

Hisense

Hisense International Co., Ltd.
Hisense International Center, Qingdao, China

<http://www.hisensehvac.com>

[f](#) Hisense HVAC

[in](#) Hisense HVAC

[✉ hisensehvac@hisense.com](mailto:hisensehvac@hisense.com)

[▶](#) Hisense HVAC

HSGPR202508AC



GLOBAL

PROJECT REFERENCE
COLLECTION

Reimagine your solution

G L O B A L P R O J E C T
R E F E R E N C E C O L L E C T I O N

01-14 About Hisense
Hisense HVAC

15-72 Global Air Solution

- Public Enterprise
- Business Service
- Infrastructure
- Industry & Agriculture
- Real Estate

Hisense

Hisense SINCE 1969

Hisense is a well-known large-scale electronic information industrial group. With strong emphasis on technology and innovation, its efficient technological innovation system firmly grounds Hisense at the forefront of its peers. At present, Hisense brand family has expanded to include multiple famous brand Hisense, Toshiba, Gorenje and ASKO.

Multimedia

TV and Display Devices
Internet TV Operation
Mobile Communication Devices
Optical Communication
Devices
Chip

Household Appliances

Refrigerator
Freezer
Air-conditioner
Washing Machine
Kitchen Appliance

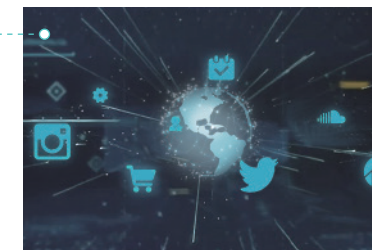
IT Smart Systems

Smart City
Smart Community
Smart Transportation
Smart Business
Medical Electronic Devices
Smart Home System and Service

Real Estate & Modern Services

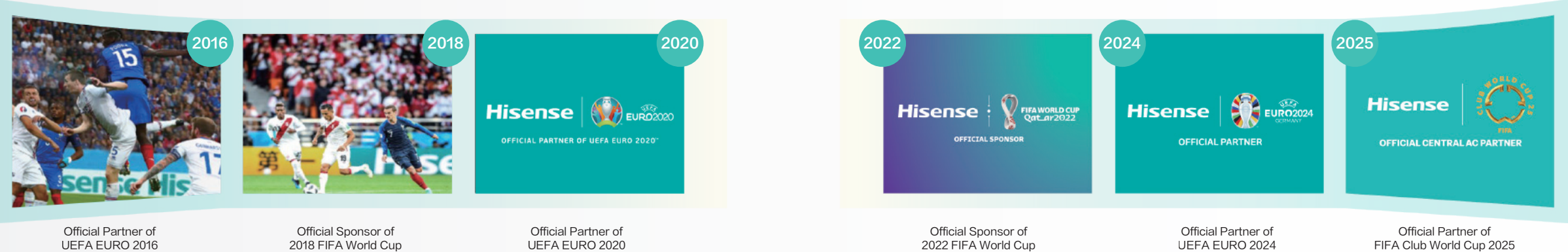
Real Estate
High-end Plaza Chains
Mould Design and Manufacturing
Finance
Trade

BUSINESS LAYOUT



GLOBAL HISENSE SINCE 1969

Hisense has started a long-term sports marketing strategy to increase brand awareness worldwide. After the successful sponsorship of **UEFA EURO 2016 & 2020 & 2024** and **FIFA WORLD CUP 2018 & 2022**, Hisense has made clear its focus on football. Hisense also is the official partner of **FIFA Club World Cup 2025**.



Note: The above data is as of Jun.30th, 2025.

30,000,000 units/Y
Production Capacity



Hisense CHILLER

Hi-Mod



Hi-Screw



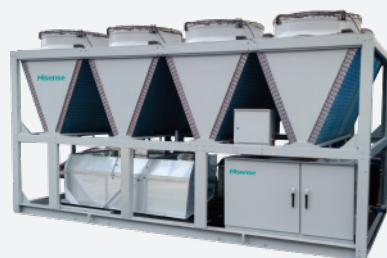
Hi-Mod A Series Hi-Mod E Series Hi-Mod AE2 Series



Hi-Mod VE1 Series Hi-Mod V Series



Hi-Screw AE2 Series



OUTDOOR UNITS LINE-UP

Hi-Levi S Series



Hi-Centri AE Series



Hi-Magi AP Series



Hi-Magi AH Series



Hi-SC V Series



Hi-SC F Series



Hi-SC R Series



Hi-SC S Series



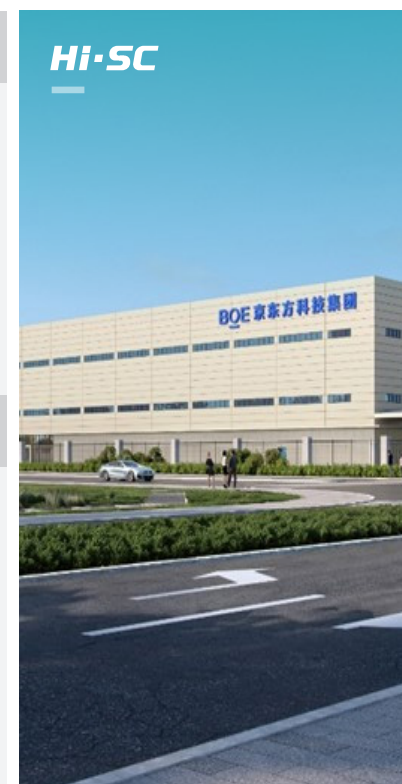
Hi-Levi Hi-Centri



Hi-Magi



Hi-SC



Hisense VRF

Hi-FLEXi S5 Series

Hi-FLEXi S Series Heat Recovery

Hi-FLEXi S mavo+ Series



Hi-FLEXi X3 Series



8~14HP	16~20HP	22~26HP	28~30HP	32~42HP
44~80HP		82~120HP		
8~12HP	14~18HP	20~24HP	26~28HP	
30~56HP		58~84HP		
86~112HP				
8~12HP	14~18HP	20~24HP	26~28HP	
30~56HP		58~84HP		
86~112HP				

OUTDOOR UNITS LINE-UP

8~14HP	16~20HP	22~40HP
42~60HP		
4/5/6HP	8/10/12/14/16HP	18~32HP
R32	R32	R32
3/3.5HP	4/5/6HP	6.5/7/8HP
4/5/6HP	8/10/12HP	
3/4/5HP	4/5/6HP	8/10/12HP

