

Mono product parameters

Heating&Cooling
 Hot water
 Energy Saving
 Low Noise

Cascade Control
 3-Zone Control
 Disinfect Mode
 Easy Installation



4/6kW

8-16kW

Model name	THMLD-4D/3HBp-A	THMLD-6D/3HBp-A	THMLD-8D/3HBp-A	THMLD-10D/3HBp-A	THMLD-12D/3HBp-A	THMLD-14D/3HBp-A	THMLD-16D/3HBp-A	THMLD-12S/6(9)HBp-A	THMLD-14S/6(9)HBp-A	THMLD-16S/6(9)HBp-A	
Power supply	220-240/1/50			220-240/1/50			380-415/3/50				
Heating A7W35	Capacity kW	4.20	6.22	8.00	9.50	12.10	14.50	16.00	12.10	14.50	16.00
	Rated input kW	0.82	1.27	1.60	1.98	2.42	3.05	3.54	2.42	3.05	3.54
	COP	5.10	4.90	5.00	4.80	5.00	4.75	4.52	5.00	4.75	4.52
Heating A7W45	Capacity kW	4.35	6.35	8.00	9.50	12.05	14.25	16.00	12.05	14.25	16.00
	Rated input kW	1.14	1.69	2.11	2.60	3.14	3.83	4.42	3.14	3.83	4.42
	COP	3.80	3.75	3.80	3.65	3.84	3.73	3.62	3.84	3.73	3.62
Heating A7W55	Capacity kW	4.40	6.00	7.40	9.00	12.00	14.00	16.00	12.00	14.00	16.00
	Rated input kW	1.49	2.03	2.38	3.00	3.85	4.65	5.49	3.85	4.65	5.49
	COP	2.95	2.96	3.11	3.00	3.12	3.01	2.91	3.12	3.01	2.91
Cooling A35W18	Capacity kW	4.50	6.00	8.00	9.50	12.00	13.50	15.00	12.00	13.50	15.00
	Rated input kW	0.81	1.22	1.67	2.07	2.60	3.12	3.60	2.60	3.12	3.60
	EER	5.55	4.92	4.80	4.60	4.00	3.75	3.44	4.00	3.75	3.44
Cooling A35W7	Capacity kW	4.50	6.00	7.00	8.00	11.60	12.95	14.30	11.60	12.95	14.30
	Rated input kW	1.28	1.93	2.14	2.53	4.20	4.98	5.70	4.20	4.98	5.70
	EER	3.50	3.11	3.27	3.16	2.76	2.60	2.51	2.76	2.60	2.51
SCOP ³	LWT at 35°C	4.60	4.65	5.07	5.05	4.77	4.63	4.56	4.77	4.63	4.56
	LWT at 55°C	3.35	3.49	3.47	3.51	3.48	3.43	3.48	3.54	3.46	3.49
Seasonal space heating energy efficiency class ¹	LWT at 35°C	A+++									
	LWT at 55°C	A++									
Electric heater power input kW	3	3	3	3	3	3	6(9)	6(9)	6(9)	6(9)	
MOP(Maximum overcurrent protection) ²	A	18	18	19	19	32	32	32	14	14	14
MCA(Minimum circuit amps)	A	12	14	16	17	25	26	27	10	11	12
Compressor	Type	Twin rotary DC inverter									
Outdoor fan	Motor type	Brushless DC motor									
	Number of fans	1									
Throttle type	Type	Electronic expansion valve									
	Type	Finned tube									
Air side heat exchanger	Type	Plate type									
Water side heat exchanger	Type	R32									
	Type	R32									
Refrigerant	Factory charge kg	1.30	1.30	1.40	1.40	1.74	1.74	1.74	1.74	1.74	1.74
	Sound power level ⁴ dB	56	59	60	61	64	66	68	64	66	68
Sound pressure level ⁵ dB	44	46	47	50	53	54	55	53	54	55	
Net dimensions (W×H×D) mm	1220×709×390			1293×860×495			1315×844×430				
Packing dimension (W×H×D) mm	1315×844×430			1395×996×535							
Net/Gross weight kg	76.0/87.0	76.0/87.0	95.0/116.0	95.0/116.0	112.0/133.0	112.0/133.0	112.0/133.0	124.0/145.0	124.0/145.0	124.0/145.0	
Piping connections	Cooling °C	R1*	R1*	R5/4"	R5/4"	R5/4"	R5/4"	R5/4"	R5/4"	R5/4"	R5/4"
	Heating °C	-5 ~ 43									
Operation range	DHW °C	-25 ~ 35									
	DHW °C	-25 ~ 43									
Water outlet	Cooling °C	5 ~ 20									
	Heating °C	25 ~ 65									
	DHW °C	20 ~ 60									

