



CASKY

HEAT PUMP

HEATING | COOLING | HOT WATER



CASKY

SHANDONG ZHONGKE LANTIAN TECHNICAL CO., LTD.

ADD: No. 888, North Of Xizhong Road, Tengzhou City, Shandong, China.

Tel: 400-618-1699

Web: www.sdzklt.com

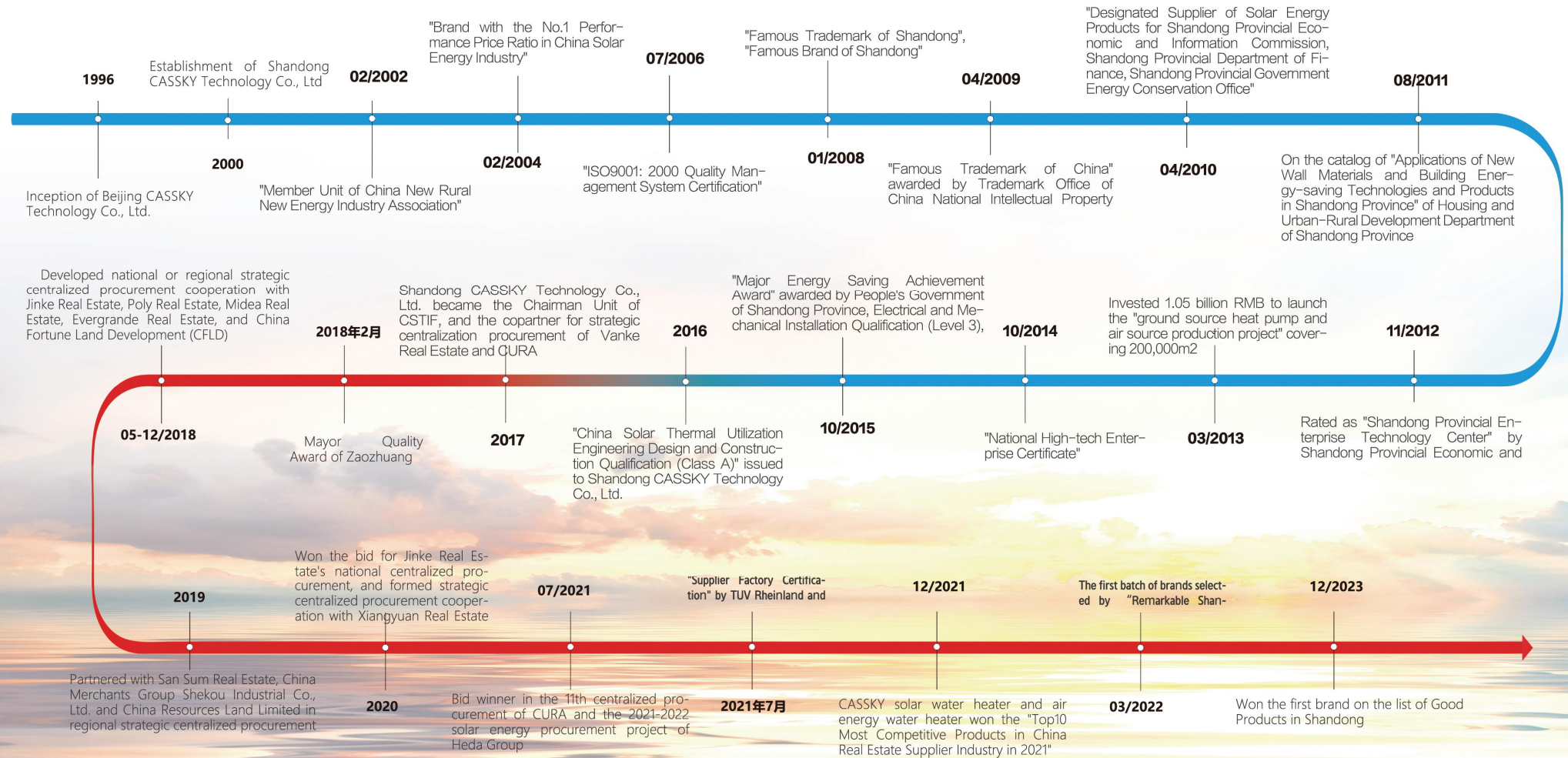


Zhongke Lantian is a high-tech enterprise specializing in the research and development, production, sales and installation of products utilizing new energies such as the solar energy, air energy, PV power generation, and the ground source heat pumps in China. Established in 1996 in Tengzhou, Shandong Province, CASSKY has a registered capital of 108 million RMB and covers 200,000m². Leveraging the cutting-edge technology of Institute of Engineering Thermophysics, Chinese Academy of Sciences (CAS), and Aerospace Research Institute of Materials & Processing Technology, China Academy of Launch Vehicle Technology (CALT), we have pinpointed the clean energy industry, aiming to provide hot water, heating, cooling and photoelectric solutions to the household, commercial, industrial and agricultural application scenarios. After multi-year accumulation, we have developed more than 10 invention patents and more than 100 utility model patents. As such, we were invited to participate in the drafting of many national and industry standards.

