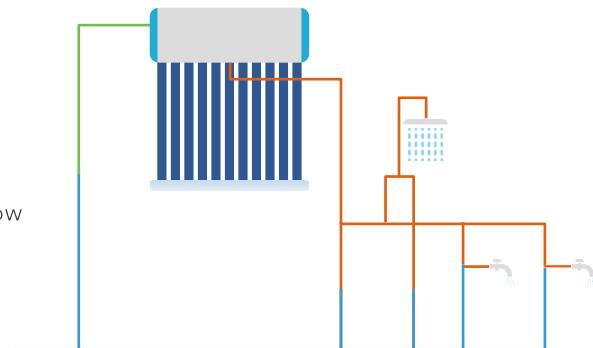
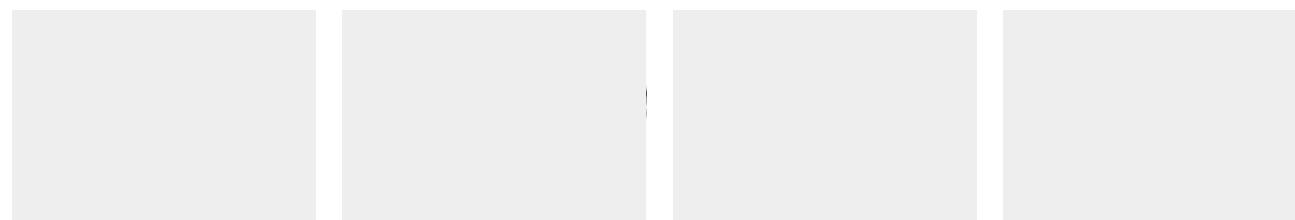
Pitched roof



Flat roof

**Features**

- Easy installation and Low maintenance cost
- Stainless steel inner tank guarantees good water quality.
- Stable operating without tube scaling or tube breakage.
- Fast temperature, high energy yield and low heat loss.
- Strong capability of anti-freezing that is suitable for applications in low temperature area.
- Pressurized operation, suitable to different installation methods.

**Product details****Technical Data**

	Item	HP-100L	HP-200L	HP-300L
General information	Rated operating pressure	Mpa	0.6	0.6
	Gross surface area	m ²	1.35	2.74
	Aperture area	m ²	1.01	2.01
Water tank	Installation dimensions (L*W*H)	mm	1286*2005*1365	2086*2005*1365
	Tank dimensions	mm	φ480*1164	φ480*1964
	Tank weight	kg	34	54
	Tank of insulation		Polyurethane/47.5mm	Polyurethane/47.5mm
	Material (inner tank)			Stainless steel SUS304-2B
	Diameter/thickness (inner tank)	mm		φ380/1.2
Tube	Material (outer tank)			White painted steel
	Diameter /thickness (outer tank)	mm		φ480/0.4
	Type of vacuum tubes			φ58x1800 mm heat pipe vacuum tube
Bracket	Evacuated tubes	pcs	10	20
	Bracket			Aluminum alloy /Silver white
	Bracket inclination	degree		30
Others	Weight	kg	7	11
	Electric heating	w		1500, with thermostat
	TP valve Temp./Pressure	C/Mpa		85/0.6
DIN CERTCO registration number				011-7S2715A