Abbreviations:

DHW: Domestic hot water

LWT: Leaving water temperature

Notes:

- Relevant EU standards and legislation: EN14511; EN14825; EN50564; EN12102; (EU) No 811/2013; (EU) No 813/2013; OJ 2014/C 207/02.
- Seasonal space heating energy efficiency class tests in average climate conditions.
- Sound power level test condition : EN12102-1.
- Sound pressure level is the maximum value tested under the two conditions of A7W35 and A35W18.

Split product parameters

Heating
 Cooling
 Hot water
 APP
 Intelligent Control

High Efficiency
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 Disinfect Mode
 Low Noise



4/6kW

8-16kW

Model name	THF-4D/HBp-A	THF-6D/HBp-A	THF-8D/HBp-B	THF-10D/HBp-B	THF-12D/HBp-A	THF-14D/HBp-A	THF-16D/HBp-A	THF-12S/HBp-A	THF-14S/HBp-A	THF-16S/HBp-A	
Power supply	220-240/1/50			220-240/1/50			380-415/3/50				
Heating A7W35	Capacity kW	4.20	6.22	8.00	9.50	12.10	14.50	16.00	12.10	14.50	16.00
	Rated input kW	0.82	1.27	1.60	1.98	2.42	3.05	3.54	2.42	3.05	3.54
	COP	5.10	4.90	5.00	4.80	5.00	4.75	4.52	5.00	4.75	4.52
Heating A7W45	Capacity kW	4.35	6.35	8.00	9.50	12.05	14.25	16.00	12.05	14.25	16.00
	Rated input kW	1.14	1.69	2.11	2.60	3.14	3.83	4.42	3.14	3.83	4.42
	COP	3.80	3.75	3.80	3.65	3.84	3.73	3.62	3.84	3.73	3.62
Heating A7W55	Capacity kW	4.40	6.00	7.40	9.00	12.00	14.00	16.00	12.00	14.00	16.00
	Rated input kW	1.49	2.03	2.38	3.00	3.85	4.65	5.49	3.85	4.65	5.49
	COP	2.95	2.96	3.11	3.00	3.12	3.01	2.91	3.12	3.01	2.91
Cooling A35W18	Capacity kW	4.50	6.00	8.00	9.50	12.00	13.50	15.00	12.00	13.50	15.00
	Rated input kW	0.81	1.22	1.67	2.07	2.60	3.12	3.60	2.60	3.12	3.60
	EER	5.55	4.92	4.80	4.60	4.00	3.75	3.42	4.00	3.75	3.42
Cooling A35W7	Capacity kW	4.50	6.00	7.00	8.00	11.60	12.95	14.30	11.60	12.95	14.30
	Rated input kW	1.28	1.93	2.14	2.53	4.20	4.98	5.70	4.20	4.98	5.70
	EER	3.50	3.11	3.27	3.16	2.76	2.60	2.51	2.76	2.60	2.51
SCOP ²	LWT at 35°C	4.60	4.65	5.07	5.05	4.78	4.63	4.56	4.70	4.58	4.56
	LWT at 55°C	3.35	3.49	3.47	3.51	3.48	3.47	3.48	3.48	3.35	3.44
Seasonal space heating energy efficiency class ¹	LWT at 35°C	A+++									
	LWT at 55°C	A++									
MOP(Maximum overcurrent protection) ²	A	18	18	19	19	32	32	32	14	14	14
MCA(Minimum circuit amps)	A	12	14	16	17	25	26	27	10	11	12
Compressor	Type	Twin rotary DC inverter									
Outdoor fan	Motor type	Brushless DC motor									
	Number of fans	1									
Throttle type	Type	Electronic expansion valve									
	Type	Finned tube									
Air side heat exchanger	Type	R32									
Refrigerant	Factory charge kg	1.30	1.30	1.65	1.65	1.84	1.84	1.84	1.84	1.84	1.84
	Sound power level ⁴ dB	56	59	60	61	64	66	68	64	66	68
Sound pressure level ⁵ dB	44	46	47	50	53	54	55	53	54	55	
Net dimensions (W×H×D) mm	845×700×375			1010×860×494			1135×970×530				
Packed dimensions(W×H×D) mm	960×732×400										
Net/Gross weight kg	45.5/48.0	45.5/48.0	62.0/75.0	62.0/75.0	78.0/90.5	78.0/90.5	78.0/90.5	90.0/102.5	90.0/102.5	90.0/102.5	
Piping connections	Type	Flare									
	Liquid Dia. mm	Φ6.35	Φ6.35	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
	Gas Dia. mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9	Φ15.9
	Min. pipelength m	2	2	2	2	2	2	2	2	2	2
	Max. pipe length m	30	30	30	30	30	30	30	30	30	30
Installation height	Outdoor unit above	m 20									
	Outdoor unit below	m 20									
Operating range	Cooling °C	-5 ~ 43									
	Heating °C	-25 ~ 35									
	DHW °C	-25 ~ 43									