Hi-FLEXi W Series



Hi-Smart H5 Series

Hi-Smart A Series

Hi-Smart L+ C+ Series

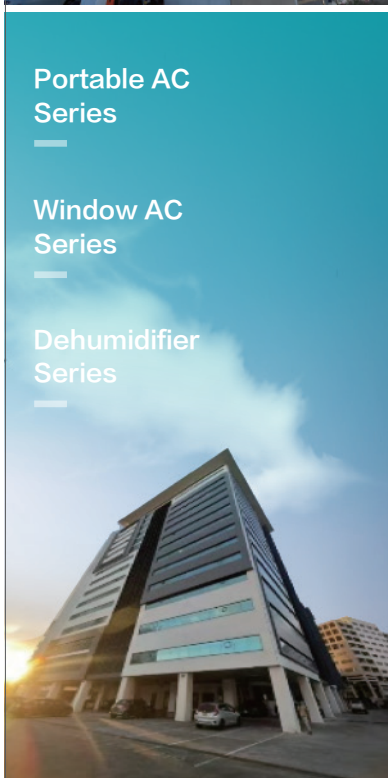
Hi-Smart H Series



Split AC Series



Window AC Series



Turbo Inverter R32



9K/12K



14K/18K



21K/24K



36K/42K/48K/60K



75K/85K

Super Inverter R32



14K/18K



21K/24K



36K



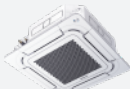
48K

Compact Cassette



600*600

Round Flow Cassette



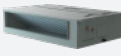
900*900

Slim Duct



H 190mm

150Pa MSP Duct



H 245mm

200Pa HSP Duct



H 300mm

250Pa HSP Duct



H 420mm

Console Standing



Ceiling Suspended



Floor Standing



* Hisense 1-way Cassette is on pre-developing.

Full Outdoor Line Up

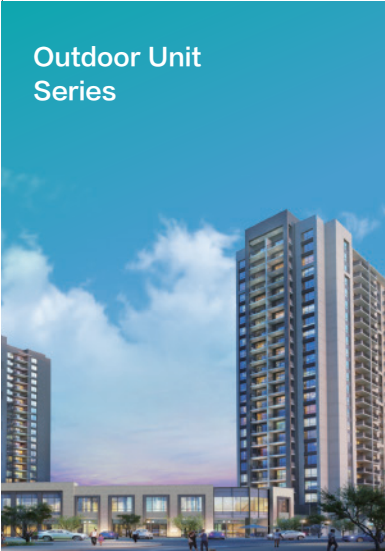


Full Indoor Line Up



Hi-Multi LINE-UP

Outdoor Unit Series



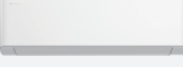
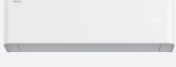
Indoor Unit Series



Hi-Multi SP R32				
				
1 Drive 2 3.5kW/4.2kW	1 Drive 2 5.2kW	1 Drive 3 4.0kW/5.2kW/ 6.2kW/7.2kW	1 Drive 4 7.2kW/8.1kW	1 Drive 5 9.0kW/10.5kW
Hi-Multi+ R410A				
				
1 Drive 5 12.5kW		1 Drive 5 14.0kW/16.0kW		

	
Silentium Pro 2.5kW/3.5kW	Compact Cassette 2.5kW/3.5kW/4.0kW/5.0kW

		
Energy Pro X 2.5kW/3.5kW/5.0kW	Energy Pro X 2.5kW/3.5kW/5.0kW	Cassette 4.0kW/5.0kW/6.0kW/7.0kW

		
Uni HA 2.0kW/2.5kW/3.5kW/ 5.0kW/7.0kW	Uni HB 2.0kW/2.5kW/3.5kW/ 5.0kW/7.0kW	Slim Duct 2.5kW/3.5kW/4.0kW/ 5.0kW/7.0kW

		
New Comfort 2.0kW/2.5kW/3.5kW/ 5.0kW/7.0kW	Hi Comfort 2.0kW/2.5kW/3.5kW/ 5.0kW/7.0kW	Console 2.5kW/3.5kW/ 4.0kW/5.0kW

	
Easy Smart 2.5kW/3.5kW/5.0kW/7.0kW	Ceiling Suspended 5.0kW/6.0kW/7.0kW

All Scenarios for Limitless comfort

When it comes to redefining the air solutions in commercial area, it usually follows a "5.19" segment across Public Enterprises, Business Services, Infrastructure, Industrial & Agriculture, and Real Estate Industries, and their 19 subdivision catalogs. No matter where you are, Hisense HVAC is dedicated to provide comprehensive air solutions and limitless comfort.



17

Public Enterprise



- Education and Training
- Medical Treatment
- Financing Institution
- Government Construction

29

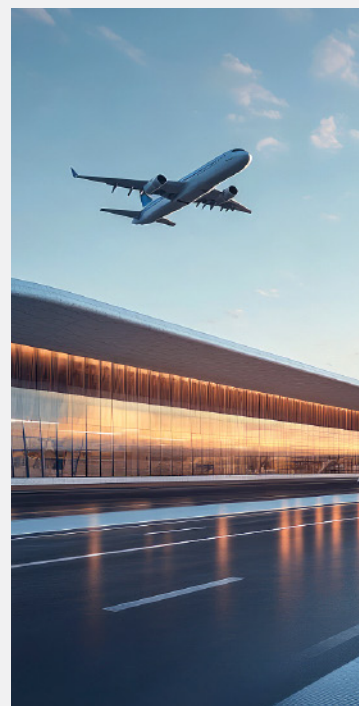
Business Service



- Catering Service
- Hotel
- Sports and Entertainment
- Enterprise Commerce

43

Infrastructure



- Rail Transit
- Communication Facility
- Data Center
- Energy Power
- Airport Aviation

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Industry & Agriculture



- Industrial and Mining Building
- Agriculture and Farming
- Drying Industry
- Special Trade

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Real Estate



- Strategic Residential
- Ordinary Residential



Public Enterprise

- Education and Training
- Medical Treatment
- Financing Institution
- Government Construction

UAX University Rehabilitation



Location Murcia & Madrid, Spain

Capacity 532 HP

Series Hi-FLEXi S Series Heat Recovery



Project Brief

UAX (Universidad Alfonso X el Sabio) is a prominent private university founded in Madrid, Spain, known for its strong focus on practical, professional programs across health sciences, engineering, law, and business. In recent years, as the university develop fast and can enroll more students, a number of new campus are under construction to provide better education. The air systems of some new buildings of 2 campus totally 18,062.84 m² (9,752 m² for Murcia, 8,310.84 m² for Madrid) were applied by Hisense HVAC.

Needs and Pain Points

Differentiated environmental control requirements

Personalized temperature and humidity control for different functional areas (e.g., constant temperature/humidity for laboratories, flexible thermal sensation for conference rooms).

Indoor air quality improvement

Traditional educational spaces commonly suffer from excessive CO₂ concentration and accumulated air pollutants.

Simplified cross-campus management

Need for unified monitoring of air conditioning systems in both campuses to reduce operation and maintenance complexity.



Solutions

High-Efficiency Heat Recovery System

Equipped with high-efficiency heat recovery technology, enabling simultaneous cooling/heating in different areas, with energy recovery efficiency increased by over 90% and reduced cooling-heating offset loss.

Intelligent Control

Integrates full-link monitoring of the VRF system, supporting remote control via mobile APP, energy consumption data visualization analysis, and fault warning, enabling unified management of equipment in both campuses.