Renowned for our industry-leading modern production lines, we are capable of delivering 600,000 sets of solar water heaters annually. As of today, our product portfolio has covered glass vacuum pipe compact solar water heater, pressurized split solar water heater, photovoltaic electric water heater, centralized heat collection solar water heating system, centralized heat collection-household heat storage solar water heating system, solar energy + multi-energy heating system, solar energy medium and high temperature industrial heat utilization system and so on.



MILESTONES



CERTIFICATES & HONORS



Zhongke Lantian actively implements total quality management (TQM), and takes the lead in passing ISO9001:2015 quality management system certification, China Compulsory Certification (CCC), ISO14001:2015 environmental management system certification, ISO45001:2018 occupational health and safety management system certification, after-sales service certification, China Energy Saving Product Certification, China Environmental Protection Product Certification, China Environmental Label Certification, and has won "Famous Brand of Shandong" and "Famous Trademark of Shandong". More than that, we have obtained a wide range of certificates covering National High-tech Enterprise, KCPC, Golden Sun Certificate, China Solar Thermal Utilization Engineering Design and Construction Qualification (Class A), Safety Production License, Electrical Power Engineering Construction General Contractor (Class III), Electromechanical Engineering Construction General Contractor (Class III), Building Electro-mechanical Installation Engineering Professional Contractor (Class III), Fire-fighting Equipment Engineering Professional Contractor (Class II), and National Industrial Product Production License.

Class-A construction qualification
in the solar energy industry



National High-tech
Enterprise



National Industrial Product
Production License



Class-A construction qualifica-
tion in the solar energy industry



"New Technology, New Products"
promotion certificates filed in 20
provinces



National
High-tech
Enterprise



Class-A construction
qualification in the
solar energy industry



Building electrome-
chanical installation
qualification (class 3)



National Industrial
Product Production
License

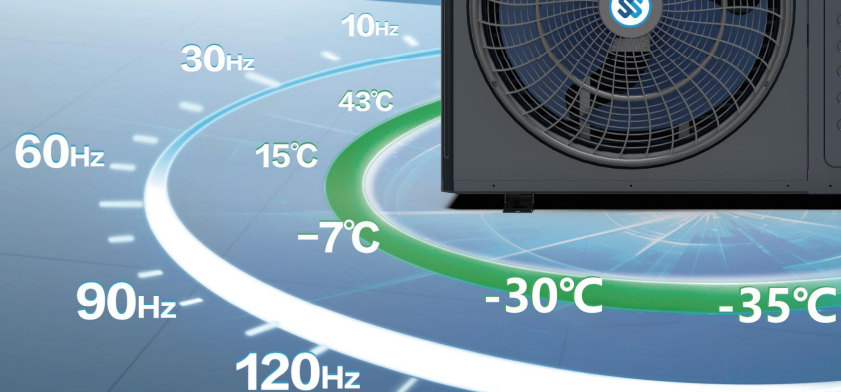


"New Technology, New
Products" promotion certifi-
cates filed in 20 provinces



Full DC variable frequency heating and cooling heat pump

- ✓ -35°C ultra-low temperature operation
- ✓ Winter heating + summer cooling
- ✓ Fast heating and energy saving
- ✓ Intelligent adjustment
- ✓ Quick defrosting
- ✓ Remote intelligent control



Poleless DC frequency conversion technology

10~120Hz intelligent adjustment

120Hz high frequency

Output can be increased to 200%

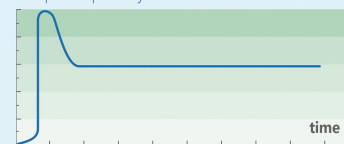
Low frequency 10Hz

Energy saving operation after reaching constant temperature



Intelligent regulation of compressor frequency, combining fast heating and energy-saving

