

EU R32 Aqua Falcon Inverter Air Cooled Chiller



Superior Performance



Wide Wing-Shaped Fan Blades
CFD simulation technology is used to optimize the fan blades, achieving high air volume with low noise.



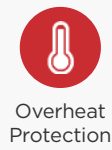
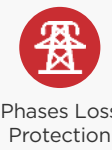
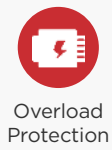
DC Brushless Motor
Stable performance and low-noise operation.

EVI Inverter Scroll Compressor

- 1.Pressure Relief Design**
Prevents excessive compression and enhances part-load performance.
- 2.Jet Check Valve**
Reduces pressure pulsations and boosts the impact resistance of the jet pipeline.
- 3.Sliding Bearing**
Better carrying capacity and lower noise.
- 4.High Efficiency Centralized Coil Motor**
Higher efficiency and reliability.
- 5.Gear Oil Pump & Filter**
In line with the oil supply design of large displacement compressor, the anti-impurity ability is improved.

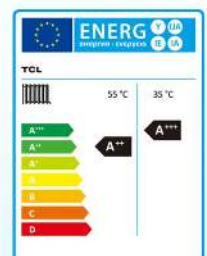


Inverter Water Pump



High Efficiency

Energy efficiency class up to A+++, complying with the European ERP requirements.