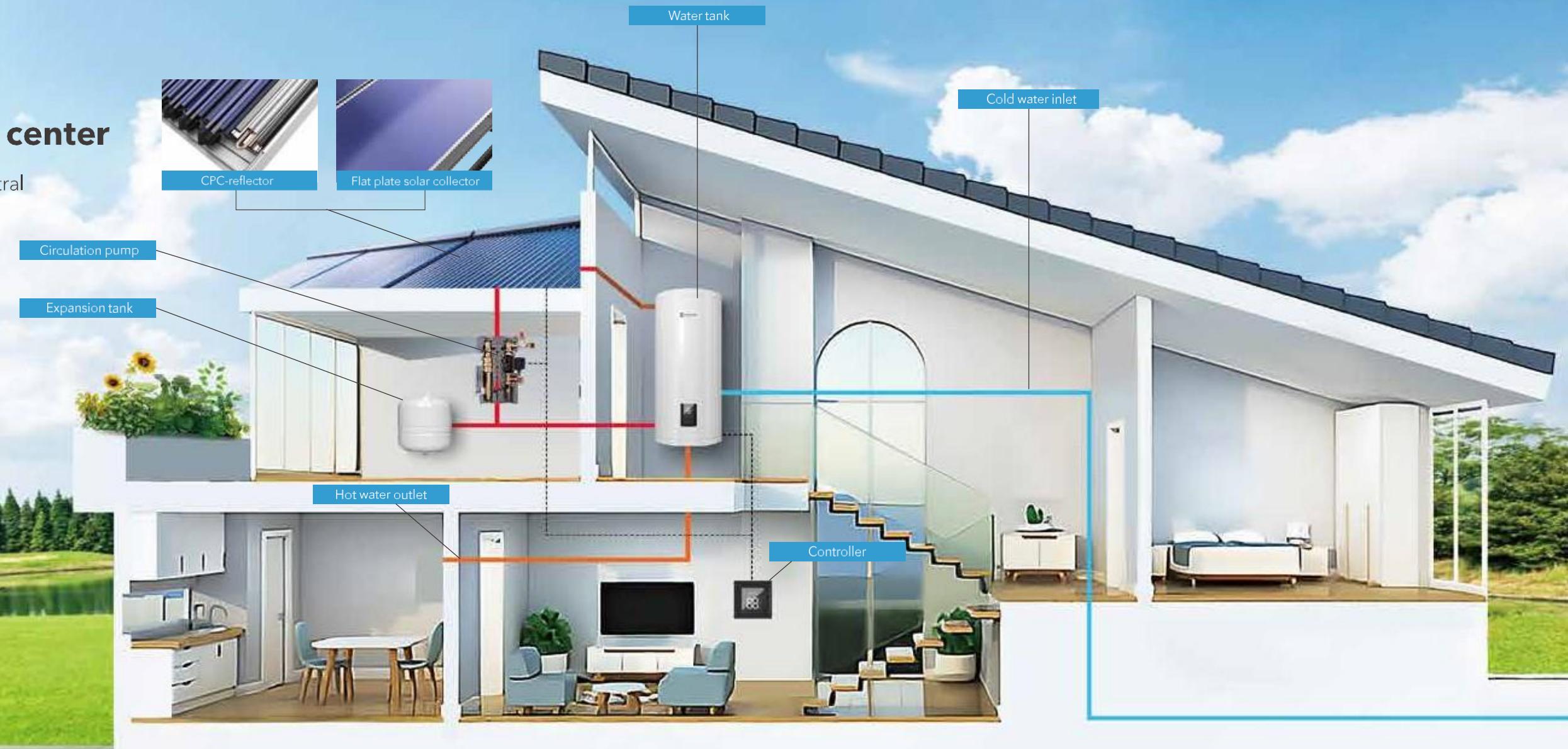
Technical Data **Economy**

	Item	HP(E)-100L	HP(E)-200L	HP(E)-300L
General information	Rated operating pressure	Mpa	0.6	0.6
	Gl (Orca) ^a	m ²	1.03	2.09
	Aperture area	m ²	0.812	1.624
Water tank	Installation dimensions (L*W*H)	mm	930*1875*1390	1545*1875*1390
	Tank dimensions	mm	φ500*930	φ500*1540
	Tank weight	kg	26	38
	Tank of insulation		Polyurethane/40mm	Polyurethane/40mm
	Material (inner tank)			Stainless steel SUS316
	Diameter/thickness (inner tank)	mm		φ420/1.2
Tube	Material (outer tank)			White painted steel
	Diameter /thickness (outer tank)	mm		φ500/0.4
	Type of vacuum tubes			φ58x1800 mm heat pipe vacuum tube
Bracket	Evacuated tubes	pcs	8	16
	Bracket			Painted galvanized steel
	Bracket inclination	degree		30
Others	Weight	kg	7	11
	Electric heating	w		1500, with thermostat
	TP valve Temp./Pressure	C/Mpa		85/0.6

NOTES: Other tank capacity and evacuated tube quantity are available on request.