Output capability



After indoor negative start, the output capacity reaches 200%

Output of DC frequency conversion



The output curve is consistent with the indoor load

► Technical Parameters

Model			ZKLTR-128ⅢYAH	ZKLTR-128ⅢAH	ZKLTR-168ⅢYAH	ZKLTR-168ⅢAH	ZKLTR-228ⅢYAH	ZKLTR-248ⅢYAH	ZKLTR-328ⅢYAH
			6HP	6HP	8HP	8HP	10HP	12HP	15HP
Cooling (A35°C/W7°C)	Rated cooling capacity	Kw	12.5	12.1	16.5	15	25.6	29.5	30
	Input power	Kw	4.3	4.3	5.8	5.2	9.1	10.5	10.6
	EER	kw/Kw	2.9	2.9	2.9	2.9	2.9	2.9	2.9
Heating (A7°C/W45°C)	Rated heat capacity	Kw	18.5	18.1	25.2	22.7	28.8	33	43.8
	Input power	Kw	5.3	5.2	7.2	6.5	8.5	9.7	12.2
	COP	kw/Kw	3.5	3.5	3.5	3.5	3.4	3.4	3.6
Heating (A-12°C/W41°C)	Rated heat capacity	Kw	13.2	12.9	17.5	15.8	21.9	25.2	28
	Input power	Kw	5.2	5	7	6.5	9	10	11
	COP	kw/Kw	2.6	2.6	2.5	2.5	2.5	2.5	2.6
Heating (A-20°C/W41°C)	Rated heat capacity	Kw	10.7	10.5	14.3	12.9	18.3	21	23.3
	Input power	Kw	4.9	4.8	6.6	6	8.5	9.7	10.6
	COP	kw/Kw	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Power Supply		Kw	380/~/50Hz	220/~/50Hz	380/~/50Hz	220/~/50Hz	380/~/50Hz	380/~/50Hz	380/~/50Hz
Maximum input current		A	13	28	17	32	20	23	35.5
Applicable ambient temperature		°C	-36-43						
Maximum outlet temperature		°C	55						
Refrigerant			R410A						
Dimension	L*W*H	mm	1000*390*1390				1200*440*1570		
	Net Weight	kg	115	115	155	155	165	165	200
Noise		dB(A)	65	65	65	65	65	65	65

Models, parameters and performance are subject to change without prior notice due to product improvement. Please refer to the product nameplate for specific parameters

Monoblock-R32



DHW



Cooling



Heating



R32

Multi Thermal
ConnectionEVI compr-
essor work-
ing under
-25°C

Silent mode

H-Smart
HeatingIntelligent
Temperat-
ure ControlIntelligent
defrostPID spray
coolingRemote
Control

Model			4KW	6KW	8KW	10KW	12KW
Power Supply		1	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50
Heating. (A7°C /W35°C)	Max. Heating Capacity	kW	4.20	6.20	8.40	10.00	12.1
	Heating Input Power	kW	0.82	1.24	1.63	2.2	2.42
Heating (A7°C /W55°C)	Max. Heating Capacity	kW	4.40	6.00	7.5	9.50	11.9
	Heating Input Power	kW	1.47	2.00	236	3.16	3.85
Cooling (A35°C /W7°C)	Max. Cooling Capacity	kW	4.70	6.00	7.45	820	11.5
	Cooling Input Power	kW	136	233	2.40	2.73	3.83
Auxiliary Electric Heater		kW	3	3	3	3	3
Refrigerant		/	R32	R32	R32	R32	R32
Max. Water Outlet Temperature		°C	60°C	60°C	60°C	60°C	60°C
Range of Working Operation		°C	-25~43	-25~43	-25~43	-25~43	-68
Compressor(Brand/Type)		/	Panasonic	Panasonic	Panasonic	Panasonic	Panasonic
Heat Exchanger		Type	Plate	Plate	Plate	Plate	Pate
Rated Water Flow		m³/h	0.72	1.07	1.44	1.72	2.08
ERP Level (35°C)		/	A+++	A+++	A+++	A+++	A+++
ERP Level(55°C)		/	A++	A+++	A+++	A+++	A+++
Noise		dB(A)	57	59	60	62	67
Net/Gross Weight		kg	89/97	89/97	95/103	95/103	114/123
Net Dimension (L*W*H)		mm	998×470×1016	998×470×1016	998×470×1016	998×470×1016	998×470×1016
Packing Dimension (L*W*H)		mm	1145×510×1160	1145×510×1160	1145×510×1160	1145×510×1160	1145×510×1160
Loading Quantity (40H)		Sets	82	82	82	82	82