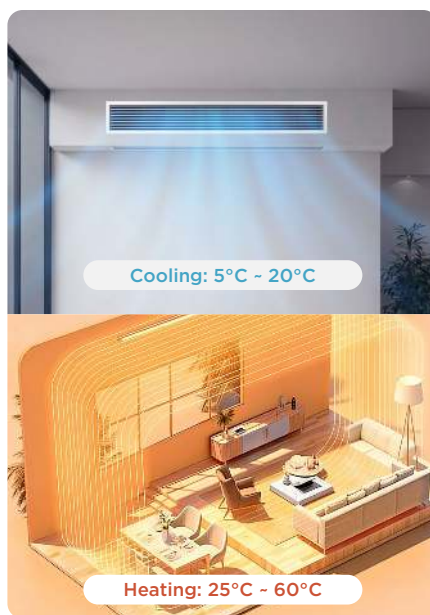


Wide Operation

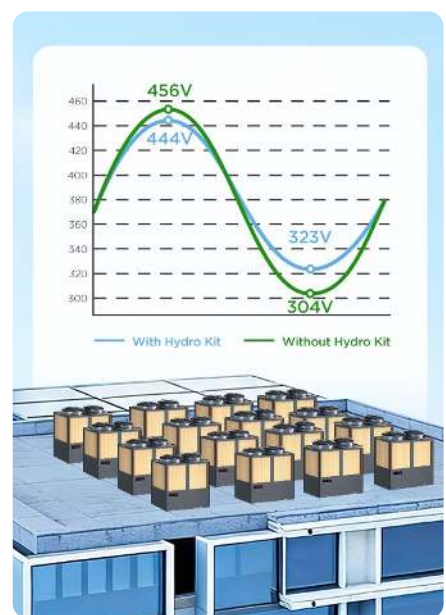
Operation Range



Water Outlet Range

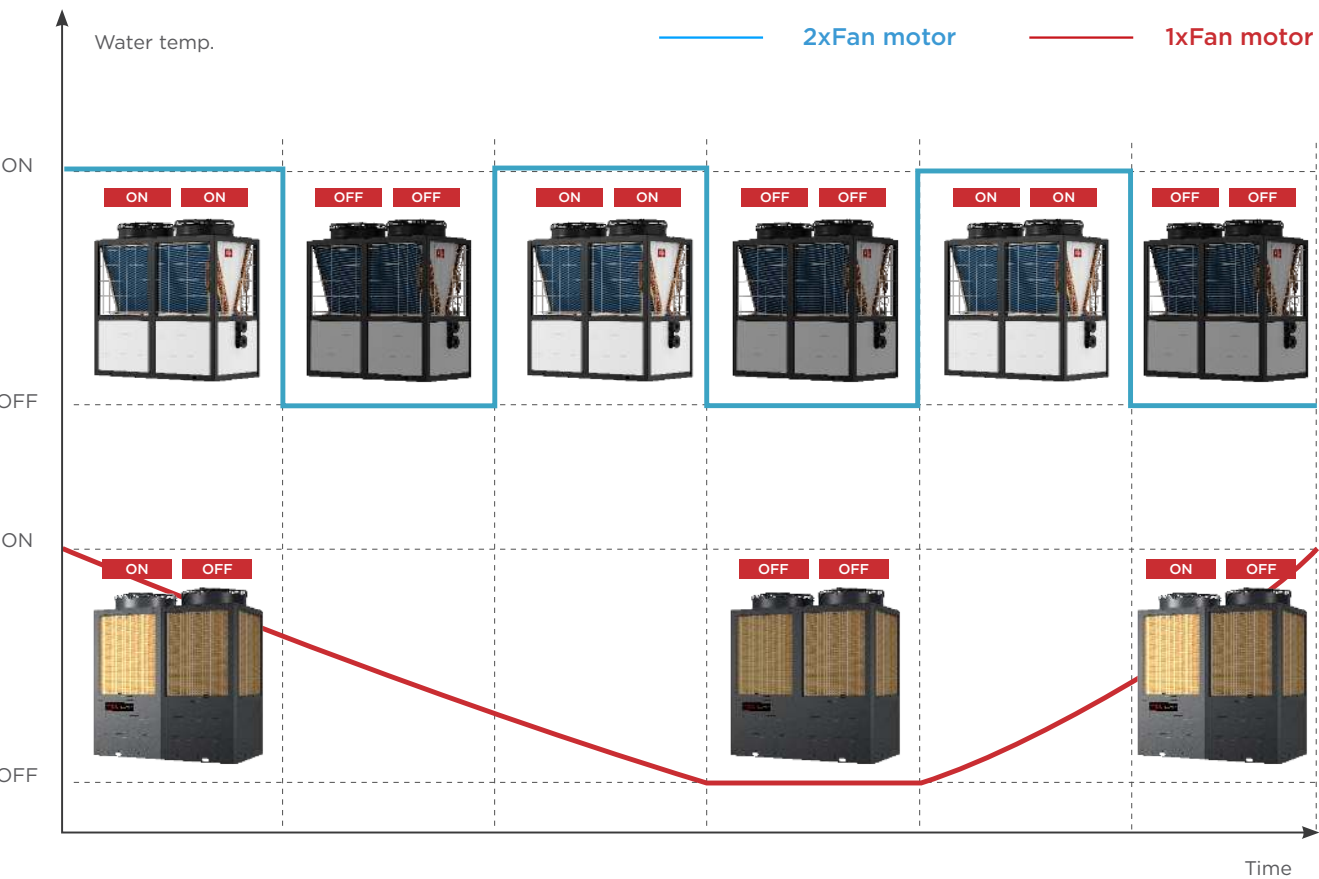


Voltage Range



■ -20°C Cooling

The fan's logic control system is optimized for stable single-fan operation at an ultra-low temperature of -20°C. This enhancement ensures the modular chiller operates with enhanced stability, significantly reducing start-stop cycles and improving overall operational efficiency.



Stable & Reliable

■ Multiple Certifications

Designed specifically for the European market, this unit meets all relevant EU certification standards.

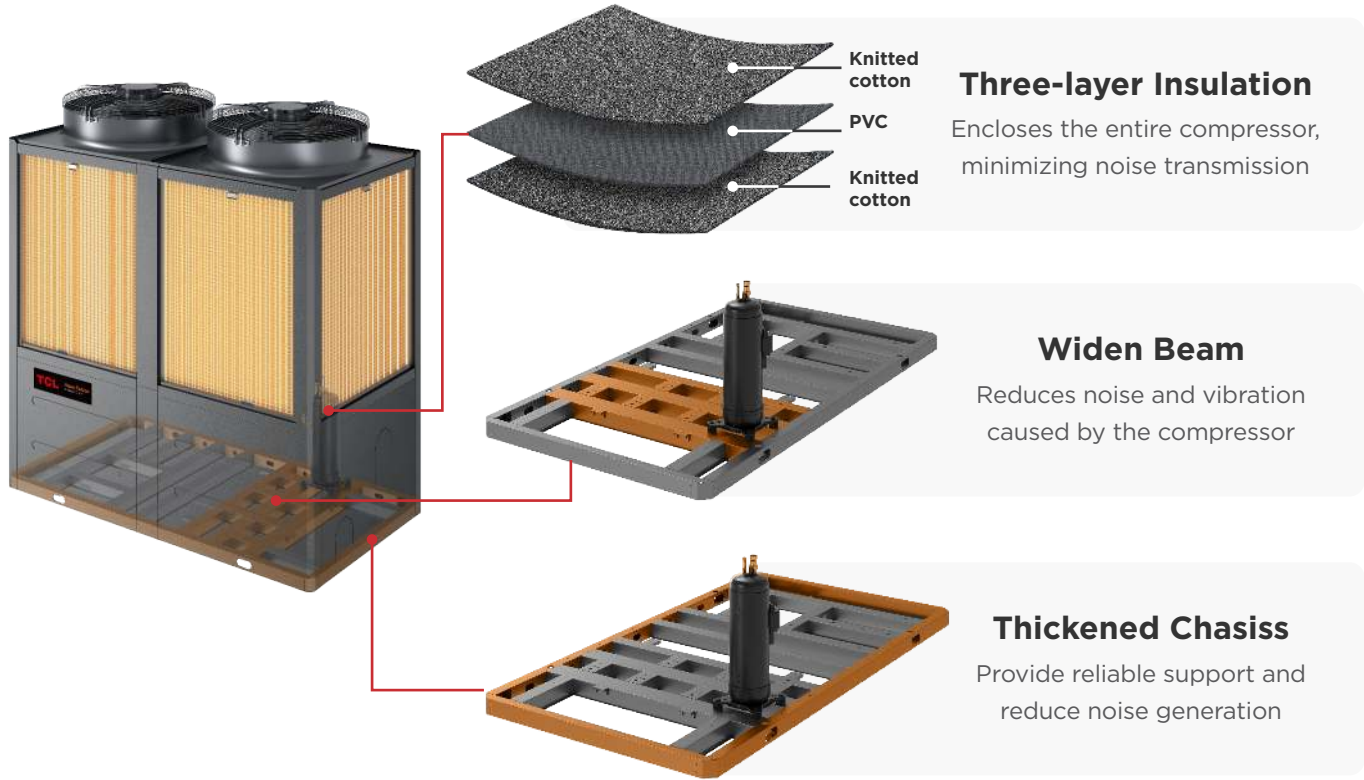


■ Enclosed Electrical Box

Protects internal components from external environmental factors and ensures long-term product durability.