High-Quality Fresh Air

Equipped with high-efficiency filters (PM2.5 filtration efficiency ≥95%) and fresh air introduction device, real-time monitoring of CO₂ concentration and automatic air volume adjustment to ensure indoor air freshness.



Highlights

High-Efficiency Energy-Saving Results

The heat recovery technology significantly reduces energy consumption in both campuses, meeting the A-level standard of the Spanish Building Energy Efficiency Regulations.

Intelligent Centralized Management

The central control system realizes real-time monitoring of equipment operation status and fault warning, greatly reducing operation and maintenance labor costs. The university can dynamically optimize air conditioning operation strategies.

Healthy Environment Upgrade

Indoor PM2.5 concentration and CO₂ concentration are controlled within high-quality standards, air exchange efficiency is significantly improved, and the satisfaction of students and faculty with the indoor environment is significantly increased.

Hospital IMSS BIENESTAR Atenco



Location	Atenco, State of Mexico
Capacity	400 RT
Series	Hi-FLEXi S Series (460V) & DX_AHU



Project Brief

IMSS (Instituto Mexicano del Seguro Social) hospitals, represent Mexico’s extensive network of public healthcare facilities providing essential medical services to formally employed workers and their families nationwide. This project has started the strategic co-operation of IMSS and Hisense, with a total area of 8,000 m², a height of 10 meters, and two floors.

Needs and Pain Points

Core functional requirements

Need to build an environmental system that can accurately control temperature, humidity, air circulation and purification to meet the health and comfort requirements of medical places.

The requirement for control

The system needs to have the ability of flexible zoning control to achieve energy-saving management during non-full load operation.



Solutions

Selection of IDU

For critical areas such as operating rooms and intensive care units, which have extremely high requirements for temperature and humidity control accuracy and air cleanliness, DX_AHUs are selected. The equipment adopts a modular double-walled structure with built-in insulating materials, passes the air leakage test under 8 inches of water column pressure to ensure high air tightness.

For public areas such as waiting areas and corridors, where the traffic flow is large and the requirement for air conditioning accuracy is relatively low, 4-way cassette IDUs are selected.



Intelligent Control System

Configure PLC (Programmable Logic Controller) for key areas such as operating rooms, combined with electric heating elements and humidifiers to achieve constant temperature and humidity control. Adopt a mini-Modbus to build a communication network, simplifying the connection complexity between DX equipment and PLC and improving the system response speed.



Highlights

Rule Breakthrough and Technical Subversion

Breaking the traditional specification of IMSS that "centralized chiller system must be used for projects over 150 RT", the DX+VRF combination scheme achieves: Simplifying the control logic from "complex interconnection of multiple components" to "unitized independent control ". Reducing the floor area of the equipment room by 40%, releasing more medical functional space.

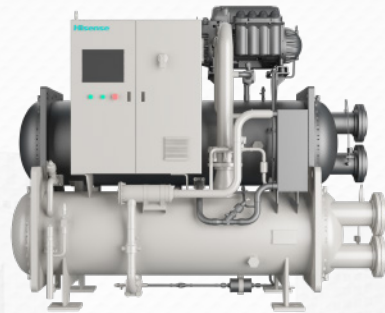
PLC Precision Control

In key areas such as operating rooms, the PLC real-time monitors temperature and humidity data, and coordinates with electric heating and humidifying equipment to control the temperature and humidity fluctuation within $\pm 0.5^{\circ}\text{C}/\pm 2\% \text{ RH}$.

National Tax Bureau



Location	Phnom Penh, Cambodia
Capacity	4000 RT
Series	Inverter Magnetic Centrifugal Chiller (AH)



Project Brief

Centered in Phnom Penh's landmark 32-story, 100-meter high-rise building with a floor area of 100,000 m² known as the Tax Tower, which is a landmark public construction, it integrates a digital one-stop service hub with cutting-edge organizational systems. It deploys property QR codes and big data analytics to combat tax evasion and has achieved 11 consecutive years of revenue overachievement, serving as a benchmark for Southeast Asian digital governance.

Needs and Pain Points

Intelligent Control and Centralized Operation & Maintenance

The original independent control system was cumbersome, with a fault response time exceeding 2 hours, increasing operation and maintenance costs by 35%. Customers want to achieve remote centralized monitoring of temperature, humidity, and energy consumption across floors and zones to enhance management efficiency.

Energy Efficiency Upgrade

Old chillers had a COP of only 3.2, annual electricity costs exceeding 8 million Thai baht, and carbon tariff costs increasing by 20% annually.

Highlights

Smart Management System

Real-time monitoring of the entire system, reducing manual inspection costs; generating visualized energy consumption reports by zone and period to assist the customer in achieving carbon reduction goals.

Multi-Equipment Collaborative Control

Intelligent linkage between chillers and terminal FCUs, distributing cooling capacity on demand to avoid "overcapacity operation", improving system efficiency.