Notes:

- Relevant EU standards and legislation: EN14511; EN14825; EN50564; EN12102; (EU) No 811/2013; (EU) No 813/2013; OJ 2014/C 207/02:2014.
- Seasonal space heating energy efficiency class tested in average climate conditions.
- Test standard: EN12102-1.
- Sound pressure level is the maximum value tested under the two conditions of A7W35 and A35W18.

Heating
 Cooling
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 Intelligent Control

High Efficiency
 Energy Saving
 Disinfect Mode
 Low Noise



Model name	SMKld-4(6)D/3HBp-A	SMKld-8(10)D/3HBp-B	SMKld-12(14,16)D/3HBp-A		
Function	Heating and cooling				
Water outlet	Cooling °C	5 to 20			
	Heating °C	25 to 65			
	DHW °C	20 to 60			
Power supply	V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	
Electric heater power input	kW	3	3	3	
Sound power level ¹	dB	38	42	44	
Sound pressure level(1m) ²	dB	28	30	32	
Net dimensions (W×H×D)	mm	420×790×270			
Packed dimensions (W×H×D)	mm	530×1035×355			
Net/gross weight	kg	44.0/50.0	41.0/47.0	42.0/48.0	
Water circuit	Piping connections	inch			
	Safety valve set pressure	Mpa 0.3			
	Expansion tank	Drainage pipe connection	mm DN25		
		Volume	L 8		
		Max. water pressure	MPa 0.3		
Pre-pressure	Mpa 0.1				
Heat exchanger	Type Plate type				
water pump head	m 9				
Refrigerant circuit	Liquid Dia.	mm Φ6.35	Φ9.52	Φ9.52	
	Gas Dia.	mm Φ15.9	Φ15.9	Φ15.9	
Operating temperature range	Ambient temperature °C	+5 ~ +35			
	Water pressure MPa	0.1 ~ 0.3			

Notes:

- Test standard: EN12102-1.
- Sound pressure level is the maximum value tested under the two conditions of Note3 and Note4 for different combination between outdoor unit and hydronic box.
- Outdoor air temperature 7°C DB, 85% RH; EWT 30°C, LWT 35°C.
- Outdoor air temperature 35°C DB; EWT 23°C, LWT 18°C.

TCL

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TCL

R32 Tri-thermal ATW Heat Pump

Heating, cooling, hot water with complete solutions to the creative life

Heating & Cooling
 Hot Water
 Energy Saving
 Cascade Control
 3-Zone Control
 APP
 Low Noise
 Disinfect Mode



Seasonal space heating energy efficiency
 η_s average up to A+++ at 35°C
 η_s average up to A++ at 55°C

The maximum of leaving water temperature is 65°C

Mono 4-16kW

Split 4-16kW



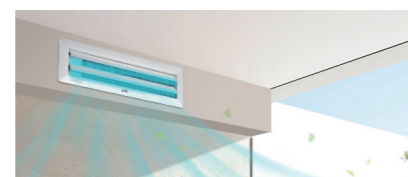
Versatility

● Heating, cooling, hot water with complete solutions, to the creative life

Tri-thermal is an integrated system that provides space heating and cooling as well as domestic hot water, offering a complete, all-year-round solution which can remove the need for traditional gas or oil boilers, or work together with them.