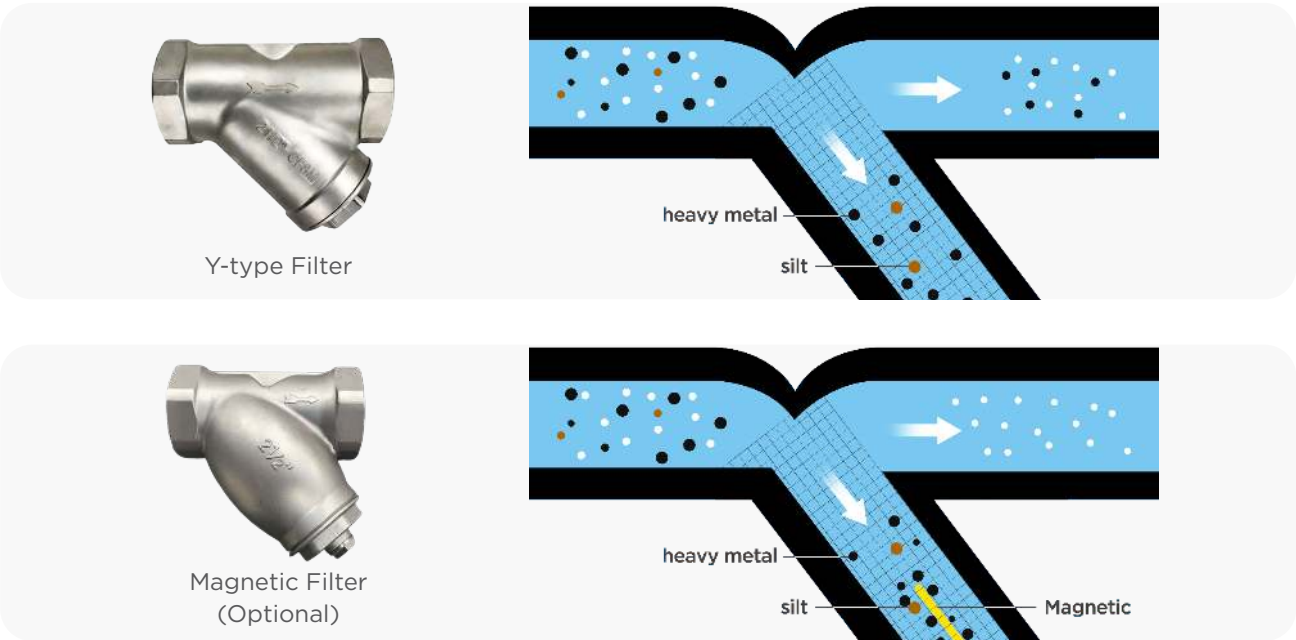
■ Low Noise Design



■ Anti-clogging

Equipped with filter and provided with water quality guidelines, ensuring stable and efficient system operation.