Turin Public Hall

- Turin, Italy
- 304 HP
- S Series Heat Recovery



Oromiyaa Media Centre

- Oromiyaa, Ethiopia
- 1500 HP
- Air Cooled Scroll Chiller



Udelar University

- Montevideo, Uruguay
- 1640 HP
- S Mavo + Series, H Series, S Series



University of Benghazi

- Benghazi, Libya
- 3700 HP
- S+ Series



Westphalian Metropolis Department

- Westphalian, Germany
- 328 HP
- R Series



Drugs Abuse Treatment Rehabilitation Center

- Manila, The Philippines
- 600 HP
- S mavo Cooling Only



Neurological Institute

- Nicosia, Cyprus
- 552 HP
- S mavo Series



Japura University

- Japura, Sri Lanka
- 1438 HP
- S mavo Cooling Only



Mirzo Ulugbek School in Fuzuliy

- Fuzuliy, Azerbaijan
- 437 RT
- Air Cooled Screw Chiller



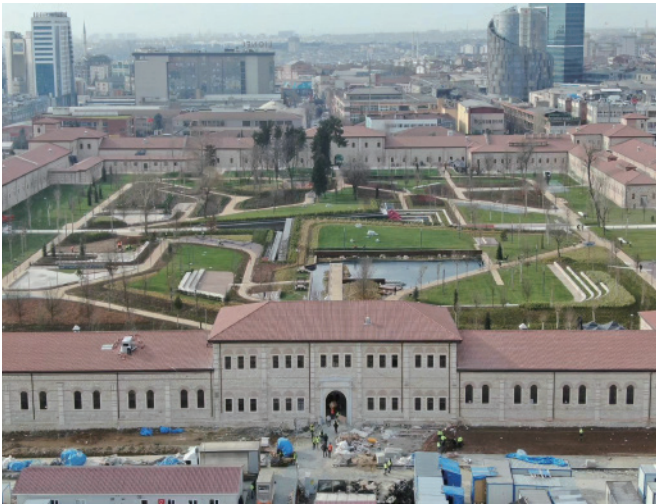
De L'Universite De Bondoukou

- Bondoukou, Côte d'Ivoire
- 3300 HP
- Air Cooled Screw Chiller



Rsupt Vertikal Surabaya

- Surabaya, Indonesia
- 1712 HP
- S Heat Recovery, S mavo Cooling Only



Rami Nation Library

- 📍 Istanbul, Turkey
- 🕒 2000 HP
- 📦 S mavo Series



Peking University-School of Life Sciences

- 📍 Beijing, China
- 🕒 1200 HP
- 📦 M Series

Regional Hospital in Guyana

- 📍 Georgetown, Guyana
- 🕒 2500 HP
- 📦 S Series



The Parliament and the High Court

- 📍 Oyala, Equatorial Guinea
- 🕒 1100 RT
- 📦 Water Cooled Screw Chiller



University of Bolton, Academic Center

- 📍 Bolton, England
- 📦 Fresh air handling ducted Splits



Cosmopolitan School

- 📍 Ajman
- 📦 Ducted splits inverter wall mounted



Cantegril Amecom

- 📍 Uruguay
- 📦 Light commercial AHU in a healthcare facility



Ather Medical Centers

- 📍 Baghdad
- 📦 Cassette splits



Business Service

- Catering Service
- Hotel
- Sports and Entertainment
- Enterprise Commerce



Waldorf Towers South Beach Miami



Location	Miami, USA
Capacity	384 RT
Series	Hi-FLEXi W Series (Water Source VRF)



Project Brief

The Waldorf Towers Hotel in Miami, a well – established oceanfront property situated in the heart of Miami Beach, offers comfortable accommodations and resort amenities. Regarded as the heart of the city, this remarkable building stands at a height of 320 meters and has a total of 93 floors. Among them, floors 7 – 16 and 23 – 28 are specifically designated for hotel functions and the air system was applied by Hisense.

Needs and Pain Points

Climatic Adaptability

Miami's tropical climate requires year-round cooling, but low temperatures during transitional seasons (due to rainy weather) necessitate occasional heating for some guest rooms.

System Flexibility

The customer required electric heating components for duct fans to enable independent heating in partial areas while the rest of the system remains in cooling mode, without modifying the overall cooling system.

Installation and Cost Optimization

Minimize on-site power distribution modifications and reduce equipment and installation costs.

Solutions

Innovative System Architecture

Adopted a "two-pipe heat pump + electric auxiliary heating" composite solution: The system runs in cooling mode overall. Indoor units requiring heating can be forced to start the "fan + electric heating" via a wire controller, achieving localized heating while others maintain cooling.

Collaborated with Warren, a third-party electric heating manufacturer, to customize a Single Point Power interface, allowing electric heaters and indoor units to share power terminals and reducing indoor electrical control design changes.

Non-standard Control Logic Customization

Optimized the VRF system control program to allow partial indoor units to trigger heating independently within the cooling main cycle, avoiding the complexity of traditional cold-heat source switching.

Highlights

Energy Efficiency and Cost Advantages

Eliminated the need for Switch boxes, saving approximately 15% in equipment and installation costs. Single-point power design reduced on-site wiring, improving construction efficiency by 30%.

Operational Reliability

Outdoor units are centrally installed in equipment rooms, solving installation challenges of ultra-long pipelines and large height differences in super high-rise buildings, significantly enhancing system stability. The electric auxiliary heating module linkage controls with indoor units, achieving heating response within <3 minutes during transitional seasons, meeting immediate customer needs.

Technical Innovation

The "Cooling Only + electric auxiliary heating" solution breaks through the seasonal switching limitations of traditional VRF systems, enabling flexible operation for tropical regions. This sets a technical benchmark for similar projects.



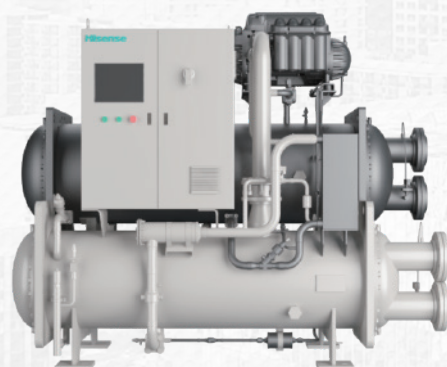
UOA Office Building



Location Kuala Lumpur, Malaysia

Capacity 1350 RT

Series Inverter Magnetic Centrifugal Chiller (AH)



Project Brief

Anchored by Razer's Southeast Asian fintech HQ, the development includes two new GDV 1.3B MYR office towers. The 23 – story, 154 – meter – high office building with a total floor area of 24,387 m², which is a LEED Gold certified one, is part of this development. At the same time, occupancy rates exceed 70% at United Point Mall, reflecting strong commercial demand.



Needs and Pain Points

Energy Efficiency and Green Certification

Aiming for LEED Gold certification, the project required chillers to maintain an energy efficiency ratio of $\geq 0.53\text{kW/RT}$, ensuring low-energy operation throughout the lifecycle.

Installation Constraints and System Compatibility

Limited by machine room space and the need to maintain the existing system, a Complete Knock Down (CKD) installation was required. The installation area was only accessible through the plant room door, and construction had to proceed concurrently with the existing chiller, demanding high modular design and on-site assembly precision.

Tight Delivery Schedule

The project required completion of FAT, factory tours, and initial delivery within 3 months from order confirmation, with full delivery wrapped up within 4 months. As the order was placed in April, material procurement, production, and FAT had to be completed within 2 months to ensure full delivery by early July.

Building Management System (BMS) Integration

Chillers needed integration with BMS via Modbus communication to enable scheduled start/stop control.

Solutions

The project consists of 3 Hisense Inverter Magnetic Centrifugal Chillers, Hi-Magi AH Series. Each chiller consists of 450RT cooling capacity with energy efficiency of not less than 0.53kW/RT as part of LEED Gold Certification requirement. It provides cooling to 69-unit tenancy offices.

Highlights

Modular Design Overcoming Installation Hurdles

The modular design reduced the on-site assembly cycle by 40% compared to traditional solutions, without disrupting existing systems, setting a reference for retrofitting old buildings.

Full-Process Schedule Management

Hisense established a special team to synchronize material procurement, production scheduling, and FAT preparation. Through digital production management, the manufacturing cycle was compressed to 6 weeks, with FAT conducted in advance to ensure full delivery by early July.

Open Protocol for System Interconnection

Built-in Modbus interfaces enabled seamless BMS integration, supporting scheduled operation based on tenants' working hours for energy-saving and intelligent management.





