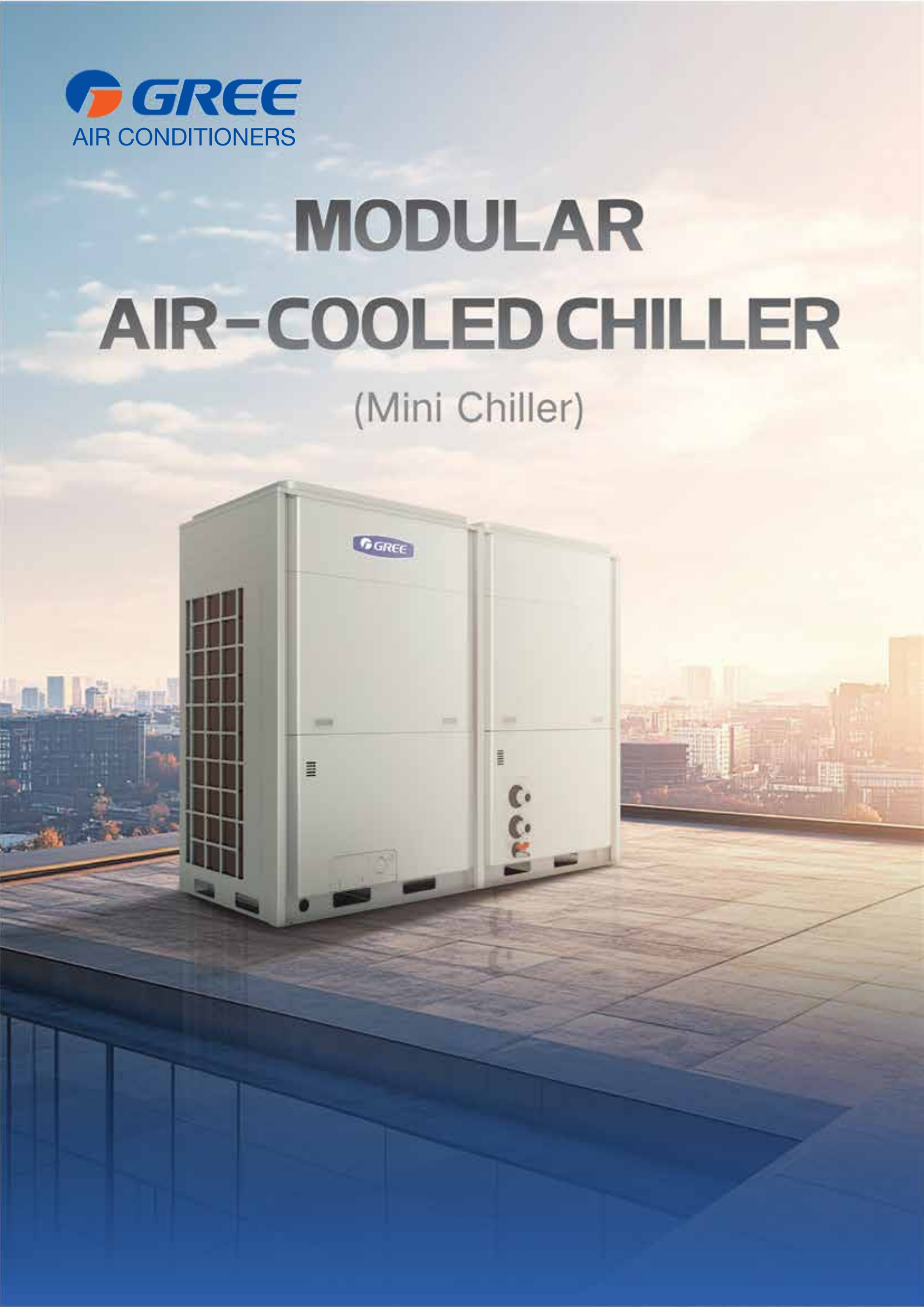
GREE
AIR CONDITIONERS

MODULAR AIR-COOLED CHILLER

(Mini Chiller)



CONTENT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Product Information

Product Information

The use of modular air-cooled chillers has outstanding advantages over a typical chiller/boiler system. Having multiple independent modules and refrigerant circuits will lessen the down time during routine maintenance and service; the flexible and easy modular combination result in a convenient stock, transportation, installation as well, which is capable of serving newly built or retrofitted industrial and civil buildings in various
sizes.