Filter



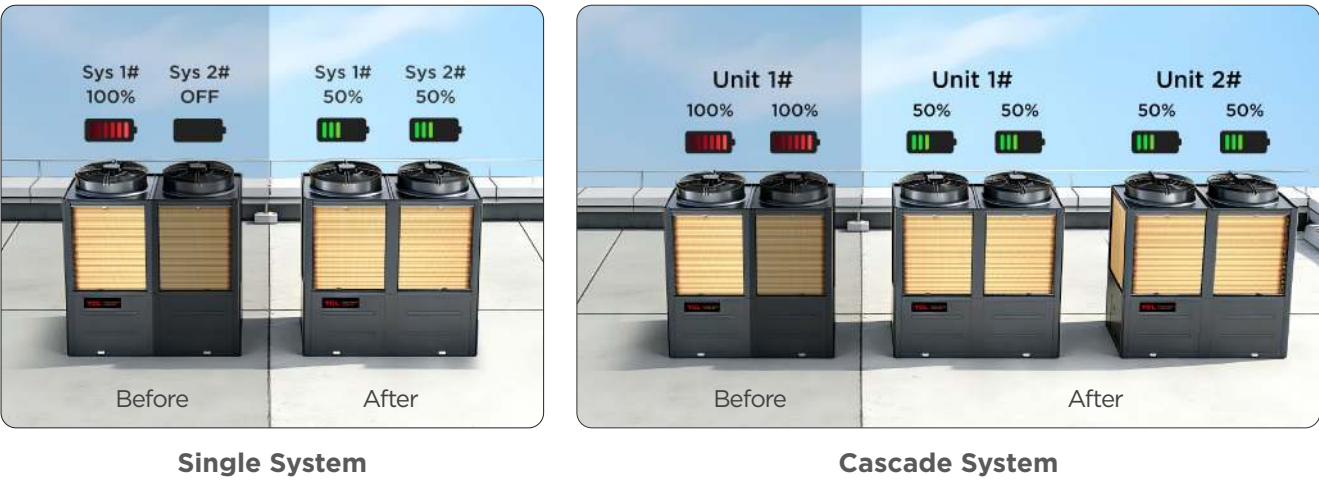
Water Quality

When well or river water is used as chilled water, it can lead to significant sediment accumulation, such as limescale and sand deposits. Therefore, well water or river water must be filtered and softened using a water softening device before being supplied to the water system. If sand and clay settle in the evaporator, they may block chilled water circulation, causing the evaporator to freeze. If the hardness of the chilled water is excessively high, limescale buildup is likely to occur, which may result in equipment corrosion. Therefore, the quality of the chilled water should be analyzed before use, including parameters such as pH value, conductivity, chloride ion concentration, and sulfate ion concentration.



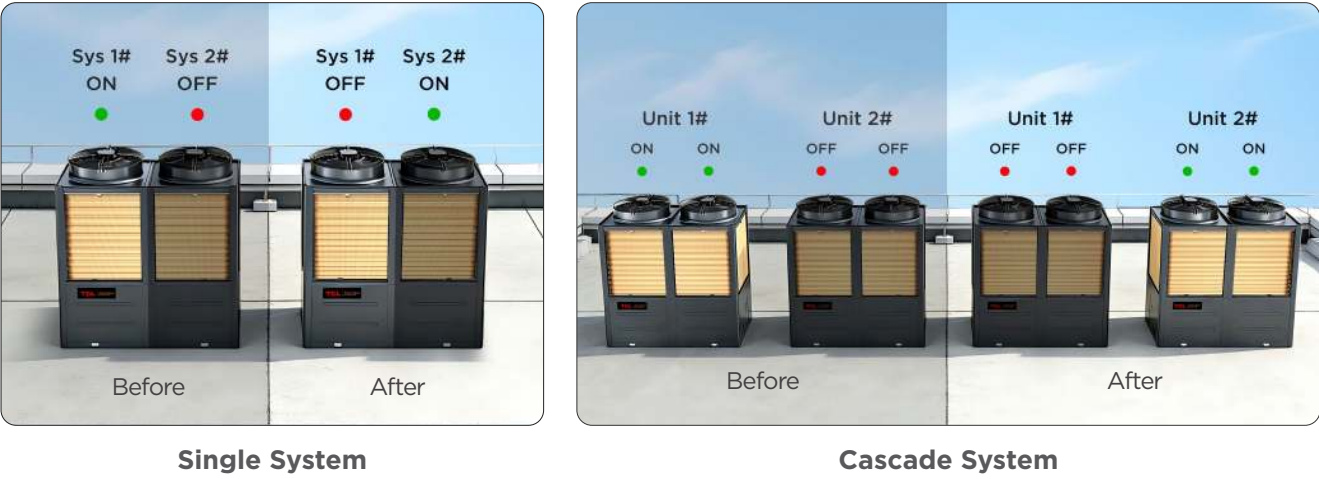
■ Smart Running

The system features automatic load distribution, reducing high-load operation and cutting total power consumption.



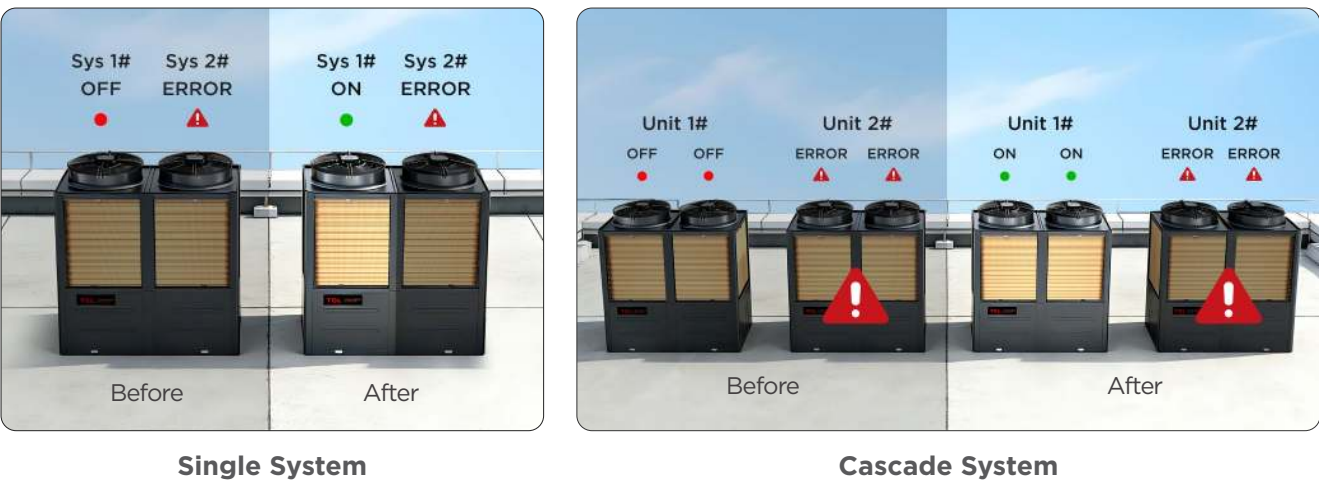
■ Rotating Operation

Intelligent sequential operation balances the operating hours of all systems and modules, extending service life and enhancing reliability.