Teatro de Santa Isabel (from 1913)

- Madrid, Spain
- 100 HP
- S Series Heat Recovery
(High Efficiency)



Belarus National Stadium

- Minsk, Belarus
- 800 HP
- S mavo+ Series



RAKEZ-Staff Accommodation

- Ras Al Khaimah, UAE
- 3200 HP
- S+ Series (T3)



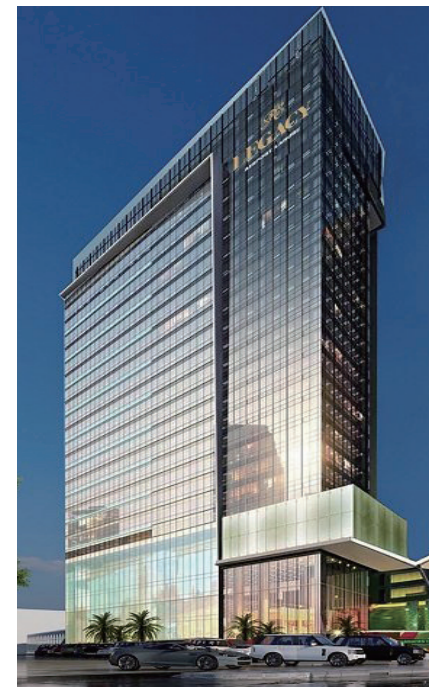
East Africa Commercial & Logistics Centre

- Dar es Salaam, Tanzania
- 3800 RT
- Inverter Magnetic Centrifugal
Chiller



Atlántico Centro Comercial

- Montevideo, Uruguay
- 1644 HP
- S Series Heat Recovery,
S Mavo + Series, H Series
Light commercial AHU system in
a consulting cinema



Ayub Hotel 5 Star

- Lahore, Pakistan
- 618 HP
- S+ Series (T3), H+ Series (T3)



Belitung-M Gallery 6 Star Hotel

- Belitung, Indonesia
- 510 HP
- S mavo CO Series



Central Link

- 📍 Manila, The Philippines
- 🕒 4200 HP
- 🏠 S mavo CO Series



Qingdao Sheraton Hotel

- 📍 Qingdao, China
- 🕒 1200 HP
- 🏠 M Series



Radisson Blu Istanbul

- 📍 Istanbul, Turkey
- 🕒 1247 HP
- 🏠 S Series



Arca South Pie BPO

- 📍 Manila, The Philippines
- 🕒 4500 HP
- 🏠 S mavo CO Series



ZABKA Chainstore

- 📍 Poland Domestic
- 🕒 484 HP
- 🏠 H Series, H5 Series



Acoya Hotel

- 📍 Curacao
- 🕒 584 HP
- 🏠 S mavo Series, H Seires



Valentin Stanescu Stadium

- 📍 Bucharest, Romania
- 🕒 402 HP
- 🏠 S Series, H Series



Restaurant in Italy

- 📍 Firenze, Italy
- 🏠 Light commercial duct and cassette in the restaurant and living areas, RAC in the dressing rooms



Restaurant in Italy

- 📍 Rimini, Italy
- 🏠 RAC installation mixed with light commercial duct and cassette



Hotel Bianca Resort & Spa

- 📍 Kolasin, Montenegro
- 🏠 Hotel Bianca resort & spa



Supermarket in Warsaw

- 📍 Warsaw, Poland
- 🏠 Delicatessen downtown



Pace Mercatone

- 📍 Modena, Italy
- 🏠 Cassette with central control



Airport Bratislava

- 📍 Slovakia
- 🏠 Logistic depo DHL
Big capacity duct units for heating



Restaurant in Italy

- 📍 Venice, Italy
- 🏠 LCAC 2 x triple cassettes solution in the restaurant Reeb's



Ac Training Center

- 📍 Barcelona, Spain
- 🏠 RAC installed at the European AC technology training center



Reportage Village

- 📍 Dubai
- 🏠 Ducted splits



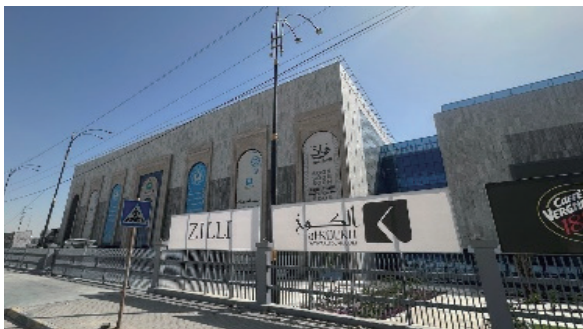
Residential Building

- 📍 Amman
- 🏠 Ducted splits



Dabouq Village Mall Shopping Center

- 📍 Amman
- 🏠 Ducted splits



Furat Mall

- 📍 Najaf
- 🏠 Cassette splits



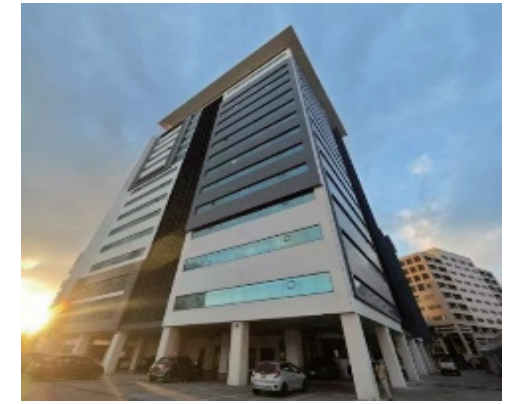
Al-Hussaini Towers

- 📍 Amman
- 🏠 Ducted splits



A Mixed-Use Building

- 📍 Zenith, Paraguay
- 🏠 A mixed-use building with combined office and residential spaces, equipped with light commercial multisplit



Nex SKY Office Building

- 📍 Mauritius
- 🏠 Hi-Multi



Summum

- 📍 Uruguay
- 🏠 Light commercial AHU system in a consulting firm



Phoenix Retail Showroom

- 📍 Colombo, Sri Lanka
- 🏠 Ceiling suspend in Phoenix retail showroom Welisara



Infrastructure

- Rail Transit
- Communication Facility
- Data Center
- Energy Power
- Airport Aviation

Vancouver Broadway Subway Project



Location	Vancouver, Canada
Capacity	2000 HP
Series	Hi-FLEXi S Series

Project Brief

The Vancouver Broadway Subway, also known as the Broadway Subway Project, is a major underground rapid transit extension project that aims to significantly improve public transportation along Vancouver's critical Broadway Corridor. It is an extension of the Millennium Line in Vancouver, Canada, spanning 5.7 kilometers from VCC – Clark Station to Broadway and Arbutus.

Needs and Pain Points

Low-temperature refrigeration requirement

The equipment rooms in the subway station generate continuous heat during operation, necessitating year-round refrigeration from the air conditioning system (at a minimum ambient temperature of -9°C).

Centralized control system integration

The Building Control Unit (BCU) needs to control the air conditioning operation via digital/analog signals from the Direct Digital Controller (DDC), and the equipment must provide real-time feedback on operation status and fault information to the upper-level monitoring platform.

Cleanliness assurance

Ducted IDUs must be equipped with MERV 8 filter boxes to meet the air cleanliness standards of subway environments.

Grading noise control

The subway platform enforces different noise limits for VRF outdoor units during day and night, requiring manufacturers to provide sound power spectrum diagrams and testing methods.