Model			14KW	16KW	12KW	14KW	16KW
Power Supply		1	220-240/1/50	220-240/1/50	380-415/3/50	380-415/3/50	380~415/3/50
Heating. (A7°C /W35°C)	Max. Heating Capacity	kW	14.5	16	12.1	14.5	16
	Heating Input Power	kW	3.12	3.52	2.42	3.12	3.52
Heating (A7°C /W55°C)	Max. Heating Capacity	kW	14.1	16	11.9	14.1	16
	Heating Input Power	kW	4.7	5.52	3.85	4.7	5.52
Cooling (A35°C /W7°C)	Max. Cooling Capacity	kW	12.4	14	11.5	12.4	14
	Cooling Input Power	kW	4.2	4.83	3.83	420	4.83
Auxiliary Electric Heater		kW	3	3	9	9	9
Refrigerant		/	R32	R32	R32	R32	R32
Max. Water Outlet Temperature		°C	60°C	60°C	60C	60C	60°C
Range of Working Operation		°C	-68	-68	-68	-68	-68
Compressor(Brand/Type)		/	Panasonic	Panasonic	Panasonic	Panasonic	Panasonic
Heat Exchanger		Type	Plate	Pate	Plate	Plate	Plate
Rated Water Flow		m³/h	2.49	2.75	2.08	2.49	2.75
ERP Level (35°C)		/	A+++	A+++	A+++	A+++	A+++
ERP Level(55°C)		/	A++	A+++	A++	A+++	A++
Noise		dB(A)	68	68	67	67	68
Net/Gross Weight		kg	114/123	114/123	125/134	125/134	125/134
Net Dimension (L*W*H)		mm	998×470×1016	998×470×1016	998×470×1016	998×470×1016	998×470×1016
Packing Dimension (L*W*H)		mm	1145×510×1160	1145×510×1160	1145×510×1160	1145×510×1160	1145×510×1160
Loading Quantity (40H)		Sets	82	82	82	82	82



Frequency conversion + Enhanced Vapor Injection technology

Minimum -36°C ultra-low temperature operation

- ✓ Secondary deep subcooling
- ✓ Dual use of heating and cooling models
- ✓ R410A environmental refrigerant
- ✓ UV evaporator, not easy to frost
- ✓ Antifreeze cabin generation II



► TECHNICAL PARAMETERS OF ULTRA-LOW TEMPERATURE HEAT PUMP (R22)

Model			ZKLTR-500ⅢYA	ZKLTR-550ⅢYA	ZKLTR-600ⅢYA	ZKLTR-1000ⅢYA	ZKLTR-1100ⅢYA	ZKLTR-1200ⅢYA
			25HP	30HP	36HP	50HP	60HP	72HP
Cooling (A35°C/W7°C)	Cooling capacity	Kw	50	60	73	100	120	145
	Input power	Kw	17.5	21	25.5	35	42	51
	EER	w/w	2.86	2.86	2.86	2.86	2.86	2.86
Heating (A7°C/W45°C)	Heat capacity	Kw	75	87.5	100	150	175	211
	Input power	Kw	20.8	24.3	27.8	40.6	48.6	58.6
	COP	w/w	3.60	3.60	3.60	3.69	3.60	3.60
Heating (A-12°C/W41°C)	Heat capacity	Kw	53	56	65	106	112	125
	Input power	Kw	20.7	21.9	25.2	41.4	43.8	48.6
	COP	w/w	2.56	2.56	2.56	2.56	2.56	2.57
Heating (A-20°C/W41°C)	Heat capacity	Kw	44	47	54	88	93	108
	Input power	Kw	20	21.2	24.3	40	42.3	47
	COP	w/w	2.2	2.2	2.2	2.2	2.2	2.3
Maximum input current		A	65	71	76	130	142	155
Heating operation Ambient temperature		°C	-36-45					
Cooling operation Ambient temperature		°C	15-45					
Maximum outlet temperature		°C	55					
Refrigerant			R410A					
Power Supply			3P/380V/50Hz					
Safeguard procedures			High and low pressure protection, anti-freezing protection, overload, water flow protection, etc					
Water side heat exchanger			Shell and tube heat exchanger/high efficiency tank heat exchanger					
Air side heat exchanger			High efficiency finned tube heat exchanger					
Fan motor			High efficiency and low noise axial flow fan					
level of protection			IP55					
Diameter of connection pipe			DN65 (Flange)	DN65 (Flange)	DN65 (Flange)	DN65 (Flange)	DN65 (Flange)	DN80 (Flange)
Circulating water quantity		mh	13.00	15.00	18.00	25.00	30.00	35.00
water resistance		Kpa	60	60	60	90	90	60
Noise		dB(A)	≤75	≤75	≤78	≤78	≤78	≤78
Weight of main frame		kg	650	690	800	1250	1250	1300
Dimension		L*W*H mm	1900*950*2100	1900*950*2100	1900*950*2200	2350*1250*2480	2350*1250*2480	2350*1250*2480