Nomenclature

LS	QW	R	F	65	V	M	/	Na	A	-	M
1	2	3	4	5	6	7		8	9		10

No.	Code description	Options
1	Product Type	LS: Chiller
2	Compressor type	QW: Hermetic scroll/rotary type
3	Unit function	Omit: Cooling only
		R: Heat pump
4	Condenser type	F: Air-cooled
5	Cooling capacity	Nominal cooling capacity = number (kW)
6	Compressor drive	Omit: Fixed frequency,
		V: Variable frequency
7	System extension	M: Modular
8	Refrigerant type	Na: R410A
		Nh: R32
9	Design code	A-Z Alphabetic order
10	Power code	M: 380 – 415VAC 3Ph 50Hz

Product Lineup

LSQWF35VM/NaA-M

LSQWF65VM/NaA-M

LSQWF130VM/NaA-M

Modular System Specifications

Max. Configuration

16
units per group

Total Cooling Range

32-1040 kW

Capacity Flexibility

Modules can have
identical or mixed capacities

Max.: 16 modular units

Application

GREE A-Series Inverter Mini Chiller

The GREE A-Series Inverter Mini Chiller delivers reliable cooling even in extreme ambient temperatures as low as -15 ° C, with a leaving chilled water temperature of -10℃. Designed for industrial and technical applications, it ensures stable performance in demanding environments.

Featuring a compact, modular design, the A-Series is ideal for both new installations and retrofits across a wide range of settings, including:

- Commercial spaces: Hotels, apartments, restaurants, office buildings, shopping malls, theaters, and gyms.
- Industrial & medical facilities: Workshops, hospitals, and other locations with stringent environmental requirements, particularly where boilers or cooling towers cannot be installed.
- Specialized cooling needs: Dairy production, food processing, wineries, and industrial product storage.

Efficient, adaptable, and built for precision, the GREE A-Series meets high-performance cooling demands across diverse sectors.

Pasture

Office building

Factory

Winery

Hotel

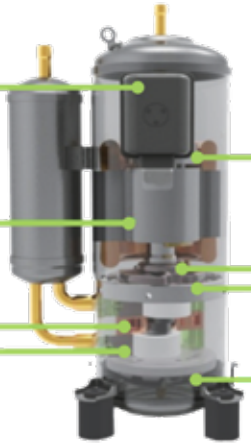
Shopping center

Features

High Efficiency

All DC Inverter Technology: Chiller load can be accurately regulated ranging from 10% to 100%.

- 25 – 85Hz operating range
- Full DC inverter control – Dynamically adjusts to load changes for optimal efficiency
- Precision cooling – Stable performance with energy savings



Fine waterproof electric box

Ensures electric safety

Efficient DC and variable frequency motor

Achieves high efficiency in a wide load range

Dual bafiles and four exhaust passages

Reduces exhaust pressure and fulfill energy-saving operation with high frequency

Durable DLC coated sliding vane

Presents notable surface hardness to deliver reliable operation with a great pressure ratio Positive oil separator

Positive oil separator

Separates oil from refrigerant vapor or gas with very little oil passing on into the system

Multi-stage sound attenuator

Decreases pressure pulses and ensures low-noise operation in all frequency bands.