Solutions

Upgraded low-temperature refrigeration module

Our developed outdoor low-temperature module adds an electric damper and louvers to the snow shield. It automatically adjusts the louver opening based on data from the outdoor temperature sensor and system operation parameters (such as compressor load and refrigerant pressure). This design breaks through the limitation of single-temperature-variable control. By optimizing multi-parameter coordination, it enhances the system's stability and energy efficiency ratio in low-temperature environments.

Modular docking of centralized control system

An IO module is used for seamless docking with the BCU system, enabling bidirectional transmission of DDC signals: it receives start/stop and mode-switching commands from the BCU while uploading real-time equipment operation data (e.g., cooling capacity, compressor frequency) and fault codes, ensuring the entire air conditioning system is integrated into the subway's comprehensive monitoring network.

Intelligent noise control strategy

To address the day-night noise limit differences, the system supports automatic switching to "night low-noise mode": by reducing the outdoor fan speed and optimizing the compressor operation frequency, noise is controlled within the allowable range at night, while full-load operation is automatically restored during the day to balance cooling capacity and noise control.

Implementation of air purification solution

High-static-pressure ducted indoor units are standard-equipped with 1-inch-thick MERV 8 filter boxes, which can effectively filter particles ≥ 3 microns with an efficiency of 85%, meeting the air cleanliness requirements of densely populated areas in subway stations.



Highlights

Technological iteration breakthrough

The multi-parameter control logic of the low-temperature refrigeration module is an industry-first innovation. Compared with traditional solutions, it improves refrigeration efficiency by 12% and reduces failure rates by 30% in -15°C environments.

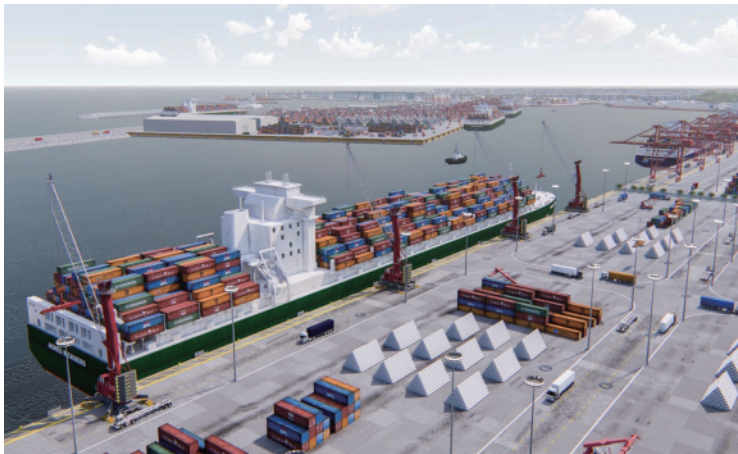
Full-scenario adaptation capability

The solution comprehensively covers the special needs of subway scenarios, from stable operation in low temperatures to graded noise control and strict implementation of air purification standards.

Integrated management advantages

The application of IO modules achieves deep integration between the air conditioning system and the subway BCU, laying a data foundation for subsequent intelligent operation and maintenance (e.g., fault early warning, energy consumption analysis).





New Port of Veracruz

- Veracruz, Mexico
- 560 HP
- S Series



Shenyang Smart Computing Center

- Shenyang, China
- 800 RT
- Inverter Magnetic Centrifugal Chiller



EPLDT Data Center

- Manila, The Philippines
- 2638 HP
- S Series



Istanbul International Airport

- Istanbul, Turkey
- 504 HP
- X Series



GDS Data Centre

- Johor, Malaysia
- 4000 HP
- S mavo+ Series



Kcic Jakarta Bandung Fast Speed Railway Station

- Jakarta, Indonesia
- 500 HP
- S mavo CO Series, H Series, L+ Series



Lisbon Airport

- Lisbon, Portugal
- 138 HP
- S Series Heat Recovery (High Efficiency) LCAC floor standing and VRF 2-way cassette system



MRT Blue Line of Thailand

- Bangkok, Thailand
- 888 HP
- R Series



Industry & Agriculture

- Industrial and Mining Building
- Agriculture and Farming
- Drying Industry
- Special Trade

WTT Electrics Factory



Location	Rayong Province, Thailand
Capacity	1900 RT
Series	Refrigerant Levitation Oil-free Centrifugal Chiller Inverter Magnetic Centrifugal Chiller



Project Brief

As a strategic move by China’s Zhongfu Circuit to diversify supply chains, the 4 – story factory building with a floor area of 35,000 m² and a height of 18 meters in Thailand’ s key industrial corridor targets 1 billion RMB in annual revenue and prioritizes local hiring and tech transfer. It is also the first overseas project to apply the positive–pressure refrigerant levitation oil–free centrifugal chiller.

Needs and Pain Points

Challenge of precise temperature–humidity control in tall spaces

With workshop ceilings exceeding 5 meters, the project requires uniform temperature–humidity stability ($\pm 1^{\circ}\text{C}/\pm 5\%\text{RH}$) across large areas to prevent moisture damage or static electricity to precision components. Traditional air conditioning systems suffer from low stratified air supply efficiency, causing uneven cooling/heating, soaring energy consumption, and local humidity fluctuations that increase product defect rates by 5%–8%.

Pressure on cleanliness and dust prevention system upgrading

The SMT chip mounting workshop needs to maintain ISO class 7 cleanliness ($\leq 352,000$ particles/m³) to prevent micro–dust adhesion from causing short circuits of printed circuit boards (PCBs).

Difficulty in cross–brand system integration and operation

The customer needs to integrate Japanese precision air conditioners, German PLC controllers, and local power monitoring systems. However, protocol incompatibility results in 30% of equipment data being isolated, with fault response delays exceeding 4 hours and annual maintenance costs increasing by 1.5 million Thai baht.

Demand for continuous cooling in tropical climates

Thailand's year–round high temperature ($\geq 35^{\circ}\text{C}$) causes traditional air–cooled units to have a 40% drop in COP value under 45°C extreme weather, and a 15–minute start–up delay for backup compressors, prone to mass wafer scrap due to equipment overheating.

Solutions

Special design for tropical climates

Flood and moisture prevention: Chiller foundation raised by 1.2 meters, electrical boxes with IP54 protection.
Emergency cooling: Equipped with a 500m³ pre–cooling storage tank to restore workshop temperature control within 30 minutes during power outages.

Dynamic load matching

10%–100% stepless frequency conversion adjustment rapidly responds to instantaneous heat load fluctuations from equipment like reflow soldering machines.

Highlights

Reliability assurance: 7 × 24–hour continuous production

1+1 redundant backup for chillers, automatic switching in case of single–unit failure;
Dual–loop design for chilled water systems, with electric valves at key nodes for rapid fault isolation.

Local adaptation: Full life cycle cost optimization

Enlarged cooling tower design to cope with high–temperature and high–humidity climates;
Joint spare parts warehouse with local service providers, ensuring key parts arrive on–site within 24 hours;
Bilingual (Chinese–Thai) training materials and remote technical support to reduce maintenance barriers.