■ Backup Operation

In the event of a system fault, the backup operation function automatically activates redundant systems, ensuring uninterrupted operation for end users.



Dust Removal

Fully protected against summer dust accumulation, the unit automatically initiates its dust removal function to maintain high-efficiency heat exchange, ensuring stable, reliable, and worry-free operation at all times.



11-layer Anti-freeze Protection

Multiple layers of anti-freezing protection eliminate concerns about water system freezing.

PHE Insulation

PHE Heating Belt

Water Pipe Heating Belt

Flow Switch Heating Belt

Refrigerant Inlet of PHE

Refrigerant Outlet of PHE

Low Pressure

Water Temperature Protection

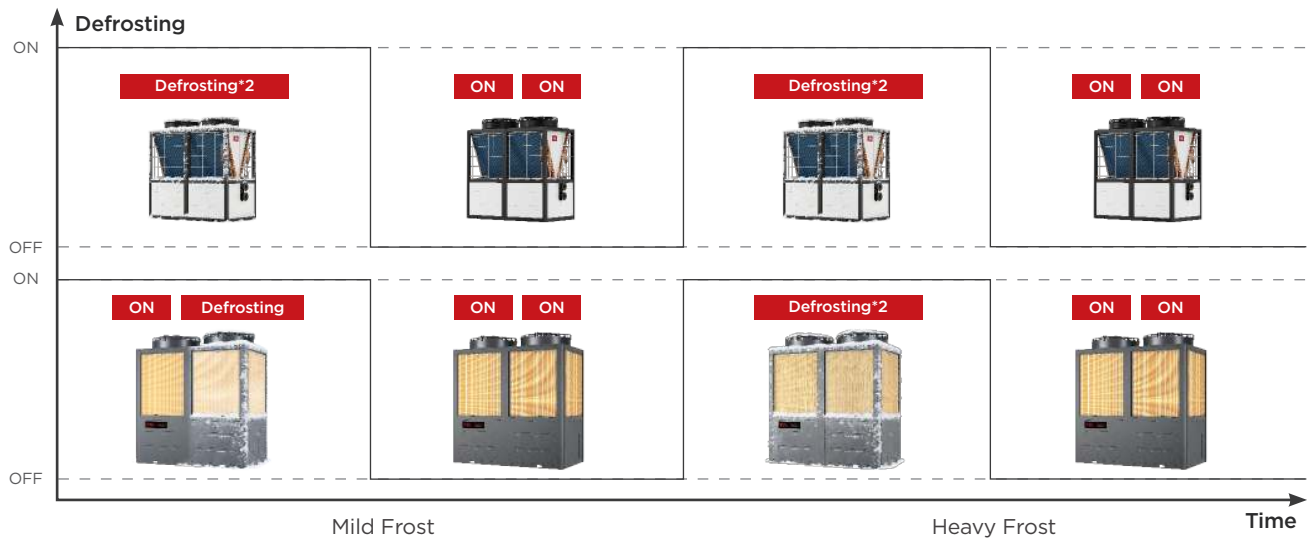
4-way Valve Protection

Water Temperature Protection

Abnormal Defrosting

Smart Defrost

Advanced intelligent defrost control minimizes the impact on the entire system.



Snow-blowing

Fully protected against winter snow accumulation, the unit automatically initiates its snow removal function to maintain high-efficiency heat exchange, ensuring stable, reliable, and worry-free operation of the entire system at all times.