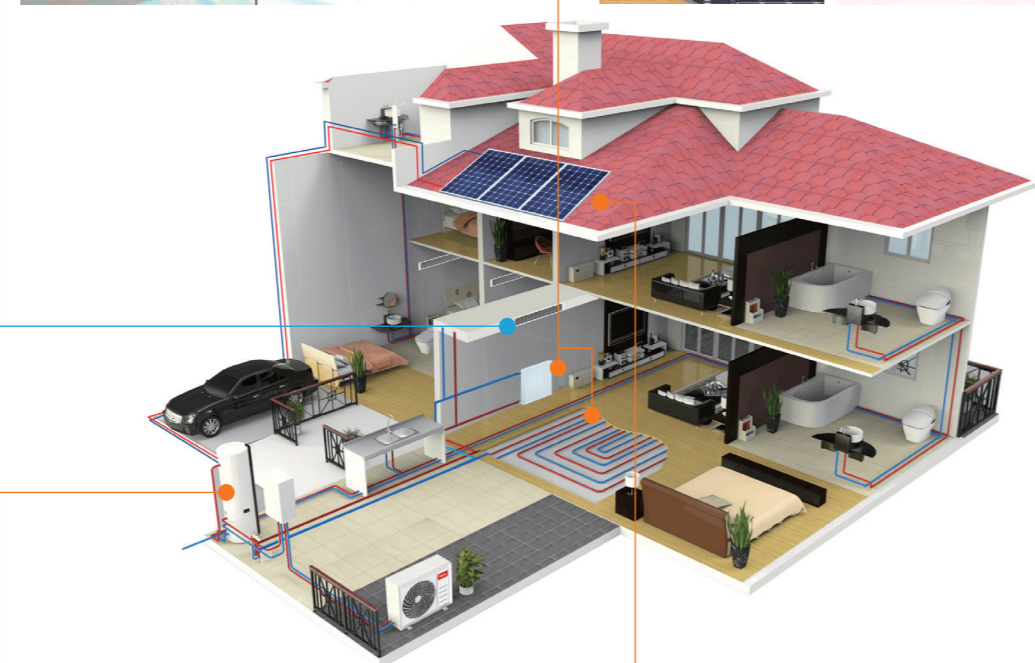
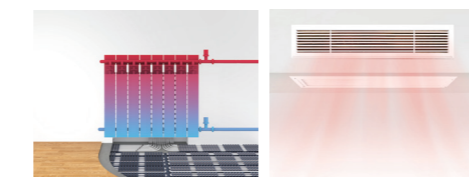
Compact fan coil unit cooling

- Ultra-thin body, comfortable and beautiful
- Multi-angle and all-directional wind supply



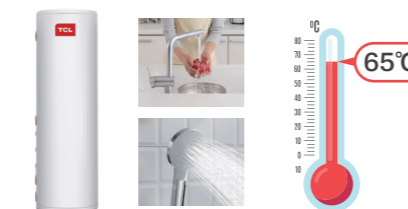
Diversified heating

- Heating by floor heating, radiator and fan coil unit
- Safe and comfort



Domestic hot water

- Provide DHW in time, heating quickly
- The maximum of leaving water temperature is 65°C



Solar kit

- Work only & work with heat pump for DHW



* Auxiliary heat source

- Link with traditional gas boilers, industrial hot water and electric auxiliary heating

High Efficient and Energy Saving

● Well-known brand DC inverter compressor (GMCC)

High reliability electrical design

- High-current resistant & high-temperature resistant.

Large pressure ratio design

- Low suction pressure
- High exhaust pressure
- Heating at low ambient temperature

Low oil output design

- Optimized internal tank design
- Less lubricating oil required
- Effectively solves the problem of oil return



DC Inverter motor design

- High efficiency, the highest SCOP is 5.07

Low noise vibration design

- Vibration optimization of twin rotor
- Noise optimization of double-layer mufflers

High reliability volume design

- Large oil storage space
- Suitable for use in partial load conditions and long-pipe

● High efficient L-type heat exchanger

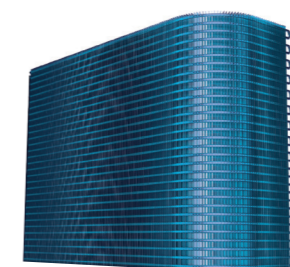
Adopting advanced 3-D dynamic analysis and cross-flow path design, air volume increased 8%, heat exchange more efficient.