Summary

This project successfully addressed the high–precision environmental control challenges for electronic factories in tropical regions through a dual–drive model of "technological innovation + local adaptation".

BOE Factory



Location Bà Rịa – Vũng Tàu, Vietnam

Capacity 9600 RT

Series Centrifugal Chiller



Project Brief

As a strategic partner of Hisense Group, BOE has launched this project, which is its first self – built overseas factory. The factory covers a floor area of 180,000 m² and integrates “screen – module – terminal” production. It supplies over 5 million e – paper terminals globally, and the project exemplifies China – Vietnam manufacturing synergy.

Needs and Pain Points

High reliability and high stability

Equipment must ensure high reliability and stability to support 24/7 continuous production.

Chillers are powered by 10kV high-voltage electricity

Cooling system to be compatible with 10kV high-voltage power supply to improve energy efficiency and optimize the power distribution structure.



Solutions

Hierarchical capacity configuration

Adopt a combined model of “large chillers as the main body and small chillers for peak regulation”. 5 units of 1600RT high-voltage (10KV) chillers meet the basic load, and 2 units of 800RT low-voltage (380V) chillers cope with load fluctuations, achieving high efficiency and energy saving.

Redundancy standby mechanism

The configuration of 4 in use and 1 standby for 1600RT chillers and 1 in use and 1 standby for 800RT chillers ensures that the system can still maintain more than 80% of the cooling capacity in case of a single equipment failure, improving reliability.

Highlights

Balance of energy efficiency and economy

The part-load efficiency of high-voltage chillers is increased by 15%–20%. Combined with Vietnam’s local electricity price policy, it is expected to save about 12% of electricity bills throughout the project’s life cycle.



GSEC Vietnam

- 📍 Vietnam
- 🕒 5900 RT
- 📦 Air Cooled Scroll Chiller



Alibaba Industrial Park

- 📍 Hangzhou, China
- 🕒 4400 HP
- 📦 M2 Series



ARC Factory

- 📍 Chonburi, Thailand
- 🕒 520 RT
- 📦 Water-Cooled Screw Chiller, S Mavo CO Series



Brembo S.p.A. (Mexico)

- 📍 Puebla, Mexico
- 🕒 368 HP
- 📦 S Series Heat Recovery



Monte Paz

- 📍 Montevideo, Uruguay
- 🕒 1400 HP
- 📦 S Series Heat Recovery, S mavo Series



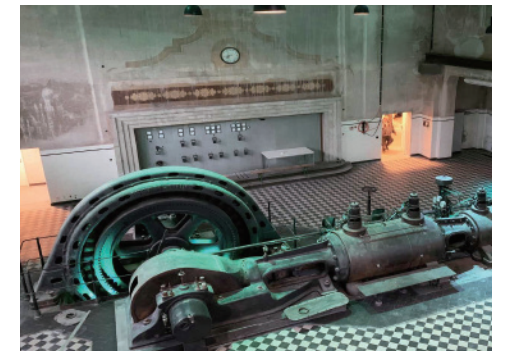
Jewelry Manufacturing Precinct

- 📍 Joburg, South Africa
- 🕒 344 HP
- 📦 S Series Heat Recovery



Dos Bocas Factory

- 📍 Tabasco, Mexico
- 🕒 2000 HP
- 📦 Hi-FLEXi S Series



Machine hall of Germany

- 📍 Solingen, Germany
- 📦 Machine hall with historic steam engine



Cosmo Factory

- 📍 Poznań, Poland
- 🕒 611 HP
- 📦 S mavo Series, L+ & H+ Series



Kama Factory

- 📍 Kazan, Russia
- 🕒 10798 HP
- 📦 S mavo + Series



Real Estate

- Strategic Residential
- Ordinary Residential

FILI City



Location Moscow, Russia

Capacity 1256 HP

Series Hi-FLEXi W Series (Water Source VRF)



Project Brief

FILI City is a large-scale, ambitious mixed-use real estate development project that is transforming the historic FILI industrial area in Moscow into a modern urban district featuring residential, commercial, and entertainment spaces. The building in this project stands at a height of 159.95 meters, has a total of 44 floors, and the total building area reaches 22,600 square meters.

Needs and Pain Points

Energy Efficiency and Cost Issues

Traditional split air conditioners operate independently for each household with low energy efficiency ratio, leading to heavy electricity burden for residents, especially in high-rise buildings.

Space and Aesthetics Conflict

The compact apartment layout causes severe shortage of ODU positions (balcony area of small apartments is generally less than 3m²). The installation of split air conditioner ODUs on the exterior facade affects the aesthetics of the building.

Operation and Maintenance Difficulties

Split air conditioners require independent maintenance for each household (such as refrigerant charging and filter cleaning), resulting in extremely high annual maintenance workload for the property. The frequent maintenance demands (with intensive upkeep cycles) not only drive-up maintenance costs for aged equipment but also pose significant coordination challenges among households, having triggered multiple dispute cases related to maintenance issues.

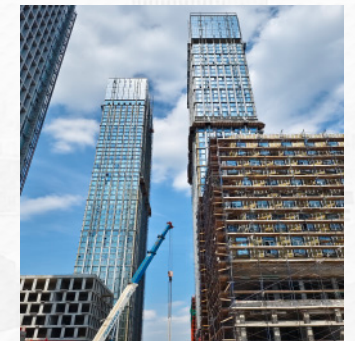


Solutions

Technical Architecture

The water-source VRF system uses cooling water provided by cooling towers. Due to the smaller size of water-source VRF ODUs, which do not require direct heat exchange with the outdoor environment, the ODUs can be placed in the equipment rooms located in the central areas of each floor, saving a significant amount of installation space.

Additionally, this installation method keeps the IDUs and ODUs in close proximity, which helps avoid the cooling capacity reduction issues that can arise from excessive distance and height differences between IDUs and ODUs in air-cooled VRF systems. This also reduces the potential need for additional equipment investments due to system performance decline.



Highlights

Remote Monitoring and Fault Early Warning

Deployed IoT intelligent management platform to collect real-time operation parameters (temperature, humidity, mode, etc.) of IDUs and ODUs. The property realizes round-the-clock operation through the central monitoring center and mobile APP.

The fault early warning system can predict equipment anomalies in advance, reducing sudden failures and shortening maintenance response time.

Automatic Energy-saving Control

Timing start-stop programs are set in public areas (corridors, elevators), and air conditioners are automatically turned off during non-peak hours to achieve energy saving.

In residential areas, human body sensors are used for linkage, and the energy-saving mode is automatically activated when no one is present, balancing comfort and energy consumption.

South Shore



Location	Manila, Philippines
Capacity	7200 HP
Series	Hi-Smart A Series



Project Brief

Part of the 8 – phase Grand Shore City megaproject, the 35 – story, 120 – meter – high – rise building with a floor area of 250,000 m², which is positioned as “the benchmark city and future city on the south shore of Manila Bay”, features brutalist architecture and has partnered with the Parañaque city government for infrastructure. In 2023, its VIP pre – sales drew significant investor turnout.

