

Cascade System Control

Maximum 8 units can be combined to reach maximum 128kw



Mono Product Parameters



Model Name			THMLd-4D/ 3FBp-A	THMLd-6D/ 3FBp-A	THMLd-8D/ 3FBp-A	THMLd-10/ 3FBp-A	THMLd-12/ 3FBp-A	THMLd-14/ 3FBp-A	THMLd-16/ 3FBp-A	THMLd-12S/9(6) FBp-A	THMLd-14S/9(6) FBp-A	THMLd-16S/9(6) FBp-A			
Power Supply	V/Ph/Hz		220-240V/1/50		220-240V/1/50								380-415V/3/50		
Heating A7W35	Capacity	kW	4.20	6.20	8.00	9.50	12.00	14.00	15.00	12.00	14.00	15.00			
	Rated Input	kW	0.83	1.2	1.60	2.07	2.50	3.05	3.40	2.50	3.05	3.40			
	COP		5.09	4.90	5.00	4.60	4.80	4.59	4.41	4.80	4.59	4.41			
Heating A7W45	Capacity	kW	4.30	6.20	8.00	9.50	12.00	14.00	15.00	12.00	14.00	15.00			
	Rated Input	kW	1.10	1.63	2.13	2.59	3.00	3.60	4.30	3.00	3.60	4.30			
	COP		3.90	3.80	3.76	3.68	4.00	3.89	3.49	4.00	3.89	3.49			
Heating A7W55	Capacity	kW	4.40	6.00	8.00	9.50	12.00	14.00	15.00	12.00	14.00	15.00			
	Rated Input	kW	1.40	1.94	2.50	3.06	3.76	4.52	5.20	3.76	4.52	5.20			
	COP		3.15	3.10	3.20	3.10	3.19	3.10	2.88	3.19	3.10	2.88			
Cooling A35W18	Capacity	kW	4.50	6.00	8.30	10.00	12.00	14.00	16.00	12.00	14.00	16.00			
	Rated Input	kW	0.90	1.34	1.66	2.17	2.65	3.30	4.20	2.65	3.30	4.20			
	EER		5.00	4.49	5.00	4.60	4.53	4.24	3.81	4.53	4.24	3.81			
Cooling A35W7	Capacity	kW	4.50	6.00	7.20	8.80	11.60	12.95	14.00	11.60	12.95	14.00			
	Rated Input	kW	1.32	2.00	2.18	2.84	3.85	4.55	5.20	3.85	4.55	5.20			
	EER		3.40	3.00	3.30	3.10	3.01	2.85	2.69	3.01	2.85	2.69			
SCOP ¹	LWT at 35°C		5.03	4.85	5.33	4.83	4.75	4.63	4.53	4.78	4.65	4.52			
	LWT at 55°C		3.81	3.77	3.88	3.85	3.78	3.73	3.68	3.78	3.73	3.66			
Seasonal space heating energy efficiency class ²	LWT at 55°C		A++	A++	A+++	A+++	A++	A++	A++	A++	A++	A++			
Electric heater power input		kW	3	3	3	3	3	3	3	9(6)	9(6)	9(6)			
Compressor	Type		Twin Rotary DC Inverter												
Outdoor Fan	Motor Type		Brushless DC Motor												
	Number of Fans		1	1	1	1	1	1	1	1	1	1			
Throttle Type			Electronic Expansion Valve												
Air Side Heat Exchanger		Type	Finned Tube												
Water Side Heat Exchanger		Type	Plate Type												
Refrigerant	Type		R290												
	Factory Charge	kg	0.74	0.74	1.10	1.10	1.25	1.25	1.25	1.25	1.25	1.25			
Sound Power Level ³		dB	56	59	60	61	64	66	68	64	66	68			
Sound Pressure Level ⁴		dB	44	46	48	49	51	53	55	51	53	55			
Net Dimensions (WxHxD)		mm	1220 x 709 x 390												
Packing Dimensions (WxHxD)		mm	1315 x 840 x 430												
Net / Gross Weight		kg	76/87		104/125			117/138			129/150				
Piping Connections			R5/4"												
Operation Range	Cooling	°C	-5 - 46												
	Heating	°C	-25 - 35												
	DHW	°C	-25 - 43												
Water Outlet	Cooling	°C	5 - 20												
	Heating	°C	25 - 80												
	DHW	°C	20 - 70												

Abbreviations:
DHW: Domestic hot water
LWT: Leaving water temperature

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



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R290 Tri-thermal ATW Heat Pump



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

80°C
The maximum
of leaving water
temperature is 80°C

Versatility

Provide all-in-one solutions for heating, cooling, and hot water to enhance 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.