Reliable pump

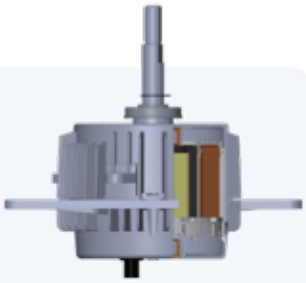
Withstands various extreme conditions

Internal oil tank

Provides sufficient oil for all parts inside the compressor

DC Inverter Compressor

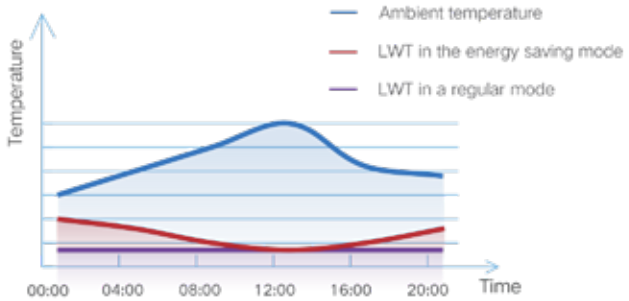
- 8-62Hz operating range with stepless speed control for precise airflow adjustment
- IP44 rated for reliable operation
- Fractional-slot winding stator reduces magnetic pull torque



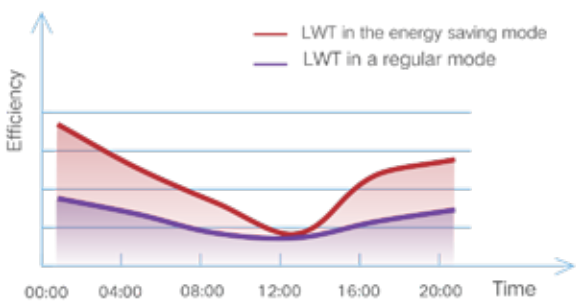
DC In verter Fan Motor

Energy saving mode

- Auto-load calculation dynamically adjusts cooling output to match demand
- No manual temperature setting required - fully automatic operation
- Energy-saving mode significantly reduces power consumption while maintaining efficient performance



Comparison of leaving water temperatures

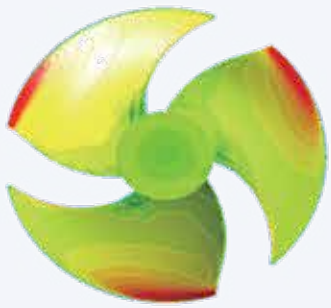


Efficiency comparison

Quiet Operation

- Aerodynamic Blades: Specially designed with CFD analysis for low torsion and high airflow, combining strength and performance. The swept, curved profile ensures ultra-low noise operation.
- Variable Frequency Control: The motor adjusts speed seamlessly based on condensing pressure, reducing sound pressure levels by 8 – 10 dB(A) under partial loads.