Needs and Pain Points

Diversified Building Types and Limited Outdoor Unit Installation

Needs: Diversified house types with narrow ODU installation spaces (each unit shares a narrow slot), requiring flexible ODU adapted to small spaces.
Pain Points: Traditional multi-pipe units have complex pipelines, damaging decoration aesthetics and increasing construction costs; large ODUs easily cause neighbor disputes, and limited load-bearing and heat dissipation affect equipment stability.

Heat Dissipation of Outdoor Units in High-Rise Buildings and High-Temperature Adaptability

Needs: Solve heat dissipation issues caused by dense ODU arrangement in 35-story buildings, with equipment operating stably under Manila's extreme high temperature (up to 40°C).
Pain Points: Turbulent airflow between floors causes hot air recirculation, triggering compressor overheating protection and shutdown; year-round high-load operation accelerates equipment aging and increases maintenance costs.

Contradiction Between Differentiated Cooling Demands and Aesthetics

Needs: Large living rooms require high cooling capacity for rapid temperature reduction, bedrooms need low-noise operation, and IDU installation must balance decoration aesthetics.
Pain Points: Traditional multi-pipe units with numerous IDUs and complex pipelines damage decoration styles; high-cooling equipment has large noise, and uneven refrigerant distribution leads to high energy consumption.

Solutions

Customized Static Pressure Adjustable IDU

Customizes adjustable static pressure duct units (10–30Pa) for large living rooms, balancing rapid cooling and low-noise requirements.

Technical Innovation to Address Installation and Heat Dissipation Challenges

ODUs adopt single-fan small-size design (up to 8HP), adapting to narrow slots. Wide fin design improves COP, and wide-temperature technology supports stable operation from –5°C to 59°C.

Intelligent Energy Saving and Silent Control

Intelligent standby mode consumes only 1W during idling, and night silent mode reduces operation noise, creating a quiet environment for bedrooms.

Highlights

Breakthrough in Energy Efficiency and Space Adaptability

Improved COP under the same cooling capacity; small-size outdoor units solve shared slot installation issues, and wide-temperature technology ensures stable operation in high temperatures.

Integration of Intelligence and Comfort

Intelligent standby and silent modes balance energy saving and living experience. Refrigerant distribution technology precisely matches load changes, improving system reliability.

Technical Innovation

The "Cooling Only + electric auxiliary heating" solution breaks through the seasonal switching limitations of traditional VRF systems, enabling flexible operation for tropical regions.





Floria City

- 📍 Erbil, Iraq
- 🕒 20,000 HP
- 🏠 S+ & H+ Series (T3)



574 Sets of Villas in Koycegiz

- 📍 MUĞLA, Turkey
- 🕒 3174 HP
- 🏠 H Series



Ocean View

- 📍 Marbella, Spain
- 🕒 480 HP
- 🏠 Multi-function VRF



Sky Tower

- 📍 Erbil, Iraq
- 🕒 7440 HP
- 🏠 H Series



Le Divin Apartment

- 📍 Quebec, Canada
- 🕒 1644 HP
- 🏠 S Series Heat Recovery,
S Mavo + Series, H Series



Teodor Apartment

- 📍 Tel Aviv, Israel
- 🕒 820 HP
- 🏠 S mavo Series, H Series



Icon Apartment

- 📍 Lisbon, Portugal
- 🕒 300 HP
- 🏠 S Series Heat Recovery



Marina Tower

- 📍 Jalisco, Mexico
- 🕒 1200 HP
- 🏠 Hi-home Series



Aloha Apartment

- 📍 Hainan, China
- 🕒 440000m²
- 🏠 Hi-Smart Series



Noykom Apartment

- 📍 North Cyprus
- 🕒 2200 HP
- 🏠 H Series



Apartments in Spain

- 📍 Córdoba, Spain
- 🏠 130 flats developed by Kronos Homes and called "Tribeka"



Apartments in Spain

- 📍 Málaga, Spain
- 🏠 80 flats developed by Voltiam



Apartments in Mauritius

- 📍 Mauritius, Pan-European region
- 🏠 RAC compact cassette with Hi-Multi solution



Apartments in Malta

- 📍 Valletta, Malta
- 🏠 RAC installed 18 sets of CF series



Apartments in Serbia

- 📍 Belgrade, Serbia
- 🏠 The plot 21a of the Belgrade Waterfront



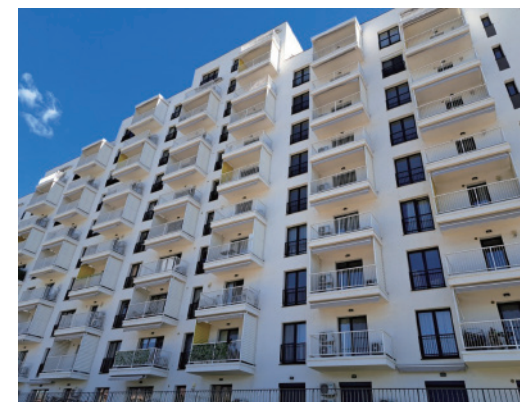
Apartments in Romania

- 📍 Bucharest, Romania
- 🏠 In cooperation with mit clima



Apartments in Spain

- 📍 Barcelona, Spain
- 🏠 RAC installed 14 sets of CA series



Apartments in Romania

- 📍 Bucharest, Romania
- 🏠 RAC installed 48 sets of CA series



Flats of Greece

- 📍 Athens, Greece
- 🏠 Installed 16 sets of DJ series in the new apartment building



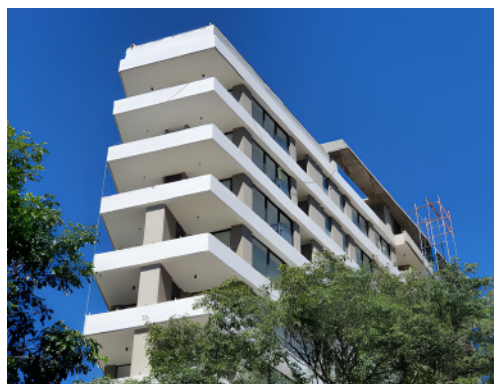
The Forest I & II

- 📍 Paraguay
- 🏠 Light commercial multisplit system in apartments



Alma Duc

- 📍 Uruguay
- 🏠 Light commercial multisplit system in apartments



Apartments in Paraguay

- 📍 Mangoré, Paraguay
- 🏠 Apartment building equipped with light commercial multisplit



Apartments in Paraguay

- 📍 Complejo Bernardino, Paraguay
- 🏠 Light commercial multisplit system in the residential area



Motor World 22 Residential Buildings

- 📍 Abu Dhabi
- 🏠 Ducted Splits



Residential Building

- 📍 Dubai
- 🏠 Ducted Splits



Luxury Villa Compound

- 📍 Manama
- 🏠 Ducted Splits



Luxury Villa Compound

- 📍 Doha
- 🏠 Ducted Splits



Luxury Villa Compound

- 📍 Amman
- 🏠 Ducted Splits