Smart & Intelligent

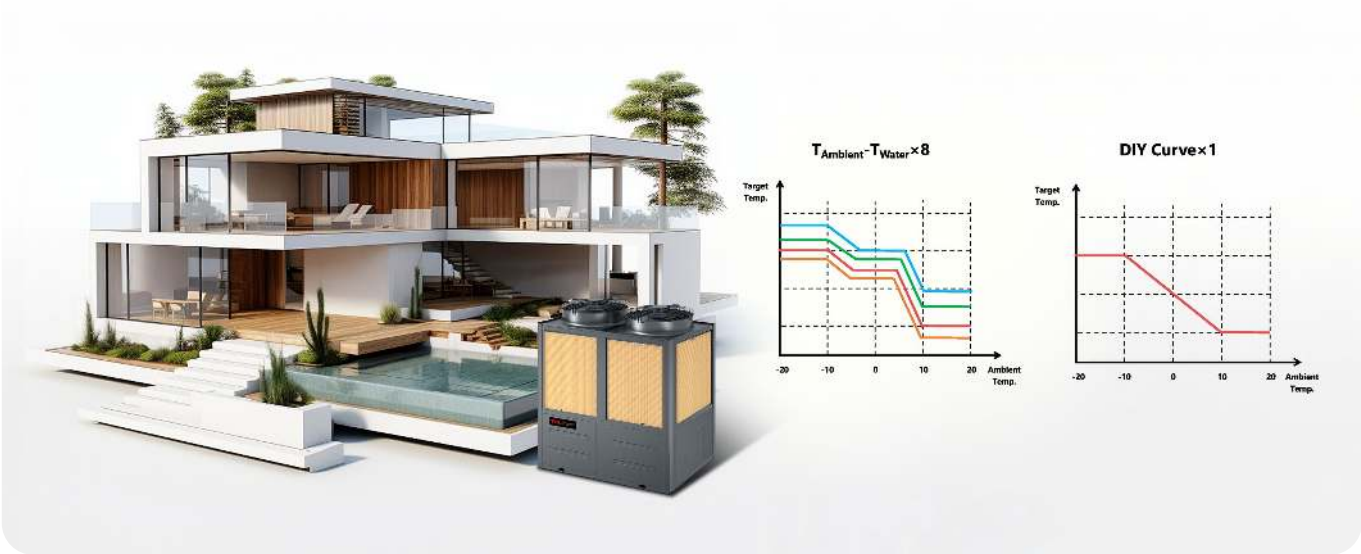
Wired Controller

- Supports 12 languages
- Two colors optional (Black and White)
- Customized logo



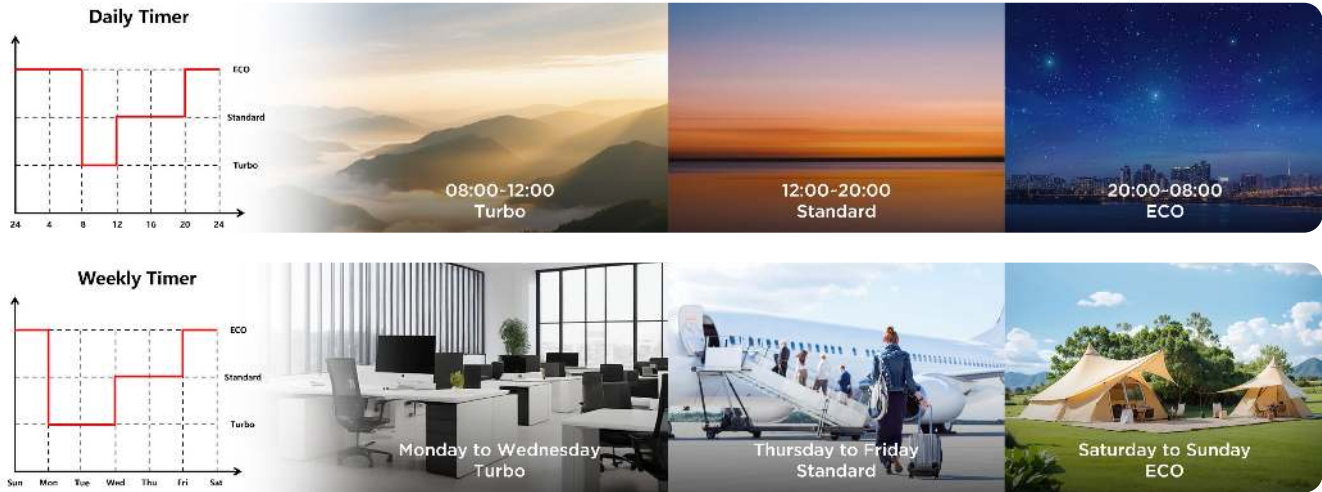
Temperature Curve

High flexibility | Eliminates the need for frequent target temperature adjustments.



Smart Timer

Operating modes can be pre-set on daily and weekly schedules, enabling automatic switching between Turbo, Standard and ECO modes to meet user comfort and energy efficiency requirements.





■ Cascade Max. 16 Units

Modular design, flexible combination more convenient for design and installation.



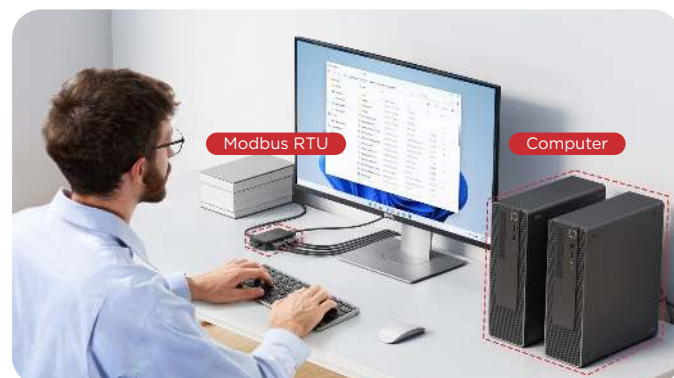
■ Variable Controls

The modular chiller can be connected to thermostats (Cooling and Heating), remote control signals, and fire alarm signals, enabling more intelligent operation.