Efficient and low-noise fan



CFD Analysis: Surface Pressure Distribution

Efficient and low-noise fan

Wide operating range

Cooling

Year-Round Stable Cooling Operation Ambient Temperature Range: -15 ° C to 52 ° C

Leaving chilled water temperature

Heating Operation Ambient Temperature Range: -10 ° C to 20 ° C

High Reliability

Balanced Compressor Modulation

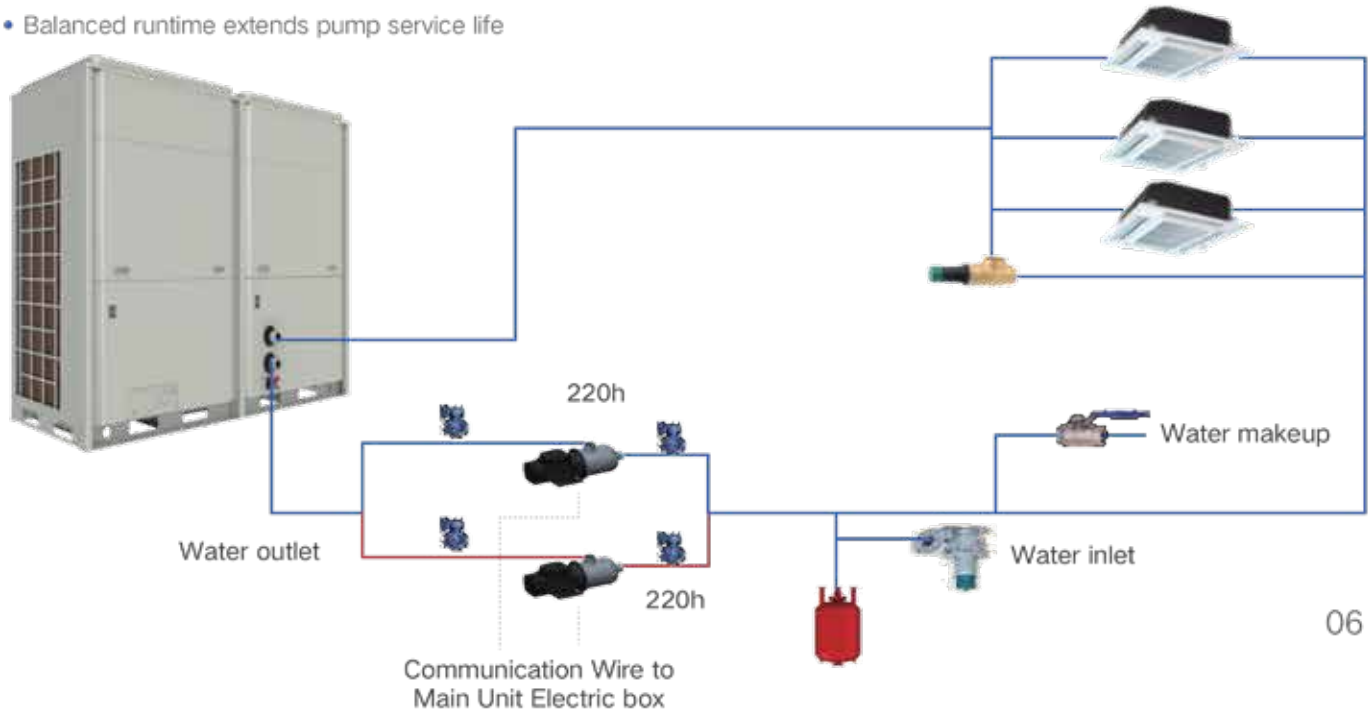
- Load Distribution: The control system dynamically balances all compressors' operating loads.

Benefits:

Prevents uneven wear | ***Extends service life*** | ***Improves energy efficiency***

Water Pump Switchover System

- Main/backup pumps alternate operation to ensure continuous operation if one fails
- Automatic transfer within seconds of fault detection
- Balanced runtime extends pump service life