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 70°C



Compact fan coil unit cooling

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



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

DC Inverter System



GMCC compressor
High efficiency,the highest SCOP is 5.33



Brushless DC Motor
Realize stepless speed regulation



Precise flow feedback
Energy saving and comfortable temperatures

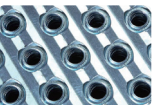
High-efficiency L-type Heat Exchanger

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



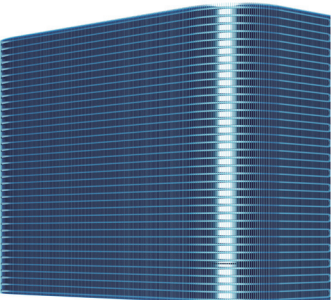
Internal thread heat transfer pipe

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



Corrugated fin

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



Intelligent Control

Update Online

- Easy to update the software
- Convenient to define the system connections
- Remotely monitor the heat pump



APP Controller

- Modes adjustment
- Power consumption record
- Sanitary hot water priority mode
- Unit status & fault information display
- Temp, Pump flow rate, timer setting, etc
- Capacity, power consumption and COP

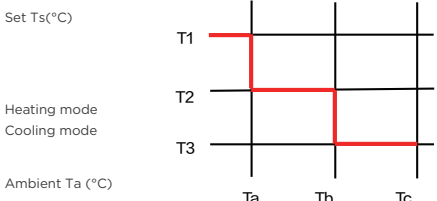


Wired Controller

- Dual wire controller control
- 12 multiple languages
- Built-in room temperature sensor, could be installed on wall
- Two colors optional (Black and White)



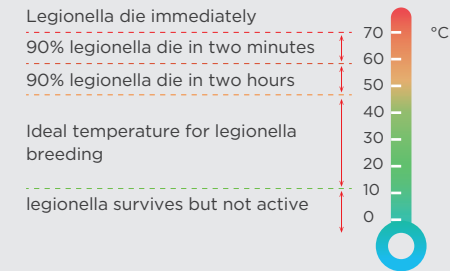
- UP to 9 weather curves control
- After choosing one curve, unit can preset the desired water flow temperature depending on the ambient temperature.



Safe and Comfort

Anti-bacteria Mode

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

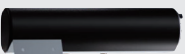


Provide DHW in Time

- Water pump
Running smoothly



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

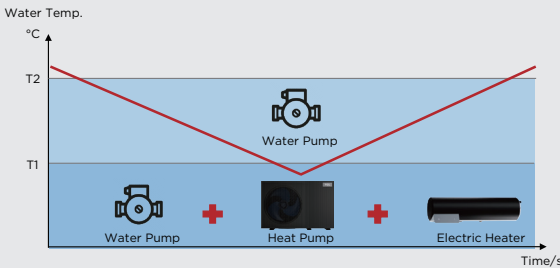


- Solar kit heater
Energy saving



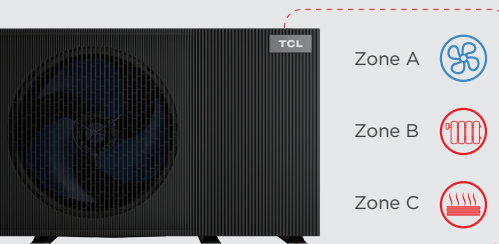
3-step Freeze Protection

- Detect if the ambient temperature is less than 4°C.
- When the water temp is lower than T2, electric auxiliary heat turns on.
- When the water temp is lower than T1, compressor and electric auxiliary heat turn on.



3-zone Control

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



Natural Environmental Friendly Refrigerant.

- The GWP of R290 is 3.
- Good performance in cold environment
- Maintain higher temperature in the water system, reaching 80°C

R290

Multiple Certifications



ReachV



Holiday Mode

Running in heating mode with low setting temperature (20-25°C) during the holiday period avoid freezing breakage