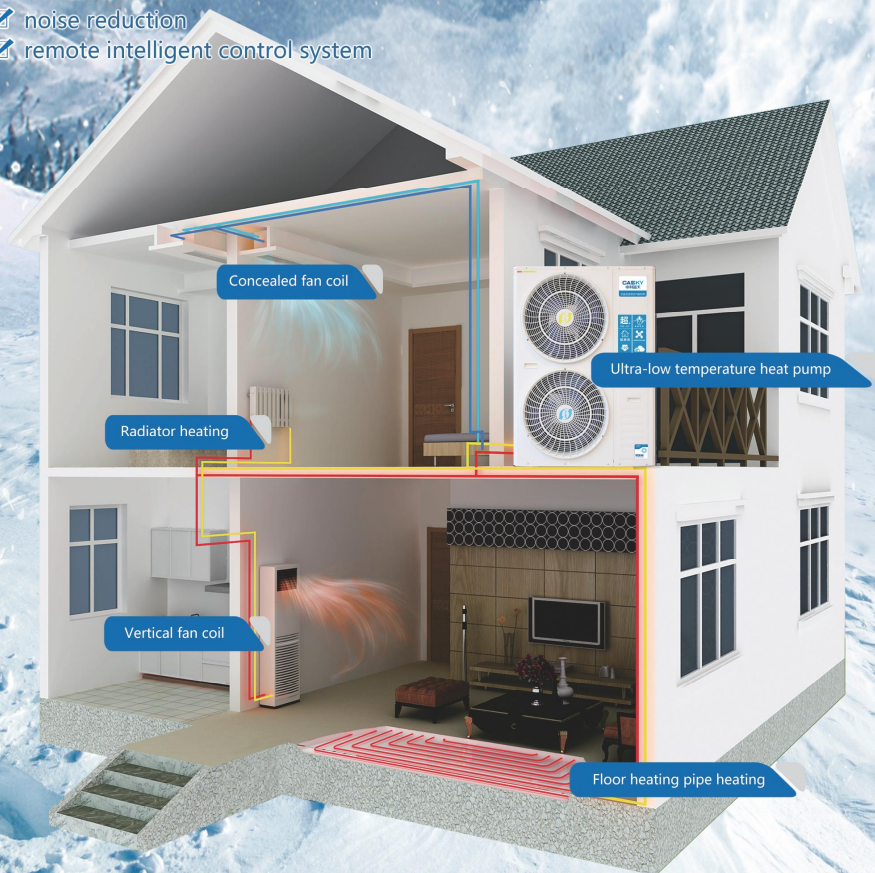
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Full DC variable frequency enthalpy heating and cooling heat pump

Have a great tea

- ✓ Extraordinary energy saving
- ✓ Ultra-low temperature operation
- ✓ Jet enthalpy technology
- ✓ Three-stage supercooling
- ✓ Pressure control
- ✓ noise reduction
- ✓ remote intelligent control system



3P



5/6P



8P

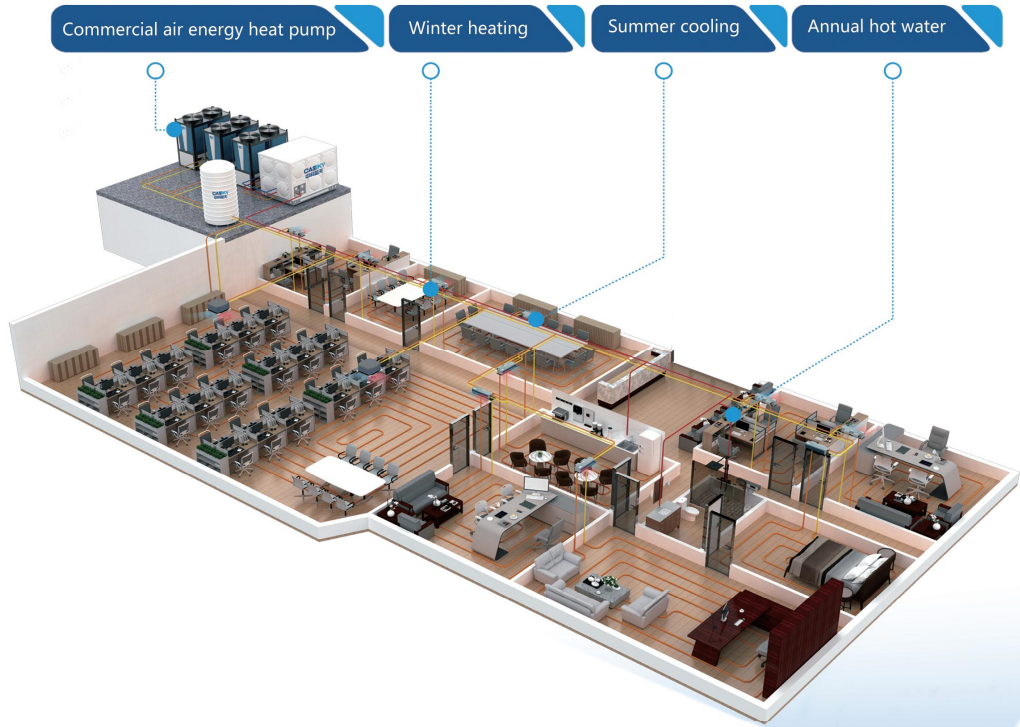
► TECHNICAL PARAMETERS OF ULTRA-LOW TEMPERATURE HEAT PUMP (R22)