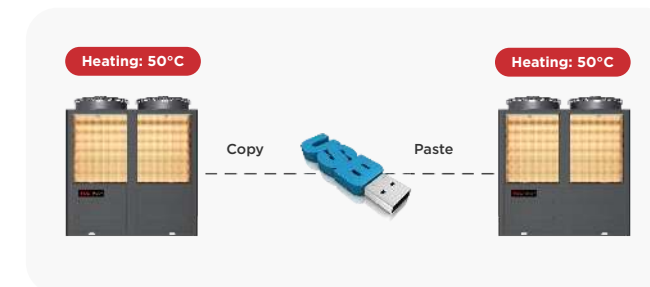
■ Modbus

Modbus port pins are pre-reserved on the PCB, ensuring full compatibility with RS485 communication protocols.

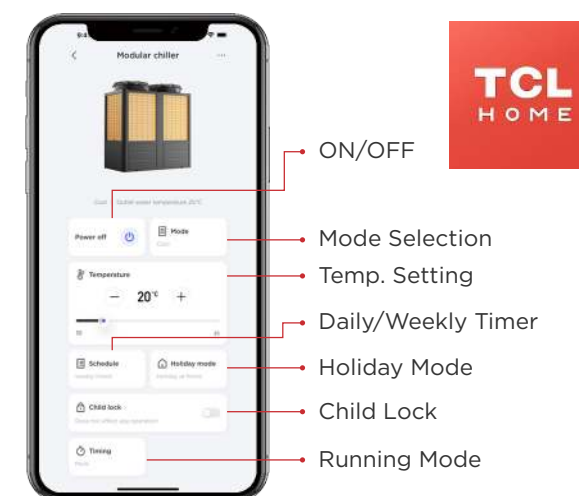


■ USB Commisioning

Following initial chiller configuration for a project, parameters can be copied to a USB flash drive. These parameters can then be quickly imported and applied to subsequent similar projects via USB, significantly improving installation efficiency.



■ APP Control



■ OTA Upgrade

Engineers can complete firmware updates, parameter adjustments, and fault repairs remotely via the cloud without needing to be on-site, significantly reducing travel and labor costs.



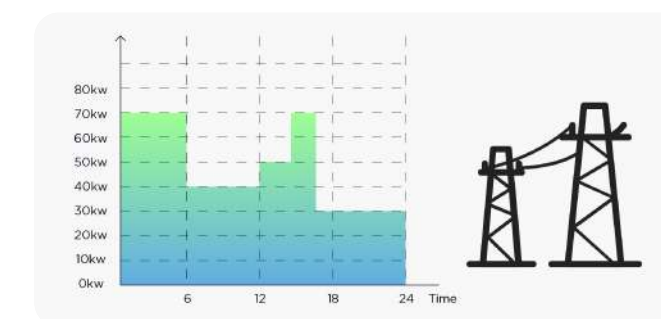
■ USB Upgrade

In the absence of internet, the system supports USB one-click insertion for updates, ensuring seamless operation with minimal manual intervention.



■ Power Limitation

This power limiting function is designed to accommodate grid voltage fluctuations in specific regions, ensuring stable and uninterrupted operation for commercial applications.



■ IOT Platform

Real-time operation data monitoring and analysis; Remote equipment health assessment and potential fault detection; Improved module reliability and operational stability.



Easy Maintenance

Hydraulic Kit

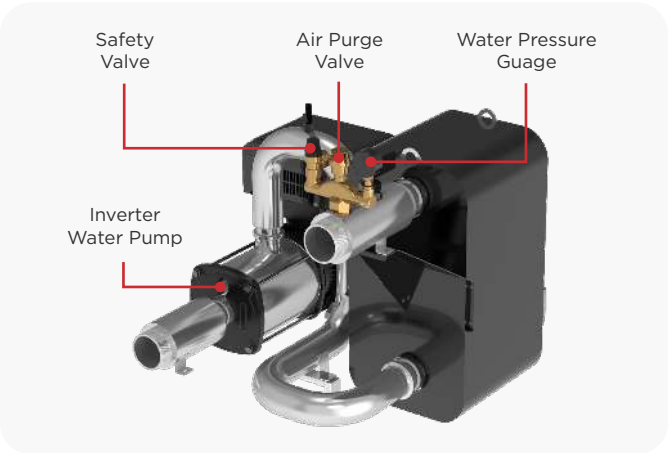
Without Hydraulic Kit

- **Lower weight** for transportation
- **Easier** for maintenance



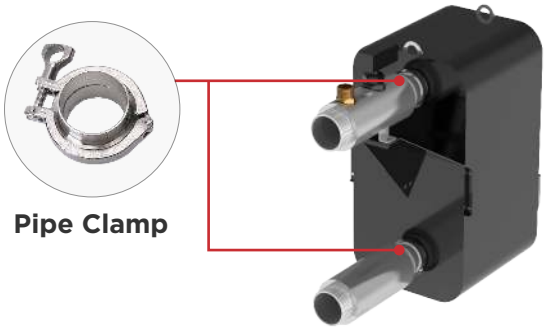
With Hydraulic Kit

- **Lower** installation cost
- **Shorter** debugging time



Pipe Clamp

All water pipes are connected via quick-release pipe clamps, enabling fast, tool-free replacement and assembly.