Split solar system Integrated hot water center

Integrated hot water solution for central high-rise buildings and villas



Features

- 01 Using high-performance or vacuum tube solar collector(CPC-pipe collector or heat pipe collector), and it's perfectly integrated with the building.
- 02 The circulation pipeline is pre-buried in advance without affecting the aesthetics of the building.
- 03 Water tanks can be installed in different locations such as balconies, bathrooms, kitchens, and equipment rooms.
- 04 The system operates under pressure and has stable performance; indirect heat exchange effectively ensures the supply of sanitary of hot water.
- 05 The water tank operates under pressure, effectively ensuring consistent water pressure of hot and cold water and even mixing of water, improving the comfort of hot water use.

Intelligent control system



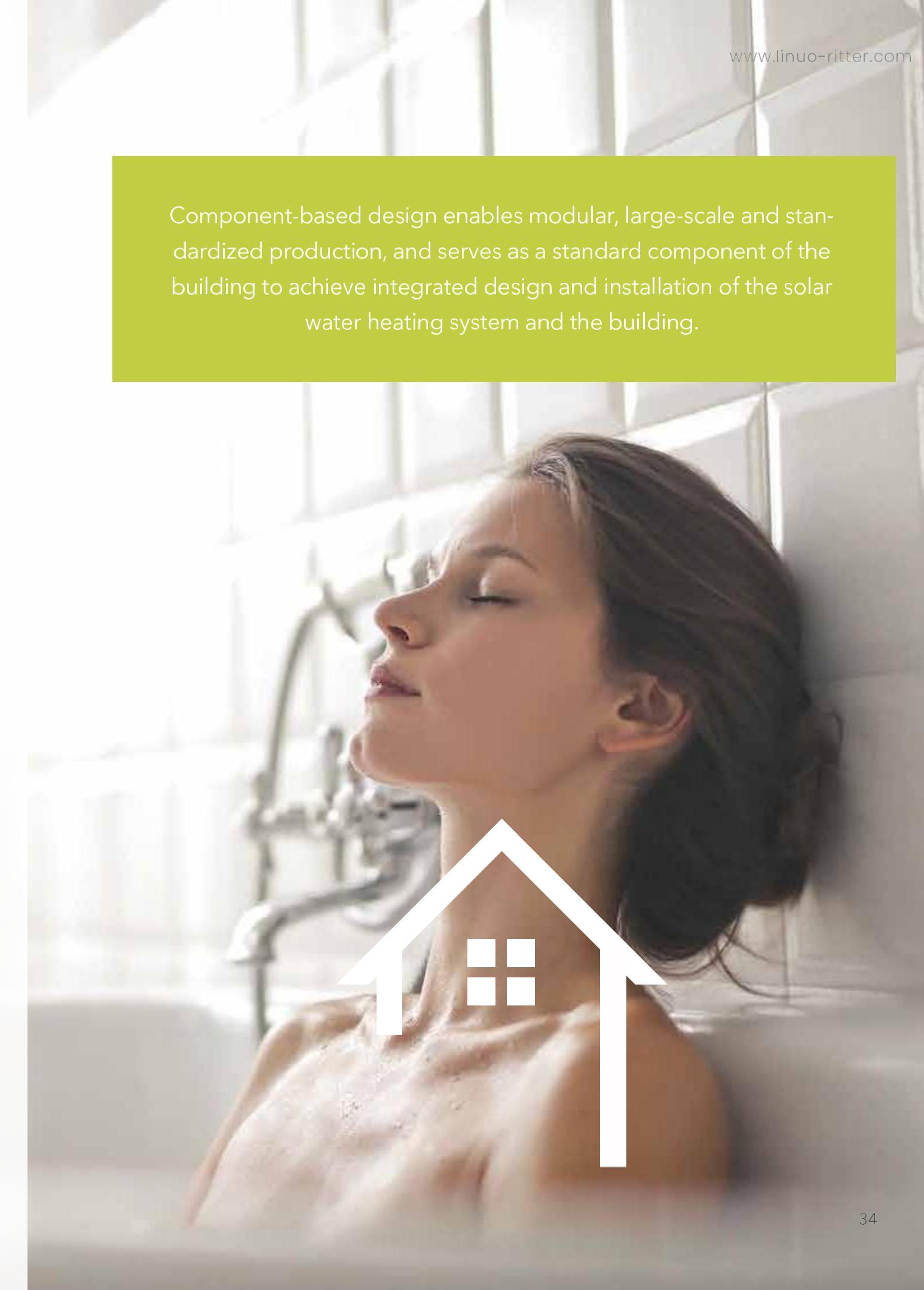
- + Heating timing
- + Low temperature protection
- + Antifreeze protection
- + Sterilization function
- + Water side circulation pump function
- + Power off memory function