Internal thread heat transfer pipe

- Using hydrophilic anti-corrosive fins, heat transfer efficiency increased 6%.

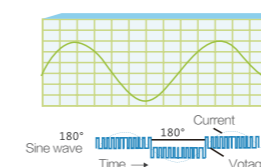
Corrugated fin

- Applying inner thread tube with 10% higher heat exchange efficiency.



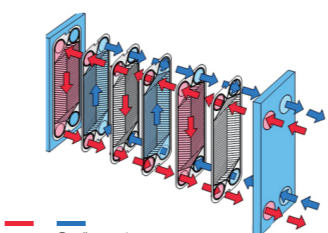
● Stepless inverter fan motor

- Realize stepless speed regulation, and reduce power consumption by 20% compared with AC motors
- Original built-in drive, high motor efficiency, more reliable
- Stepless regulation of air volume, precise control
- Quiet operation
- Insulation grade E



● Plate heat exchanger

- Withstand high temperature and high pressure
- Compact design, smaller volume and less pressure drop
- High anti-corrosion performance
- High thermal efficiency and lower fouling factor
- Easy installation and maintenance
- Under the same pressure loss, the heat transfer coefficient of the plate heat exchanger is 3-5 times higher than that of the tubular heat exchanger, covering an area of 1/3 of the tubular heat exchanger.



Vapor Cooling water
Schematic diagram of plate heat exchanger circulation

● Multiple certifications



● Environmental friendly refrigerant

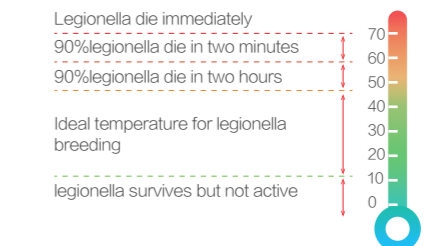
- The GWP of R32 is 675
- CO₂ equivalent is decreased 68% compared with R410a
- Save clients energy and protect the environment



Safe and Comfort

● Anti-bacteria mode

- Designed to guarantee our safe and health.
- It works by heating the water to about 70 degrees.



● Low level of noise

- Multiple silent modes are optional
Silent mode, night silent mode, super silent mode.
- Optimized right & back side plates design
Based on the 3-D simulation, which greatly decrease the vibration and running noise.



● Provide DHW in time

- Water pump**
Running smoothly



- Electrical heater**
Heat DHW quickly
As a back-up facility for inclement weather



- Solar kit heater**
Energy saving

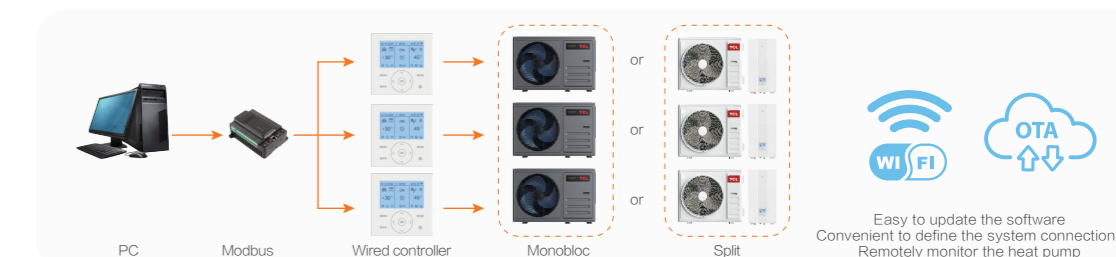


● 3-zone control

- Connect max 3 zones at the same time and achieve different temperatures control in different zones.

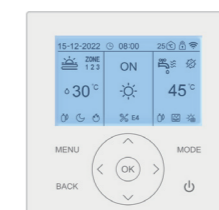


Intelligent control



● Wired controller

- Liquid crystal, two-way communication, backlight at night
- Access to wifi with internet control
- Multiple languages are available
- Can set the parameters and query for faults
- Daily schedule and weekly schedule accurately control time and operation mode to prevent forgetting



● APP controller

- Modes adjustment
- Cascade control
- Power consumption record
- Sanitary hot water priority mode
- Unit status & fault information display
- Temp, Pump flow rate, timer setting etc.