Model			ZKLTR-3IA2	ZKLTR-5IA2	ZKLTR-6IA2	ZKLTR-8IA2
			3HP	5HP	6HP	8HP
Cooling (A35°C/W7°C)	Cooling capacity	KW	6.7	10	13.4	15.8
	Input power	KW	2.6	4.1	5.2	5.5
	EER	W/W	2.58	2.44	2.58	2.87
Heating. (A7°C/W45°C)	Heat capacity	KW	10	14.5	18	22
	Input power	KW	3.1	4.5	5.6	6.5
	COP	WW	3.23	3.22	3.21	3.38
Heating. (A-12°C/W41°C)	Heat capacity	KW	5.94	9.1	11.73	15.1
	Input power	KW	2.58	3.95	5.1	6.56
	COP	W/W	2.3	2.3	2.3	2.3
Maximum input current		A	17.5	31	36	15.5
Heating operation Ambient temperature		°C	-25~28			
Cooling operation Ambient temperature		°C	16~45			
Maximum outlet temperature		°C	60			
Refrigerant			R22			
Power Supply			1P/220V/50Hz	1P/220V/50HZ OR 3P/380V/50HZ		3P/380V/50HZ
Safeguard procedures			High and low pressure protection, anti-freezing protection, overload, water flow protection etc			
Throttling mode			electronic expansion valve			
Water side heat exchanger			Shell and tube heat exchanger/high efficiency tank heat exchanger			
Air side heat exchanger			High efficiency finned tube heat exchanger			
Fan motor			High efficiency and low noise axial flow fan			
level of protection			IP55			
Diameter of connection pipe			DN25	DN25	DN25	DN32
Circulating water quantity		mh	>0.98	>1.5	>1.99	25.00
water resistance		Kpa	46	50	52	90
Noise		dB(A)	≤60	≤63	≤63	≤65
Weight of main frame		kg	120	153	158	256
Dimension	L*W*H	mm	1190*430*860	1190*430*1460	1190*430*1460	1260*430*1620
Models, parameters and performance are subject to change without prior notice due to product improvement. Please refer to the product nameplate for specific parameters						

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APPLICATION SCENARIO

Heating+Cooling+Hot Water Solution



FREQUENCY CONVERSION+EVI JET MELTING TECHNOLOGY

Minimum -36 °C ultra-low temperature operation

-36°C ultra-low temperature operation
Winter heating + summer cooling
Fast heating and energy saving
Intelligent adjustment
Quick defrosting
Remote intelligent control



Model			DKFXRS-90IIA	DKFXRS-180IIA
			25HP	50HP
Heating. (A20°C/W55°C)	Heat capacity	Kw	93	186
	Input power	Kw	20.2	40.4
	COP	Kw	4.6	4.6
Heating. (A7°C/W55°C)	Heat capacity	Kw	76	152
	Input power	Kw	19	38
	COP	w/w	4.0	4.0
Heating. (A-12°C/W55°C)	Heat capacity	Kw	51	102
	Input power	Kw	21	42
	COP	w/w	2.43	2.43
Maximum input current		A	64.5	129
Water production(normal temperature)		T/h	2	3.9
Heating operation Ambient temperature		C	-36-45	
Rated outlet temperature		C	55	
Maximum outlet temperature		C	62	
Refrigerant			R410A	
Power Supply			3P/380V/50Hz	
Safeguard procedures			High and low pressure protection, anti-freezing protection, overload, water flow protection, etc	
Water side heat exchanger			High efficiency tank heat exchanger	
Air side heat exchanger			High efficiency finned tube heat exchanger	
Fan motor			High efficiency and low noise axial flow fan	
level of protection			IP55	
Diameter of connection pipe			DN65 (Flange)	DN65 (Flange)
Circulating water quantity		m/h	15.00	30.00
water resistance		Kpa	90	120
Noise		dB(A)	≤74	≤74
Weight of main frame		kg	650	1250
Dimension		L*W*H	1900*950*2100	2350*1250*2480

Models, parameters and performance are subject to change without prior notice due to product improvement. Please refer to the product nameplate for specific