Technical data

NOTES: Please see pages 21-29 for collector parameters.

Item	TSD-100/0.70-P/0.50	TSD-200/0.70-P/1.00	TSD-300/0.70-P/1.00
Water tank capacity (L)	150	200	300
Dimensions (mm)	φ560*1097	φ560*1410	φ650*1478
Inner tank material	SPCC	SPCC	SPCC
Inner tank thickness (mm)	2.0	2.0	2.5
Outer tank material	Enameled	Color coated board	Color coated board
Outer tank thickness(mm)	0.45	0.45	0.45
Insulation material	Polyurethane	Polyurethane	Polyurethane
Insulation thickness (mm)	46	46	46
Magnesium rod material	MGAZ31B	MGAZ31B	MGAZ31B
Magnesium rod thickness (mm)	φ26*570	φ26*570	φ26*570
Heat exchanger material	20#+enamel	20#+enamel	20#+enamel
Heat exchanger Specification (mm)	φ32*2	φ32*2	φ32*2
Preset pressure (MPa)	0.7	0.7	0.7
Electric heater (W)	2000	2000	2000
Collector Quantity	2	2	3
Expansion tank capacity	12	12	18
Packaging dimensions (mm)	650*650*1190	650*650*1500	750*750*1570

Component-based design enables modular, large-scale and standardized production, and serves as a standard component of the building to achieve integrated design and installation of the solar water heating system and the building.



Residential

Application cases



Project size:
600 sets
Application area:
Residential sector
Application:
Water heating
Collector type:
150L non-pressurized SWH



Project size:
84 sets
Application area:
Residential sector
Application:
Water heating
Collector type:
150L non-pressurized SWH



Project size:
8992 sets
Application area:
Residential sector
Application:
Water heating
Collector type:
120L non-pressurized SWH



Project size:
64 sets
Application area:
Residential sector
Application:
Water heating
Collector type:
350L non-pressurized SWH



Project size:
144m²
Collector type:
CPC 1518
Application area:
Public sector
Collector type:
Water heating and room heating

Commercial

Application cases



Project size: 135m²
Collector type: CPC1518
Application area: Public sector
Application: Hospital hot water and room heating



Project size: 3200m²
Collector type: CPC1518
Application area: Commercial sector
Application: Solar cooling



Project size: 600m²
Collector type: CPC1518
Application area: Service sector
Application: Industrial process heating



Project size: 2360m²
Collector type: CPC1512
Application area: Public facilities
Application: Hotel hot water and swimming pool heating



Project size: 20 sets
Collector type: FP2000-A
Application area: Residential sector
Application: Water heating