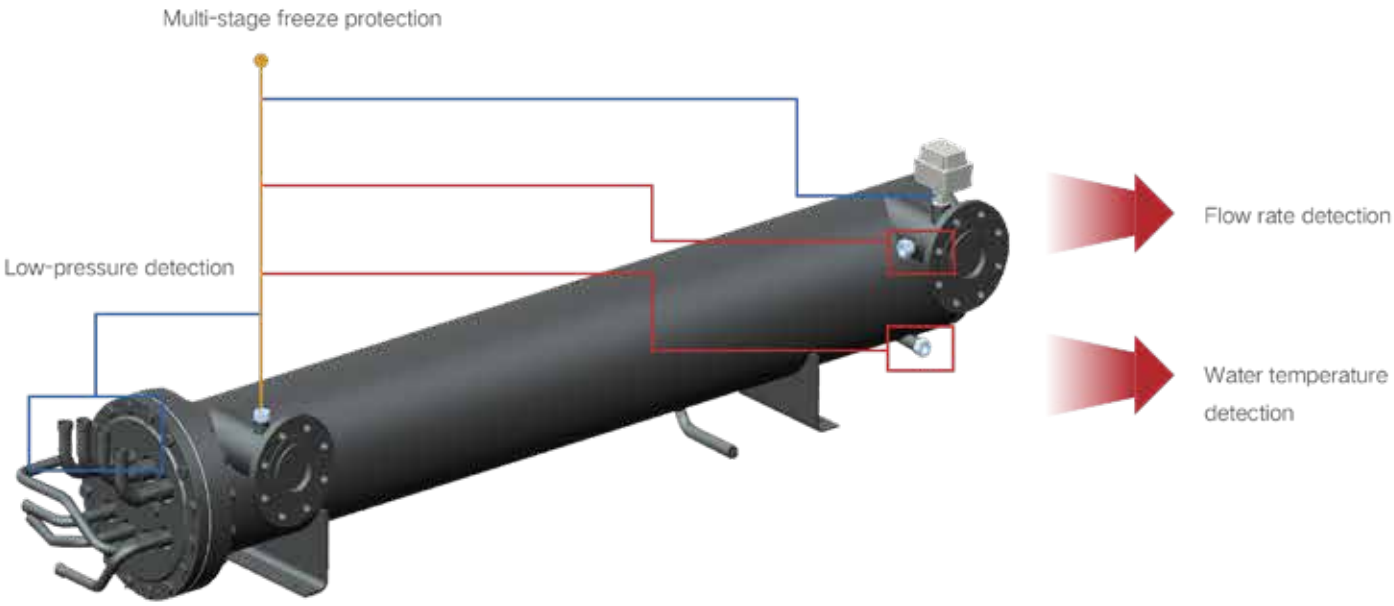


Comprehensive Protection System

The unit features an advanced microprocessor control system with complete protection and self-diagnosis functions to ensure safe, efficient operation. Key protections include:

Multi-Stage Freeze Protection

- Monitors: Water temperature, flow rate, and pressure
- Protects: Shell-and-tube evaporator from freezing damage
- Response: Automatic shutdown and alarm if risk detected