AIR SOURCE water heater

- Wide range of water quality applications
- Efficient corrosion resistance
- External micro-channel coil
- Magnesium rod descaling water purification
- Air energy + emergency heating dual power



Blue Shield Split Machine Series



Microchannel external disk heat transfer technology



Gold silicon enamel inner liner



Integral foam insulation layer



High-end appearance



Magnesium rod anodic protection

Technical Parameters

Technical parameters				
Model		units.	ZKLTRN-03IIIA	ZKLTRN-04IIIA
Heating.(7℃)	Heating capacity	W	3000	4000
	Input power	W	731	1052
	COP	W/W	41	3.8
Heating.(12℃)	Heating capacity	W	3000	4000
	Input power	W	1245	1660
	COP	W/W	2.41	2.41
Heating.(-20℃)	Heating capacity	W	3000	4000
	Input power	W	1395	1951
	COP	W/W	215	2.05
Cooling.(34℃)	Cooling capacity	W	3000	4000
	Input power	W	1000	1423
	EER	W/W	3.0	2.81
Maximum input current		A	9	13
Power Supply		V/Ph/Hz	220/1/50	220/1/50
Cooling operation Ambient temperature		℃	18~43	18~43
Heating operation Ambient temperature		℃	-35~27	-35~27
Net weight of external machine		kg	31	34
External machine size (L × W × H)		mm	792×300×550	792×300×550
Internal machine input power		W	30	30
Adjustable temperature		℃	16~31	16~32
Internal circulation air volume		m/h	705	710
Internal circulating wind speed			Five adjustable wind speed	Five adjustable wind speed
Internal noise		dB(A)	542.5	543
Internal net weight		kg	15	15
Internal Dimension (L × W × H)		mm	700×210×600	700×210×600
Refrigerant			R410A	R410A

Models, parameters and performance are subject to change without prior notice due to product improvement. Please refer to the product nameplate for specific parameters



Full DC variable frequency enthalpy heating fan

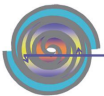
- ✓ Independent space
- ✓ -35°C ultra-low temperature operation
- ✓ Enhanced Vapor Injection
- ✓ Fast defrosting
- ✓ Winter heating + Summer cooling
- ✓ Five speed adjustable wind speed



The core advantages of full DC variable frequency enthalpy increasing hot air fans