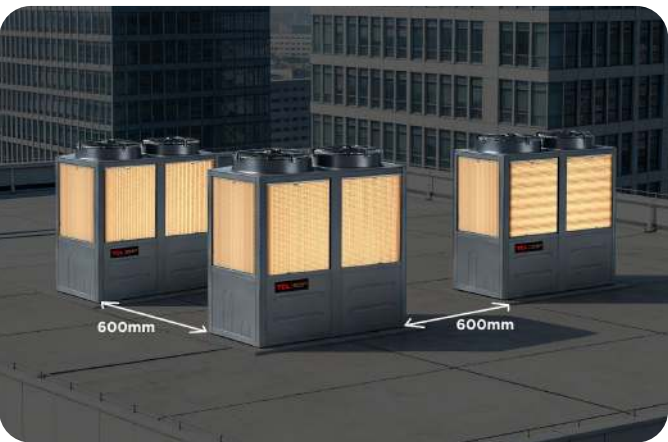
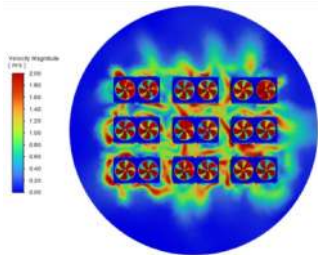
Rotated E-box

The upper section of the electrical enclosure features a rotatable design, allowing quick and easy access to internal components for simplified maintenance.



Ultimate Installation Distance

Thanks to optimized design of the air ducts, fan blades and condenser, the minimum installation clearance is reduced to 600 mm.



Specification



70kW



140kW

Model			LSRFM70/AN3-DWBP	LSRFM70/AN3-DWBPSM	LSRFM140/AN3-DWBP	LSRFM140/AN3-DWBPSM
Power Supply		V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
Refrigerant	Type	/	R32	R32	R32	R32
	Charge	kg	8.5	8.5	7.8×2	7.8×2
Heating (A7W35)	Capacity	kW	66.5	65.5	135	135
	Rated Input	kW	16.71	17.33	40.3	42.19
	COP	W/W	3.98	3.78	3.35	3.2
Heating (A7W45)	Capacity	kW	67	65.2	140	140
	Rated Input	kW	20	21.03	44.44	46.67
	COP	W/W	3.35	3.1	3.15	3
Heating (A7W55)	Capacity	kW	66.2	65.2	135	135
	Rated Input	kW	22.67	23.12	50.94	54
	COP	W/W	2.92	2.82	2.65	2.5
Cooling (A35W7)	Capacity	kW	65.5	65.1	135	133
	Rated Input	kW	24.9	25.73	51.72	53.2
	EER	W/W	2.63	2.53	2.61	2.5
SCOP(35°C)		W/W	4.65	4.6	4.26	4.15
SCOP(55°C)		W/W	3.45	3.4	3.3	3.22
SEER		W/W	4.7	4.6	4.56	4.3
Seasonal Space Heating Energy Efficiency Class	LWT at 35°C	/	A+++	A+++	A++	A++
	LWT at 55°C	/	A++	A++	A++	A++
Sound Pressure Level		dB(A)	68	69	73	74
Sound Power Level		dB(A)	84	85	89	90
Maximum Input Power		kW	32.2	34	63	67
Maximum Input Current		A	53	58	105	113
Compressor	Type	/	EVI Scroll	EVI Scroll	EVI Scroll	EVI Scroll
	Control	/	Inverter	Inverter	Inverter	Inverter
	Quantity	/	1	1	2	2
Fan	Type	/	Axial	Axial	Axial	Axial
	Quantity	/	1	1	2	2
Condenser	Type	/	Finned Tube	Finned Tube	Finned Tube	Finned Tube
	Color Of Heat Exchanger	/	Golden	Golden	Golden	Golden
Water Side Heat Exchanger	Types	/	Plate Heat Exchanger	Plate Heat Exchanger	Plate Heat Exchanger	Plate Heat Exchanger
	Water Flow Rate (Cooling)	m³/h	11.27	11.2	23.22	22.88
	Water Flow Rate (Heating)	m³/h	11.52	11.21	24.08	24.08
Throttle Type		/	EEV	EEV	EEV	EEV
Water Pump	Type	/	/	Centrifugal	/	Centrifugal
	Control	/	/	Inverter	/	Inverter
Water Pipe	Connection	/	R2-1/2"External Thread	R2-1/2"External Thread	R2-1/2"External Thread	R2-1/2"External Thread
	Size	/	DN65	DN65	DN65	DN65
Water Pressure Drop		kPa	46	/	53	/
External Static Pressure		kPa	/	225	/	340
Dimensions	Net (W×D×H)	mm	1260×1200×2385	1260×1200×2385	2200×1200×2385	2200×1200×2385
	Packing(W×D×H)	mm	1290×1230×2525	1290×1230×2525	2230×1230×2525	2230×1230×2525
Weight	Net	kg	385	415	665	705
	Gross	kg	405	435	705	745
	Operating	kg	420	455	735	785