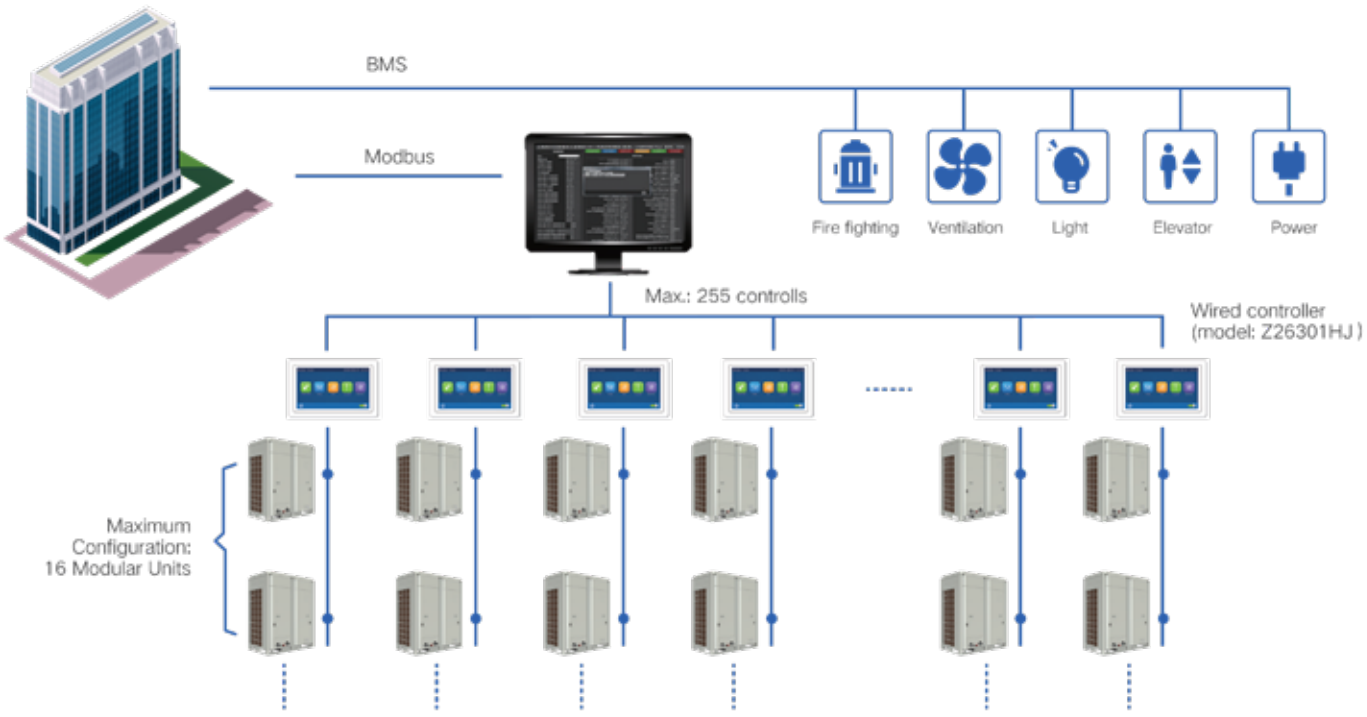


Modular Shift Design

- Inter-Module Communication: Real-time data exchange between all modules
- Fault Tolerance: Single module failure does not disrupt system operation
- Role Switching: Master/slave modules can be reassigned as needed
- Included Components: Wired controller (Model: Z26301HJ), Connection kit (Model: CF612

Smart control

Seamless BMS Connectivity



Centralized Dry Contact Control

- System-Wide Start: All units activate via centralized controller signals
- Floor-Level Integration: Dry contact switches at each location
- Fully Automated: No manual control cabinet operation required

Product Parameters

Cooling Only

R410A

Model			LSQWF35VM/NaA-M	LSQWF65VM/NaA-M	LSQWF130VM/NaA-M
Capacity	Cooling	kW	32	65	125
		RT	9.1	18.48	35.54
Capacity adjustment		%	31.25-100%	15.63-100%	7.81-100%
EER		W/W	2.58	2.62	2.78
Power supply		V/Ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50
Power input	Cooling	kW	12.40	24.81	44.96
Compressor	Type	-	Inverter rotary	Inverter rotary	Inverter rotary
	Starting mode	-	Inverter starting	Inverter starting	Inverter starting
	Quantity	-	1	2	4
Water side heat exchanger	Type		Shell-and-tube dry expansion		
	Water flow volume	l/s	1.53	3.1	6.24
		GPM	24	49	99
	Pressure drop	kPa	75	60	60
		ft.WG	24.6	19.68	19.68
	Connection pipe*	-	DN32	DN50	DN80
Air side heat exchanger	Type	-	Aluminum fin-copper tube	Aluminum fin-copper tube	Aluminum fin-copper tube
	Fan type and quantity	-	Axial-flow/2	Axial-flow/2	Axial-flow/4
	Total fan airflow	m^3/h	$2\times1.25\times10^4$	$2\times1.2\times10^4$	$4\times1.55\times10^4$
		CFM	$2\times0.736\times10^4$	$2\times0.707\times10^4$	$4\times0.913\times10^4$
	Total fan motor power	kW	0.75×2	0.75×2	0.75×4
Sound pressure level		dB(A)	62	68	69
Dimension (W×D×H)	Outline	mm	1340×845×1605	2200×965×1675	2305×1980×2190
	Package	mm	1420×920×1775	2267×1030×1845	2365×2040×2190
Net/Gross/Operating weight		kg	379/391/416.9	689/725/757.9	1320/1383.5/1447
Loading quantity	40' GP/40' HP	set	16/16	11/11	6/6

Remark:
① Working conditions of cooling: Leaving chilled water temperature 7℃, water flow volume: 0.172 m^3/h per kW cooling capacity, outdoor ambient temperature 35℃ (DB).
② For specific parameters, please refer to the product nameplate.
③ For connection pipe*, if the size ≥ DN65, the connector is of flange type, if the size <DN65, the connector is of external thread type.

Operation Range

Item	Water side (water temperature)		Air side (Ambient temperature)
	Operating range		Operating range
	Leaving water temperature (℃)	Entering and Leaving water temperature difference (℃)	DB (℃)
Cooling	-10~20	2.5~6	-15~52

For Parts and Warranty:

GREE

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