Full DC frequency conversion technology



EVI spray painting enthalpy increase



Full DC variable frequency fan



-20 °C without heat decay



Night Mute Mode

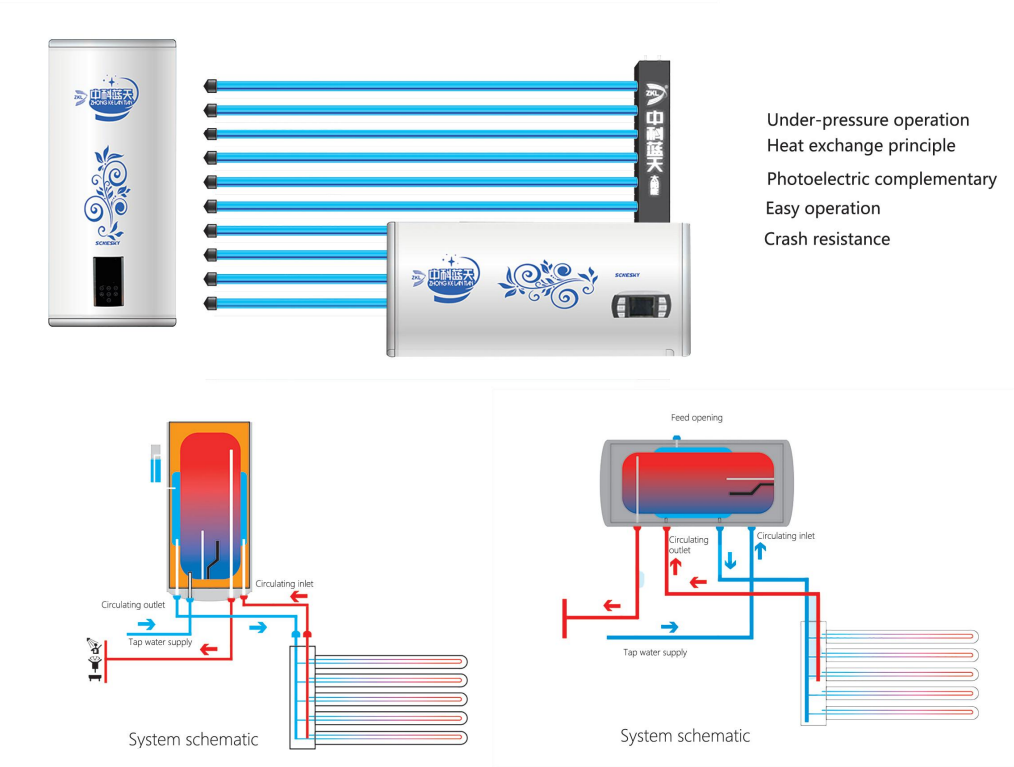


Dual use of cold and warm

► Technical Parameters

Technical parameters				
Model		units.	ZKLTRN-03IIIA	ZKLTRN-04IIIA
Heating.(7°C)	Heating capacity	W	3000	4000
	Input power	W	731	1052
	COP	W/W	41	3.8
Heating.(12°C)	Heating capacity	W	3000	4000
	Input power	W	1245	1660
	COP	W/W	2.41	2.41
Heating.(-20°C)	Heating capacity	W	3000	4000
	Input power	W	1395	1951
	COP	W/W	215	2.05
Cooling.(34°C)	Cooling capacity	W	3000	4000
	Input power	W	1000	1423
	EER	W/W	3.0	2.81
Maximum input current		A	9	13
Power Supply		V/Ph/Hz	220/1/50	220/1/50
Cooling operation Ambient temperature		°C	18~43	18~43
Heating operation Ambient temperature		°C	-35~27	-35~27
Net weight of external machine		kg	31	34
External machine size (L × W × H)		mm	792×300×550	792×300×550
Internal machine input power		W	30	30
Adjustable temperature		°C	16~31	16~32
Internal circulation air volume		m/h	705	710
Internal circulating wind speed			Five adjustable wind speed	Five adjustable wind speed
Internal noise		dB(A)	542.5	543
Internal net weight		kg	15	15
Internal Dimension (L × W × H)		mm	700×210×600	700×210×600
Refrigerant			R410A	R410A
Models, parameters and performance are subject to change without prior notice due to product improvement. Please refer to the product nameplate for specific parameters				

BALCONY WALL-MOUNTED VACUUM PIPE SERIES



Model	Rated capacity	Dimension of water tank	Heat collection area (m2)	Rated voltage	Rated power for electric heating
Q-J-F-2-80/1.47/0.6-H	80L	Φ475*890	1.47	220V	1500W
Q-J-F-2-100/1.75/0.6-H	100L	Φ475*1060	1.75		
Q-J-F-2-100/1.55/0.6-H			1.55		
Q-J-F-2-120/2.1/0.6-H	120L	Φ475*1240	2.1		

Blue Shield Technology | regardless of bad water quality, durable for 15 years, 100% healthy



	Blue V-ZK2400	Blue V-ZK2000
Dimension of solar collector	2400*800*80mm	2000*800*80mm
Total area	1.92m ²	1.60m ²
Dimension of plate core	2350*750	1950*750
Rated pressure	0.2MPa	0.2MPa
Absorptivity	≥94%	≥94%
Emissivity	≤12%	≤12%
Absorber/ specification	Stainless steel plate core/ 96 runners	Stainless steel plate core/ 80 runners
Plate core absorber coating	9H titanium-based ceramic blue V coating	9H titanium-based ceramic blue V coating
Aluminum profile color	Black	Black
Glass cover	Ultra-white low iron woven tempered glass	Ultra-white low iron woven tempered glass
Copper joint	G 1/2 wire connector	G 1/2 wire connector
Packaging size	2450*820*80mm	050*820*80mm
Matching water tank	100L (enamel)	80L (enamel)

BLUE WAVE SERIES



BLUE WAVE SERIES

UNLIMITED HOT WATER SUPPLY, A CLEANER SOLUTION

Constant pressure design for big water flow



Adopt the unpowered circulating fast-heating operation, operate at the water pressure of the urban pipe network, to ensure constant water pressure and big water flow.

Super heat storage capability, unlimited hot water supply



The vacuum pipe adopts the advanced multi-target coating technology, featuring a higher heat absorption ratio and thus faster temperature rise. The thermal insulation water tank utilizes the high-pressure particle foaming, which has a high porosity by closed pore and hence better thermal insulation performance.

Heat exchange operation to produce clean water



Using the principle of heat exchange enables complete separation of domestic hot water and thermal storage hot water. The heat exchanger is made of SUS304 to ensure clean water.

System composition



This system consists of the vacuum pipe collector, hot water storage tank, heat exchanger, and adjustable bracket.

The blue wave series adopt the unpowered circulating fast-heating solar water heating system, which works like this: the temperature of the water in the vacuum pipe rises under solar radiation to gradually heat water in the water tank. The indoor cold water is heated by the heat exchange pipes in the water tank, to increase the temperature of the tap water with pressure to almost the same as that in the water tank, to get stable, pressurized and clean hot water.

